

Diagnosis, Natural History, and Late Effects of Otitis Media With Effusion

Volume 2. Bibliography and Appendixes

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
2101 East Jefferson Street
Rockville, MD 20852
www.ahrq.gov

Contract No: 290-97-0001, Task Order No. 04

Prepared by:

Southern California Evidence-based Practice Center

EPC Director

Paul Shekelle, M.D., Ph.D.

Principle Investigators

Glenn Takata, M.D.

Linda S. Chan, Ph.D.

Investigators

Rita Mangione-Smith, M.D.

Pamela M. Corley, MSLS

Tricia Morphew, M.S.

Sally Morton, Ph.D.

AHRQ Publication No. 03-E023

May 2003

This report may be used, in whole or in part, as the basis for development of clinical practice guidelines and other quality enhancement tools, or a basis for reimbursement and coverage policies. AHRQ or U.S. Department of Health and Human Services endorsement of such derivative products may not be stated or implied.

AHRQ is the lead Federal agency charged with supporting research designed to improve the quality of health care, reduce its cost, address patient safety and medical errors, and broaden access to essential services. AHRQ sponsors and conducts research that provides evidence-based information on health care outcomes; quality; and cost, use, and access. The information helps health care decisionmakers—patients and clinicians, health system leaders, and policymakers—make more informed decisions and improve the quality of health care services.

This document is in the public domain and may be used and reprinted without permission except those copyrighted materials noted for which further reproduction is prohibited without the specific permission of copyright holders.

Suggested Citation:

Shekelle P, Takata G, Chan L, et al. Diagnosis, Natural History, and Late Effects of Otitis Media with Effusion. Evidence Report/Technology Assessment No. 55 (Prepared by Southern California Evidence-based Practice Center under Contract No 290-97-0001, Task Order No. 4). AHRQ Publication No. 03-E023. Rockville, MD: Agency for Healthcare Research and Quality. May 2003.

Contents

Bibliography

Bibliography1

Appendixes

Appendix A. The 20 Suggested Questions on Diagnosis and Treatment of Otitis Media
with Effusion209

Appendix B. Scope for Key Questions and Voting Options for Technical Experts217

Appendix C. Technical Expert Panel Comments on Scope.....225

Appendix D. Final Version of Scope231

Appendix E. Questionnaire for Polling Experts' Opinion on Influence of Non-Condition
Factors on Outcomes237

Appendix F. Experts' Opinion on Influence of Non-Condition Factors on Outcomes241

Appendix G. Literature Search Strategy249

Appendix H. OME Screening Form Instructions255

Appendix I. Peer Review Comments and Responses261

Bibliography

- Ababii, II, D'Iakova S A, Antokhii IN, Maniuk MK. [Short-latency auditory evoked potentials in infants with otitis media]. *Vestn Otorinolaringol.* 1995;28-31.
- Abdullah VA, Pringle MB, Shah NS. Use of the trimmed Shah permavent tube in the management of glue ear. *J Laryngol Otol.* 1994;108:303-306.
- Abolfotouh MA, Ghieth MM, Badawi IA. Hearing loss and other ear problems among schoolboys in Abha, Saudi Arabia. *Ann Saudi Med.* 1995;15:323-326.
- Abraham SS, Wallace IF, Gravel JS. Early otitis media and phonological development at age 2 years. *Laryngoscope.* 1996;106:727-732.
- Abramovich SJ. Hearing investigation in relation to the duration of acoustic signals. *Laryngoscope.* 1978;88:334-341.
- Abramovich S, O'Grady J, Fuller A, MacKinnon M, Lavelle R. Naproxen in otitis media with effusion. *J Laryngol Otol.* 1986;100:263-266.
- Abramson M. Topical anesthesia of the tympanic membrane. *Arch-Otolaryngol.* 1969;90:147-149.
- Adachi M, Hayashi A, Ohkoshi N, et al. Hypertrophic cranial pachymeningitis with spinal epidural granulomatous lesion. *Intern Med.* 1995;34:806-810.
- Adair-Bischoff CE, Sauve RS, Kimberley B, Brant R. Smoking and middle ear disease [letter; comment]. *Otolaryngol Head Neck Surg.* 1996;114:837-840.
- Adam D. Five-day therapy with cefpodoxime versus ten-day treatment with cefaclor in infants with acute otitis media. *Infection.* 1995;23:398-400.
- Adam D. Modern cephalosporins as therapeutics for otitis media. *Infect Dis Clin Res Pract.* 1998;7:S96-S98.
- Adams GL, Paparella MM, el-Fiky FM. Primary and metastatic tumors of the temporal bone. *Laryngoscope.* 1971;81:1273-1285.
- Adams JL. Early recurrent otitis media and mother-child communication. *MCN, Am J Matern Child Nurs.* 1983;8:261.
- Adams JL, Evans GA, Roberts JE. Diagnosing and treating otitis media with effusion. *MCN, Am J Matern Child Nurs.* 1984;9:22-28.
- Adelman C, Linder N, Levi H. Auditory nerve and brain stem evoked response thresholds in infants treated with gentamicin as neonates. *Ann Otol Rhinol Laryngol.* 1989;98:283-286.
- Adelman A. Water precautions in children with tympanostomy tubes. *J Fam Pract.* 1996;42:567-568.
- Adesman AR, Altshuler LA, Lipkin PH, Walco GA. Otitis media in children with learning disabilities and in children with attention deficit disorder with hyperactivity. *Pediatrics.* 1990;85:442-446.
- Adler M, McDonald PJ, Trostmann U, Keyserling C, Tack K. Cefdinir versus amoxicillin/clavulanic acid in the treatment of suppurative acute otitis media in children. *Eur J Clin Microbiol Infect Dis.* 1997;16:214-219.
- Adlington P, Davies JR. Virus studies in secretory otitis media. *J Laryngol Otol.* 1969;83:161-173.
- Agarwal PN, Mishra SD, Pratap VK. Primary liposarcoma of the mastoid. *J Laryngol Otol.* 1975;89:1079-1082.
- Agius AM, Wake M, Pahor AL, Smallman LA. Surface morphology of middle ear epithelium in chronic ear disease. *J Laryngol Otol.* 1994;108:1024-1030.
- Agius AM, Wake M, Pahor AL, Smallman A. The effects of in vitro cotinine on nasal ciliary beat frequency. *Clin Otolaryngol Allied Sci.* 1995;20:465-469.
- Agius AM, Wake M, Pahor AL, Smallman LA. Smoking and middle ear ciliary beat frequency in otitis media with effusion. *Acta Otolaryngol.* 1995;115:44-49.
- Agius AM, Wake M, Pahor AL, Smallman LA. Nasal and middle ear ciliary beat frequency in chronic suppurative otitis media. *Clin Otolaryngol.* 1995;20:470-474.
- Ahuja GS, Thompson J. What role for antibiotics in otitis media and sinusitis? *Postgrad Med.* 1998;104:93-104.

- Aikawa J, Munakata H, Isemura M, et al. Sulfated glycopeptides from middle ear effusions of secretory otitis media. *Tohoku J Exp Med*. 1985;146:461-467.
- Aithal V, Aithal S, Pulotu L. Otitis media with effusion in children: an audiological case series study. *P N G Med J*. 1995;38:79-94.
- Akkoyunlu M, Forsgren A. Local and systemic antibody levels against protein D of *Haemophilus influenzae* following immunization and infection in rats. *APMIS*. 1996;104:709-717.
- Akpede GO. Localized extracranial infections in children with acute bacterial meningitis. *J Trop Pediatr*. 1994;40:231-234.
- al Anazy FH, Zakzouk SM. The impact of social and environmental changes on allergic rhinitis among Saudi children. A clinical and allergological study. *Int J Pediatr Otorhinolaryngol*. 1997;42:1-9.
- al-Serhani AM. Mastoid abscess: underlying disease and management. *Am J Otol*. 1996;17:694-696.
- Albers FW. [Neuro-otological complications of middle ear infections; the importance of early diagnosis (see comments)]. *Ned Tijdschr Geneesk*. 1996;140:1726-1729.
- Alberti PW. Glue ear. *Br Med J*. 1970;1:431-432.
- Albu S, Babighian G, Trabalzini F. Prognostic factors in tympanoplasty. *Am J Otol*. 1998;19:136-140.
- Alford BR, McFarlane JR, Neely JG. Homograft replacement of the tympanic membrane. *Laryngoscope*. 1976;86:199-208.
- Alho OP, Koivu M, Hartikainen-Sorri AL, Sorri M, Kilkku O, Rantakallio P. Is a child's history of acute otitis media and respiratory infection already determined in the antenatal and perinatal period? *Int J Pediatr Otorhinolaryngol*. 1990;19:129-137.
- Alho OP, Kilkku O, Oja H, Koivu M, Sorri M. Control of the temporal aspect when considering risk factors for acute otitis media. *Arch Otolaryngol Head Neck Surg*. 1993;119:444-449.
- Alho OP, Koivu M, Sorri M, Oja H, Kilkku O. Which children are being operated on for recurrent acute otitis media? *Arch Otolaryngol Head Neck Surg*. 1994;120:807-811.
- Alho OP, Oja H, Koivu M, Sorri M. Chronic otitis media with effusion in infancy. How frequent is it? How does it develop? *Arch Otolaryngol Head Neck Surg*. 1995;121:432-436.
- Alho OP, Oja H, Koivu M, Sorri M. Risk factors for chronic otitis media with effusion in infancy. Each acute otitis media episode induces a high but transient risk. *Arch Otolaryngol Head Neck Surg*. 1995;121:839-843.
- Alho OP, Laara E, Oja H. What is the natural history of recurrent acute otitis media in infancy? *J Fam Pract*. 1996;43:258-264.
- Alho OP, Laara E, Oja H. Public health impact of various risk factors for acute otitis media in northern Finland. *Am J Epidemiol*. 1996;143:1149-1156.
- Alho OP, Laara, Oja H. How should relative risk estimates for acute otitis media in children aged less than 2 years be perceived? *J Clin Epidemiol*. 1996;49:9-14.
- Alho OP. How common is recurrent acute otitis media? *Acta Oto-Laryngologica - Supplement*. 1997;529:8-10.
- Alho OP, Koivunen P, Luotonen J, Linder TE, Grenier B. Diagnostic criteria for otitis media in children. *Oto Rhino Laryngologia Nova*. 1998;8:123-128.
- Aligne CA. Influenza A vaccine and the incidence of otitis media [letter; comment]. *Arch Pediatr Adolesc Med*. 1996;150:652-653.
- Aligne CA, Stoddard JJ. Tobacco and children. An economic evaluation of the medical effects of parental smoking. *Arch Pediatr Adolesc Med*. 1997;151:648-653.
- Allen DV, Robinson DO. Middle ear status and language development in preschool children. *ASHA*. 1984;26:33-37.
- Allen MC, Schubert-Sudia SE. Prevention of prelingual hearing impairment. *Seminars in Hearing*. 1990;11:134-149.
- Allen GC, Tiu C, Koike K, Ritchey AK, Kurs-Lasky M, Wax MK. Transient-evoked otoacoustic emissions in children after cisplatin chemotherapy. *Otolaryngol Head Neck Surg*. 1998;118:584-588.

- Almadori G, Del Ninno M, Cadoni G, Di Mario A, Ottaviani F. Facial nerve paralysis in acute otomastoiditis as presenting symptom of FAB M2, T8;21 leukemic relapse. Case report and review of the literature. *Int J Pediatr Otorhinolaryngol*. 1996;36:45-52.
- Almadori G, Trivelli M, Scarano E, Cadoni G. Misleading clinical features in Wegener's granulomatosis. A case report. *J Laryngol Otol*. 1997;111:746-748.
- Alper CM, Doyle WJ, Seroky JT, Bluestone CD. Efficacy of clarithromycin treatment of acute otitis media caused by infection with penicillin-susceptible, -intermediate, and -resistant *Streptococcus pneumoniae* in the chinchilla. *Antimicrob Agents Chemother*. 1996;40:1889-1892.
- Alper CM, Tabari R, Seroky JT, Doyle WJ. Magnetic resonance imaging of the development of otitis media with effusion caused by functional obstruction of the eustachian tube. *Ann Otol Rhinol Laryngol*. 1997;106:422-431.
- Alsarraf R, Jung CJ, Perkins J, Crowley C, Gates GA. Otitis media health status evaluation: a pilot study for the investigation of cost-effective outcomes of recurrent acute otitis media treatment. *Ann Otol Rhinol Laryngol*. 1998;107:120-128.
- Althaus SR. Surgery on the only hearing ear. *Laryngoscope*. 1981;91:765-770.
- Altman JS, Hauptert MS, Hamaker RA, Belenky WM. Phenylephrine and the prevention of postoperative tympanostomy tube obstruction. *Arch Otolaryngol Head Neck Surg*. 1998;124:1233-1236.
- Altuntas A, Aslan A, Eren N, Unal A, Nalca Y. Susceptibility of microorganisms isolated from chronic suppurative otitis media to ciprofloxacin. *Eur Arch Otorhinolaryngol*. 1996;253:364-366.
- Alvarez Acevedo G, Carrillo Esper R, Hernandez Palestina M, Volkow Fernandez P. [ENT nosocomial infections in the intestinal care unit]. *An Otorrinolaringol Ibero Am*. 1994;21:629-639.
- Alvart R. An open multicentre study to compare the efficacy and safety of sultamicillin with that of cefuroxime axetil in acute ear nose and throat infections in adults. *J Int Med Res*. 1992;53A-61A.
- Alzamil KS, Linthicum FH, Jr. Tympanosclerosis. *Am J Otol*. 1999;20:686-687.
- Amadasun JE. The cost effective medical treatment of suppurative otitis media in a Nigerian environment. *West Afr J Med*. 1997;16:85-87.
- Amador JM, Esquivias JJ, Ciges M. [A CT cytomorphodensitometric study of the proliferating epithelial activity in middle ear cholesteatoma]. *Acta Otorrinolaringol Esp*. 1994;45:153-159.
- Amedee RG. The effects of chronic otitis media with effusion on the measurement of transiently evoked otoacoustic emissions. *Laryngoscope*. 1995;105:589-595.
- Aminifarshidmehr N. The management of chronic suppurative otitis media with acid media solution. *Am J Otol*. 1996;17:24-25.
- Ammann AJ, Ashman RF, Buckley RH, al. e. Use of intravenous gamma -globulin in antibody immunodeficiency: Results of a multicenter controlled trial. *CLIN-IMMUNOL-IMMUNOPATHOL*. 1982;60-67.
- Anagnostakis D, Petmezakis J, Papazissis G, Messaritakis J, Matsaniotis N. Hearing loss in low-birth-weight infants. *Am J Dis Child*. 1982;136:602-604.
- Anari M, Cederberg A, Ernstson S. The effect of cefaclor on the nasopharyngeal flora in children with chronic OME. *Acta-Otolaryngol-Suppl-Stockh*. 1985:13-16.
- Andersen MS, Meistrup-Larsen U, Meistrup-Larsen KI, Peitersen E. The effect of adenoidectomy on secretory otitis media in children. *Acta Oto-Laryngologica - Supplement*. 1979;360:195-197.
- Andersen AB, Ag G, Stenfors LE. Occurrence of otitis media in an arctic region. *Acta Oto-Laryngologica - Supplement*. 1997;529:11-13.
- Anderson H, Filipsson R, Fluor E, Koch B, Lindsten J, Wedenberg E. Hearing impairment in Turner's syndrome. *Acta Otolaryngol*. 1969;Suppl:1-26.
- Anderson H, Barr B. Conductive high-tone hearing loss. *Arch Otolaryngol*. 1971;93:599-605.
- Andreasson L, Harris S. Tympanoplasty and eustachian tube function. *Clin Otolaryngol Allied Sci*. 1978;3:421-430.
- Andreasson L, Harris S, Ivarsson A. Pulse volume recordings in outer ear canal in pulse synchronous

- tinnitus. A comparison between ears with Glomus tumour, serous otitis media, and normal ears. *Acta Otolaryngol.* 1978;86:241-247.
- Andreasson L, Harris S. Middle ear mechanics and Eustachian tube function in tympanoplasty. *Acta Otolaryngologica - Supplement.* 1979;360:141-147.
- Andreasson L, Bylander A, Ivarsson A, Tjernstrom O. Treatment with sulfur hexafluoride in children with serous otitis media. An alternative to tubulation. *Arch Otolaryngol.* 1983;109:358-359.
- Andrews JC, Canalis RF. Otogenic pneumocephalus. *Laryngoscope.* 1986;96:521-528.
- Angeli SI, Luxford WM, Lo WW. Magnetic resonance imaging in the evaluation of Langerhans' cell histiocytosis of the temporal bone: case report. *Otolaryngol Head Neck Surg.* 1996;114:120-124.
- Anggard A, Malm L. Orally administered decongestant drugs in disorders of the upper respiratory passages: A survey of clinical results. *Clin Otolaryngol Allied Sci.* 1984;9:43-49.
- Aniansson G. Screening diagnosis of secretory otitis media. *Scand Audiol Suppl.* 1986;26:65-69.
- Aniansson G, Alm B, Andersson B, et al. A prospective cohort study on breast-feeding and otitis media in Swedish infants. *Pediatr Infect Dis J.* 1994;13:183-188.
- Anker J. Proceedings: Preservation of hearing in children with chronic otitis media with cholesteatoma formation. *ORL J Otorhinolaryngol Relat Spec.* 1975;37:359.
- Anonymous. Phenethicillin and penicillin V in the treatment of acute otitis media in children: a comparative trial from general practice. *Lancet.* 1962;1:947-949.
- Anonymous. Glue ear. *Br Med J.* 1969;4:578.
- Anonymous. Local treatment with a corticosteroid-antibiotic preparation in infections of the ear. *Practitioner.* 1970;205:691-695.
- Anonymous. Outcome of acute otitis media. *Lancet.* 1970;1:283-284.
- Anonymous. Advertisements for hetacillin. *Med Lett Drugs Ther.* 1972;14:38-39.
- Anonymous. Trimethoprim-sulfamethoxazole in the treatment of bacterial infections: report of clinical trials in Japan. *J Infect Dis.* 1973;Suppl:629-35.
- Anonymous. Grand rounds at the Albert Einstein College of Medicine Bronx, New York. *Ann Otol Rhinol Laryngol.* 1973;82:734-744.
- Anonymous. Common hearing disorders. Methods of diagnosis and treatment. *Geriatrics.* 1974;29:49-55 passim.
- Anonymous. Editorial: Tests of hearing in school. *Br Med J.* 1974;2:3.
- Anonymous. Editorial: The glue-ear syndrome. *Lancet.* 1975;2:397-398.
- Anonymous. Summary Reports on National-International Conferences. Use of acoustic impedance measurement in screening for middle ear disease in children. *Ann Otol Rhinol Laryngol.* 1978;87:288-292.
- Anonymous. [Results of treatment with cefaclor, a new oral cephalosporin]. *Fortschr-Med.* 1979;97:1709-1710.
- Anonymous. Otitis media and child development. *Ann Otol Rhinol Laryngol Suppl.* 1979;88:1-111.
- Anonymous. Report of Research on Conference on Recent Advances in Otitis Media with Effusion. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:1-28.
- Anonymous. Doctors' discussion. *Am J Otol.* 1981;2:291-293.
- Anonymous. Recommended procedure for pure-tone bone-conduction audiometry without masking using a manually operated instrument. British Society of Audiology--technical note. *Br J Audiol.* 1985;19:281-282.
- Anonymous. Third International Symposium on Audiological Medicine. Visby, Gotland, Sweden, August 18-21, 1985. Pharmacological treatment of inner ear disorders. Audiological aspects of secretory otitis media. *Scand Audiol Suppl.* 1986;26:1-96.
- Anonymous. Glue ear in children: Medical management. *Drug Ther Bull.* 1986;24:22-24.
- Anonymous. Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 25-1987. A seven-year-old Japanese-

- American boy with persistent right-ear drainage despite antibiotic therapy. *N Engl J Med*. 1987;316:1589-1597.
- Anonymous. American Academy of Pediatrics Committee on School Health: Impedance bridge (tympanometer) as a screening device in schools. *Pediatrics*. 1987;79:472.
- Anonymous. Single-dose intramuscular ceftriaxone for acute otitis media in children [news]. *Eur J Pediatr*. 1993;152:535.
- Anonymous. [Infections in childhood; from respiratory infections to tropical medicine]. *Fortschr Med Suppl*. 1993;144:1-8.
- Anonymous. Mechanical blockage of the nose. *Annals of Allergy*. 1993;70:204-205.
- Anonymous. Otitis media with effusion in young children. Guideline overview. Agency for Health Care Policy and Research, Rockville, Maryland [news]. *J Natl Med Assoc*. 1994;86:731-732, 792-793.
- Anonymous. Fumes from the spleen [letter]. *Paediatr Perinat Epidemiol*. 1994;8:359-362.
- Anonymous. Federal guidelines offer choices for treatment of otitis media with effusion [news]. *Am J Hosp Pharm*. 1994;51:2320.
- Anonymous. Managing otitis media with effusion in young children. Otitis Media Guideline Panel [see comments]. *Am Fam Physician*. 1994;50:1003-1010.
- Anonymous. Managing otitis media with effusion in young children. American Academy of Pediatrics The Otitis Media Guideline Panel. *Pediatrics*. 1994;94:766-773.
- Anonymous. Recent Advances in Otitis Media Treatment. Symposium proceedings. Minneapolis, Minnesota, October 1, 1993. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:1-64.
- Anonymous. Recent Advances in Otitis Media. Report of the 5th research conference. Fort Lauderdale, Florida, May 20-24, 1991. *Ann Otol Rhinol Laryngol Suppl*. 1994;164:1-80.
- Anonymous. Managing otitis media with effusion in young children. Agency for Health Care Policy and Research. *Clinical Practice Guideline - Quick Reference Guide for Clinicians*. 1994:1-13.
- Anonymous. Drugs for treatment of acute otitis media in children. *Med Lett Drugs Ther*. 1994;36:19-21.
- Anonymous. Who has hearing, speech, and language problems? *ASHA*. 1995;37:38-39.
- Anonymous. Management of acute otitis media and glue ear. *Drug Ther Bull*. 1995;33:12-15.
- Anonymous. Practice guidelines: chronic otitis media/chronic mastoiditis/cholesteatoma. *ORL - Head and Neck Nursing*. 1995;13:22-23.
- Anonymous. Young children at day care centers at most risk for pneumococcal disease. *Pediatr Dent*. 1995;17:186.
- Anonymous. [Restrictive prescription of antibiotics requires early follow-up]. *Lakartidningen*. 1996;93:28-29.
- Anonymous. Now hear this. *Lippincott Health Promotion Letter*. 1997;2:3.
- Anonymous. Environmental tobacco smoke: a hazard to children. American Academy of Pediatrics Committee on Environmental Health. *Pediatrics*. 1997;99:639-642.
- Anonymous. [Guidelines/algorithms of the German Society of Otorhinolaryngology, Head and Neck Surgery]. *HNO*. 1997;45:202-204.
- Anonymous. [ORL infections. 10th consensus conference on anti-infectious therapeutics. Under the collaboration of the French Societies of Infectious Diseases, of ORL and of Pediatrics]. *Arch Pediatr*. 1997;4:188-194.
- Anonymous. Palivizumab, a humanized respiratory syncytial virus monoclonal antibody, reduces hospitalization from respiratory syncytial virus infection in high-risk infants. The IMPact-RSV Study Group [see comments]. *Pediatrics*. 1998;102:531-537.
- Anonymous. Sensitivity, specificity and predictive value of tympanometry in predicting a hearing impairment in otitis media with effusion. MRC Multi-Centre Otitis Media Study Group. *Clin Otolaryngol Allied Sci*. 1999;24:294-300.
- Anteby I, Hafner H, Pratt H, Uri N. Auditory brainstem evoked potentials in evaluating the central

- effects of middle ear effusion. *Int J Pediatr Otorhinolaryngol.* 1986;12:1-11.
- Anteunis LJ. Middle ear pressures in patients with nasopharyngeal carcinoma and their clinical significance [letter; comment]. *J Laryngol Otol.* 1996;110:107.
- Anteunis LJC, Engel JAM, Hendriks JJT, Marres EHMA. Hearing loss in infants with early otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:359-361.
- Anteunis LJ, Engel JA, Hendriks JJ, Manni JJ. A longitudinal study of the validity of parental reporting in the detection of otitis media and related hearing impairment in infancy. *Audiology.* 1999;38:75-82.
- Antonelli A, Cimino A, Cimino A, et al. [The treatment of ENT phlogosis: seaprose S vs. nimesulide]. *Acta-Otorhinolaryngol-Ital.* 1993:1-16.
- Antonelli PJ, Juhn SK, Goycoolea MV, Giebink GS. Middle ear susceptibility to Pseudomonas infection during acute otitis media. *Ann Otol Rhinol Laryngol.* 1993;102:531-536.
- Antonelli PJ, Daly KA, Juhn SK, Veum EJ, Adams GL, Giebink GS. Tobacco smoke and otitis media in the chinchilla model. *Otolaryngol Head Neck Surg.* 1994;111:513-518.
- Antonelli PJ, Juhn SK, Le CT, Giebink GS. Acute otitis media increases middle ear susceptibility to nasal injection of Pseudomonas aeruginosa. *Otolaryngol Head Neck Surg.* 1994;110:115-121.
- Antonelli PJ, Bouchard KR, Kartush JM. Carbon dioxide laser occlusion of the guinea pig posterior semicircular canal. *Otolaryngol Head Neck Surg.* 1995;113:453-458.
- Anvar B, Mencher GT, Keet SJ. Hearing loss and congenital rubella in Atlantic Canada. *Ear Hear.* 1984;5:340-345.
- Aoki N. Air in acute epidural hematomas. Report of two cases. *J Neurosurg.* 1986;65:555-556.
- Aoyagi M, Kiren T, Furuse H, et al. Pure-tone threshold prediction by 80-Hz amplitude-modulation following response. *Acta Oto-Laryngologica - Supplement.* 1994;511:7-14.
- Aoyagi M, Yokota M, Nakamura T, et al. Effects of aging on hearing results in tympanoplasty. *Acta Oto-Laryngologica - Supplement.* 1994;511:81-86.
- Aoyagi M, Yamazaki Y, Yokota M, et al. Frequency specificity of 80-Hz amplitude-modulation following response. *Acta Oto-Laryngologica - Supplement.* 1996;522:6-10.
- Aoyagi M, Suzuki Y, Yokota M, Furuse H, Watanabe T, Ito T. Reliability of 80-Hz amplitude-modulation-following response detected by phase coherence. *Audiology and Neuro-Otology.* 1999;4:28-37.
- Apostolopoulos K, Xenelis J, Tzagaroulakis A, Kandiloros D, Yiotakis J, Papafragou K. The point prevalence of otitis media with effusion among school children in Greece. *Int J Pediatr Otorhinolaryngol.* 1998;44:207-214.
- Appelman CL, Claessen JQ, Touw-Otten FW, Hordijk GJ, de Melker RA. Co-amoxiclav in recurrent acute otitis media: placebo controlled study. *Br Med J.* 1991;303:1450-1452.
- Appelman CLM, Claessen HQPJ, Touw-Otten FWMM, Hordijk GJ, De Melker RA. Efficacy of amoxicillin-clavulanate in recurrent acute otitis media: a placebo-controlled study. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:242-245.
- Appelman CL, Claessen JQ, Touw-Otten FW, Hordijk GJ, de Melker RA. Severity of inflammation of tympanic membrane as predictor of clinical course of recurrent acute otitis media. *Br Med J.* 1993;306:895.
- Arcand P, Gauthier P, Bilodeau G, et al. Post-myringotomy care: a prospective study. *J-Otolaryngol.* 1984;13:305-308.
- Arcand P, Cerat J, Spenard JR. Acute otomastoiditis in the leukemic child. *J Otolaryngol.* 1989;18:380-383.
- Arcia E, Roberts JE. Otitis media in early childhood and its association with sustained attention in structured situations. *J Dev Behav Pediatr.* 1993;14:181-183.
- Arellano B, Gonzalez FM, Pinilla MT, Ramirez-Camacho RA, Vergara J. [Effectiveness of imaging diagnosis in chronic otitis media]. *Acta Otorrinolaringol Esp.* 1996;47:435-437.

- Arenberg IK, Zoller SA, Van de Water SM. The results of the first 300 consecutive endolymphatic system-mastoid shunts with valve implants for hydrocephalus. *Otolaryngol Clin North Am.* 1983;16:153-174.
- Arguedas AG, Zaleska M, Stutman HR, Blumer JL, Hains CS. Comparative trial of cefprozil vs. amoxicillin clavulanate potassium in the treatment of children with acute otitis media with effusion. *Pediatr Infect Dis J.* 1991;10:375-380.
- Arguedas AG, Herrera JF, Faingezicht I, Mohs E. Ceftazidime for therapy of children with chronic suppurative otitis media without cholesteatoma. *Pediatr Infect Dis J.* 1993;12:246-248.
- Arguedas A, Loaiza C, Herrera JF, Mohs E. Antimicrobial therapy for children with chronic suppurative otitis media without cholesteatoma. *Pediatr Infect Dis J.* 1994;13:878-882.
- Arguedas A, Loaiza C, Herrera M, Mohs E. Comparative trial of 3-day azithromycin versus 10-day amoxicillin /clavulanate potassium in the treatment of children with acute otitis media with effusion. *International Journal of Antimicrobial Agents.* 1996;6:233-238.
- Arguedas A, Loaiza C, Rodriguez F, Herrera ML, Mohs E. Comparative trial of 3 days of azithromycin versus 10 days of clarithromycin in the treatment of children with acute otitis media with effusion. *J Chemother.* 1997;9:44-50.
- Arguedas A, Loaiza C, Perez A, et al. Microbiology of acute otitis media in Costa Rican children. *Pediatr Infect Dis J.* 1998;17:680-689.
- Armengot M, Escribano A, Carda C, Basterra J. Clinical and ultrastructural correlations in nasal mucociliary function observed in children with recurrent airways infections. *Int J Pediatr Otorhinolaryngol.* 1995;32:143-151.
- Armengot M, Juan G, Carda C, Basterra J, Cano B. [The prevalence of primary dyskinetic ciliary syndromes in patients with sinusitis and bronchiectasis]. *An Otorrinolaringol Ibero Am.* 1995;22:85-92.
- Armstrong BW, Armstrong RB. Tympanostomy tubes, their use, abuse, and cost-benefit ratio. *Laryngoscope.* 1979;89:443-449.
- Arnold W, Ganzer U, Kleinmann H. Sensorineural hearing loss in mucous otitis. *Arch Otorhinolaryngol.* 1977;215:91-93.
- Arnold SA, Brown OE, Finitzo T. Hearing loss in children with congenital heart disease: a preliminary report. *Int J Pediatr Otorhinolaryngol.* 1986;11:287-293.
- Arnold B, Schorn K, Stecker M. Screening of hearing disorders in newborns within the European Community. *Laryngo Rhino Otologie.* 1995;74:172-178.
- Arola M, Ziegler T, Puhakka H, Lehtonen OP, Ruuskanen O. Rhinovirus in otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1990;99:451-453.
- Aronoff SC. Antimicrobials in children and the problem of drug resistance [editorial]. *Am Fam Physician.* 1996;54:44-46, 54, 56.
- Aronovitz GH. Treatment of otitis media with cefuroxime axetil. *South Med J.* 1988;81:978-980.
- Aronovitz G. A multicenter, open label trial of azithromycin vs. amoxicillin/ clavulanate for the management of acute otitis media in children. *Pediatr Infect Dis J.* 1996;15:S15-S19.
- Arriaga MA, Bluestone CD, Stool SE. The role of tympanocentesis in the management of infants with sepsis. *Laryngoscope.* 1989;99:1048-1051.
- Arriaga MA, Carrier D. MRI and clinical decisions in cochlear implantation. *Am J Otol.* 1996;17:547-553.
- Arslan E, Turrini M, Lupi G, Genovese E, Orzan E. Hearing threshold assessment with auditory brainstem response (ABR) and ElectroCochleoGraphy (ECoChG) in uncooperative children. *Scand Audiol Suppl.* 1997;46:32-37.
- Artyushkin AV, Artyushkina EA. Radionuclide investigation using ^{99m}Tc-phosphonium in patients with ear diseases. *Meditinskaja Radiologija.* 1987;32:47-51.
- Arulkumaran S, Skurr B, Tong H, Kek LP, Yeoh KH, Ratnam SS. No evidence of hearing loss due to fetal acoustic stimulation test. *Obstet Gynecol.* 1991;78:283-285.

- Ashby JK, Pope GD, Barron SJ. A reliability study of the electro-acoustic impedance bridge in private pediatric practice. *Am J Otol.* 1980;1:168-170.
- Asher ES, Evans JH, Wright RF, Wazen JJ. Fabrication and use of a surgical template for placing implants to retain an auricular prosthesis. *J Prosthet Dent.* 1999;81:228-233.
- Ashikaga R, Araki Y, Ishida O. Bilateral aberrant internal carotid arteries. *Neuroradiology.* 1995;37:655-657.
- Ashoor A. Hearing levels of school children in Dammam. *J Laryngol Otol.* 1983;97:37-41.
- Asmar BI, Dajani AS, Del-Beccaro MA, Mendelman PM. Comparison of cefpodoxime proxetil and cefixime in the treatment of acute otitis media in infants and children. Otitis Study Group. *Pediatrics.* 1994;94:847-852.
- Aspin MM, Hoberman A, McCarty J, et al. Comparative study of the safety and efficacy of clarithromycin and amoxicillin-clavulanate in the treatment of acute otitis media in children [see comments]. *J Pediatr.* 1994;125:136-141.
- Association AS-L-H. Guidelines for screening for hearing impairment and middle-ear disorders. *ASHA.* 1990;32:17-24.
- Association AS-L-H. Guidelines for the audiologic assessment of children from birth through 36 months of age. *ASHA.* 1991:37-43.
- Association AS-L-H. Guidelines for audiologic screening. *ASHA.* 1997:1-60.
- Astbury J, Orgill A, Bajuk B. Relationship between two-year behaviour and neurodevelopmental outcome at five years of very low-birthweight survivors. *Dev Med Child Neurol.* 1987;29:370-379.
- Ataoglu H, Goksu N, Kemaloglu YK, Bengisun S, Ozbilen S. Preliminary report on L-forms: possible role in the infectious origin of secretory otitis media. *Ann Otol Rhinol Laryngol.* 1994;103:434-438.
- Athanasiou AE, Droschl H, Bosch C. Data and patterns of transverse dentofacial structure of 6- to 15-year-old children: a posteroanterior cephalometric study. *Am J Orthod Dentofacial Orthop.* 1992;101:465-471.
- Attallah MS, al-Essa A. Hearing results in tympanoplasty in Riyadh. *Otolaryngol Pol.* 1996;50:145-151.
- Attallah MS, Essa AE. Common complications following ventilation tube insertion. *Indian J Otol.* 1999;5:17-20.
- Augustsson I, Nilsson C, Neander P. Do we treat 'the right' children with secretory otitis media at the ENT clinic? *Acta Oto Laryngologica Supplement.* 1988;106:39-40.
- Augustsson I, Nilson C, Engstrand I. The preventive value of audiometric screening of preschool and young school-children. *Int J Pediatr Otorhinolaryngol.* 1990;20:51-62.
- Augustsson I, Engstrand I. Secretory otitis media in a cohort of Swedish children as reflected by repeated screening and by medical records. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:40-43.
- Austin DF. Types and indications of staging. *Arch Otolaryngol.* 1969;89:235-242.
- Austin DF. Ossicular reconstruction. *Arch Otolaryngol.* 1971;94:525-535.
- Austin DF. Transcanal tympanoplasty: a 15-year report. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1976;82:ORL30-8.
- Austin DF. Avoiding failures in the restoration of hearing with ossiculoplasty and biocompatible implants. *Otolaryngol Clin North Am.* 1982;15:763-771.
- Austin DF. Adenoidectomy for secretory otitis media [see comments]. *Arch Otolaryngol Head Neck Surg.* 1989;115:936-939.
- Austin DF. Adenoidectomy for secretory otitis media. *Arch Otolaryngol Head and Neck Surgery.* 1989;115:936-939.
- Austin DF. Adenoidectomy for secretory otitis media (I: Reply). *Arch Otolaryngol Head and Neck Surgery.* 1990;116.
- Austin DF. Adenotonsillectomy in the treatment of secretory otitis media. *Ear Nose Throat J.* 1994;73:367-369, 373-374.

- Avery CA, Gates GA, Prihoda TJ. Efficacy of acoustic reflectometry in detecting middle ear effusion. *Ann Otol Rhinol Laryngol.* 1986;95:472-476.
- Avery JK. There ain't no justice. *J Tenn Med Assoc.* 1990;83:405.
- Avery RK, Eavey RD, Della Torre T, Ramos D, Pasternack MS. Bilateral otitis media and mastoiditis caused by a highly resistant strain of *Mycobacterium chelonae*. *Pediatr Infect Dis J.* 1996;15:1037-1040.
- Aviel A, Ostfeld E. Acquired irreversible sensorineural hearing loss associated with otitis media with effusion. *Am J Otolaryngol.* 1982;3:217-222.
- Avraham S, Luntz M, Sade J. The influence of ventilating tubes on the surgical treatment of atelectatic ears. *European Archives of Oto Rhino Laryngology.* 1991;248:259-261.
- Avramenko LV, Bazarov VG, Butenko LN, et al. Ultrasound tympanometry as an objective method of the middle ear diseases diagnosis and treatment. *Vestn Otorinolaringol.* 1982;44:56-59.
- Axelsson I. Overtreatment of otitis media [letter]. *Pediatr Infect Dis J.* 1993;12:889-891.
- Axelsson I. [Research fraud. Manipulated conclusions on therapy of otitis in children]. *Lakartidningen.* 1993;90:937-940.
- Axon PR, Mawman DJ, Upile T, Ramsden RT. Cochlear implantation in the presence of chronic suppurative otitis media. *J Laryngol Otol.* 1997;111:228-232.
- Baart de la Faille LM. Validity of large scale standardised behavioural screening. *Acta Oto-Laryngologica - Supplement.* 1991;482:94-101; discussion 102.
- Baba S, Ito H, Tsukiyama M, Iwata S, Nishimura T. [Clinical evaluation of long-acting preparation of cephalexin (S-6436) in the treatment of acute tonsillitis and acute otitis media--a double blind study (author's transl)]. *Kansenshogaku-Zasshi.* 1977;51:286-302.
- Baba S, Ito H, Kinoshita H, al. e. [Comparative study on cefmetazole and cefazolin in the treatment of suppurative otitis media]. *Jpn-J-Antibiot.* 1982;35:1523-1552.
- Baba S, Murai K, Kinoshita H, al. e. Evaluation of BRL25000 (clavulanic acid-amoxicillin) in acute purulent otitis media and acute exacerbation of chronic purulent otitis media. A comparative double blind study with amoxicillin. *CHEMOTHERAPY-(TOKYO).* 1983;31:97-112.
- Baba S, Kinoshita H, Mori Y, et al. [A parallel comparative double blind study of cefixime with cefaclor in the treatment of acute suppurative otitis media in children]. *Jpn-J-Antibiot.* 1987;40:1-24.
- Baba S, Mori Y, Suzuki K, et al. [Evaluation of the efficacy of ceftriaxone in acute suppurative otitis media and acute exacerbation of chronic suppurative otitis media. A comparative study with cefotiam as the control]. *Jpn-J-Antibiot.* 1989;42:212-247.
- Babighian G. Bioactive ceramics versus proplast implants in ossiculoplasty. *Am J Otol.* 1985;6:285-290.
- Babighian G. Problems in cochlear implant surgery. *Adv Otorhinolaryngol.* 1993;48:65-69.
- Babighian G, Dominguez MJ. [Introduction to the surgery of the middle ear: general principles]. *Acta Otorrinolaringol Esp.* 1993;44:327-331.
- Babonis TR, Weir MR, Kelly PC. Impedance tympanometry and acoustic reflectometry at myringotomy [published erratum appears in *Pediatrics* 1991 Jun;87(6):945]. *Pediatrics.* 1991;87:475-480.
- Babonis TR, Weir MR, Kelly PC. Impedance tympanometry and acoustic reflectometry at myringotomy. *Pediatrics.* 1991;87:475-480.
- Babonis T, Weir MR, Kelly PC, Krober MS. Progression of tympanometry and acoustic reflectometry. Findings in children with acute otitis media. *Clin Pediatr.* 1994;33:593-600.
- Bacciu S, Pasanisi E, Perez Raffo G, et al. Scutumplasty: costal cartilage versus bone pate. *Auris Nasus Larynx.* 1998;25:155-159.
- Backhouse CI, Woods P. Trimethoprim and amoxycillin in acute otitis media. *Practitioner.* 1985;229:51-54.
- Bader-Meunier B, Pinto G, Tardieu M, Pariente D, Bobin S, Dommergues JP. Mastoiditis, meningitis and venous sinus thrombosis caused by

- Fusobacterium necrophorum. *Eur J Pediatr*. 1994;153:339-341.
- Baer S, Hehar S, Maw AR. Tympanic membrane ossification. *J Laryngol Otol*. 1993;107:550-552.
- Bafaqeeh SA, Zakzouk SM, al Muhaimed H, Essa A. Relevant demographic factors and hearing impairment in Saudi children: epidemiological study. *J Laryngol Otol*. 1994;108:294-298.
- Bagger-Sjoberg D, Bondesson G. Taste evaluation and compliance of two paediatric formulations of phenoxymethylpenicillin in children. *Scand J Prim Health Care*. 1989;7:87-92.
- Baggett HC, Prazma J, Rose AS, Lane AP, Pillsbury HC, 3rd. The role of glucocorticoids in endotoxin-mediated otitis media with effusion. *Arch Otolaryngol Head Neck Surg*. 1997;123:41-46.
- Baghai P, Vries JK, Bechtel PC. Retromastoid approach for biopsy of brain stem tumors. *Neurosurgery*. 1982;10:574-579.
- Bailey Q. The Castelli membrane in the treatment of glue ear. *J Laryngol Otol*. 1980;94:377-382.
- Bailey CM. Surgical management of otitis media. *Pediatr Infect Dis J*. 1994;13:S40-43; discussion S50-S54.
- Bain DJ. Can the clinical course of acute otitis media be modified by systemic decongestant or antihistamine treatment? *Br Med J Clin Res Ed*. 1983;287:654-656.
- Bain J, Murphy E, Ross F. Acute otitis media: clinical course among children who received a short course of high dose antibiotic. *Br Med J Clin Res Ed*. 1985;291:1243-1246.
- Bakaletz LO, Daniels RL, Lim DJ. Modeling adenovirus type 1-induced otitis media in the chinchilla: effect on ciliary activity and fluid transport function of eustachian tube mucosal epithelium [published erratum appears in *J Infect Dis* 1993 Dec;168(6):1605]. *J Infect Dis*. 1993;168:865-872.
- Bakaletz LO, Murwin DM, Billy JM. Adenovirus serotype 1 does not act synergistically with *Moraxella (Branhamella) catarrhalis* to induce otitis media in the chinchilla. *Infect Immun*. 1995;63:4188-4190.
- Bakaletz LO. Viral potentiation of bacterial superinfection of the respiratory tract. *Trends Microbiol*. 1995;3:110-114.
- Bakaletz LO, Holmes KA. Evidence for transudation of specific antibody into the middle ears of parenterally immunized chinchillas after an upper respiratory tract infection with adenovirus. *Clin Diagn Lab Immunol*. 1997;4:223-225.
- Baker RS, Chole RA. A randomized clinical trial of topical gentamicin after tympanostomy tube placement. *Arch Otolaryngol Head Neck Surg*. 1988;114:755-757.
- Baker RS, Chole RA. Ventilation tubes and prophylactic antibiotic eardrops [letter; comment]. *Otolaryngol Head Neck Surg*. 1993;109:559-560.
- Baldwin RL. Effects of otitis media on child development. *Am J Otol*. 1993;14:601-604.
- Balkany TJ, Barkin RM, Suzuki BH, Watson WJ. A prospective study of infection following tympanostomy and tube insertion. *Am J Otol*. 1983;4:288-291.
- Balkany TJ, Arenberg IK, Steenerson RL. Middle ear irrigation during insertion of ventilation tubes. *Auris-Nasus-Larynx*. 1985:S265-S267.
- Balkany TJ, Arenberg IK, Steenerson RL. Ventilation tube surgery and middle ear irrigation. *Laryngoscope*. 1986;96:529-532.
- Balkany T, Gantz BJ, Steenerson RL, Cohen NL. Systematic approach to electrode insertion in the ossified cochlea. *Otolaryngol Head Neck Surg*. 1996;114:4-11.
- Balkany TJ, Cohen NL, Gantz BJ. Surgical technique for the CLARION cochlear implant. *Ann Otol Rhinol Laryngol Suppl*. 1999;177:27-30.
- Ball SS, Prazma J, Dais D, Rosbe KW, Pillsbury HC. Nitric oxide: a mediator of endotoxin-induced middle ear effusions. *Laryngoscope*. 1996;106:1021-1027.
- Ball SS, Prazma J, Dais CG, Triana RJ, Pillsbury HC. Role of tumor necrosis factor and interleukin-1 in endotoxin-induced middle ear effusions. *Ann Otol Rhinol Laryngol*. 1997;106:633-9.
- Ballantyne J. The ear in paediatric practice. *Practitioner*. 1985;229:809-12.

- Balle VH, Stangerup SE, Sederberg-Olsen J, Thomsen J, Vejlsgaard R. Amoxicillin/clavulanate treatment in secretory otitis media. Bacteriological findings in the nasopharynx. *Acta-Otolaryngol-Stockh.* 1990;110:274-8.
- Balle V, Sederberg Olsen J, Thomsen J, Hartzen S. Treatment of children with secretory otitis media (SOM) with amoxicillin and clavulanic acid (Spektramox) or penicillin-V (Primcillin). Bacteriological findings in the nasopharynx before and after treatment. *Int J Pediatr Otorhinolaryngol.* 1998;45:77-82.
- Balli R. Controlled trial on the use of oral acetylcysteine in the treatment of glue-ear following drainage. *Eur J Respir Dis.* 1980;61.
- Balwally AN, Singh B, Sperling NM. Radiological case of the month. Subperiosteal abscess of the mastoid. *Arch Pediatr Adolesc Med.* 1997;151:201-2.
- Balyan FR, Celikkanat S, Aslan A, Taibah A, Russo A, Sanna M. Mastoidectomy in noncholesteatomatous chronic suppurative otitis media: is it necessary? *Otolaryngol Head Neck Surg.* 1997;117:592-5.
- Bamford J. Paediatric audiology in the United Kingdom: moving off in several directions. *Br J Audiol.* 1986;20:175-9.
- Banerjee DK, Korzec KR, Kim K, Fanelly L. Nasopharyngeal oncocyoma. *Otolaryngol Head Neck Surg.* 1995;113:136-7.
- Banerjee AR, Ward V, Narula AA. Management of recurrent acute otitis media with grommet insertion. *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:199-200.
- Bansal R, Raj A. Hearing loss in rural population: The etiology. *Indian J Otolaryngol Head Neck Surg.* 1998;50:147-155.
- Baquero F, Loza E. Antibiotic resistance of microorganisms involved in ear, nose and throat infections. *Pediatr Infect Dis J.* 1994;13:S9-S14; discussion S20-22.
- Barber PS, Rose DE. Bone conduction oscillator placement in testing hearing of selected groups of children. *Am J Ment Deficiency.* 1969;73:666-672.
- Barcz DV, Wood RPD, Stears J, Jafek BW, Shields M. Subarachnoid space: middle ear pathways and recurrent meningitis. *Am J Otol.* 1985;6:157-163.
- Barenkamp SJ, Bodor FF. Development of serum bactericidal activity following nontypable *Haemophilus influenzae* acute otitis media. *Pediatr Infect Dis J.* 1990;9:333-339.
- Barenkamp SJ. Immunization with high-molecular-weight adhesion proteins of nontypable *Haemophilus influenzae* modifies experimental otitis media in chinchillas. *Infect Immun.* 1996;64:1246-1251.
- Barfoed C, Rosborg J. Secretory otitis media. Long-term observations after treatment with grommets. *Arch Otolaryngol.* 1980;106:553-556.
- Barfoed C, Sorensen KM, Rosborg J. Secretory otitis media. Long-term observations after treatment with grommets: Double follow-up. *Acta Oto Laryngologica Supplement.* 1988;106:203-204.
- Barkin RM. Acute otitis media: a common presentation in the emergency department. *J Emerg Med.* 1985;2:163-168.
- Barlan IB, Geha RS, Schneider LC. Therapy for patients with recurrent infections and low serum IgG3 levels. *J Allergy Clin Immunol.* 1993;92:353-355.
- Barlinski J. [Cefuroxime axetil--efficiency and safety for treatment of upper airways and middle ear infections in children]. *Pol Tyg Lek.* 1993;48:233-235.
- Barnett ED, Klein JO. The problem of resistant bacteria for the management of acute otitis media. *Pediatr Clin North Am.* 1995;42:509-517.
- Barnett ED, Klein JO, Teele DW, et al. Short-course therapy for acute otitis media: single dose ceftriaxone. *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:216-217.
- Barnett ED, Teele DW, Klein JO, Cabral HJ, Kharasch SJ. Comparison of ceftriaxone and trimethoprim-sulfamethoxazole for acute otitis media. *Pediatrics.* 1997;99:23-28.
- Barnett ED, Teele DW, Klein JO, Cabral HJ, Kharasch SJ. Comparison of ceftriaxone and trimethoprim-sulfamethoxazole for acute otitis

- media. Greater Boston Otitis Media Study Group. *Pediatrics*. 1997;99:23-28.
- Barnett ED, Klein JO, Hawkins KA, Cabral HJ, Kenna M, Healy G. Comparison of spectral gradient acoustic reflectometry and other diagnostic techniques for detection of middle ear effusion in children with middle ear disease. *Pediatr Infect Dis J*. 1998;17:556-559; discussion 580.
- Barona R, Armengot M, Garin L, Montalt J, Basterra J. [Kniest syndrome. An audiological study]. *An Otorrinolaringol Ibero Am*. 1993;20:133-141.
- Barone SR, Kaplan MH, Krilov LR. Human herpesvirus-6 infection in children with first febrile seizures. *J Pediatr*. 1995;127:95-97.
- Barr WH, Affrime M, Chin CC, Batra V. Pharmacokinetics of ceftibuten in children. *Pediatr Infect Dis J*. 1995;1:44-54.
- Barritt PW, Darbyshire PJ. Deafness after otitis media in general practice. *J R Coll Genl Practitioners*. 1984;34:92-94.
- Barry B, Muffat-Joly M, Gehanno P, Pocidalo JJ. [Physiopathological and therapeutic values of experimental model of acute otitis media. Review of the literature]. *Ann Otolaryngol Chir Cervicofac*. 1993;110:326-331.
- Barry B, Muffat-Joly M, Gehanno P, Pocidalo JJ. Effect of increased dosages of amoxicillin in treatment of experimental middle ear otitis due to penicillin-resistant *Streptococcus pneumoniae*. *Antimicrob Agents Chemother*. 1993;37:1599-1603.
- Barry B, Gehanno P, Blumen M, Boucot I. Clinical outcome of acute otitis media caused by pneumococci with decreased susceptibility to penicillin. *Scand-J Infect Dis*. 1994;26:446-452.
- Barry B, Muffat-Joly M, Bauchet J, et al. Efficacy of single-dose ceftriaxone in experimental otitis media induced by penicillin- and cephalosporin-resistant *Streptococcus pneumoniae*. *Antimicrob Agents Chemother*. 1996;40:1977-1982.
- Bartels LJ, Sheehy JL. Total obliteration of the mastoid, middle ear, and external auditory canal. A review of 27 cases. *Laryngoscope*. 1981;91:1100-1108.
- Bartolozzi G, Sacchetti A, Scarane P, Becherucci P. Natural history of otitis media with effusion in children under six years of age. *Adv Otorhinolaryngol*. 1992;47:281-283.
- Bartoshuk LM, Duffy VB, Reed D, Williams A. Supertasting, earaches and head injury: genetics and pathology alter our taste worlds. *Neurosci Biobehav Rev*. 1996;20:79-87.
- Bass JW, Cohen SH, Corless JD, Mamunes P. Ampicillin compared to other antimicrobials in acute otitis media. *JAMA*. 1967;202:697-702.
- Basset JM, Fleury P, Candau P, et al. Study of changes in bone conduction (BC) in surgery for chronic otitis and its sequelae (review of 800 operations). *Ann Oto Laryngol*. 1985;102:239-249.
- Bassila MK. Middle ear effusion. *Journal Medical Libanais - Lebanese Medical Journal*. 1994;42:227-229.
- Bastos I, Janzon L, Lundgren K, Reimer A. Otitis media and hearing loss in children attending an ENT clinic in Luanda, Angola. *Int J Pediatr Otorhinolaryngol*. 1990;20:137-148.
- Bastos I, Reimer A, Lundgren K. Chronic otitis media and hearing loss in urban schoolchildren in Angola - A prevalence study. *J Audiological Med*. 1993;2:129-140.
- Bastos I, Mallya J, Ingvarsson L, Reimer A, Andreasson L. Middle ear disease and hearing impairment in northern Tanzania. A prevalence study of schoolchildren in the Moshi and Monduli districts. *Int J Pediatr Otorhinolaryngol*. 1995;32:1-12.
- Bastos I, Ingvarsson L, Andreasson L, Reimer A. Chronic otitis media and hearing loss among schoolchildren in a refugee camp in Angola: A prevalence study. *J Audiological Med*. 1995;4:1-11.
- Bates G. Glue ear. *Practitioner*. 1993;237:893-898.
- Bauchner H, Adams W, Barnett E, Klein J. Therapy for acute otitis media. Preference of parents for oral or parenteral antibiotic [see comments]. *Arch Pediatr Adolesc Med*. 1996;150:396-399.
- Bauchner H, Klein JO. Parental issues in selection of antimicrobial agents for infants and children [see comments]. *Clin Pediatr*. 1997;36:201-205.
- Bauer M. Tympanoplasty after radical mastoid operation. *Arch Otolaryngol*. 1967;86:387-390.

- Bauer F. Treatment of "glue ear" by intratympanic injection of urea. *J Laryngol Otol.* 1968;82:717-722.
- Bax M, Hart H, Jenkins S. The behaviour, development, and health of the young child: implications for care. *Br Med J Clin Res Ed.* 1983;286:1793-1796.
- Baxter JD. Chronic otitis media and hearing loss in the Eskimo population of Canada. *Laryngoscope.* 1977;87:1528-1542.
- Baxter JD, Katsarkas A, Ling D, Carson R. The Nakasuk Project- the conservative treatment of chronic otitis media in Inuit elementary school children. *J Otolaryngol.* 1979;8:201-209.
- Baxter JD. My experience with the Canadian Inuit. *J Otolaryngol.* 1980;9:63-66.
- Baxter JD. Observations on the evolution of chronic otitis media in the Inuit of the Baffin Zone, N.W.T. *J Otolaryngol.* 1982;11:161-166.
- Baxter JD. Clinical research in the Canadian North: an overview of a decade of participation in the McGill University-Baffin Zone Project. *Acta Otolaryngol.* 1983;95:615-619.
- Baxter JD, Ilecki HJ. Management of hearing impairment in the Canadian Inuit--an update. *J Otolaryngol.* 1985;14:62-64.
- Baxter JD, Julien G, Tewfik TL, et al. Observations on the prevalence of ear disease in the Inuit and Cree Indian school population of Kuujuaapik. *J Otolaryngol.* 1986;15:25-30.
- Baxter JD. What have we learned about otitis media and hearing loss by studying the native peoples of Canada? *J Otolaryngol.* 1990;19:386-388.
- Baxter JD. An overview of twenty years of observation concerning etiology, prevalence, and evolution of otitis media and hearing loss among the Inuit in the eastern Canadian Arctic. *Arctic Med Res.* 1991;Suppl:616-619.
- Bayramoglu I, Ardic FN, Kara CO, Ozuer MZ, Katircioglu O, Topuz B. Importance of mastoid pneumatization on secretory otitis media. *Int J Pediatr Otorhinolaryngol.* 1997;40:61-66.
- Beagley HA. Progress in objective audiometry. *J Laryngol Otol.* 1972;86:225-235.
- Beal DD, Stewart KC, Fleshman JK. The surgical program to reduce the morbidity of chronic otitis media in the Alaskan native. *Acta Socio-Medica Scandinavica - Supplement.* 1972;Suppl:259-265.
- Beales PH. Combined approach tympanoplasty. *J Laryngol Otol.* 1968;82:769-773.
- Bear VD. The ear: "dos" and "don'ts". *Med J Aust.* 1991;154:603-605, 608.
- Beasley JW. Lessons from the International Primary Care Network [editorial; comment]. *J Am Board Fam Pract.* 1993;6:419-420.
- Beatson JM, Marsh BT, Talbot DJ. A clinical comparison of pivmecillinam plus pivampicillin (Miraxid) and a triple tetracycline combination (Dete clo) in respiratory infections treated in general practice. *J Int Med Res.* 1985;13:197-202.
- Beatson JM, Marsh BT, Talbot DJ. A comparison of pivmecillinam plus pivampicillin (Miraxid) and a triple tetracycline combination (Dete clo) in respiratory infections treated in general practice. *J Int Med Res.* 1985;13:197-202.
- Beaumont GD. Chronic ear disease in aborigines--a research programme. *J Otolaryngolog Soc Aust.* 1972;3:330-332.
- Becker GD, Eckberg TJ, Goldware RR. Swimming and tympanostomy tubes: a prospective study. *Laryngoscope.* 1987;97:740-741.
- Becker SP, Roberts N, Coglianese D. Endoscopic adenoidectomy for relief of serous otitis media. *Laryngoscope.* 1992;102:1379-1384.
- Beerle BJ, Arriaga M. Myringotomy tube placement--another role for EMLA cream? [letter]. *Anesth Analg.* 1996;83:435.
- Beery QC, Bluestone CD, Cantekin EI. Otologic history, audiometry and tympanometry as a case finding procedure for school screening. *Laryngoscope.* 1975;85:1976-1985.
- Beery QC, Andrus WS, Bluestone CD, Cantekin EI. Tympanometric pattern classification in relation to middle ear effusions. *Ann Otol Rhinol Laryngol.* 1975;84:56-64.
- Begg CB, Mazumdar M. Operating characteristics of a rank correlation test for publication bias. *Biometrics.* 1999;50:1088-1101.

- Begue P, Broussin B, Quinet B, Garabedian N, Sounthavong JP, Riviere F. Acute otitis media in children: A randomized open clinical trial of effectiveness of two major antibiotics. (Erythromycin ethylsuccinate/acetyl-sulfafurazole versus amoxicillin/clavulanic acid). *Ann Pediatr*. 1990;37:127-130.
- Begue P, Broussin B, Quinet B, Garabedian N, Sounthavong JP, Riviere F. [Acute otitis media in children: a randomized and open clinical trial of the efficacy of 2 major antibiotics (erythromycin ethylsuccinate/acetyl sulfafurazole vs amoxicillin/clavulanic acid)]. *Ann Pediatr Paris*. 1990;37:127-130.
- Begue P, Quinet B, Denoyelle F, Garabedian EN. [Pharmacokinetic study of antibiotics in otitis]. *Ann Otolaryngol Chir Cervicofac*. 1993;110:393-398.
- Begue P, Boulesteix J, Dubreuil C, et al. Cefixime versus amoxicillin-clavulanate for the treatment of acute otitis media in children. *Medicine Et Maladies Infectieuses*. 1996;26:125-132.
- Behre U, Burow HM, Quinn P, Cree F, Harrison HE. Efficacy of twice-daily dosing of amoxicillin/clavulanate in acute otitis media in children. *Infection*. 1997;25:163-166.
- Belal A, Stewart TJ. Pathological changes in the middle ear joints. *Ann Otol Rhinol Laryngol*. 1974;83:159-167.
- Belal A, Jr., Forquer BD. Experimental tympanometry. *J Laryngol Otol*. 1980;94:595-605.
- Belkengren R, Sapala S. What is your assessment? Otitis media with effusion. *Pediatr Nurs*. 1995;21:304-305.
- Belkengren R, Sapala S. Pediatric management problems. Febrile seizures. *Pediatr Nurs*. 1997;23:192-193.
- Bellanti JA, Nsouli SM, Nsouli TM. Serous otitis media and food allergy. *Monogr Allergy*. 1996;32:188-194.
- Bellioni P, Cantani A, Salvinelli F. Allergy: a leading role in otitis media with effusion. *Allergol Immunopathol*. 1987;15:205-208.
- Bellman SC. Monitoring chemotherapy-induced hearing loss in children. *Eur J Cancer*. 1996;32A:1185-1188.
- Bellussi L, Ciferri G, De SE, Passali D. Effect of 2-(alpha-thenoylthio)propionylglycine in the treatment of secretory otitis media. *CURR THER RES, CLIN EXP*. 1984;36:596-605.
- Bellussi L, Bernocchi D, Ciferri G, Manini G, Passali D. Sobrerol in the treatment of secretory otitis media in childhood. *J Int Med Res*. 1989;17:277-286.
- Bellussi L, Passali D. Treatment of upper airways inflammation with nimesulide. *Drugs*. 1993:107-110.
- Bellussi L, Lauriello M. [Experts' opinion on pathogenesis and classification of otitis media with effusion]. *Acta Otorhinolaryngol Ital*. 1995;15:467-474.
- Bellussi L, Biagini C, Calearo C, et al. Antiphlogistic therapy with ketoprofen lysine salt vs nimesulide in secretive otitis media, rhinitis/rhinosinusitis, pharyngitis/tonsillitis/tracheitis. /TERAPIA ANTIFLOGISTICA CON KETOPROFENE SALE DI LISINA VS NIMESULIDE NELL'OTITE MEDIA SECRETIVA, RINITE/RINOSINUSITE, FARINGITE/TONSILLITE/TRACHEITE. *Otorinolaringologia*. 1996;46:49-57.
- Belshe RB, Mendelman PM, Treanor J, et al. The efficacy of live attenuated, cold-adapted, trivalent, intranasal influenza virus vaccine in children [see comments]. *N Engl J Med*. 1998;338:1405-1412.
- Belyakova LV, Grigoryeva NV. [Asymptomatic long-term course of chronic otitis with marked destructive alterations]. *Vestn Otorinolaringol*. 1997:51-52.
- Ben-Ami M, Rosen G, Shlezinger T, Konack S. Otitis media with effusion--complications after treatment. *J Laryngol Otol*. 1983;97:1091-1094.
- Ben-David J, Podoshin L, Fradis M. Tympanometry and audiometry in diagnosis of middle-ear effusions. *Ear Nose Throat J*. 1981;60:120-123.
- Ben-David J, Podoshin L, Fradis M, Faraggi D. Is the vestibular system affected by middle ear effusion? *Otolaryngol Head Neck Surg*. 1993;109:421-426.
- Benaoudia F, Francois M, Brahimi N, Narcy P, Bingen E. *Alcaligenes xylosoxidans*-associated infection in an infant with cholesteatoma [letter]. *Pediatr Infect Dis J*. 1995;14:637-638.

- Benediktsdottir B. Upper airway infections in preschool children--frequency and risk factors. *Scand J Prim Health Care*. 1993;11:197-201.
- Benfer RA. Morphometric analysis of Cartesian coordinates of the human skull. *Am J Phys Anthropol*. 1975;42:371-382.
- Benjamin JT. Practice and guidelines [letter; comment]. *Pediatrics*. 1996;97:604-605.
- Bennett RJ. The significance and management of the drumhead retraction pocket. *J Laryngol Otol*. 1970;84:167-189.
- Bennett FC, Ruuska SH, Sherman R. Middle ear function in learning-disabled children. *Pediatrics*. 1980;66:254-260.
- Bennett RJ. The operation of tympanomastoid re-aeration. Physiological repair of the radical mastoid cavity. *J Laryngol Otol*. 1981;95:1-10.
- Bennett KE, Haggard MP. Duration of behavior and cognitive outcomes from middle ear disease in the UK. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:389-392.
- Bennett KE, Haggard MP. Accumulation of factors influencing children's middle ear disease: risk factor modelling on a large population cohort. *J Epidemiol Community Health*. 1998;52:786-793.
- Bennett K, Higson J, Haggard M. Do GPs have the techniques for 'watchful waiting' in glue ear? *Br J Gen Pract*. 1998;48:1079-1080.
- Bennett KE, Haggard MP. Behaviour and cognitive outcomes from middle ear disease. *Arch Dis Child*. 1999;80:28-35.
- Benninger MS, King F, Nichols RD. Management guidelines for improvement of otolaryngology referrals from primary care physicians. *Otolaryngol Head Neck Surg*. 1995;113:446-452.
- Benson-Mitchell R, Tolley N, Croft CB, Roberts D. Wegener's granuloma--presenting as a unilateral parotid swelling. *J Laryngol Otol*. 1994;108:431-432.
- Bento RF, Schuster Grasel S, Konno Ishida L, Miniti A. Clinical study of sensorineural hearing loss in patients with chronic otitis media. *Revista Brasileira de Otorrinolaringologia*. 1993;59:12-16.
- Benz B. [Mucoserotympanon of the adult]. *Laryngorhinotologie*. 1995;74:62.
- Berera G. Index of suspicion. Case 1. Submucous cleft palate. *Pediatr Rev*. 1993;14:191-192.
- Berg AO. Middle ear effusion guideline: The co-chair's thoughts [editorial; comment]. *Am Fam Physician*. 1994;50:897-898.
- Berg AO. Clinical practice guideline panels: personal experience [see comments]. *J Am Board Fam Pract*. 1996;9:366-370.
- Berger R, Hadziselimovic F, Just M, Reigel P. Effect of feeding human milk on nosocomial rotavirus infections in an infants ward. *Dev-Biol-Stand*. 1983:219-228.
- Berger G, Hawke M, Ekem JK, Johnson A. Mast cells in human middle ear mucosa in health and in disease. *J Otolaryngol*. 1984;13:370-374.
- Berger G, Hawke M, Proops DW, Ranadive NS. The role of histamine in secretory otitis media. *J Otolaryngol*. 1984;13:172-174.
- Berger G. Eustachian tube submucosal glands in normal and pathological temporal bones. *J Laryngol Otol*. 1993;107:1099-1105.
- Berger G, Ophir D. Possible role of adenoid mast cells in the pathogenesis of secretory otitis media. *Ann Otol Rhinol Laryngol*. 1994;103:632-635.
- Berger G, Sachs Z, Sade J. Histopathologic changes of the tympanic membrane in acute and secretory otitis media. *Ann Otol Rhinol Laryngol*. 1996;105:458-462.
- Berger G, Ophir D, Berco E, Sade J. Revision myringoplasty. *J Laryngol Otol*. 1997;111:517-520.
- Bergeron MG, Ahronheim G, Richard JE, et al. Comparative efficacies of erythromycin-sulfisoxazole and cefaclor in acute otitis media: a double blind randomized trial. *Pediatr Infect Dis J*. 1987;6:654-660.
- Bergholtz L, Hallander H, Rudberg R. Treatment of acute otitis media with azidocillin administered twice daily. *Scand-J Infect Dis*. 1973;5:203-208.
- Bergmann K. [Fatal complications of otitis 60 years ago]. *HNO*. 1995;43:478-481.

- Bergstrom L. Continuing management of conductive hearing loss during language development. *Int J Pediatr Otorhinolaryngol.* 1980;2:3-9.
- Bergstrom BK, Bertilson SO, Movin G. Clinical evaluation of rectally administered ampicillin in acute otitis media. *J Int Med Res.* 1988;16:376-385.
- Bergus G. Using prediction models to reveal what we need to know [editorial; comment]. *Arch Fam Med.* 1993;2:817-819.
- Bergus GR, Levy BT, Levy SM, Slager SL, Kiritsy MC. Antibiotic use during the first 200 days of life. *Arch Fam Med.* 1996;5:523-526.
- Berlinger NT, Schachern P. Myofibroblasts in chronic otitis media. *Laryngoscope.* 1983;93:1566-1568.
- Berman S, Lauer BA. A controlled trial of cefaclor versus amoxicillin for treatment of acute otitis media in early infancy. *Pediatr-Infect-Dis.* 1983;2:30-33.
- Berman S, Grose K, Zerbe GO. Medical management of chronic middle-ear effusion. Results of a clinical trial of prednisone combined with sulfamethoxazole and trimethoprim. *Am-J-Dis-Child.* 1987;141:690-694.
- Berman S, Grose K, Nuss R, et al. Management of chronic middle ear effusion with prednisone combined with trimethoprim-sulfamethoxazole. *Pediatr Infect Dis J.* 1990;9:533-538.
- Berman S, Nuss R, Roark R, Huber-Navin C, Grose K, Herrera M. Effectiveness of continuous vs. intermittent amoxicillin to prevent episodes of otitis media. *Pediatr Infect Dis J.* 1992;11:63-67.
- Berman S, Roark R. Factors influencing outcome in children treated with antibiotics for acute otitis media. *Pediatr Infect Dis J.* 1993;12:20-24.
- Berman S. Medical management of children with otitis media with effusion. In: Quie PG, ed. *The Report on Pediatric Infectious Diseases.* New York: Churchill Livingstone; 1993:37-38.
- Berman S, Roark R, Luckey D. Theoretical cost effectiveness of management options for children with persisting middle ear effusions. *Pediatrics.* 1994;93:353-363.
- Berman S. Management of acute and chronic otitis media in pediatric practice. *Curr Opin Pediatr.* 1995;7:513-522.
- Berman S. Otitis media in developing countries. *Pediatrics.* 1995;96:126-131.
- Berman S. Otitis media in children. *N Engl J Med.* 1995;332:1560-1565.
- Berman S, Byrns PJ, Bondy J, Smith PJ, Lezotte D. Otitis media-related antibiotic prescribing patterns, outcomes, and expenditures in a pediatric Medicaid population. *Pediatrics.* 1997;100:585-592.
- Berman S, Wu K, Roark R. Management of otitis media with effusion with prednisone in combination with an antibiotic. *International Pediatrics.* 1999;14:221-224.
- Bernadt I. Otitis media in general practice [letter; comment]. *Med J Aust.* 1993;159:142.
- Bernard PA, Stenstrom RJ, Feldman W, Durieux-Smith A. Randomized, controlled trial comparing long-term sulfonamide therapy to ventilation tubes for otitis media with effusion. *Pediatrics.* 1991;88:215-222.
- Bernstein JM, Hayes ER, Ishikawa T, Tomasi TB, Jr., Herd JK. Secretory otitis media: a histopathologic and immunochemical report. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1972;76:1305-1318.
- Bernstein JM, Reisman R. The role of acute hypersensitivity in secretory otitis media. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1974;78:ORL120-7.
- Bernstein JM, Okazaki T, Reisman RE. Prostaglandins in middle ear effusions. *Arch Otolaryngol.* 1976;102:257-258.
- Bernstein JM, Schenkein HA, Genco RJ, Bartholomew WR. Complement activity in middle ear effusions. *Clin Exp Immunol.* 1978;33:340-346.
- Bernstein JM, Boerst M, Hayes ER. Mucosubstances in otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1979;88:334-338.
- Bernstein JM, Myers D, Kosinski D, Nisengard R, Wicher K. Antibody coated bacteria in otitis media with effusions. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:104-9.

- Bernstein JM. Otitis media with effusion: an allergic disease? *Compr Ther*. 1980;6:15-21.
- Bernstein JM, Ellis E, Li P. The role of IgE-mediated hypersensitivity in otitis media with effusion. *Otolaryngol Head Neck Surg*. 1981;89:874-878.
- Bernstein JM, Brentjens J, Vladutiu A. Are immune complexes a factor in the pathogenesis of otitis media with effusion? *Am J Otolaryngol*. 1982;3:20-25.
- Bernstein JM, Kano K. Heterophile antibodies in middle ear effusions. *Arch Otolaryngol*. 1982;108:267-269.
- Bernstein JM, Lee J, Conboy K, Ellis E, Li P. The role of IgE mediated hypersensitivity in recurrent otitis media with effusion. *Am J Otol*. 1983;5:66-69.
- Bernstein JM, Yamanaka T, Cumella J, Ogra PL. Characteristics of lymphocyte and macrophage reactivity in otitis media with effusion. *Acta Otolaryngologica - Supplement*. 1984;414:131-137.
- Bernstein JM. Observations on immune mechanisms in otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1984;8:125-138.
- Bernstein JM, Lee J, Conboy K, Ellis E, Li P. Further observations on the role of IgE-mediated hypersensitivity in recurrent otitis media with effusion. *Otolaryngol Head Neck Surg*. 1985;93:611-615.
- Bernstein JM, Hard R, Cui ZD, So N, Fisher J, Ogra PL. Human adenoidal organ culture: a model to study nontypable *Haemophilus influenzae* (NTHI) and other bacterial interactions with nasopharyngeal mucosa--implications in otitis media. *Otolaryngol Head Neck Surg*. 1990;103:784-791.
- Bernstein JA. Allergic rhinitis. Helping patients lead an unrestricted life. *Postgrad Med*. 1993;93:124-128, 131-132.
- Bernstein JM, Rich GA, Odziemiec C, Ballow M. Are thymus-derived lymphocytes (T cells) defective in the nasopharyngeal and palatine tonsils of children? *Otolaryngol Head Neck Surg*. 1993;109:693-700.
- Bernstein JM. The role of IgE-mediated hypersensitivity in the development of otitis media with effusion: a review. *Otolaryngol Head Neck Surg*. 1993;109:611-620.
- Bernstein JM, Faden HF, Dryja DM, Wactawski-Wende J. Micro-ecology of the nasopharyngeal bacterial flora in otitis-prone and non-otitis-prone children. *Acta Otolaryngol*. 1993;113:88-92.
- Bernstein JM, Doyle WJ. Role of IgE-mediated hypersensitivity in otitis media with effusion: pathophysiologic considerations. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:15-19.
- Bernstein JM, Sagahtaheri-Altaie S, Dryja DM, Wactawski-Wende J. Bacterial interference in nasopharyngeal bacterial flora of otitis-prone and non-otitis-prone children. *Acta Otorhinolaryngol Belg*. 1994;48:1-9.
- Bernstein JA. Otitis media in children [letter]. *N Engl J Med*. 1995;333:1151-1152.
- Bernstein JM. Role of allergy in eustachian tube blockage and otitis media with effusion: a review. *Otolaryngol Head Neck Surg*. 1996;114:562-568.
- Bernstein JM, Bronson PM, Wilson ME. Immunoglobulin G subclass response to major outer membrane proteins of nontypable *Haemophilus influenzae* in children with acute otitis media. *Otolaryngol Head Neck Surg*. 1997;116:363-371.
- Bernstein JM, Ballow M, Xiang S, O'Neil K. Th1/Th2 cytokine profiles in the nasopharyngeal lymphoid tissues of children with recurrent otitis media. *Ann Otol Rhinol Laryngol*. 1998;107:22-27.
- Bertakis KD. An application of the health belief model to patient education and compliance: acute otitis media. *Fam-Med*. 1986;18:347-350.
- Berthold HC, Dzendolet E. Sensed movement to sinusoidal angular and electrical stimulation. *Percept Mot Skills*. 1973;36:23-32.
- Bertin L, Pons G, d'Athis P, et al. A randomized, double-blind, multicentre controlled trial of ibuprofen versus acetaminophen and placebo for symptoms of acute otitis media in children. *Fundam-Clin-Pharmacol*. 1996;10:387-92.
- Bertrand AM, Chaussain JL, Job B, et al. Three years of GH treatment in Turner's syndrome: Complex effect of GH dosage on growth parameters. *Clin Endocrinol*. 1996;44:665-671.
- Berzon DB. Ear disease in a group general practice. A review of world communities. *J Laryngol Otol*. 1983;97:817-824.

- Besing JM, Koehnke J. A test of virtual auditory localization. *Ear Hear*. 1995;16:220-229.
- Bess FH. Impedance screening for children. A need for more research. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:228-232.
- Bess FH. The minimally hearing-impaired child. *Ear Hear*. 1985;6:43-47.
- Bess FH, Klee TM. Unilateral sensorineural hearing loss in children. *Ear Hear*. 1985;7:3-54.
- Beswick AJ, Lawley B, Fraise AP, Pahor AL, Brown NL. Detection of Alloiococcus otitis in mixed bacterial populations from middle-ear effusions of patients with otitis media. *Lancet*. 1999;354:386-389.
- Betow C. Reconstruction of the middle ear and the posterior osseous wall of the auditory canal with homograft (reconstruction of old radical cavities). *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1975;80:573-576.
- Betow C. Use of autograft and homograft TORP and PORP in the reconstruction of the conductive system in the middle ear. *Am J Otol*. 1985;6:331-333.
- Betz BW, Wiener MD. Air in the temporomandibular joint fossa: CT sign of temporal bone fracture. *Radiology*. 1991;180:463-466.
- Bhambhani K, Foulds DM, Swamy KN, Eldis FE, Fischel JE. Acute otitis media in children: are decongestants or antihistamines necessary? *Ann-Emerg-Med*. 1983;12:13-16.
- Bhatnagar RK. Critical evaluation of Per-Lee tubes in children. *J Laryngol Otol*. 1990;104:112-113.
- Bhattacharya J, Bennett MJ, Tucker SM. Long term follow up of newborns tested with the auditory response cradle. *Arch Dis Child*. 1984;59:504-511.
- Bhave CG, Gadre KC, Gharpure BS. Myoglobinuria following the use of succinylcholine. *J Postgrad Med*. 1993;39:157-159.
- Bhaya MH, Schachern PA, Morizono T, Paparella MM. Pathogenesis of tympanosclerosis. *Otolaryngol Head Neck Surg*. 1993;109:413-420.
- Bhoola D, Hugo R. Prevalence: outer and middle ear disorders in black and Indian preschool children from Durban. *South African Journal of Communication Disorders - die Suid-Afrikaanse Tydskrif vir Kommunikasieafwykings*. 1995;42:19-27.
- Bicknell MR, Morgan NV. A clinical evaluation of the Zwislocki acoustic bridge. *J Laryngol Otol*. 1968;82:673-692.
- Bicknell PG. Role of adenotonsillectomy in the management of pediatric ear, nose and throat infections. *Pediatr Infect Dis J*. 1994;13:S75-S79.
- Biedel CW. Modification of recurrent otitis media by short-term sulfonamide therapy. *Am-J-Dis-Child*. 1978;132:681-683.
- Biedlingmaier JF. Otitis media in children. Medical versus surgical treatment. *Postgrad Med*. 1993;93:153-155.
- Biedlingmaier JF. Two ear problems you may not need to refer. Otitis externa and bullous myringitis. *Postgrad Med*. 1994;96:141-145, 148.
- Bierman CW, Pierson WE, Donaldson JA. The evaluation of middle ear function in children. *Am J Dis Child*. 1970;120:233-236.
- Bikhazi P, Ryan AF. Expression of immunoregulatory cytokines during acute and chronic middle ear immune response. *Laryngoscope*. 1995;105:629-634.
- Bingen E, Bourrillon A. [Resistant pneumococci in pediatrics: therapeutic implications]. *Presse Med*. 1995;24:137-142.
- Biolcati AH. An open comparative study of the efficacy and safety of sultamicillin versus cefaclor in the treatment of acute otitis media in children. *J Int Med Res*. 1992;31A:43A.
- Birch L, Elbrond O. Prospective epidemiological investigation of secretory otitis media in children attending day-care centers. *ORL J Otorhinolaryngol Relat Spec*. 1984;46:229-234.
- Birch L, Iversen M, Elbrond O, Lundqvist GR. A prospective epidemiological investigation of secretory otitis media and tubal dysfunction in children attending day-care centers. Serial tympanometry with an interval of two weeks. *ORL J Otorhinolaryngol Relat Spec*. 1984;46:210-216.
- Birch L, Elbrond O. Daily impedance audiometric screening of children in a day-care institution.

- Changes through one month. *Scand Audiol*. 1985;14:5-8.
- Birch L, Elbrond O. Prospective epidemiological study of secretory otitis media in children not attending kindergarten. A prevalence study [published erratum appears in *Int J Pediatr Otorhinolaryngol* 1986 Nov;12(1):113]. *Int J Pediatr Otorhinolaryngol*. 1986;11:191-197.
- Birch L, Elbrond O. Prospective epidemiological study of secretory otitis media in children not attending kindergarten. An incidence study. *Int J Pediatr Otorhinolaryngol*. 1986;11:183-190.
- Birch L, Elbrond O. Prospective epidemiological study of secretory otitis media in children not attending kindergarten. A prevalence study. *Int J Pediatr Otorhinolaryngol*. 1986;11:191-197.
- Birch L, Elbrond O. A prospective epidemiological study of secretory otitis media in young children related to the indoor environment. *ORL J Otorhinolaryngol Relat Spec*. 1987;49:253-258.
- Birch L, Elbrond O. Prospective epidemiological study of common colds and secretory otitis media. *Clin Otolaryngol Allied Sci*. 1987;12:45-48.
- Birck HG, Mravec JJ. Myringostomy for middle ear effusions: Results of a two-year study. *The Annals of Otolaryngology, Rhinology and Laryngology*; 1976:263-267.
- Birkin JA, Adams DA, Flanagan RJ, Higson JM. Hearing disability for speech in noise in OME. *Br J Audiol*. 1998;32.
- Birman CS, Fagan PA. Medial canal stenosis--chronic stenosing external otitis. *Am J Otol*. 1996;17:2-6.
- Birrell JF. Otitis media. *Br Med J*. 1976;1:443-445.
- Bishop DV, Edmundson A. Is otitis media a major cause of specific developmental language disorders? *British Journal of Disorders of Communication*. 1986;21:321-338.
- Bishop DV. The causes of specific developmental language disorder ("development dysphasia"). *J Child Psychol Psychiatry*. 1987;28:1-8.
- Bisset AF, Russell D. Sex and grommet operations. *Clin Otolaryngol*. 1993;18:430-432.
- Bisset AF. Glue ear guidelines [letter; comment]. *Lancet*. 1993;341:57.
- Bisset AF. Persistent glue ear in children [letter; comment]. *Br Med J*. 1993;306:454-455.
- Bisset F. Glue ear surgery in Scottish children 1990-1994: still plenty of ENT and public health challenges. *Clin Otolaryngol*. 1997;22:233-238.
- Bisset A. Treatment of glue ear in general practice [letter; comment]. *Lancet*. 1997;349:134.
- Bitar CN, Steele RW. Use of prophylactic antibiotics in children. *Adv Pediatr Infect Dis*. 1995;10:227-262.
- Bitar CN, Kluka EA, Steele RW. Mastoiditis in children. *Clin Pediatr*. 1996;35:391-395.
- Bitnun A, Allen UD. Medical therapy of otitis media: Use, abuse, efficacy, and morbidity. *J Otolaryngol*. 1998;27:26-36.
- Bjuro-Moller M. School audiometry - methods and goals. *Scand Audiol Suppl*. 1978:13-18.
- Black NA. Is glue ear a modern phenomenon? A historical review of the medical literature. *Clin Otolaryngol Allied Sci*. 1984;9:155-163.
- Black N. Glue ear: the new dyslexia? *Br Med J Clin Res Ed*. 1985;290:1963-1965.
- Black N, Crowther J, Freeland A. The effectiveness of adenoidectomy in the treatment of glue ear: a randomized controlled trial. *Clin-Otolaryngol*. 1986;11:149-155.
- Black MM, Gerson LF, Freeland CA, Nair P, Rubin JS, Hutcheson JJ. Language screening for infants prone to otitis media. *J Pediatr Psychol*. 1988;13:423-433.
- Black B. Complications of chronic glue ears. *Aust Fam Physician*. 1989;18:836-839, 842-843.
- Black NA, Sanderson CF, Freeland AP, Vessey MP. A randomised controlled trial of surgery for glue ear [see comments]. *Br Med J*. 1990;300:1551-1556.
- Black NA, Sanderson CFB, Freeland AP, Vessey MP. A randomised controlled trial of surgery for glue ear. *Br Med J*. 1990;300:1551-1556.

- Black MM, Sonnenschein S. Early exposure to otitis media: a preliminary investigation of behavioral outcome. *J Dev Behav Pediatr*. 1993;14:150-155.
- Black N. Surgery for glue ear: the English epidemic wanes. *J Epidemiol Community Health*. 1995;49:234-237.
- Black B. Mastoidectomy elimination: obliterate, reconstruct, or ablate? *Am J Otol*. 1998;19:551-557.
- Blackston ML, Lovchik JC, Gray WC. Presence of Chlamydia trachomatis in tympanocentesis fluid assessed by immunofluorescence microscopy and cell culture. *Otolaryngol Head Neck Surg*. 1989;100:348-349.
- Blake P, Morrissey G. Canal wall down techniques for managing cholesteatoma. *Aust N Z J Surg*. 1991;61:914-918.
- Blake P, Busby S. Noise levels in New Zealand junior classrooms: their impact on hearing and teaching. *N Z Med J*. 1994;107:357-358.
- Blakley BW, Blakley JE. Smoking and middle ear disease: are they related? A review article [see comments]. *Otolaryngol Head Neck Surg*. 1995;112:441-446.
- Blakley BW, Kim S, VanCamp M. Preoperative hearing predicts postoperative hearing. *Otolaryngol Head Neck Surg*. 1998;119:559-563.
- Blanshard JD, Maw AR, Bawden R. Conservative treatment of otitis media with effusion by autoinflation of the middle ear. *Clin-Otolaryngol*. 1993;18:188-192.
- Blatt IM. Fenestration tympanoplasty: an adjunctive technique for hearing restoration. *Otolaryngology and Head and Neck Surgery*. 1979;87:366-371.
- Blayney AW, Colman BH. Dizziness in childhood. *Clin Otolaryngol Allied Sci*. 1984;9:77-85.
- Blevins NH, Carter BL. Routine preoperative imaging in chronic ear surgery. *Am J Otol*. 1998;19:527-535; discussion 535-538.
- Block SL, Harrison CJ, Hedrick JA, et al. Penicillin-resistant Streptococcus pneumoniae in acute otitis media: risk factors, susceptibility patterns and antimicrobial management. *Pediatr Infect Dis J*. 1995;14:751-759.
- Block JL, Daisy S, Mostaque AK, Waler JA. Index of suspicion. *Pediatr Rev*. 1996;17:181-184.
- Block SL. Causative pathogens, antibiotic resistance and therapeutic considerations in acute otitis media. *Pediatr Infect Dis J*. 1997;16:449-456.
- Block SL, Mandel E, McLinn S, et al. Spectral gradient acoustic reflectometry for the detection of middle ear effusion by pediatricians and parents [published erratum appears in *Pediatr Infect Dis J* 1998 Nov;17(11):1011]. *Pediatr Infect Dis J*. 1998;17:560-564; discussion 580.
- Block SL, Pichichero ME, McLinn S, Aronovitz G, Kimball S. Spectral gradient acoustic reflectometry: detection of middle ear effusion in suppurative acute otitis media. *Pediatr Infect Dis J*. 1999;18:741-744.
- Blomqvist M, Hedstrom SA. The clinical efficacy and safety of bacampicillin twice daily in comparative studies. *J Int Med Res*. 1987;15:32-43.
- Bluestone CD, Beery QC, Paradise JL. Audiometry and tympanometry in relation to middle ear effusions in children. *Laryngoscope*. 1973;83:594-604.
- Bluestone CD, Beery QC. Adenoidectomy in relation to otitis media. *The Annals of Otolaryngology, Rhinology and Laryngology*; 1976:280-284.
- Bluestone CD, Beery QC, Michaels RH, et al. Cefaclor compared with amoxicillin acute otitis media with effusion: a preliminary report. *Postgrad-Med-J*. 1979:42-49.
- Bluestone CD, Cantekin EI. Design factors in the characterization and identification of otitis media and certain related conditions. *Ann Otol Rhinol Laryngol Suppl*. 1979;88:13-28.
- Bluestone CD, Cantekin EI, Douglas GS. Eustachian tube function related to the results of tympanoplasty in children. *Laryngoscope*. 1979;89:450-458.
- Bluestone CD, Cantekin EI. Current clinical methods, indications and interpretation of eustachian tube function tests. *Ann Otol Rhinol Laryngol*. 1981;90:552-562.
- Bluestone CD. Recent advances in the pathogenesis, diagnosis, and management of otitis media. *Pediatr Clin North Am*. 1981;28:727-755.
- Bluestone CD. Chronic otitis media with effusion. *Pediatr Infect Dis*. 1982;1:180-187.

- Bluestone CD. Surgical management of chronic Otitis media with effusion: Myringotomy, tympanostomy tubes, adenoidectomy, and tonsillectomy. *Pediatr Infect Dis*. 1982;1.
- Bluestone CD. Diagnosis of chronic otitis media with effusion: Description, otoscopy, acoustic impedance measurements, and assessment of hearing. *Pediatr Infect Dis*. 1982;1.
- Bluestone CD. Management of chronic otitis media with effusion. *Acta Otorhinolaryngol Belg*. 1983;37:44-56.
- Bluestone CD. Surgical management of otitis media. *Pediatr Infect Dis*. 1984;3:392-396.
- Bluestone CD, Carder HM, Coffey JD, Jr., et al. Consensus: management of the child with a chronic draining ear. *Pediatr Infect Dis*. 1985;4:607-612.
- Bluestone CD, Fria TJ, Arjona SK, et al. Controversies in screening for middle ear disease and hearing loss in children. *Pediatrics*. 1986;77:57-70.
- Bluestone CD, Gates GA, Paradise JL, Stool SE. Controversy over tubes and adenoidectomy. *Pediatr Infect Dis J*. 1988;7:S146-S149.
- Bluestone CD. Otitis media and congenital perilymphatic fistula as a cause of sensorineural hearing loss in children. *Pediatr Infect Dis J*. 1988;7.
- Bluestone CD. Management of otitis media in infants and children: Current role of old and new antimicrobial agents. *Pediatr Infect Dis J*. 1988;7.
- Bluestone CD, Klein JO. Methods of examination: clinical examination. In: Bluestone CD SS, ed. *Pediatric Otolaryngology*. 2nd ed. Philadelphia: WB Saunders; 1990:chapter 3.
- Bluestone CD. Surgery for otitis media: results of randomized clinical trials as related to clinical practice. *Adv-Otorhinolaryngol*. 1992;319-324.
- Bluestone CD. Review of cefixime in the treatment of otitis media in infants and children [see comments]. *Pediatr Infect Dis J*. 1993;12:75-82.
- Bluestone CD. Surgical management of otitis media: current indications and role related to increasing bacterial resistance. *Pediatr Infect Dis J*. 1994;13:1058-1063.
- Bluestone CD, Klein JO, Gates GA. 'Appropriateness' of tympanostomy tubes. Setting the record straight [see comments]. *Arch Otolaryngol Head Neck Surg*. 1994;120:1051-1053.
- Bluestone CD, Klein JO. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA*. 1995;273:697; discussion 700-701.
- Bluestone CD, Klein JO. Clinical practice guideline on otitis media with effusion in young children: strengths and weaknesses [editorial]. *Otolaryngol Head Neck Surg*. 1995;112:507-511.
- Bluestone CD. Pathogenesis of otitis media: role of eustachian tube. *Pediatr Infect Dis J*. 1996;15:281-291.
- Bluestone CD. Definitions, Terminology, and Classification. In: Rosenfeld RM, Bluestone CD, eds. *Evidence-Based Otitis Media*. Saint Louis: B.C. Decker, Inc.; 1999:85-103.
- Blumer JL, Bertino JS, Jr., Husak MP. Comparison of cefaclor and trimethoprim-sulfamethoxazole in the treatment of acute otitis media. *Pediatr-Infect-Dis*. 1984;3:25-29.
- Blumer JL, Mclinn SE, Deabate CA, Kafetzis DA, Perrotta RJ, Salgado O. Multinational multicenter controlled trial comparing ceftibuten with cefaclor for the treatment of acute otitis media. Members of the Ceftibuten Otitis Media International Study Group. *Pediatr Infect Dis J*. 1995;14:S115-S120.
- Blumer JL, Forti WP, Summerhouse TL. Comparison of the efficacy and tolerability of once-daily ceftibuten and twice-daily cefprozil in the treatment of children with acute otitis media. *Clin-Ther*. 1996;18:811-820.
- Blumer JL. Pharmacokinetics and pharmacodynamics of new and old antimicrobial agents for acute otitis media. *Pediatr Infect Dis J*. 1998;17:1070-1075; discussion 1099-1100.
- Blythe LL. Otitis media and interna and temporohyoid osteoarthropathy. *Veterinary Clinics of North America - Equine Practice*. 1997;13:21-42.
- Bobrov VM. [Ear reoperation and surgical tactics after earlier radical operation]. *Vestn Otorinolaringol*. 1994:35-36.

- Bobrov VM. [A combination of exacerbated chronic suppurative epitympanitis and tick-borne encephalitis]. *Vestn Otorinolaringol.* 1996;51-52.
- Bobrov VM. [Analysis of the pathological process in chronic otitis media: surgical tactics]. *Vestn Otorinolaringol.* 1997;49-51.
- Boccazzi A, Borzani M, Scotti L. [Amoxicillin-clavulanic acid combination in bacterial infections of the upper respiratory tract in childhood. Controlled clinical study]. *Pediatr-Med-Chir.* 1988;10:395-400.
- Boccazzi A, Careddu P. Acute otitis media in pediatrics: are there rational issues for empiric therapy? *Pediatr Infect Dis J.* 1997;16:S65-S69.
- Bockmuhl U, Bruchhage KL, Enzmann H. Primary non-Hodgkin's lymphoma of the temporal bone. *Eur Arch Otorhinolaryngol.* 1995;252:376-378.
- Bodner EE, Browning GG, Chalmers FT, Chalmers TC. Can meta-analysis help uncertainty in surgery for otitis media in children. *J Laryngol Otol.* 1991;105:812-819.
- Boedts D, Moerman M, Marquet J. A hairy polyp of the middle ear and mastoid cavity. *Acta Otorhinolaryngol Belg.* 1992;46:397-400.
- Boedts D. Myringitis granulosa. *Acta Otorhinolaryngol Belg.* 1995;49:187-189.
- Boedts D. Tympanic membrane perforations. *Acta Otorhinolaryngol Belg.* 1995;49:149-158.
- Bogomil'skii MR, Sapozhnikov Ia M, Zaslavskii A, Tarutin NP. [The treatment of hypoacusis in children by using a pulsed low-frequency electromagnetic field]. *Vestn Otorinolaringol.* 1996:23-26.
- Bolasco P, Greco A, Monini S. Pharmacological treatment of acute otitis media. *Med Riv Encicl Med Ital.* 1988;8:419-422.
- Boles R. Serous otitis media: thief of hearing and herald of cancer. *Medical Times.* 1966;94:1333-1338.
- Bollag U, Bollag-Albrecht E. Recommendations derived from practice audit for the treatment of acute otitis media [see comments]. *Lancet.* 1991;338:96-99.
- Bollag U, Bollag-Albrecht E, Braun-Fahrlander C. The use of acoustic reflectometry in the study of middle ear effusion in children suffering from acute otitis media, upper respiratory tract infection and in healthy children [see comments]. *Eur J Pediatr.* 1996;155:1027-1030.
- Bonacorsi S, Bingen E. Bactericidal activity of erythromycin associated with sulphisoxazole against the infectious agents most frequently responsible for acute infantile otitis media [letter]. *J Antimicrob Chemother.* 1994;33:885-886.
- Bonadio WA. The evaluation and management of acute otitis media in children. *Am J Emerg Med.* 1994;12:193-206.
- Bonci M, Bozzi A. Mucoregulating therapy in secreting pathologies of the middle ear. *Minerva Med.* 1994;85:83-87.
- Bonci M, Bozzi A. [Mucoregulatory therapy in secreting disease of the middle ear]. *Minerva-Med.* 1994;85:83-87.
- Bonding P, Lorenzen E. Chronic secretory otitis media--long-term results after treatment with grommets. *ORL J Otorhinolaryngol Relat Spec.* 1974;36:227-235.
- Bonding P, Tos M, Poulsen G. Unilateral insertion of grommets in bilateral secretory otitis media. Tympanometric findings after 1 to 3 years. *Acta Oto Laryngologica.* 1982;94.
- Bonding P, Tos M. Grommets versus paracentesis in secretory otitis media. A prospective, controlled study. *Am J Otol.* 1985;6:455-460.
- Boon DA. Medical adventure in Nepal. *J Otolaryngol.* 1980;9:526-533.
- Boon DA. Otology in Nepal. *J Otolaryngol.* 1990;19:372-373.
- Booth JB. Tympanoplasty. Factors affecting results as determined by audiometry and acoustic impedance measurements. *J Laryngol Otol.* 1974;88:625-640.
- Borge P. Atopy and secretory otitis media. Immunological studies and responses to topical corticosteroid therapy. *J Laryngol Otol.* 1983;97:117-129.
- Bosley GS, Whitney AM, Pruckler JM, et al. Characterization of ear fluid isolates of *Alloiooccus* otitidis from patients with recurrent otitis media. *J Clin Microbiol.* 1995;33:2876-2880.

- Boswell JB, Nienhuys TG. Reflectometric screening for otitis media: inconsistencies in a sample of Australian aboriginal children. *Int J Pediatr Otorhinolaryngol*. 1993;25:49-60.
- Boswell J, Nienhuys T, Rickards F, Mathews J. Onset of otitis media in Australian Aboriginal infants in a prospective study from birth. *Australian Journal of Otolaryngology*. 1993;1:232-237.
- Boswell JB, Nienhuys TG. Onset of otitis media in the first eight weeks of life in aboriginal and non-aboriginal Australian infants. *Ann Otol Rhinol Laryngol*. 1995;104:542-549.
- Boswell J. Auditory brainstem response and conductive hearing loss in infants. *Australian Journal of Audiology*. 1995;17:101-106.
- Boswell JB, Nienhuys TG. Patterns of persistent otitis media in the first year of life in aboriginal and non-aboriginal infants. *Ann Otol Rhinol Laryngol*. 1996;105:893-900.
- Boswell J. Presentation of early otitis media in 'Top End' Aboriginal infants. *Aust N Z J Public Health*. 1997;21:100-102.
- Bottaro G, Rotolo N, Bonforte S, et al. [Evaluation of the clinical efficacy of azithromycin in acute respiratory infections in children]. *Clin Ter*. 1994;145:35-39.
- Bottrill ID, Poe DS. Endoscope-assisted ear surgery. *Am J Otol*. 1995;16:158-163.
- Boulesteix J, Begue P, Dubreuil C, et al. Acute otitis media in children: a study of nasopharyngeal carriage of potential pathogens and therapeutic efficacy of cefixime and amoxicillin-clavulanate. *Infection*. 1995;23 Suppl 2:S79-S82.
- Boulesteix J, Dubreuil C, Moutot M, Rezvani Y, Rosebaum M. Cefpodoxime proxetil five days versus cefixime eight days in the treatment of acute otitis media in children. *Medicine Et Maladies Infectieuses*. 1995;25:534-539.
- Bourgeois F, Lambert-Zechovsky N, Bingen E. [Clinical, diagnostic and therapeutic aspects of *Moraxella catarrhalis* infections]. *Pathol Biol*. 1993;41:555-561.
- Bowdler DA, Walsh RM. Comparison of the otoendoscopic and microscopic anatomy of the middle ear cleft in canal wall-up and canal wall-down temporal bone dissections. *Clin Otolaryngol Allied Sci*. 1995;20:418-422.
- Brackmann DE, Sheehy JL, Luxford WM. TORPs and PORPs in tympanoplasty: a review of 1042 operations. *Otolaryngol Head Neck Surg*. 1984;92:32-37.
- Brackmann DE. Tympanoplasty with mastoidectomy: canal wall up procedures. *Am J Otol*. 1993;14:380-382.
- Bradford LJ. Understanding and assessing communicative disorders in children. *J Dev Behav Pediatr*. 1980;1:89-95.
- Bradford BC, Baudin J, Conway MJ, Hazell JW, Stewart AL, Reynolds EO. Identification of sensory neural hearing loss in very preterm infants by brainstem auditory evoked potentials. *Arch Dis Child*. 1985;60:105-109.
- Bradley PJ, Manning KP, Shaw MD. Brain abscess secondary to otitis media. *J Laryngol Otol*. 1984;98:1185-1191.
- Bradley JS, Kaplan SL, Klugman KP, Leggiadro RJ. Consensus: management of infections in children caused by *Streptococcus pneumoniae* with decreased susceptibility to penicillin. *Pediatr Infect Dis J*. 1995;14:1037-1041.
- Braegger CP, Nadal D. Clarithromycin and pseudomembranous enterocolitis [letter]. *Lancet*. 1994;343:241-242.
- Bramble D. Two cases of severe head-banging parasomnias in peripubertal males resulting from otitis media in toddlerhood. *Child Care Health Dev*. 1995;21:247-253.
- Brandes PJ, Ehinger DM. The effects of early middle ear pathology on auditory perception and academic achievement. *J Speech Hear Disord*. 1981;46:301-307.
- Brandow EC, Jr. Revision surgery for the mastoid cavity. *Otolaryngol Clin North Am*. 1974;7:41-56.
- Branger B. [Method of delivery and otitis media (letter; comment)]. *Arch Pediatr*. 1994;1:106-107.
- Brauer H. Ceftriaxone for otitis media [letter; comment]. *Pediatrics*. 1993;92:507-508.

- Bredfeldt RC, Ripani A, Jr. The effect of an office tympanogram on referrals from a primary care setting. *Fam Med*. 1987;19:380-382.
- Breitwieser F. [Results of bacteriologic and mycologic investigations of otitis media in dogs]. *Tierarztl Prax*. 1997;25:257-260.
- Bremond G, Coquin A. Ultrastructure of normal and pathological middle ear mucosa. *J Laryngol Otol*. 1972;86:457-472.
- Brenman AK, Milner RM, Weller CR. Use of hydrogen peroxide to clear blocked ventilation tubes. *Am J Otol*. 1986;7:47-50.
- Brennan DF, Falk JL, Rothrock SG, Kerr RB. Infrared tympanic thermometry in the evaluation of pediatric acute otitis media. *Acad Emerg Med*. 1994;1:354-359.
- Briggs DR, Applebaum EL, Noffsinger D. Eustachian tube function in children. *J Otolaryngol*. 1976;5:12-18.
- Briggs A, Sculpher M. Commentary: Markov models of medical prognosis [comment]. *Br Med J*. 1997;314:354-355.
- Brigino E, Bahna SL. Clinical features of food allergy in infants. *Clin Rev Allergy Immunol*. 1995;13:329-345.
- Brill AH, Martin MM, Fitz-Hugh GS, Constable WC. Postoperative and postradiotherapeutic serous otitis media. *Arch Otolaryngol*. 1974;99:406-408.
- Britton BH. Radiologic evaluation of sensorineural hearing loss. *Otolaryngol Clin North Am*. 1978;11:3-6.
- Brockbank MJ, Jonathan DA, Grant HR, Wright A. Goode T-tubes: do the benefits of their use outweigh their complications? *Clin Otolaryngol Allied Sci*. 1988;13:351-356.
- Brockman SJ. The enigma of secretory otitis media. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1972;76:1296-1304.
- Brockman SJ. Method of reconstruction or preservation of external auditory canal. *Laryngoscope*. 1981;91:883-885.
- Brodie DP, Griggs JV, Cunningham K. Comparative study of cefuroxime axetil suspension and amoxicillin syrup in the treatment of acute otitis media in general practice. *J Int Med Res*. 1990;18:235-239.
- Brodie HA, Chang PS, Chole RA. Dexamethasone inhibition of the development of dysplastic bony lesions in LP/J mice. *Ann Otol Rhinol Laryngol*. 1993;102:814-817.
- Brodsky L, Brookhauser P, Chait D, et al. Office-based insertion of pressure equalization tubes: The role of laser-assisted tympanic membrane fenestration. *Laryngoscope*. 1999;109:2009-2014.
- Broen PA, Moller KT, Carlstrom J, Doyle SS, Devers M, Keenan KM. Comparison of the hearing histories of children with and without cleft palate. *Cleft Palate Craniofac J*. 1996;33:127-133.
- Bronstein JM, Johnson VA, Fargason CA, Jr. Impact of care setting on cost and quality under Medicaid. *J Health Care Poor Underserved*. 1997;8:202-213.
- Brook I, Gober AE. Microbiologic characteristics of persistent otitis media. *Arch Otolaryngol Head and Neck Surgery*. 1350;124:1350-1352.
- Brook I. Role of *Pseudomonas aeruginosa* in chronic suppurative otitis media [letter]. *Pediatr Infect Dis J*. 1993;12:355-356.
- Brook I. Otitis media: microbiology and management. *J Otolaryngol*. 1994;23:269-275.
- Brook I, Van de Heyning PH. Microbiology and management of otitis media. *Scandinavian Journal of Infectious Diseases - Supplementum*. 1994;93:20-32.
- Brook I. Management of chronic suppurative otitis media: superiority of therapy effective against anaerobic bacteria. *Pediatr Infect Dis J*. 1994;13:188-193.
- Brook I, Yocum P. Bacteriology and beta-lactamase activity in ear aspirates of acute otitis media that failed amoxicillin therapy. *Pediatr Infect Dis J*. 1995;14:805-808.
- Brook I. Anaerobic infections in children with neurological impairments. *Am J Ment Retard*. 1995;99:579-594.
- Brook I. Role of anaerobic bacteria in chronic otitis media and cholesteatoma. *Int J Pediatr Otorhinolaryngol*. 1995;31:153-157.

- Brook I, Santosa G. Microbiology of chronic suppurative otitis media in children in Surabaya, Indonesia. *Int J Pediatr Otorhinolaryngol*. 1995;31:23-28.
- Brook I. Clostridial infection in children. *J Med Microbiol*. 1995;42:78-82.
- Brook I, Gober AE. Prophylaxis with amoxicillin or sulfisoxazole for otitis media: effect on the recovery of penicillin-resistant bacteria from children. *Clin Infect-Dis*. 1996;22:143-145.
- Brook I, Frazier EH. Microbial dynamics of persistent purulent otitis media in children. *J Pediatr*. 1996;128:237-240.
- Brook I, Gober AE. Bacterial colonization of pacifiers of infants with acute otitis media. *J Laryngol Otol*. 1997;111:614-615.
- Brook I, Yocum P. Bacterial interference in the adenoids of otitis media-prone children. *Pediatr Infect Dis J*. 1999;18:835-836.
- Brooker DS, McNeice A. Autoinflation in the treatment of glue ear in children. *Clin Otolaryngol Allied Sci*. 1992;17:289-290.
- Brookhouser PE, Hixson PK, Matkin ND. Early childhood language delay: the otolaryngologist's perspective. *Laryngoscope*. 1979;89:1898-1913.
- Brookhouser PE, Goldgar DE. Medical profile of the language-delayed child: otitis-prone versus otitis-free. *Int J Pediatr Otorhinolaryngol*. 1987;12:237-271.
- Brookhouser PE, Worthington DW, Kelly WJ. Middle ear disease in young children with sensorineural hearing loss. *Laryngoscope*. 1993;103:371-378.
- Brookhouser PE. Use of tympanometry in office practice for diagnosis of otitis media. *Pediatr Infect Dis J*. 1998;17:544-551; discussion 580.
- Brooks DN, Dogra TS. Long term results of treatment of middle ear effusion. *J Laryngol Otol*. 1980;94:1107-1115.
- Brooks DN. A new approach to identification audiometry. *Audiology*. 1971;10:334-339.
- Brooks DN. Electroacoustic impedance bridge studies on normal ears of children. *J Speech Hear Res*. 1971;14:247-253.
- Brooks DN. Impedance bridge studies on normal hearing and hearing-impaired children. *Acta Otorhinolaryngol Belg*. 1974;28:140-145.
- Brooks DN. Middle ear effusion in children. *J Otolaryngol*. 1976;5:453-458.
- Brooks DN. School screening for middle ear effusions. *Ann Otol Rhinol Laryngol*. 1976;85:223-228.
- Brooks DN. Auditory screening--time for reappraisal. *Public Health*. 1977;91:282-288.
- Brooks DN. Middle-ear impedance measurements in screening. *Audiology*. 1977;16:288-293.
- Brooks DN. Otitis media and child development. Design factors in the identification and assessment of hearing loss. *Ann Otol Rhinol Laryngol*. 1979;88:29-47.
- Brooks DN. Possible long-term consequences of middle ear effusion. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:246-248.
- Brooks DN, Dogra TS. Long term results of treatment of middle ear effusion. *J Laryngol Otol*. 1980;94:1107-1115.
- Brooks DN. Development of school screening audiometry. *Br J Audiol*. 1981;15:283-290.
- Brooks DN. Four years of British audiology. *Br J Audiol*. 1984;18:1-5.
- Brooks DN. Acoustic impedance measurement as screening procedure in children: discussion paper. *J R Soc Med*. 1985;78:119-121.
- Brooks DN. Otitis media with effusion and academic attainment. *Int J Pediatr Otorhinolaryngol*. 1986;12:39-47.
- Brostoff C, Cantekin EI. Observer invariant diagnosis of middle ear effusion. In: Lim D ea, ed. *Recent Advances in Otitis Media: Proceedings of the Fourth International Symposium*. Bar Harbor, Main: BC Decker; 1988:47-49.
- Brown M. E.N.T. disease among Australian aborigines. The extent of E.N.T. disease in the

- aboriginal population of the northern territory. *J Otolaryngolog Soc Aust.* 1972;3:327-329.
- Brown MJ, Richards SH, Ambegaokar AG. Grommets and glue ear: a five-year follow up of a controlled trial. *J-R-Soc-Med.* 1978;71:353-356.
- Brown HM. Glue ear guidelines [letter; comment]. *Lancet.* 1993;341:57.
- Brown JA. Management of ventilation tubes: preventing premature extrusion. *Journal - South Carolina Medical Association.* 1993;89:427-430.
- Brown DP. Speech recognition in recurrent otitis media: results in a set of identical twins. *J Am Acad Audiol.* 1994;5:1-6.
- Brown JL. Humming test for conductive hearing loss [letter]. *Lancet.* 1995;346:128.
- Browning GG, Picozzi GL, Calder IT, Sweeney G. Controlled trial of medical treatment of active chronic otitis media. *Br Med J Clin Res Ed.* 1983;287:1024.
- Browning GG, Gatehouse S. Acoustical characteristics of surgically altered human temporal bones. *Clin Otolaryngol Allied Sci.* 1984;9:87-91.
- Browning GG. Is there still a role for tuning-fork tests? *Br J Audiol.* 1987;21:161-163.
- Browning GG, Gatehouse S, Calder IT. Medical management of active chronic otitis media: a controlled study. *J Laryngol Otol.* 1988;102:491-495.
- Browning GG, Gatehouse S. Hearing in chronic suppurative otitis media. *Ann Otol Rhinol Laryngol.* 1989;98:245-250.
- Browning GG. The effect of anaesthesia on tympanograms of children undergoing grommet insertion. *Clin. Otolaryngol.* 17, 200-202 [letter; comment]. *Clin Otolaryngol.* 1994;19:174.
- Browning GG. Choice, advice and assessment of patients for ear surgery. *J R Soc Med.* 1996;89:571-576.
- Browning GG. Do patients and surgeons agree?: the Gordon Smyth Memorial Lecture. *Clin Otolaryngol Allied Sci.* 1997;22:485-496.
- Brownlee RC, Jr., DeLoache WR, Cowan CC, Jr., Jackson HP. Otitis media in children. Incidence, treatment, and prognosis in pediatric practice. *J Pediatr.* 1969;75:636-642.
- Broydhouse N. Bromhexine in the Treatment of Otitis Media with Effusion. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:265-269.
- Bruyette DS, Lorenz MD. Otitis externa and otitis media: diagnostic and medical aspects. *Seminars in Veterinary Medicine and Surgery (Small Animal).* 1993;8:3-9.
- Bryan DC. An investigation into the accuracy and validity of three points used in the assessment of autorotation in orthognathic surgery. *Br J Oral Maxillofac Surg.* 1994;32:363-372.
- Bubon MS. Documented instance of restored conductive hearing loss. *Functional Orthodontist.* 1995;12:26-29.
- Buchman E, Rosenhouse G, Shupak A, Shimoni U. On the transmission of sound generated by an electromagnetic device from the mastoid process to the petrous bone. *J Acoust Soc Am.* 1991;90:895-903.
- Buchman CA, Doyle WJ, Swarts JD. Eustachian tube function in the ferret. *Acta Otolaryngol.* 1993;113:75-80.
- Buchman CA, Stool SE. Functional-anatomic correlation of eustachian tube obstruction related to the adenoid in a patient with otitis media with effusion: a case report. *Ear Nose Throat J.* 1994;73:835-838.
- Buchman CA, Doyle WJ, Skoner D, Fireman P, Gwaltney JM. Otologic manifestations of experimental rhinovirus infection. *Laryngoscope.* 1994;104:1295-1299.
- Buchman CA, Doyle WJ, Skoner DP, et al. Influenza A virus--induced acute otitis media. *J Infect Dis.* 1995;172:1348-1351.
- Buchman CA, Swarts JD, Seroky JT, Panagiotou N, Hayden F, Doyle WJ. Otologic and systemic manifestations of experimental influenza A virus infection in the ferret. *Otolaryngol Head Neck Surg.* 1995;112:572-578.
- Buchwach KA, Birck HG. Serous Otitis Media and Type 1 Tympanoplasties in Children: A Retrospective Study. . *Proceedings of the Second*

International Symposium: Recent Advances in Otitis Media with Effusion; 1980:324-325.

Buck SH, Mahoney MC, Ginsberg IA, Hoffman SR, White T. Correlates of cochlear implantation, 1986-1992. *Otolaryngol Head Neck Surg*. 1996;114:22-26.

Buckingham RA, Valvassori GE. Correlation of surgical and tomographic findings in cholesteatoma of the middle ear and mastoid. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1967;71:673-681.

Buckingham RA, Valvassori GE. Tomographic and surgical pathology of cholesteatoma. *Arch Otolaryngol*. 1970;91:464-469.

Buckingham RA, Ferrer JL. Observations of middle ear pressures. Commentary with movie. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:56-61.

Buckingham RA. Middle ear gas generation in myringoplasties. *Ann Otol Rhinol Laryngol*. 1990;99:335-336.

Buckley G, Hinton A. Otitis media with effusion in children shows a progressive resolution with time. *Clin Otolaryngol Allied Sci*. 1991;16:354-357.

Buckley KM, Taylor GA, Estroff JA, Barnewolt CE, Share JC, Paltiel HJ. Use of the mastoid fontanelle for improved sonographic visualization of the neonatal midbrain and posterior fossa. *AJR. American Journal of Roentgenology*. 1997;168:1021-1025.

Buffin JT. Ear infections. *Practitioner*. 1979;223:776-780.

Buhrer K, Wall LG, Schuster L. The acoustic reflectometer as a screening device: a comparison. *Ear Hear*. 1985;6:307-314.

Bull TR, McKelvie P. Irradiation treatment of secretory otitis media: recent experience. *J Laryngol Otol*. 1968;82:745-756.

Bullido Gomez de las Heras E, Domingo Carrasco C, Guerrero Rios JA, et al. [The mastoid surgery in children at the Doce de Octubre Hospital. Review of the years 1988-1991]. *Acta Otorrinolaringol Esp*. 1994;45:237-242.

Bulman CH, Brook SJ, Berry MG. A prospective randomized trial of adenoidectomy vs grommet

insertion in the treatment of glue ear. *CLIN-OTOLARYNGOL*. 1984;9:67-75.

Bundo J, Watanabe N, Yoshida K, Mogi G. Study on adhesion factors in lymphocyte migration to the middle ear mucosa. *Ann Otol Rhinol Laryngol*. 1996;105:795-803.

Bunse T, Hildmann H, Zan W, Opferkuch W. An immunological study of otitis media with effusion. Antibodies directed against coagulase-negative staphylococci in the effusion fluid. *Arch Otorhinolaryngol*. 1987;244:123-126.

Burch JV, Leveille AS, Morse PH. Ichthyosis hystrix (epidermal nevus syndrome) and Coats' disease. *Am J Ophthalmol*. 1980;89:125-130.

Burggraaff B, Luxford WM, Doyle KJ. Neurotologic treatment of acquired cholesteatoma. *Am J Otol*. 1995;16:480-485.

Burke P. The diagnosis and management of the discharging ear. *Practitioner*. 1989;233:742, 744, 746.

Burke P, Jones W. Pneumatic otoscopy in the diagnosis of middle ear effusion: the use of video as a teaching aid. *J Audiov Media Med*. 1989;12:26-28.

Burke P. Otitis media with effusion: is medical management an option? *J R Coll Genl Practitioners*. 1989;39:377-382.

Burke P, Bain J, Robinson D, Dunleavey J. Acute red ear in children: controlled trial of non-antibiotic treatment in general practice. *Br Med J*. 1991;303:558-562.

Burton DM, Seid AB, Kearns DB, Pransky SM. Neonatal otitis media. An update. *Arch Otolaryngol Head Neck Surg*. 1993;119:672-675.

Burton MJ, Shepherd RK, Xu SA, Xu J, Franz BK, Clark GM. Cochlear implantation in young children: histological studies on head growth, leadwire design, and electrode fixation in the monkey model. *Laryngoscope*. 1994;104:167-175.

Bush PJ, Rabin DL, Spector KK. Evaluation of a drug therapy protocol in an HMO. *Med Care*. 1979;17:566-577.

Bushong SC, Glaze SA, Foster JK, Copley RL, Miller JT. Panoramic dental radiography for mass screening? *Health Phys*. 1973;25:489-494.

- Buslau M, Biermann H, Shah PM. [Gram-positive septic-toxic shock with bullae. Intraepidermal splitting as an indication of toxin effect]. *Hautarzt*. 1996;47:783-789.
- Byers VW. Conductive SISI test. *Ann Otol Rhinol Laryngol*. 1974;83:125-127.
- Bylander A. Function and dysfunction of the eustachian tube in children. *Acta Otorhinolaryngol Belg*. 1984;38:238-245.
- Bylander A. Upper respiratory tract infection and eustachian tube function in children. *Acta Otolaryngol*. 1984;97:343-349.
- Bylander-Groth A, Stenstrom C. Eustachian tube function and otitis media in children. *Ear Nose Throat J*. 1998;77.
- Byrns PJ, Bondy J, Glazner JE, Berman S. Utilization of services for otitis media by children enrolled in Medicaid. *Arch Pediatr Adolesc Med*. 1997;151:407-413.
- Caffarelli C, Cavagni G, Giordano S, Savini E, Piacentini G. Increased nasal eosinophils in children with otitis media with effusion. *Otolaryngol Head Neck Surg*. 1996;115:454-457.
- Caffarelli C, Savini E, Giordano S, Gianlupi G, Cavagni G. Atopy in children with otitis media with effusion. *Clin Exp Allergy*. 1998;28:591-596.
- Caldarelli DD. Incidence and type of otopathology associated with congenital palatopharyngeal incompetence. *Laryngoscope*. 1978;88:1970-1982.
- Calderon E, Gatica R, Echaniz G, et al. Treatment of presumed bacterial pneumonia in ambulatory children. *Clin-Ther*. 1991;13:699-706.
- Callahan CW, Jr., Lazowitz S. Otitis media and language development. *Am Fam Physician*. 1988;37:186-190.
- Cameron GG, Pomahac AC, Johnston MT. Comparative efficacy of ampicillin and trimethoprim-sulfamethoxazole in otitis media. *Can-Med-Assoc-J*. 1975;112:87-88.
- Camilleri AE, Swan IR, Sturrock R. Chronic otitis media and ankylosing spondylitis: an HLA association? *Clin Otolaryngol Allied Sci*. 1991;16:364-366.
- Campagnari AA, Ducey TF, Rebmann CA. Outer membrane protein B1, an iron-repressible protein conserved in the outer membrane of *Moraxella* (Branhamella) catarrhalis, binds human transferrin. *Infect Immun*. 1996;64:3920-3924.
- Campbell JP, Pillsbury HCd. The use of computerized tomographic imaging in revision mastoid surgery for chronic otitis media. *Am J Otol*. 1990;11:387-394.
- Campbell JB, Nigam A. Hearing aid prescribing: is the specialist opinion necessary? *Clin Otolaryngol Allied Sci*. 1991;16:124-127.
- Campbell G, Renner G, Estrem SA. Bilateral aberrant internal carotid arteries. *Otolaryngol Head Neck Surg*. 1992;107:124-128.
- Campbell DG, Daniel HJd, Hume WG. Aging and otitis media as sources of variance in the rat auditory brainstem response. *Hear Res*. 1993;70:127-130.
- Campbell N, Hugo R, Uys I, Hanekom J, Millard S. Early recurrent otitis media, language and central auditory processing in children. *South African Journal of Communication Disorders - die Suid-Afrikaanse Tydskrif vir Kommunikasieafwykings*. 1995;42:73-84.
- Campos MA, Arias A, Rodriguez C, et al. Etiology and therapy of chronic suppurative otitis. *J Chemother*. 1995;7:427-431.
- Canafax DM, Russlie H, Lovdahl MJ, Erdmann GR, Le CT, Giebink GS. Comparison of two otitis media models for the study of middle ear antimicrobial pharmacokinetics. *Pharm Res*. 1994;11:855-859.
- Canafax DM, Giebink GS. Antimicrobial treatment of acute otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:11-14.
- Cannon CR. Early otorrhea following ear tube insertion. *J-Miss-State-Med-Assoc*. 1997;38:39-43.
- Cannoni M, Bonfils P, Sednaoui P, Sevenier F, Joubert-Collin M, Nisse DS. Cefotiam hexetil versus amoxicillin/clavulanic acid for the treatment of chronic otitis media in adults. EFFICACITE ET TOLERANCE DU CEFOTIAM HEXETIL VERSUS AMOXICILLINE/ACIDE CLAVULANIQUE DANS LE TRAITEMENT DE L'OTITE MOYENNE CHRONIQUE DE L'ADULTE. *Medecine Et Maladies Infectieuses*. 1997;27:915-921.

- Cantekin EI, Beery QC, Bluestone CD. Tympanometric patterns found in middle ear effusions. *Ann Otol Rhinol Laryngol Suppl.* 1977;86:16-20.
- Cantekin EI, Bluestone CD, Rockette HE, Beery QC. Effect of decongestant with or without antihistamine on eustachian tube function. *Ann-Otol-Rhinol-Laryngol-Suppl.* 1980;89:290-295.
- Cantekin EI, Bluestone CD, Fria TJ, Stool SE, Beery QC, Sabo DL. Identification of otitis media with effusion in children. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:190-196.
- Cantekin EI, Mandel EM, Bluestone CD, et al. Lack of efficacy of a decongestant-antihistamine combination for otitis media with effusion ("secretory" otitis media) in children. Results of a double-blind, randomized trial. *N Engl J Med.* 1983;308:297-301.
- Cantekin EI. Algorithm for diagnosis of otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1983;92:6.
- Cantekin EI. Antibiotics for secretory otitis media (I). *Arch Otolaryngol Head and Neck Surgery.* 1990;116:626-628.
- Cantekin EI, McGuire TW, Griffith TL. Antimicrobial therapy for otitis media with effusion ('secretory' otitis media) [see comments]. *JAMA.* 1991;266:3309-3317.
- Cantekin EI, McGuire TW, Griffith TL. Antimicrobial therapy for otitis media with effusion ('secretory' otitis media). *JAMA.* 1991;266:3309-3317.
- Cantekin EI. Antimicrobial therapy for otitis media with effusion: the Pittsburgh response [letter; comment]. *JAMA.* 1993;270:449; discussion 450.
- Cantekin EI. Antibiotics to prevent acute otitis media and to treat otitis media with effusion [letter; comment]. *JAMA.* 1994;272:203-204.
- Cantekin EI. Otitis media [letter; comment]. *Arch Otolaryngol Head Neck Surg.* 1995;121:702-704.
- Cantekin EI. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA.* 1995;273:697-698; discussion 700-701.
- Cantekin EI. Bacterial DNA fragments in otitis media with effusion [letter; comment]. *JAMA.* 1996;275:186.
- Cantekin EI. Ceftriaxone for acute otitis media [letter]. *Pediatrics.* 1997;100:157-158.
- Cantekin EI. Treatment of glue ear in general practice [letter; comment]. *Lancet.* 1997;349:133-134.
- Cantekin EI, Linder TE. Aggressive and ineffective therapy for otitis media. *Oto Rhino Laryngologia Nova.* 1998;8:136-147.
- Canterbury DR. Public health audiology in rural Alaska: an interagency approach. *ASHA.* 1978;20:887-890.
- Cantor RM. Otitis externa and otitis media. A new look at old problems. *Emerg Med Clin North Am.* 1995;13:445-455.
- Capo OA. Serous otitis media in children. Importance of prevention and early diagnosis. *Ohio State Medical Journal.* 1970;66:1112-1114.
- Capper JW, Slack RW, Maw AR. Tuning fork tests in children (an evaluation of their usefulness). *J Laryngol Otol.* 1987;101:780-783.
- Caprio D, Strunski V, Batteur B, et al. [Audiometric results of 81 ossiculoplasties after tympanoplasty with closed technique in chronic cholesteatomatous otitis]. *Ann Otolaryngol Chir Cervicofac.* 1995;112:107-117.
- Carbonell Sanchis R, Marco Algarra J. [Influence of secretory otitis media on mastoid pneumatization. Multiple regression analysis]. *Acta Otorrinolaringol Esp.* 1996;47:209-212.
- Careddu P, Bellosta C, Tonelli P, Boccazzi A. Efficacy and tolerability of brodimoprim in pediatric infections. *J Chemother.* 1993;5:543-545.
- Carlin WV, Lesser TH, John DG, et al. Systemic antibiotic prophylaxis and reconstructive ear surgery. *Clin-Otolaryngol.* 1987;12:441-446.
- Carlin SA, Marchant CD, Shurin PA, Johnson CE, Murdell-Panek D, Barenkamp SJ. Early recurrences of otitis media: reinfection or relapse? [published erratum appears in J Pediatr 1987 Apr;110(4):668]. *J Pediatr.* 1987;110:20-25.

- Carlson LH and Stool SE. Diagnosis. In: Rosenfeld RM and Bluestone CD, editors. Evidence-Based Otitis Media. Saint Louis, B.C.: Decker Inc.; 1999. p. 105-116.
- Carlsson B, Lundberg C, Ohlsson K. Protease inhibitors in middle ear effusions. *Ann Otol Rhinol Laryngol.* 1981;90:38-41.
- Carr R. Radiological aspects of recurrent meningitis. *Proceedings of the Royal Society of Medicine.* 1974;67:1147-1150.
- Carre P, Wodey E, Lucas MM, Colin L, Gruel Y, Malledant Y. [Septic thrombophlebitis of the lateral sinus: a rare but severe complication of mastoiditis in children]. *Cah Anesthesiol.* 1996;44:231-234.
- Carroll WL, Farrell MK, Singer JI, Jackson MA, Lobel JS, Lewis ED. Treatment of occult bacteremia: a prospective randomized clinical trial. *Pediatrics.* 1983;72:608-612.
- Carroll K, Reimer L. Microbiology and laboratory diagnosis of upper respiratory tract infections [see comments]. *Clin Infect Dis.* 1996;23:442-448.
- Carter JA. Correction of deafness. *J Med Assoc Ga.* 1971;60:330-332.
- Carter LC, Haller AD, Calamel AD, Pfaffenbach AC. Zygomatic air cell defect (ZACD). Prevalence and characteristics in a dental clinic outpatient population. *Dento-Maxillo-Facial Radiology.* 1999;28:116-122.
- Casellas JM, Rodriguez HA, Fernandez MacLoughlin GJ, Lanoel JL, Iribarren A. Efficacy of roxithromycin in the treatment of acute otitis media in infants. *Br J Clin Pract.* 1988;42:113-114.
- Cass R, Kaplan P. Middle ear disease and learning problems: a school system's approach to early detection. *J Sch Health.* 1979;49:557-560.
- Casselbrant ML, Brostoff LM, Cantekin EI, et al. Otitis media with effusion in preschool children. *Laryngoscope.* 1985;95:428-436.
- Casselbrant ML, Brostoff LM, Cantekin EI, Ashoff VM, Bluestone CD. Incidence, prevalence, and natural history of otitis media in children in Pittsburgh. *Ann Otol Rhinol Laryngol.* 1990;99:28-29.
- Casselbrant ML, Kaleida PH, Rockette HE, et al. Efficacy of antimicrobial prophylaxis and of tympanostomy tube insertion for prevention of recurrent acute otitis media: results of a randomized clinical trial [see comments]. *Pediatr Infect Dis J.* 1992;11:278-286.
- Casselbrant ML, Kaleida PH, Rockette HE, et al. Efficacy of antimicrobial prophylaxis and of tympanostomy tube insertion for prevention of recurrent acute otitis media: Results of a randomized clinical trial. *Pediatr Infect Dis J.* 1992;11:278-286.
- Casselbrant ML, Mandel EM, Kurs-Lasky M, Rockette HE, Bluestone CD. Otitis media in a population of black American. And white American infants, 0-2 years of age. *Int J Pediatr Otorhinolaryngol.* 1995;33:1-16.
- Casselbrant ML, Furman JM, Rubenstein E, Mandel EM. Effect of otitis media on the vestibular system in children. *Ann Otol Rhinol Laryngol.* 1995;104:620-624.
- Casselbrant MI, Mandel EM, Kurs-Lasky M, Bluestone CD. Efficacy of ceftibuten compared with amoxicillin for otitis media with effusion in infants and children. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:229-231.
- Casselbrant ML, Redfern MS, Furman JM, Fall PA, Mandel EM. Visual-induced postural sway in children with and without otitis media. *Ann Otol Rhinol Laryngol.* 1998;107:401-405.
- Casselman JW, Ars B, Van de Heyning P, Koekelkoren E. Preoperative computed tomography in patients requiring a bone-anchored hearing aid. *Eur Arch Otorhinolaryngol.* 1995;252:401-404.
- Castiglia PT, Aquilina SS, Kemsley M. Focus: nonsuppurative otitis media. *Pediatr Nurs.* 1983;9:427-431.
- Castillo M, Albernaz VS, Mukherji SK, Smith MM, Weissman JL. Imaging of Bezold's abscess. *AJR. American Journal of Roentgenology.* 1998;171:1491-1495.
- Castro R, Robinson N, Klein J, Geimeier W. Malignant external otitis and mastoiditis associated with an IgG4 subclass deficiency in a child. *Del Med J.* 1990;62:1417-1421.
- Catlin FI. Prevention of hearing impairment from infection and ototoxic drugs. *Arch Otolaryngol.* 1985;111:377-384.

- Cavaliere F, Masieri S, Liberini L, Proietti R, Magalini SI. Tympanometry for middle-ear effusion in unconscious ICU patients. *Eur J Anaesthesiol*. 1992;9:71-75.
- Cavaliere F, Masieri S. Chronic middle ear effusion after prolonged intubation [letter]. *Anaesthesia*. 1994;49:641-642.
- Cavanaugh RM, Jr. Pediatricians and the pneumatic otoscope: are we playing it by ear? *Pediatrics*. 1989;84:362-364.
- Cavanaugh RMJ. Quantitative pneumatic otoscopy in pediatric patients with normal and abnormal tympanic membrane mobility. ; 1992:39-40.
- Caye-Thomasen P, Hermansson A, Tos M, Prellner K. Changes in goblet cell density in rat middle ear mucosa in acute otitis media. *Am J Otol*. 1995;16:75-82.
- Caye-Thomasen P, Hermansson A, Tos M, Prellner K. Polyp pathogenesis--a histopathological study in experimental otitis media. *Acta Otolaryngol*. 1995;115:76-82.
- Caye-Thomasen P, Tos M. Mast cell clusters in pars tensa membranae tympani in acute otitis media: a possible role in perforation healing. *Acta Otolaryngol*. 1996;116:845-849.
- Caye-Thomasen P, Hermansson A, Tos M, Prellner K. Penicillin reduces secretory capacity in rat middle ear mucosa in acute otitis media. *Am J Otol*. 1996;17:354-359.
- Caye-Thomasen P, Hermansson A, Tos M, Prellner K. Pathogenesis of middle ear adhesions. *Laryngoscope*. 1996;106:463-469.
- Caylan R, Titiz A, Falcioni M, et al. Myringoplasty in children: factors influencing surgical outcome. *Otolaryngol Head Neck Surg*. 1998;118:709-713.
- Celakovsky P, Chrobok V. Causes of a positive pressure in the cavity of the middle ear in tympanometric examinations. *Otorinolaryngologie a Foniatrie*. 1997;46:107-110.
- Celakovsky P, Chrobok V, Vokurka J. Contemporary views on treatment of chronic secretory otitis - Evaluation of questionnaire survey. *Otorinolaryngol Foniatr*. 1999;48:10-14.
- Celen Z, Kanlykama M, Bayazit AY, Mumbuc BS, Zincirkeser S, Ozbay E. Scintigraphic evaluation of the Eustachian tube functions. *Rev Laryngol Otol Rhinol*. 1999;120:123-125.
- Chalat NI, Lounsbury E. A hearing phenomenon and secretory otitis. *Laryngoscope*. 1966;76:983-992.
- Chalmers D, Stewart A, Silva P, Mulvena A. Otitis media with effusion in children-the Dunedin study. In: Publications BS, ed. Oxford: Macketh Press; 1989.
- Chamberlain JM, Grandner J, Rubinoff JL, Klein BL, Waisman Y, Huey M. Comparison of a tympanic thermometer to rectal and oral thermometers in a pediatric emergency department. *Clin-Pediatr-Phila*. 1991;30:24-29; discussion.
- Chamberlain JM, Boenning DA, Waisman Y, Ochsenschlager DW, Klein BL. Single-dose ceftriaxone versus 10 days of cefaclor for otitis media. *Clin-Pediatr-Phila*. 1994;33:642-646.
- Chambers RD, Rowan LE, Matthies ML, Novak MA. Auditory brain-stem responses in children with previous otitis media. *Arch Otolaryngol Head Neck Surg*. 1989;115:452-457.
- Chan SC. Reconstructive middle-ear surgery for chronic otitis media. *Ann Acad Med Singapore*. 1980;9:367-373.
- Chan J, Mak KL, Saw D. Sinus histiocytosis with massive lymphadenopathy, a report of 2 cases in Chinese. *Pathology*. 1985;17:609-612.
- Chan KH, Cantekin EI, Karnavas WJ, Bluestone CD. Autoinflation of eustachian tube in young children. *Laryngoscope*. 1987;97:668-674.
- Chan KH, Mandel EM, Rockette HE, et al. A comparative study of amoxicillin-clavulanate and amoxicillin. Treatment of otitis media with effusion. *Arch Otolaryngol Head Neck Surg*. 1988;114:142-146.
- Chan KH, Bluestone CD. Lack of efficacy of middle-ear inflation: treatment of otitis media with effusion in children. *Otolaryngol-Head-Neck-Surg*. 1989;100:317-323.
- Chan KH, Swarts JD, Doyle WJ, Wolf GL. Assessment of middle-ear status during experimental otitis media using magnetic resonance imaging. *Arch*

- Otolaryngol Head and Neck Surgery*. 1991;117:91-95.
- Chan KH, Bluestone CD, Tan LS, Reisinger KS, Blatter MM, Fall PA. Comparative study of sultamicillin and amoxicillin-clavulanate: treatment of acute otitis media. *Pediatr Infect Dis J*. 1993;12:24-28.
- Chan KH, Swarts JD, Rudoy R, Dever GJ, Mesubed Y. Otitis media in the Republic of Palau. A case-series study. *Arch Otolaryngol Head Neck Surg*. 1993;119:425-428.
- Chan KH, Swarts JD, Tan L. Middle ear mucosal inflammation: an in vivo model. *Laryngoscope*. 1994;104:970-980.
- Chan LS, Takata GS, Shekelle P, Morton SC, Mason W, Marcy SM. Evidence assessment of management of acute otitis media: II. Research gaps and priorities for future research. *Pediatrics*. (In Press).
- Chandler JR. Intratympanic glomus tumors--diagnostic work-up and new surgical approach. *Laryngoscope*. 1967;77:562-574.
- Chandler JR, Grobman L, Quencer R, Serafini A. Osteomyelitis of the base of the skull. *Laryngoscope*. 1986;96:245-251.
- Chang SO, Jang YJ, Rhee CK. Effects of middle ear effusion on transient evoked otoacoustic emissions in children. *Auris Nasus Larynx*. 1998;25:243-247.
- Chang P, Fagan PA, Atlas MD, Roche J. Imaging destructive lesions of the petrous apex. *Laryngoscope*. 1998;108:599-604.
- Chao WY, Wu CC. Hearing impairment in chronic otitis media with cholesteatoma. *J Formos Med Assoc*. 1994;93:866-869.
- Chao WY, Leung HW. Effects of irradiation on the rat middle ear mucosa. A scanning electron microscopic study. *Eur Arch Otorhinolaryngol*. 1995;252:244-248.
- Chao WY, Shen CL. Ultrastructure of the middle ear mucosa in patients with chronic otitis media with cholesteatoma. *Eur Arch Otorhinolaryngol*. 1996;253:56-61.
- Chao WY, Chang SJ. Ultrastructure of eustachian tube mucosa in chronic otitis media with cholesteatoma. *Am J Otolaryngol*. 1996;17:161-166.
- Chao YH, Yun SH, Shin JO, Yoon JY, Lee DM. Cochlear fistula in chronic otitis media with cholesteatoma. *Am J Otol*. 1996;17:15-18.
- Chaput de Saintonge DM, Levine DF, Savage IT, et al. Trial of three-day and ten-day courses of amoxicillin in otitis media. *Br Med J Clin Res Ed*. 1982;284:1078-1081.
- Chaput de Saintonge DM, Hattersley LA. Antibiotics for otitis media: can we help doctors agree? *Fam Pract*. 1985;2:205-212.
- Charachon R. Cholesteatoma, epidermization: choice between closed and obliteration technique. *Clin Otolaryngol Allied Sci*. 1978;3:363-367.
- Charachon R, Gratacap B. The surgical treatment of cholesteatoma in children. *Clin Otolaryngol Allied Sci*. 1985;10:177-184.
- Charachon R, Gratacap B, Elbaze D. Anatomical and functional reconstruction of old radical mastoidectomy cavities by obliteration tympanoplasty. *Clin Otolaryngol Allied Sci*. 1989;14:121-126.
- Charachon R, LeJeune JM, Bouchal H. Reconstruction of radical mastoidectomy by obliteration technique. *Ear Nose Throat J*. 1991;70:830-838.
- Charles L, Segreti J. Choosing the right macrolide antibiotic. A guide to selection. *Drugs*. 1997;53:349-357.
- Chayapham S, Stuart J, Chongsuvivatwong V, Chinairoj S, Lim A. A study of the prevalence of and risk factors for ear diseases and hearing loss in primary school children in Hat Yai, Thailand. *J Med Assoc Thai*. 1996;79:468-472.
- Chen JM, Schloss MD, Manoukian JJ, Shapiro RS. Congenital cholesteatoma of the middle ear in children. *J Otolaryngol*. 1989;18:44-48.
- Chen AY, Ohlms LA, Stewart MG, Kline MW. Otolaryngologic disease progression in children with human immunodeficiency virus infection. *Arch Otolaryngol Head Neck Surg*. 1996;122:1360-1363.
- Chen BN, Lin HC, Shu MT, Chang KC. Influence of middle ear disease on distortion product otoacoustic emissions in children. *J Taiwan Otolaryngol Head Neck Surg*. 1999;34:195-199.

- Cheney ML, Megerian CA, Brown MT, McKenna MJ, Nadol JB. The use of the temporoparietal fascial flap in temporal bone reconstruction. *Am J Otol.* 1996;17:137-142.
- Cherry JR. Current conservative treatment of childhood chronic secretory otitis media (a survey and discussion). *J Laryngol Otol.* 1986;100:1019-1026.
- Chesnutt B, Stream RW, Love JT, McLarey DC. Otoadmittance measurements in cases of dual ossicular disorders. *Arch Otolaryngol.* 1975;101:109-113.
- Chessare JB. Recurrent otitis media and parenting stress in mothers of two-year-old children [letter; comment]. *J Dev Behav Pediatr.* 1993;14:70.
- Chibante A, Burdeksa A, Kissling M. Efficacy and tolerability of cefetamet pivoxil in toddlers with respiratory tract infections. *DRUG INVEST.* 1992;4:252-257.
- Chibante A, Peixoto E, Lejeune R, Winter K, Kissling M. Clinical efficacy and safety of cefetamet pivoxil in toddlers. *INT J ANTIMICROB AGENTS.* 1994;4:203-210.
- Chilton LA, Skipper BE. Antihistamines and alpha-adrenergic agents in treatment of otitis media. *South-Med-J.* 1979;72:953-955.
- Chinn K, Brown OE, Manning SC. Effects of inhalant anesthesia on the middle ear as measured by tympanometry. *Arch Otolaryngol Head Neck Surg.* 1993;119:283-287.
- Chinn K, Brown OE, Manning SC, Crandell CC. Middle ear pressure variation: effect of nitrous oxide. *Laryngoscope.* 1997;107:357-363.
- Chiossone E. Surgical management of major congenital malformations of the ear. *Am J Otol.* 1985;6:237-242.
- Chisin R, Gapany-Gapanavicius B, Gafni M, Sohmer H. Auditory nerve and brainstem-evoked responses before and after middle ear corrective surgery. *Arch Otorhinolaryngol.* 1983;238:27-31.
- Chobaut JC. [Ear discharge. Diagnostic orientation]. *Revue du Praticien.* 1994;44:677-678.
- Chocas EC, Paap CM, Godley PJ. Cefpodoxime proxetil: a new, broad-spectrum, oral cephalosporin. *Ann Pharmacother.* 1993;27:1369-1377.
- Choi SS, Pafitis IA, Zalzal GH, Herer GR, Patel KM. Clinical applications of transiently evoked otoacoustic emissions in the pediatric population. *Ann Otol Rhinol Laryngol.* 1999;108:132-138.
- Chole RA. Osteoclasts in chronic otitis media, cholesteatoma, and otosclerosis. *Ann Otol Rhinol Laryngol.* 1988;97:661-666.
- Chole RA, Hubbell RN. Antimicrobial activity of silastic tympanostomy tubes impregnated with silver oxide. A double-blind randomized multicenter trial. *Arch Otolaryngol Head Neck Surg.* 1995;121:562-565.
- Chomarat M, Dubreuil C. [Treatment of acute otitis media: comparative study of efficacy of cefatrizine and amoxicillin-clavulanic acid]. *Pathol-Biol-Paris.* 1991;39:555-557.
- Chonmaitree T, Owen MJ, Howie VM. Respiratory viruses interfere with bacteriologic response to antibiotic in children with acute otitis media. *J Infect Dis.* 1990;162:546-549.
- Chonmaitree T, Owen MJ, Patel JA, Hedgpeth D, Horlick D, Howie VM. Effect of viral respiratory tract infection on outcome of acute otitis media. *J Pediatr.* 1992;120:856-862.
- Chonmaitree T, Patel JA, Lett-Brown MA, et al. Virus and bacteria enhance histamine production in middle ear fluids of children with acute otitis media. *J Infect Dis.* 1994;169:1265-1270.
- Chonmaitree T, Patel JA, Sim T, et al. Role of leukotriene B4 and interleukin-8 in acute bacterial and viral otitis media. *Ann Otol Rhinol Laryngol.* 1996;105:968-974.
- Choung PH. The auriculomastoid fasciocutaneous island flap: a new flap for orofacial reconstruction. *Journal of Oral and Maxillofacial Surgery.* 1996;54:559-567; discussion 568.
- Chu YM, Young YH. Sudden deafness in children. *Journal of the Otolaryngological Society of the Republic of China.* 1997;32:641-646.
- Chui R. Otitis media. *Prim Care.* 1982;9:401-412.

- Chumakov FI, Deriugina OV. [A case of tuberculous meningitis erroneously interpreted as otogenous]. *Vestn Otorinolaringol.* 1996;52-53.
- Chung MH, Griffith SR, Park KH, Lim DJ, DeMaria TF. Cytological and histological changes in the middle ear after inoculation of influenza A virus. *Acta Otolaryngol.* 1993;113:81-87.
- Chung MH, Enrique R, Lim DJ, De Maria TF. Moraxella (Branhamella) catarrhalis-induced experimental otitis media in the chinchilla. *Acta Otolaryngol.* 1994;114:415-422.
- Church MW. Chronic in utero alcohol exposure affects auditory function in rats and in humans. *Alcohol.* 1987;4:231-239.
- Church MW, Gerkin KP. Hearing disorders in children with fetal alcohol syndrome: findings from case reports. *Pediatrics.* 1988;82:147-154.
- Church MW, Eldis F, Blakley BW, Bawle EV. Hearing, language, speech, vestibular, and dentofacial disorders in fetal alcohol syndrome. *Alcoholism: Clinical and Experimental Research.* 1997;21:227-237.
- Church JA. Immunologic evaluation of the child with recurrent otitis media. *Ear Nose Throat J.* 1997;76:31-34, 42.
- Churchill ID, Hodson BW, Jones BW, Novak RE. Phonological systems of speech-disordered clients with positive/negative histories of otitis media. *Lang Speech Hear Serv School.* 1988;19:100-107.
- Cisse MF, Sow AI, Adjovi DR, Samb A. [Bacteriological study of purulent otitis media in children in CHU in the tropical zone]. *Arch Pediatr.* 1995;2:29-33.
- Ciuchi V. Seromucous otitis with loss of perception hearing. *Oto Rino Laringologia.* 1979;24:265-276.
- Civantos F, Ferguson LR, Hemmati M, Gruber B. Temporal meningiomas presenting as chronic otitis media. *Am J Otol.* 1993;14:403-406.
- Claessen JQ, Appelman CL, Touw-Otten FW, de Melker RA, Hordijk GJ. Persistence of middle ear dysfunction after recurrent acute otitis media. *Clin Otolaryngol.* 1994;19:35-40.
- Claridge O, Ford RP, Schluter PJ, Wild CJ, Macleod L. The length of the referral chain after failing preschool tympanometry. *N Z Med J.* 1995;108:479-481.
- Clark PM, Shiell A, Cox G, Carruth JA. Otitis media with effusion and size at birth. *Br J Audiol.* 1998;32:13-18.
- Clarke LR, Wiederhold ML, Gates GA. Quantitation of pneumatic otoscopy. *Otolaryngol Head Neck Surg.* 1987;96:119-124.
- Clarke-Klein SM, Roush J, Roberts JE, Davis K, Medley L. FM amplification for enhancement of conversational discourse skills: case study. *J Am Acad Audiol.* 1995;6:230-234.
- Clarkson RL, Eimas PD, Marean GC. Speech perception in children with histories of recurrent otitis media. *J Acoust Soc Am.* 1989;85:926-933.
- Clements DA. Otitis media and hearing loss in a small aboriginal community. *Med J Aust.* 1968;1:665-667.
- Clements DA, Langdon L, Bland C, Walter E. Influenza A vaccine decreases the incidence of otitis media in 6- to 30- month-old children in day care. *Arch Pediatr Adolesc Med.* 1995;149:1113-1117.
- Clements DA, Langdon L, Bland C, Walter E. Influenza A vaccine decreases the incidence of otitis media in 6- to 30-month-old children in day care [see comments]. *Arch Pediatr Adolesc Med.* 1995;149:1113-1117.
- Clemis JD, Shambaugh GE, Jr., Derlacki EL. Withdrawal reactions in chronic food addiction as related to chronic secretory otitis media. *Ann Otol Rhinol Laryngol.* 1966;75:793-797.
- Clemis JD. Identification of allergic factors in middle ear effusions. *Ann Otol Rhinol Laryngol.* 1976;85:234-237.
- Clopton BM, Silverman MS. Changes in latency and duration of neural responding following developmental auditory deprivation. *Exp Brain Res.* 1978;32:39-47.
- Close GR, Rushworth RL, Rob MI, Rubin GL. Variation in selected childhood surgical procedures: the case of tonsillectomy and management of middle ear disease. *Journal of Paediatrics and Child Health.* 1993;29:429-433.

- Coates HL, McDonald TJ. Symposium. ENT for nonspecialists. Serous otitis media. *Postgrad Med.* 1975;57:87-90.
- Coates H, Chai F, Oates J. The use of surface treated and silver oxide impregnated tympanostomy tubes in reducing post-operative otorrhoea. *Australian Journal of Otolaryngology.* 1998;3:16-19.
- Coggins CR, Lovejoy HM, McGuirt WF, Sagartz JW, Hayes AW, Ayres PH. Relevant exposure to environmental tobacco smoke surrogate does not produce or modify secretory otitis media in the rat. *Toxicol Pathol.* 1997;25:395-397.
- Cohen D, Tamir D. The prevalence of middle ear pathologies in Jerusalem school children. *Am J Otol.* 1989;10:456-459.
- Cohen R, de la Rocque F, Bouhanna A, et al. [Randomized study of cefatrizine versus cefaclor in conjunctivitis otitis syndrome]. *Pathol-Biol-Paris.* 1990;38:517-520.
- Cohen D. Secretory otitis media with malignant external otitis. *Am J Otol.* 1990;11:207-208.
- Cohen R, La RF, Boucherat M, et al. Randomized open study of Pediazole (R) versus cefaclor in children with acute otitis media. *ANN. PEDIATR.* 1991;38:115-119.
- Cohen R, de La Rocque F, Boucherat M, et al. [An open randomized trial, Pediazole versus cefaclor in the treatment of acute otitis media in children]. *Ann-Pediatr-Paris.* 1991;38:115-119.
- Cohen R, de la Rocque F, Boucherat M, et al. [Prevention of acute otitis media. Amoxicillin versus glycoproteins from Klebsiella pneumoniae. Study in children under 5 years of age]. *Presse-Med.* 1992;21:509-514.
- Cohen SM, Keltner JL. Thrombosis of the lateral transverse sinus with papilledema. *Arch Ophthalmol.* 1993;111:274-275.
- Cohen R, De LRF, Boucherat M, et al. Cefpodoxime proxetil vx cefixime for painful febrile acute otitis media in children. CEFPODOXIME-PROXETIL VERSUS CEFIXIME DANS LE TRAITEMENT DE L'OTITE MOYENNE AIGUE DOULOUREUSE ET FEBRILE DE L'ENFANT. *MED. MAL. INFECT.* 1994;24:844-851.
- Cohen R, de la Rocque F, Boucherat M, Doit C, Bingen E, Geslin P. Treatment failure in otitis media: an analysis. *J Chemother.* 1994;6:17-22; discussion 23-24.
- Cohen HA, Kauschansky A, Ashkenasi A, Bahir A, Frydman M, Horev Z. Swimming and grommets. *J Fam Pract.* 1994;38:30-32.
- Cohen R. Clinical experience with cefpodoxime proxetil in acute otitis media. *Pediatr Infect Dis J.* 1995;14:S12-S18.
- Cohen R, Bingen E, Varon E, et al. Change in nasopharyngeal carriage of Streptococcus pneumoniae resulting from antibiotic therapy for acute otitis media in children. *Pediatr Infect Dis J.* 1997;16:555-560.
- Cohen R, De IRF, Boucherat M, Levy C, Langue J, Bourrillon A. Randomized trial comparing 5-day cefpodoxime proxetil and 8-day amoxicillin-clavulanate treatment of acute otitis media in children. /ETUDE RANDOMISEE CEFPODOXIME PROXETIL 5 JOURS VERSUS AMOXICILLINE-ACIDE CLAVULANIQUE 8 JOURS DANS LE TRAITEMENT DE L'OTITE MOYENNE AIGUE DE L'ENFANT. *Medecine Et Maladies Infectieuses.* 1997;27:596-602.
- Cohen R. The antibiotic treatment of acute otitis media and sinusitis in children. *Diagn Microbiol Infect Dis.* 1997;27:35-39.
- Cohen R, Levy C, Boucherat M, Langue J, de La Rocque F. A multicenter, randomized, double-blind trial of 5 versus 10 days of antibiotic therapy for acute otitis media in young children. *J Pediatr.* 1998;133:634-639.
- Coker NJ, Jenkins HA, Fisch U. Obliteration of the middle ear and mastoid cleft in subtotal petrosectomy: indications, technique, and results. *Ann Otol Rhinol Laryngol.* 1986;95:5-11.
- Cole JM. Reconstructive middle ear surgery for children. *Otolaryngol Clin North Am.* 1970;3:319-337.
- Cole JM. Conservative tympanomastoidectomy. *Laryngoscope.* 1974;84:783-792.
- Cole RD, May JS. Aberrant internal carotid artery. *South Med J.* 1994;87:1277-1280.

- Coles RR. Can present day audiology really help in diagnosis? An otologist's question. *J Laryngol Otol.* 1972;86:191-224.
- Coles SJ, Addelestone MB, Kamdar MK, Macklin JL. A comparative study of clarithromycin and amoxicillin suspensions in the treatment of pediatric patients with acute otitis media. *Infection.* 1993;21:272-278.
- Colhoun EN, O'Neill G, Francis KR, Hayward C. A comparison between area and volume measurements of the mastoid air spaces in normal temporal bones. *Clin Otolaryngol Allied Sci.* 1988;13:59-63.
- Collet JP, Burtin P, Gillet J, Bossard N, Ducruet T, Durr F. Risk of infectious diseases in children attending different types of day-care setting. Epicreche Research Group. *Respiration.* 1994;61:16-19.
- Collet JP, Larson CP, Boivin JF, Suissa S, Pless IB. Parental smoking and risk of otitis media in pre-school children. *Can J Public Health.* 1995;86:269-273.
- Colletti V. Tympanometry from 200 to 2000 Hz probe tone. *Audiology.* 1976;15:106-119.
- Colletti V. Multifrequency tympanometry. *Audiology.* 1977;16:278-287.
- Colletti V, Fiorino FG, Sittoni V. Minisculptured ossicle grafts versus implants: long-term results. *Am J Otol.* 1987;8:553-559.
- Collins MP, Church MK. The effect of an anti-allergic, nasal decongestant combination ('Dimotapp') and sodium cromoglycate nose drops on the histamine content of adenoids, middle ear fluid and nasopharyngeal secretions of children with secretory otitis media. *Curr-Med-Res-Opin.* 1983;8:392-394.
- Colman G, Tanna A, Efstratiou A, Gaworzewska ET. The serotypes of *Streptococcus pyogenes* present in Britain during 1980-1990 and their association with disease. *J Med Microbiol.* 1993;39:165-178.
- Colucci RD, Elliott M, Affrime MB, Zampaglione N. Ceftibuten in paediatrics [letter]. *Clin Pharmacokinet.* 1994;27:166-168.
- Coman WB. Earache and glue ear. *Aust Fam Physician.* 1978;7:111-119.
- Combs JT. Observations on the calibration of acoustic reflectometry. *Pediatr Infect Dis J.* 1988;7:659-660.
- Combs JT. Precision of acoustic reflectometry with recorder in acute otitis media. *Pediatr Infect Dis J.* 1988;7:329-330.
- Combs JT. Single vs. double acoustic reflectometry tracings. *Pediatr Infect Dis J.* 1989;8:616-620.
- Combs JT. Predictive value of the angle of acoustic reflectometry. *Pediatr Infect Dis J.* 1991;10:214-216.
- Combs JT. Effect of tip size on acoustic reflectometry. *Pediatr Infect Dis J.* 1992;11:978-979.
- Combs JT. The diagnosis of otitis media: new techniques. *Pediatr Infect Dis J.* 1994;13:1039-1046.
- Combs JT, Waterman SA, Combs MK. Select picture audiometry in an office setting. *Clin Pediatr.* 1996;35:161-164.
- Combs JT, Combs MK. Acoustic reflectometry: spectral analysis and the conductive hearing loss of otitis media. *Pediatr Infect Dis J.* 1996;15:683-686.
- Comis SD, Osborne MP, Stephen J, et al. Cytotoxic effects on hair cells of guinea pig cochlea produced by pneumolysin, the thiol activated toxin of *Streptococcus pneumoniae*. *Acta Otolaryngol.* 1993;113:152-159.
- Commins DJ, Koay B, Milford CA, Renowden S. Otitic hydrocephalus. *J Otolaryngol.* 1997;26:210-212.
- Conijn EA, Van der Drift JF, Brocaar MP, Van Zanten GA. Conductive hearing loss assessment in children with otitis media with effusion. A comparison of pure tone and BERA results. *Clin Otolaryngol Allied Sci.* 1989;14:115-120.
- Conley J, Janecka I. Neurilemmoma of the facial nerve. *Plast Reconstr Surg.* 1973;52:55-60.
- Connolly AA, Picozzi GL, Browning GG. Randomized trial of neomycin/dexamethasone spray vs drop preparation for the treatment of active chronic mucosal otitis media. *Clin-Otolaryngol.* 1997;22:529-531.
- Cook RA, Teel RW, Jr. Negative middle ear pressure and language development. Some observations. *Clin Pediatr.* 1979;18:296-297.

- Cook JA, Krishnan S, Fagan PA. Hearing results following modified radical versus canal-up mastoidectomy. *Ann Otol Rhinol Laryngol*. 1996;105:379-383.
- Cooke ET, Raghuvaram G. Clindamycin in conjunction with surgery of the chronic suppurative ear. *Br-J-Clin-Pract*. 1974;28:57-59.
- Cooper J, Inman JS, Dawson AF. A comparison between co-trimoxazole and amoxicillin in the treatment of acute otitis media in general practice. *Practitioner*. 1976;217:804-809.
- Cooper JC, Jr., Hearne EMD, Gates GA. Normal tympanometric shape. *Ear Hear*. 1982;3:241-245.
- Cooter MS, Eisma RJ, Bureson JA, Leonard G, Lafreniere D, Kreutzer DL. Transforming growth factor-beta expression in otitis media with effusion. *Laryngoscope*. 1998;108:1066-1070.
- Coplan J, Gleason JR. Quantifying language development from birth to 3 years using the Early Language Milestone Scale. *Pediatrics*. 1990;86:963-971.
- Corey JP, Adham RE, Abbass AH, Seligman I. The role of IgE-mediated hypersensitivity in otitis media with effusion. *Am J Otolaryngol*. 1994;15:138-144.
- Corrigan N, Stewart M, Scott M, Fee F. Predictive value of preschool surveillance in detecting learning difficulties [see comments]. *Arch Dis Child*. 1996;74:517-521.
- Cortes E, Pigrau C, Barbera J, Almirante B. Cellulitis and spondylitis due to *Streptococcus pneumoniae* [letter; comment]. *Clin Infect Dis*. 1995;21:696.
- Corth SB, Harris RW. Incidence of middle ear disease in Indochinese refugee schoolchildren. *Audiology*. 1984;23:27-37.
- Corwin MJ, Weiner LB, Daniels D. Efficacy of oral antibiotics for the treatment of persistent otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1986;11:109-112.
- Costa OA, Swenson RC, Ribeiro NO, Gattaz G. Secretory otitis media and its sequelae in children living in charitable institutions. *Scand Audiol Suppl*. 1986;26:95-96.
- Costa OA, Balieiro RO. Secretory otitis media in Brazilian children. *Scandinavian Audiology Supplementum*. 1986;26:93-94.
- Cotter CS, Avidano MA, Stringer SP, Schultz GS. Inhibition of proteases in *Pseudomonas* otitis media in chinchillas. *Otolaryngol Head Neck Surg*. 1996;115:342-351.
- Cotton RT. Sequelae of tympanostomy tubes (I). *Pediatr Infect Dis J*. 1990;9.
- Coulehan JL, Eberhard S, Kapner L, Taylor F, Rogers K, Garry P. Vitamin C and acute illness in Navajo school children. *N Engl J Med*. 1976;295:973-977.
- Counsell AM, Maw AR, Golding J, Harvey IM, Peters TJ. The effect of otitis media with effusion on speech, language, learning and behavior. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:334-337.
- Couriel JM. Glue ear: prescribe, operate, or wait? [see comments]. *Lancet*. 1995;345:3-4.
- Courteney-Harris RG, Ford GR, Ganiwalla TM, Mangat KS. Closure of tympanic membrane perforation after the removal of Goode-type tympanostomy tubes: the use of silastic sheeting. *J Laryngol Otol*. 1992;106:960-962.
- Courtois J. Audiological rehabilitation of Greenlandic patients with hearing loss due to otitis media. *Arctic Med Res*. 1991;Suppl:639-641.
- Coutte A, Brahe Pedersen C, Bartholdy N, Thommesen P. Histiocytosis X. Recurrent otitis media as a presenting symptom in children with special references to cholesteatoma. *Clin Otolaryngol Allied Sci*. 1984;9:111-114.
- Cowan DL, Brown MJ. Seromucinous otitis media and its sequelae. (A retrospective study of 242 children). *J Laryngol Otol*. 1974;88:1237-1247.
- Coyas AJ. Chronic otitis media and tympanoplasty. *Int Surg*. 1968;50:516-519.
- Crabtree JA. Tympanoplastic techniques in congenital atresia. *Arch Otolaryngol*. 1968;88:63-70.
- Craig HB, Stool SE. Otitis media in a school for deaf children: An 8-year study. *Ann Otol Rhinol Laryngol*. 1990;99:49-51.

- Craig WA, Andes D. Pharmacokinetics and pharmacodynamics of antibiotics in otitis media. *Pediatr Infect Dis J*. 1996;15:255-259.
- Crais ER, Roberts JE. Assessing communication skills. In: McLean M, Bailey Jr DB, and Wolery, editors. Assessing infants and preschoolers with special needs. Chapter 12. Englewood Cliffs, New Jersey: Prentice Hall; 1996.
- Crampton P, Nelson K, Bandaranayake D. Evaluation of an otitis media with effusion screening pilot programme. *N Z Med J*. 1996;109:384-386.
- Cranford JL, Thompson N, Hoyer E, Faires W. Brief tone discrimination by children with histories of early otitis media. *J Am Acad Audiol*. 1997;8:137-141.
- Crellin RP, Wilson JA, Cowan DL. Mastoid surgery in childhood. *Clin Otolaryngol Allied Sci*. 1991;16:39-42.
- Cremers WR, Smeets JH. Acquired atresia of the external auditory canal. Surgical treatment and results. *Arch Otolaryngol Head Neck Surg*. 1993;119:162-164.
- Cremers WR. Myringochorda-vestibulopexy: a new method for total replacement of the ossicular chain. *Am J Otol*. 1994;15:445-447.
- Cremonesi G, Tarantino V, Stura M, Ciampini M. Comparison of cefatrizine and erythromycin for pediatric ear, nose, and throat infections. *Clin-Ther*. 1987;9:263-266.
- Croft CB, Shprintzen RJ, Ruben RJ. Hypernasal speech following adenotonsillectomy. *Otolaryngology and Head and Neck Surgery*. 1981;89:179-188.
- Cron RQ, Webb KH. Necrobacillosis: an unusual cause of purulent otitis media and sepsis. *Pediatr Emerg Care*. 1995;11:379-380.
- Crovetto de la Torre MA, Fiz Melsio LM, Baralla-Echaburu Arteché J, Lopez JJ. [Tuberculous otitis media: a case report]. *Acta Otorrinolaringol Esp*. 1996;47:63-66.
- Crowley DE, Davis H, Beagley HA. Survey of the clinical use of electrocochleography. *Ann Otol Rhinol Laryngol*. 1975;84:297-307.
- Crowther JA, Simpson D. Medical treatment of chronic otitis media: steroid or antibiotic with steroid ear-drops? *Clin-Otolaryngol*. 1991;16:142-144.
- Cruz OL, Takeuti M, Caldas Neto S, Miniti A. Clinical and surgical aspects of cholesteatomas in children. *Ear Nose Throat J*. 1990;69:530, 535-536.
- Crysdale WS. Comparative study of various ventilating tubes. *The Annals of Otolology, Rhinology and Laryngology*; 1976:268-270.
- Crysdale WS. Otorhinolaryngologic problems in patients with craniofacial anomalies. *Otolaryngol Clin North Am*. 1981;14:145-155.
- Culpepper L, Fromm J, Bartelds AI, et al. Acute otitis media in adults: a report from the International Primary Care Network [see comments] [published erratum appears in J Am Board Fam Pract 1993 Nov-Dec;6(6):616]. *J Am Board Fam Pract*. 1993;6:333-339.
- Culpepper L. Family medicine research: need for capacity-building. *R I Med*. 1993;76:303-308.
- Culpepper L, Fromm J. Otitis media with effusion in young children: Treatment in search of a problem? *J Am Board Fam Pract*. 1995;8:305-316.
- Cundell D, Masure HR, Tuomanen EI. The molecular basis of pneumococcal infection: a hypothesis. *Clin Infect Dis*. 1995;21:S204-S211.
- Cunningham MJ, Curtin HD, Jaffe R, Stool SE. Otologic manifestations of Langerhans' cell histiocytosis. *Arch Otolaryngol Head Neck Surg*. 1989;115:807-813.
- Cunningham N. Pediatric management problems. Subacute otitis media with effusion. *Pediatr Nurs*. 1991;17:594-595.
- Cunningham MJ, Harley EH, Jr. Preventing perioperative obstruction of tympanostomy tubes: a prospective trial of a simple method. *Int J Pediatr Otorhinolaryngol*. 1991;21:15-20.
- Cunningham MJ, Eavey RD, Krouse JH, Kiskaddon RM. Tympanostomy tubes: experience with removal [see comments]. *Laryngoscope*. 1993;103:659-662.
- Cunningham MJ. Acute otolaryngologic surgical conditions in children. *Pediatr Ann*. 1994;23:250-256.

- Curi-Spada L, Poerio M, Sciuto S. Acoustic screening of the school population (5-8 years old) of Tivoli's area with a special attention to the diffusion of the secretory otitis media. *Rivista Italiana di Otorinolaringologia Audiologia e Foniatria*. 1982;2:448-450.
- Curley JWA. Grommet insertion: Some basic questions answered. *Clin Otolaryngol Allied Sci*. 1986;11:1-4.
- Curry MD, Andrews AW, Daniel HJ. A community-based nursing approach to the prevention of otitis media. *J Community Health Nurs*. 1997;14:81-110.
- Curtin JM. Surgery for deafness. *Acta Otorhinolaryngol Belg*. 1971;25:946-951.
- Cutlip RC, Dennis ED. Retrospective study of diseases in a captive Lemming Colony. *J Wildl Dis*. 1993;29:620-622.
- Czerwonka R, Zlomaniec J, Semczuk B. [The endoscopic assessment of the pharyngeal opening of the auditory tube in recurrent exudative otitis media in children]. *Otolaryngol Pol*. 1995;49:426-430.
- D'Agostino AM, Brown MA. A case of pneumonia with extrapulmonary manifestations. *Hospital Practice (Office Edition)*. 1996;31:34-35.
- d'Cruz MJ. Helping the deaf in Kenya. *Scand Audiol Suppl*. 1988;28:99-102.
- da Cruz MJ, Fagan P, Atlas M, McNeill C. Drill-induced hearing loss in the nonoperated ear. *Otolaryngol Head Neck Surg*. 1997;117:555-558.
- Dagan R, Yagupsky P, Goldbart A, Wasas A, Klugman K. Increasing prevalence of penicillin-resistant pneumococcal infections in children in southern Israel: implications for future immunization policies. *Pediatr Infect Dis J*. 1994;13:782-786.
- Dagan R, Shvartzman P, Liss Z. Variation in acceptance of common oral antibiotic suspensions [see comments]. *Pediatr Infect Dis J*. 1994;13:686-690.
- Dagan R, Abramson O, Leibovitz E, et al. Impaired bacteriologic response to oral cephalosporins in acute otitis media caused by pneumococci with intermediate resistance to penicillin [see comments]. *Pediatr Infect Dis J*. 1996;15:980-985.
- Dagan R, Abramson O, Leibovitz E, et al. Impaired bacteriologic response to oral cephalosporins in acute otitis media caused by pneumococci with intermediate resistance to penicillin. *Pediatr Infect Dis J*. 1996;15:980-985.
- Dagan R, Abramson O, Leibovitz E, et al. Bacteriologic response to oral cephalosporins: are established susceptibility breakpoints appropriate in the case of acute otitis media? *J Infect Dis*. 1997;176:1253-1259.
- Dagan R, Leibovitz E, Greenberg D, Yagupsky P, Fliiss DM, Leiberman A. Early eradication of pathogens from middle ear fluid during antibiotic treatment of acute otitis media is associated with improved clinical outcome. *Pediatr Infect Dis J*. 1998;17:776-782.
- Dahm MC, Clark GM, Franz BK, Shepherd RK, Burton MJ, Robins-Browne R. Cochlear implantation in children: labyrinthitis following pneumococcal otitis media in unimplanted and implanted cat cochleas. *Acta Otolaryngol*. 1994;114:620-625.
- Dainiak LB. [Organ pathology in Wegener's granulomatosis]. *Vestn Otorinolaringol*. 1995:32-35.
- Dalhuijsen J, Zwaard AM, Grol RP, Mookink HM. [Performance of family practitioners according to the guideline otitis media acuta of the Dutch College of Family Practitioners]. *Ned Tijdschr Geneesk*. 1993;137:2139-2144.
- Dallari S, Zaccarelli SC, Sintini M, Gatti G, Balli R. Acute mastoiditis with complications: a report of two cases. *Acta Otorhinolaryngol Belg*. 1997;51:113-118.
- Daly K, Giebink GS, Le CT, et al. Determining risk for chronic otitis media with effusion. *Pediatr Infect Dis J*. 1988;7:471-475.
- Daly K, Giebink GS, Lindgren B, Anderson RS. Controlled Clinical Trial for Prevention of Chronic Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:247-250.
- Daly K, Giebink GS, Batalden PB, Anderson RS, Le CT, Lindgren B. Resolution of otitis media with effusion with the use of a stepped treatment regimen of trimethoprim-sulfamethoxazole and prednisone. *Pediatr Infect Dis J*. 1991;10:500-506.
- Daly KA, Giebink GS, Margolis RH, et al. Chronic otitis media with effusion morbidity in a prospective

- cohort: risk determinants for short-term outcomes in children treated with tympanostomy. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:7-11.
- Daly KA, Lindgren B, Giebink GS. Validity of parental report of a child's medical history in otitis media research [see comments]. *Am J Epidemiol*. 1994;139:1116-1121.
- Daly K. Risk factors for otitis media sequelae and chronicity. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:39-42.
- Daly KA, Giebink GS, Lindgren B, et al. Randomized trial of the efficacy of trimethoprim-sulfamethoxazole and prednisone in preventing post-tympanostomy tube morbidity. *Pediatr Infect Dis J*. 1995;14:1068-1074.
- Daly KA, Rich SS, Levine S, et al. The family study of otitis media: design and disease and risk factor profiles. *Genet Epidemiol*. 1996;13:451-468.
- Daly KA, Meland M, Brown J, Lindgren B, Westover D, Giebink GS. Epidemiology of early otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:33-35.
- Daly KA, Hunter LL, Levine SC, Lindgren BR, Giebink GS. Relationships between otitis media sequelae and age. *Laryngoscope*. 1998;108:1306-1310.
- Daly KA, Hunter LL, Giebink GS. Chronic otitis media with effusion. *Pediatr Rev*. 1999;20:85-93; quiz 94.
- Dana ST. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA*. 1995;273:698; discussion 700-701.
- Dang HS, Nhan TS, Le T, et al. Point prevalence of secretory otitis media in children in southern Vietnam. *Ann Otol Rhinol Laryngol*. 1998;107:406-410.
- Daniel RR. Comparison of azithromycin and co-amoxiclav in the treatment of otitis media in children. *J-Antimicrob-Chemother*. 1993:65-71.
- Daniels DL, Czervionke LF, Yu S, et al. The effect of patient positioning on MR imaging of the internal auditory canal. *Neuroradiology*. 1988;30:395-398.
- Daniilidis I, Tsalighopoulos M, Themelis C, Vartholomeos A. True giant-cell tumour of the mastoid. A case report. *J Laryngol Otol*. 1981;95:853-858.
- Dankle SK. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA*. 1995;273:698; discussion 700-701.
- Dantsov AA, Kovaleva LM, Grigor'eva IF, Drozdova MV. [Results of collalysine treatment of children with adhesive otitis media]. *Vestn Otorinolaringol*. 1994:31-34.
- Darelid J, Lofgren S, Malmvall BE. Erythromycin treatment is beneficial for longstanding *Moraxella catarrhalis* associated cough in children. *Scand-J Infect Dis*. 1993;25:323-329.
- Darrow DH, Keithley EM. Reduction of endotoxin-induced inflammation of the middle ear by polymyxin B. *Laryngoscope*. 1996;106:1028-1033.
- Das VK. Prevalence of otitis media with effusion in children with bilateral sensorineural hearing loss. *Arch Dis Child*. 1990;65:757-759.
- Das C, Sanasam JC, Chukhu N, Bimol N. A study of the incidence and causation of deafness among the children in the tribal population of manipur and its prevention. *Indian J Otolaryngol Head Neck Surg*. 1999;51:11-15.
- Dastidar P, Pertti R, Karhuketo T. Axial HRCT, two-dimensional and maximum intensity projection reconstructions in temporal bone lesions. *Acta Oto-Laryngologica - Supplement*. 1997;529:43-46.
- Davernat H, Geslin P, Megraud F, et al. Effects of cefixime or co-amoxiclav treatment on nasopharyngeal carriage of *Streptococcus pneumoniae* and *Haemophilus influenzae* in children with acute otitis media. *J-Antimicrob-Chemother*. 1998;41:253-258.
- Davidson J, Hyde ML, Alberti PW. Epidemiology of hearing impairment in childhood. *Scand Audiol Suppl*. 1988;30:13-20.
- Davidson BJ, Morris MS. The perforated tympanic membrane. *Am Fam Physician*. 1992;45:1777-1782.
- Davidson M, Parkinson AJ, Bulkow LR, Fitzgerald MA, Peters HV, Parks DJ. The epidemiology of invasive pneumococcal disease in Alaska, 1986-1990--ethnic differences and opportunities for

- prevention [see comments]. *J Infect Dis.* 1994;170:368-376.
- Davidson TM. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA.* 1995;273:698; discussion 700-701.
- Davies DG. Deafness. *Trans Med Soc Lond.* 1972;88:53-60.
- Davies IH, Done SH. Necrotic dermatitis and otitis media associated with *Pseudomonas aeruginosa* in sheep following dipping. *Vet Rec.* 1993;132:460-461.
- Davis H. Conservation of hearing. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1972;76:41-43.
- Davis LE. Experimental viral infections of the temporal bone. I. Experimental otitis media due to vaccinia virus in hamsters. *J Infect Dis.* 1979;139:333-337.
- Davis J, Elfeinbein J, Schum R, Bentler R. Effects of mild and moderate hearing impairment on language, educational, and psychosocial behavior of children. *J Speech Hear Dis.* 1986;51:53-62.
- Davis A, Hind S. The impact of hearing impairment: A global health problem. *Int J Pediatr Otorhinolaryngol.* 1999;49:S51-S54.
- Davison MJ, Fields MJ. Ventilation tubes, swimming and otorrhoea: a New Zealand perspective. *N Z Med J.* 1993;106:201-203.
- Davison SP, Facer GW, McGough PF, McCaffrey TV, Reder PA. Use of magnetic resonance imaging and magnetic resonance angiography in diagnosis of sigmoid sinus thrombosis. *Ear Nose Throat J.* 1997;76:436-441.
- Dawes PJ, Bingham BJ, Rhys R, Griffiths MV. Aspirating middle ear effusions when inserting ventilation tubes: does it influence post-operative otorrhoea, tube obstruction or the development of tympanosclerosis? *Clin-Otolaryngol.* 1991;16:457-461.
- Day JD, Kellogg JX, Tschabitscher M, Fukushima T. Surface and superficial surgical anatomy of the posterolateral cranial base: significance for surgical planning and approach. *Neurosurgery.* 1996;38:1079-1083; discussion 1083-1084.
- de Amesti C, Garcia P, Abello P. [Permanent grommets: easy and quick detection]. *Acta Otorrinolaringol Esp.* 1994;45:139.
- de Campora E, Camaioni A, Leonardi M, Fardella P, Fiaoni M. Comparative efficacy and safety of roxithromycin and clarithromycin in upper respiratory tract infections. *Diagn-Microbiol-Infect-Dis.* 1992;15:S119-S122.
- De Campora E, Radici M, Camaioni A. Efficacy and tolerability of brodimoprim in otitis. *J Chemother.* 1993;5:529-531.
- de Castro FJ, Jaeger RW, Martin L, Temeck JW, Tournour B. Serous otitis media. A double-blind trial with sulfisoxazole. *Mo-Med.* 1982;79:629-630.
- de Juan Martin F, Bouthelier Moreno M, Fernandez Liesa R, Lezcano Carrera MA. [Mycobacterium avium otomastoiditis]. *An Esp Pediatr.* 1996;45:649-650.
- de la Fuente Aguado J, Moreno Sanjuan JA, Fernandez Villar A, Otero Varela I, Conde C. [Meningitis caused by *Streptococcus salivarius* (letter)]. *An Med Interna.* 1996;13:355.
- De Lalla F. Cefixime in the treatment of upper respiratory tract infections and otitis media. *Chemotherapy.* 1998;44:19-23.
- de Lange de Klerk ES, Blommers J, Kuik DJ, Bezemer PD, Feenstra L. Effect of homoeopathic medicines on daily burden of symptoms in children with recurrent upper respiratory tract infections [see comments]. *Br Med J.* 1994;309:1329-1332.
- de Melker RA. Diagnostic value of microtympanometry in primary care. *Br Med J.* 1992;304:96-98.
- De Melker RA. Diagnostic value of microtympanometry and pneumatic otoscopy in primary care. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:58-60.
- de Melker RA. Evaluation of the diagnostic value of pneumatic otoscopy in primary care using the results of tympanometry as a reference standard. *Br J Gen Pract.* 1993;43:22-24.
- De Melker RA. Treating persistent glue ear in children [editorial] [see comments]. *Br Med J.* 1993;306:5-6.

- De Schepper S, Schmelzer B. [Local treatment of otitis media and otitis externa: the role of quinolones]. *Acta Otorhinolaryngol Belg.* 1994;48:67-70.
- De-Campora E, Radici M, Camaioni A. Efficacy and tolerability of brodimoprim in otitis. *J Chemother.* 1993;5:551-555.
- Dean M, Martin FN. Auditory and tactile bone-conduction thresholds using three different oscillators. *J Am Acad Audiol.* 1997;8:227-232.
- Debruyne F, Vanderschueren-Lodeweyckx M, Bastijns P. Hearing in congenital hypothyroidism. *Audiology.* 1983;22:404-409.
- Debruyne F, Degroote M. One-year follow-up after tympanostomy tube insertion for recurrent acute otitis media. *ORL J Otorhinolaryngol Relat Spec.* 1993;55:226-229.
- Debry C, el Jerrari A, Gentine A, Conraux C. [Thrombophlebitis of the lateral sinus. Apropos of a case]. *Rev Laryngol Otol Rhinol.* 1993;114:355-358.
- Dees SC, Lefkowitz Dd. Secretory otitis media in allergic children. *Am J Dis Child.* 1972;124:364-368.
- Deguchi K, Yokota N, Tanaka S, et al. [A clinical bacteriological efficacy study on a fosfomycin otic solution]. *Jpn-J-Antibiot.* 1986;39:2344-2354.
- Deguchi K, Yokota N, Koguchi M, et al. [Antibacterial activities of cefmenoxime against recent clinical isolates from patients of otitis media and otitis externa]. *Jpn J Antibiot.* 1993;46:850-859.
- Deguchi K, Yokota N, Koguchi M, et al. [Antibacterial activities of fosfomycin against recent clinical isolates from patients of otitis media and otitis externa]. *Jpn J Antibiot.* 1995;48:293-298.
- Deguine C. Longterm results in cholesteatoma surgery. *Clin Otolaryngol Allied Sci.* 1978;3:301-310.
- Deguine C, Pulec JL. Long-term ventilation myringostomy. *Ear Nose Throat J.* 1993;72:514.
- Deguine C, Pulec JL. Viral otitis media. *Ear Nose Throat J.* 1993;72:490.
- Deguine C, Pulec JL. Acute suppurative otitis media. *Ear Nose Throat J.* 1993;72:387.
- Deguine C. Staging in cholesteatoma surgery. *Ear Nose Throat J.* 1993;72:197-200.
- Deguine C, Pulec JL. Short incus with intact tympanic membrane. *Ear Nose Throat J.* 1994;73:141.
- Deguine C. [Pathogenesis of cholesteatoma: contribution of otoscopic photography]. *Rev Laryngol Otol Rhinol.* 1995;116:61-63.
- Deguine C, Pulec JL. Classification of chronic suppurative otitis media: type VI. *Ear Nose Throat J.* 1996;75:764.
- DeGuine C, Pulec JL. Cholesterol granuloma. *Ear Nose Throat J.* 1996;75:190.
- Deguine C, Pulec JL. Classification of chronic suppurative otitis media: type II. *Ear Nose Throat J.* 1996;75:454.
- Deguine C, Pulec JL. Classification of chronic suppurative otitis media: type IV. *Ear Nose Throat J.* 1996;75:642.
- Deguine C, Pulec JL. Attic cholesteatoma and polyp with a blue ear drum. *Ear Nose Throat J.* 1997;76:488.
- Deguine C, Pulec JL. Attic cholesteatoma and tympanosclerosis. *Ear Nose Throat J.* 1997;76:364.
- Deguine C, Pulec JL. Dry central perforation with squamous epithelium in the tympanum. *Ear Nose Throat J.* 1997;76:192.
- Deka RC. Middle ear effusion: its management [editorial]. *Indian Pediatr.* 1994;31:631-633.
- Deka RC. Acute otitis media. *Indian Pediatr.* 1996;33:832-836.
- Del Beccaro MA. Cefpodoxime proxetil [published erratum appears in *Pediatr Ann* 1993 Aug;22(8):following 457] [see comments]. *Pediatr Ann.* 1993;22:187-192, 195-196.
- del Castillo F, Barrio Gomez MI, Garcia A. [Bacteriologic study of 80 cases of acute otitis media in children]. *Enferm Infecc Microbiol Clin.* 1994;12:82-85.
- Del Castillo F, Corretger JM, Medina J, Rosell J, Cruz M. Acute otitis media in childhood: a study of 20,532 cases. *Infection.* 1995;23:S70-S73.

- del Castillo F, Garcia-Perea A, Baquero-Artigao F. Bacteriology of acute otitis media in Spain: a prospective study based on tympanocentesis. *Pediatr Infect Dis J*. 1996;15:541-543.
- del Castillo Martin F, Sanchez Purificacion MT, Gonzalez Ipina M, Ortigado Matamala A. [Acute mastoiditis in childhood. A study of 15 cases]. *An Esp Pediatr*. 1996;44:329-331.
- del Castillo Martin F. [Treatment of acute otitis media in children. Some questions]. *Enferm Infecc Microbiol Clin*. 1997;15:212-217.
- Del Mar C, Glasziou P, Hayem M. Are antibiotics indicated as initial treatment for children with acute otitis media? A meta-analysis [see comments]. *Br Med J*. 1997;314:1526-1529.
- Delany ME, Whittle LS. A new artificial ear and mastoid. *Journal of Scientific Instruments*. 1966;43:519-520.
- Delbrouck C, Mansbach AL, Blondiau P. Otogenic thrombosis of the lateral sinus: report of a case in a child. *Acta Otorhinolaryngol Belg*. 1996;50:221-226.
- Dellamonica P, Choutet P, Lejeune JM, et al. Efficacy and safety of cefotiam hexetil in the treatment of chronic otitis media. A comparative double blind randomized study versus cefuroxime axetil. *Medecine Et Maladies Infectieuses*. 1995;25:733-739.
- Dellamonica P, Choutet P, Lejeune JM, et al. Efficacy and safety of cefotiam hexetil in the treatment of acute otitis media. A comparative double blind randomized study versus cefuroxime axetil. *Medecine Et Maladies Infectieuses*. 1995;25:599-604.
- DeMarco S, Givens GD. Speech sound discrimination pre- and posttympanostomy: a clinical case report. *Ear Hear*. 1989;10:64-67.
- DeMaria TF, Prior RB, Briggs BR, Lim DJ, Birck HG. Endotoxin in middle-ear effusions from patients with chronic otitis media with effusion. *J Clin Microbiol*. 1984;20:15-17.
- DeMaria TF, McGhee RB, Jr., Lim DJ. Rheumatoid factor in otitis media with effusion. *Arch Otolaryngol*. 1984;110:279-280.
- DeMaria TF, Billy JM, Danahey DG. Growth factors during endotoxin-induced otitis media. *Acta Otolaryngol*. 1996;116:854-856.
- DeMaria TF, Murwin DM, Leake ER. Immunization with outer membrane protein P6 from nontypeable *Haemophilus influenzae* induces bactericidal antibody and affords protection in the chinchilla model of otitis media. *Infect Immun*. 1996;64:5187-5192.
- DeMaria TF, Murwin DM. Tumor necrosis factor during experimental lipopolysaccharide-induced otitis media. *Laryngoscope*. 1997;107:369-372.
- DeMieri P, Lehner W, Kiser WR. Thermometry for diagnosing acute otitis media [letter; comment] [see comments]. *Am J Emerg Med*. 1995;13:491-492.
- Dempsey JJ, Levitt H. Bone vibrator placement and the cancellation technique. *Ear Hear*. 1990;11:271-281.
- Dempster JH, Browning GG. Eustachian tube function following adenoidectomy: an evaluation by sniffing. *Clin-Otolaryngol*. 1989;14:411-414.
- Dempster JH, MacKenzie K. Tympanometry in the detection of hearing impairments associated with otitis media with effusion. *Clin Otolaryngol Allied Sci*. 1991;16:157-159.
- Dempster JH, Browning GG, Gatehouse SG. A randomized study of the surgical management of children with persistent otitis media with effusion associated with a hearing impairment. *J Laryngol Otol*. 1993;107:284-289.
- Denoyelle F, Roger G, Ducroz V, Escudier E, Fauroux B, Garabedian EN. Results of tympanoplasty in children with primary ciliary dyskinesia. *Arch Otolaryngol Head Neck Surg*. 1998;124:177-179.
- Derbeneva ML, Bolotov DA. [The EEG characteristics and EEG toposelective mapping in patients with chronic suppurative otitis media before and after a sanitizing operation on the ear]. *Vestn Otorinolaringol*. 1996;20-22.
- Derbeneva ML. [Characteristics of destructive changes in the middle ear of patients with chronic otitis media, purulent complicated by local pachymeningitis]. *Vestn Otorinolaringol*. 1997;13-16.

- Deriugina OV, Chumakov FI. [Tuberculous meningoencephalitis in a child with bilateral suppurative otitis media]. *Vestn Otorinolaringol.* 1996;44-45.
- Derlacki EL, Clemis JD. Congenital cholesteatoma of the middle ear and mastoid. *Transactions - American Otolological Society.* 1965;53:208-231.
- Derlacki EL, Harrison WH, Clemis JD. Congenital cholesteatoma of the middle ear and mastoid: a second report presenting seven additional cases. *Laryngoscope.* 1968;78:1050-1078.
- Derlacki EL. Congenital cholesteatoma of the middle ear and mastoid. A third report. *Arch Otolaryngol.* 1973;97:177-182.
- Dermody P, Curotta J, Mackie K. Pass/fail criteria in screening for otitis media in children with learning disorders. *Int J Pediatr Otorhinolaryngol.* 1983;6:151-162.
- DeRowe A, Bernheim J, Ophir D. Eosinophilic granuloma presenting as chronic otitis media: pitfalls in the diagnosis of aural polyps in children. *J Otolaryngol.* 1995;24:258-260.
- DerSimonian R, Laird N. Meta-analysis in clinical trial. *Control Clin Trials.* 1986;7:177-188.
- Desa DJ. Mucosal metaplasia and chronic inflammation in the middle ear of infants receiving intensive care in the neonatal period. *Arch Dis Child.* 1983;58:24-28.
- Desautly A, Lansiaux V, Machiels S, Gael JF. [Failures after tympanoplasty]. *Rev Laryngol Otol Rhinol.* 1996;117:357-361.
- Desjardins R, Guerguerian AJ, Dube J, Deschamps N, Lavertu P. Meningitis and congenital fistula of the internal ear. *J Otolaryngol.* 1982;11:97-100.
- Desmond JW. Methoxyflurane nephrotoxicity. *Canadian Anaesthetists Society Journal.* 1974;21:294-307.
- Dettelbach MA, Hirsch BE, Weissman JL. Pseudomonas cepacia of the temporal bone: malignant external otitis in a patient with cystic fibrosis. *Otolaryngol Head Neck Surg.* 1994;111:528-532.
- Deutsch HJ. Serous otitis media. *Pa Med.* 1967;70:53-55.
- Devars F, Traissac L. [Seromucous otitis. Treatment and long-term development]. *Rev Laryngol Otol Rhinol.* 1993;114:221-224.
- Devgan BK, Leach W. Assessment of adenoidal hyperplasia. *South Med J.* 1979;72:588-590.
- Devriendt K, Fryns JP. The Kabuki make-up (Niikawa-Kuroki) syndrome and isolated transient hyperphosphatasemia [letter]. *Clin Genet.* 1994;45:330-331.
- Dew LA, Shelton C. Iatrogenic facial nerve injury: prevalence and predisposing factors. *Ear Nose Throat J.* 1996;75:724-729.
- Dewey KG, Heinig MJ, Nommsen-Rivers LA. Differences in morbidity between breast-fed and formula-fed infants. *J Pediatr.* 1995;126:696-702.
- Dhillon RS. The middle ear in cleft palate children pre and post palatal closure. *J-R-Soc-Med.* 1988;81:710-713.
- Dhindsa MK, Naidu J, Singh SM, Jain SK. Chronic suppurative otitis media caused by Paecilomyces variotii. *J Med Vet Mycol.* 1995;33:59-61.
- Dhooge I, Vinck BM, De Vel E, van Cauwenberge P. Click evoked otoacoustic emissions: a technique for evaluating ventilation of the middle ear after insertion of tympanostomy tubes. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:156-157.
- Di Bartolomeo JR. A "string of pearls". *Ear Nose Throat J.* 1995;74:450.
- Dickins JR. Comparative study of otologic surgery in outpatient and hospital settings. *Laryngoscope.* 1986;96:774-785.
- Diefendorf AO, Ferrell CJ, McCallen P. Diagnostic implications of tympanometry in the presence of patent pressure-equalization tubes. *Am J Otol.* 1986;7:44-46.
- Dieroff HG, Schuhmann G. High frequency hearing following otitis media with effusion in childhood. *Scand Audiol Suppl.* 1986;26:83-84.
- Dieroff HG. Late-onset auditory inactivity (deprivation) in persons with bilateral essentially symmetric and conductive hearing impairment. *J Am Acad Audiol.* 1993;4:347-350.

- DiFranza JR, Lew RA. Morbidity and mortality in children associated with the use of tobacco products by other people. *Pediatrics*. 1996;97:560-568.
- Dimopoulos PA, Muren C, Smedby O, Wadin K. Anatomical variations of the tympanic and mastoid portions of the facial nerve canal. A radioanatomical investigation. *Acta Radiologica - Supplementum*. 1996;403:49-59.
- Dingle AF, Flood LM, Kumar BU, Hampal S. The mini-grommet and tympanosclerosis: results at two years. *J Laryngol Otol*. 1993;107:108-110.
- Dingle AF, Flood LM, Kumar BU, Newcombe RC. Tympanosclerosis and mini grommets: the relevance of grommet design. *J Laryngol Otol*. 1995;109:922-925.
- Dingle AF, Raza SA, Phillipps JJ. Otitis media with effusion: a disability or not? *Clin Otolaryngol Allied Sci*. 1997;22:463-464.
- Dingman JR, Rayner MG, Mishra S, et al. Correlation between presence of viable bacteria and presence of endotoxin in middle-ear effusions. *J Clin Microbiol*. 1998;36:3417-3419.
- Dirks DD. American National Standard specification for an artificial head-bone. *ASHA*. 1974;16:71-73.
- Dirks DD, Kamm C, Gilman S. Bone conduction thresholds for normal listeners in force and acceleration units. *J Speech Hear Res*. 1976;19:181-186.
- Disarno NJ, Barringer C. Otitis media and academic achievement in Eskimo high school students. *Folia Phoniat*. 1987;39:250-255.
- Diven WF, Evans RW, Alper C, Burckart GJ, Jaffe R, Doyle WJ. Treatment of experimental acute otitis media with ibuprofen and ampicillin. *Int J Pediatr Otorhinolaryngol*. 1995;33:127-139.
- Diven WF, Evans RW, Swarts JD, Burckart GJ, Doyle WJ. Effect of ibuprofen treatment during experimental acute otitis media. *Auris Nasus Larynx*. 1995;22:73-79.
- Djeric D. [Pathological changes of the pyramidal eminence in chronic suppurative otitis media]. *Rev Laryngol Otol Rhinol*. 1993;114:17-20.
- Djeric DR, Schachern PA, Paparella MM, Jaramillo M, Haruna S, Bassioni M. Otitis media (silent): a potential cause of childhood meningitis. *Laryngoscope*. 1994;104:1453-1460.
- Djeric DR, Ramic ZD, Mostarica MB, Stojkovic MB, Stepanovic SR, Lukic ML. Altered immunoregulation in otitis media with effusion in children: presence of serum immuno-inhibitory factors. *Clin Otolaryngol*. 1994;19:234-236.
- Djupesland G, Nicklasson B, Helland S, Hemsén E. Hearing threshold level and middle ear pressure in children with phonetic/phonemic disability. *Scand Audiol*. 1981;Suppl. 17:73-79.
- Dobie RA, Berlin CI. Influence of otitis media on hearing and development. *Ann Otol Rhinol Laryngol Suppl*. 1979;88:48-53.
- Dobo M, Czeizel AE. Long-term somatic and mental development of children after periconceptional multivitamin supplementation. *Eur J Pediatr*. 1998;157:719-723.
- Dobrotin VE. [Computerized tomography assisted determination of the scope of surgical intervention in intracranial involvement in diseases of the middle ear and paranasal sinuses]. *Vestn Otorinolaringol*. 1996:23-26.
- Dodson EE, Hashisaki GT, Hobgood TC, Lambert PR. Intact canal wall mastoidectomy with tympanoplasty for cholesteatoma in children. *Laryngoscope*. 1998;108:977-983.
- Dohar JE, Kenna MA, Wadowsky RM. In vitro susceptibility of aural isolates of *Pseudomonas aeruginosa* to commonly used otological antibiotics. *Am J Otol*. 1996;17:207-9.
- Doherty B. An open comparative study of azithromycin versus cefaclor in the treatment of patients with upper respiratory tract infections. *J Antimicrob Chemother*. 1996;37:71-81.
- Dominguez Rovira S, Mainou Cid C, Claros Blanch A, Latorre Otin C, Camarasa Piquer F, Corretger Rauet JM. [Clinical and microbiological study of otitis media in infants]. *An Esp Pediatr*. 1996;44:341-344.
- Dommerby H, Tos M. Sensorineural hearing loss in chronic adhesive otitis. *Arch Otolaryngol Head Neck Surg*. 1986;112:628-634.

- Donahue ML. Early phonological and lexical development and otitis media: a diary study. *Journal of Child Language*. 1993;20:489-501.
- Donaldson JA. Surgical management of otitis media (recurrent and nonsuppurative). *J Allergy Clin Immunol*. 1020;81:1020-1024.
- Donaldson JD, Martin GF, Maltby CC, Seywerd EB. The efficacy of pulse-dosed antibiotic therapy in the management of persistent otitis media with effusion. *J-Otolaryngol*. 1990;19:175-178.
- Donaldson I, Snow DG. A five year follow up of incus transposition in relation to the first stage tympanoplasty technique. *J Laryngol Otol*. 1992;106:607-609.
- Donnelly MJ, McShane DP, Burns H. Monostotic fibrous dysplasia of the temporal bone with associated lymphadenopathy. *Ear Nose Throat J*. 1994;73:328-330.
- Donnelly MJ, Quraishi MS, McShane DP. Indications for paediatric tonsillectomy GP versus Consultant perspective. *J Laryngol Otol*. 1994;108:131-134.
- Donnelly MJ, Pyman BC, Clark GM. Chronic middle ear disease and cochlear implantation. *Ann Otol Rhinol Laryngol Suppl*. 1995;166:406-408.
- Dorfman DH, Vinci RJ. An infant with transient intracranial hypertension associated with a febrile illness. *Pediatr Emerg Care*. 1993;9:92-94.
- Dorittke C, Vandamme P, Hinz KH, Schemken-Birk EM, Wirsing von Konig CH. Isolation of a Bordetella avium-like organism from a human specimen. *Eur J Clin Microbiol Infect Dis*. 1995;14:451-454.
- Dornhoffer JL. Hearing results with the Dornhoffer ossicular replacement prostheses [see comments]. *Laryngoscope*. 1998;108:531-536.
- Dornhoffer JL. Surgical modification of the difficult mastoid cavity. *Otolaryngol Head Neck Surg*. 1999;120:361-367.
- Douek E, Reid J. The diagnostic value of tinnitus pitch. *J Laryngol Otol*. 1968;82:1039-1042.
- Douek E. 'Glue-ears'. *Dev Med Child Neurol*. 1972;14:81-83.
- Douglas RMB, Miles H. Vaccination against streptococcus pneumoniae in childhood: Lack of demonstrable benefit in young Australian children. *J Infect Dis*. 1984;149.
- Douglas RM, Miles HB. Vaccination against streptococcus pneumoniae in childhood: Lack of demonstrable benefit in young Australian children. *J INFECT DIS*. 1984;149:861-869.
- Douglas RM, Hansman D, Miles HB, Paton JC. Pneumococcal carriage and type-specific antibody. Failure of a 14-valent vaccine to reduce carriage in healthy children. *Am-J-Dis-Child*. 1986;140:1183-1185.
- Douniadakis DE, Nikolopoulos TP, Tsakanikos MD, Vassiliadis SV, Apostolopoulos NJ. Evaluation of acoustic reflectometry in detecting otitis media in children. *Br J Audiol*. 1993;27:409-414.
- Dowell SF, Schwartz B. Resistant pneumococci: protecting patients through judicious use of antibiotics [see comments]. *Am Fam Physician*. 1997;55:1647-1654, 1657-1658.
- Downs MP. The expanding imperatives of early identification. In: Bess FH, ed. *Childhood deafness: causation, assessment, and management*. New York, Grune and Stratton. 1977;270:95-106.
- Downs MP. Implanting electrodes? *ASHA*. 1981;23:567-568.
- Downs MP, Jafke B, Wood RP. Comprehensive treatment of children with recurrent serous otitis media. *Otolaryngology and Head and Neck Surgery*. 1981;89:658-665.
- Downs M, Blager FB. The otitis prone child. *J Dev Behav Pediatr*. 1982;3:106-113.
- Downs MP. Effects of mild hearing loss on auditory processing. *Otolaryngol Clin North Am*. 1985;18:337-344.
- Downs MP, Walker DD, Northern JL, Gugenheim S. Identification of Children with Language Delays Due to Recurrent Otitis Media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:382-384.
- Doyle PJ, Schleuning AJ, Echevarria J. Tympanoplasty: should grafts be placed medial or lateral to the tympanic membrane. *Laryngoscope*. 1972;82:1425-1430.

- Doyle PJ, Morwood D. Middle ear disease in native Indian children in British Columbia--incidence of disease and an evaluation of screening methods. *J Otolaryngol*. 1976;5:103-115.
- Doyle KJ, Brackmann DE, House JR, 3rd. Pathogenesis of otitic hydrocephalus: clinical evidence in support of Symonds' (1937) theory. *Otolaryngol Head Neck Surg*. 1994;111:323-327.
- Doyle KJ, Luxford WM. Congenital aural cholesteatoma: results of surgery in 60 cases. *Laryngoscope*. 1995;105:263-267.
- Doyle KJ, Burggraaff B, Fujikawa S, Kim J, MacArthur CJ. Neonatal hearing screening with otoscopy, auditory brain stem response, and otoacoustic emissions. *Otolaryngol Head Neck Surg*. 1997;116:597-603.
- Doyle WJ, Skoner DP, Alper CM, Allen G, Moody SA, Seroky JT. Effect of rimantadine treatment on clinical manifestations and otologic complications in adults experimentally infected with influenza A (H1N1) virus. *J Infect Dis*. 1998;117:1260-1265.
- Drake-Lee AB, Casey WF, Ogg TW. Anaesthesia for myringotomy. The effect of nitrous oxide and intermittent positive pressure ventilation in children with secretory otitis media. *Anaesthesia*. 1983;38:314-318.
- Drake-Lee AB, Casey WF. Anaesthesia and tympanometry. *Int J Pediatr Otorhinolaryngol*. 1983;6:171-178.
- Drake-Lee AB, Price JM, Milford CM, Bickerton RC. Nasal mast cells: a preliminary report on their ultrastructure. *Journal of Laryngology and Otology - Supplement*. 1987;13:1-17.
- Drake-Lee A, Price J, Varley R. Mast cell ultrastructure in the adenoids of children with and without secretory otitis media. *J Laryngol Otol*. 1994;108:1058-1063.
- Drezner DA. Refractory otitis media [letter; comment]. *Ear Nose Throat J*. 1994;73:340-341.
- Dubin AD. Rational approach to the diagnosis and treatment of secretory otitis media. *J Am Osteopath Assoc*. 1968;68:391-399.
- Dubois B, Garabedian N, Sounthavong JP, Tournier G. Efficacy of alpha-amylase syrup in glue-ear with mucus spinability test. *Therapie*. 1987;42:545-547.
- Dubois B, Garabedian N, Sounthavong JP, Tournier G. [Effect of alpha-amylase in serous otitis in children with analysis of mucus spinability in glue-ear]. *Therapie*. 1987;42:545-547.
- Dubreuil C. [Acute otitis. Etiology, diagnosis, treatment]. *Revue du Praticien*. 1993;43:2421-2425.
- Duchin JS, Breiman RF, Diamond A, et al. High prevalence of multidrug-resistant Streptococcus pneumoniae among children in a rural Kentucky community. *Pediatr Infect Dis J*. 1995;14:745-750.
- Duckert LG, Muller J, Makielski KH, Helms J. Composite autograft "shield" reconstruction of remnant tympanic membranes. *Am J Otol*. 1995;16:21-26.
- Ducroz V, Le Pajolec C, Harboun E, Bobin S. [Acute mastoiditis due to anaerobic bacteria. Review of the literature apropos of a case]. *Ann Otolaryngol Chir Cervicofac*. 1993;110:55-59.
- Ducroz V, Garabedian EN. Treatment of otitis media with effusion. *Medecine et Maladies Infectieuses*. 1996;26:53-58.
- Duffy LC, Faden H, Wasielewski R, Wolf J, Krystofik D. Exclusive breastfeeding protects against bacterial colonization and day care exposure to otitis media. *Pediatrics*. 1997;100:E7.
- Dufour R. The search for the etiology of otitis media: results obtained with an application of the system theory. *Arctic Med Res*. 1991;Suppl:626-629.
- Dugdale AE, Lesina J, Lovell S, Prestwood U, Lewis AN. Influence of nutrition and social conditions on school performance of aboriginal children. *Med J Aust*. 1975;2:1-6.
- Dumich PS, Harner SG. Cochlear function in chronic otitis media. *Laryngoscope*. 1983;93:583-586.
- Duncan RB. Malleus handle probe: a middle ear diagnostic procedure. *Ann Otol Rhinol Laryngol*. 1982;91:281-284.
- Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breast-feeding for at least 4 months protects against otitis media [see comments]. *Pediatrics*. 1993;91:867-872.
- Dupont H, Timsit JF, Souweine B, Gachot B, Wolff M, Regnier B. Torsades de pointe probably related to

- sparfloxacin [letter]. *Eur J Clin Microbiol Infect Dis*. 1996;15:350-351.
- Dupuis G, Ebbo D, Evennou A, Pappo M. Efficacy and safety of cefuroxime-axetil for the treatment of upper respiratory tract infections. Results of a randomized trial versus cefadroxil. *Rev Laryngol Otol Rhinol*. 1989;110:123-126.
- Durmowicz AG, Noordewier E, Nicholas R, Reeves JT. Inflammatory processes may predispose children to high-altitude pulmonary edema. *J Pediatr*. 1997;130:838-840.
- Duroux S, Devars F, Patuano E, Bondonny JM, Traissac L. [Cleft palate and inflammatory diseases of the middle ear]. *Rev Laryngol Otol Rhinol*. 1993;114:165-169.
- Durr DG, Shapiro RS. Otologic manifestations in congenital velopharyngeal insufficiency. *Am J Dis Child*. 1989;143:75-77.
- Dusdieker LB, Smith G, Booth BM, Woodhead JC, Milavetz G. The long-term outcome of nonsuppurative otitis media with effusion. *Clin-Pediatr-Phila*. 1985;24:181-186.
- Dutoit Marco ML, Cherpillod J. Audiometric problems after recurrent serous otitis in children. *Ther Umsch*. 1023;39:1023-1026.
- Duvall AJd. Fluid ear. *Postgrad Med*. 1972;52:79-83.
- Duvall AJd, Lowell SH. The "chronic" ear: how to manage mild to severe otitis. *Postgrad Med*. 1979;66:94-98,101.
- Duvillard C, Romanet P. [Acute otitis. Etiology, diagnosis, treatment]. *Revue du Praticien*. 1997;47:335-340.
- Dworkin PH. The preschool child: developmental themes and clinical issues. *Curr Probl Pediatr*. 1988;18:73-134.
- Dyson AT, Holmes AE, Duffitt DV. Speech characteristics of children after otitis media. *Journal of Pediatric Health Care*. 1987;1:261-265.
- Eagles EL, Wishik SM, Doerfler LG. Hearing sensitivity and ear disease in children: a prospective study. *Laryngoscope*. 1967:274.
- Eagles EL. Symposium: conservation of hearing in children. Selected findings from the Pittsburgh study. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1972;76:343-348.
- Eagles EL. A longitudinal study of ear disease and hearing sensitivity in children. *Audiology*. 1973;12:438-445.
- Eason RJ, Harding E, Nicholson R, Nicholson D, Pada J, Gathercole J. Chronic suppurative otitis media in the Solomon Islands: a prospective, microbiological, audiometric and therapeutic survey. *N-Z-Med-J*. 1986;99:812-815.
- East D. The use of Per-Lee ventilation tubes in the management of refractory secretory otitis media. *J Laryngol Otol*. 1986;100:509-513.
- Eavey RD, Gao YZ, Schuknecht HF, Gonzalez-Pineda M. Otologic features of bacterial meningitis of childhood. *J Pediatr*. 1985;106:402-407.
- Eavey RD, Santos JJ, Arriaga MA, et al. An education model for otitis media care field-tested in Latin America. *Otolaryngol Head Neck Surg*. 1993;109:895-898.
- Eavey RD. Abnormalities of the neonatal ear: otoscopic observations, histologic observations, and a model for contamination of the middle ear by cellular contents of amniotic fluid. *Laryngoscope*. 1993;103:1-31.
- Ebeling O, Ott S, Michel O, Stennert E. [Self-induced illness in ENT medical practice. Artefacts as a contribution to differential diagnosis of unusual illness courses]. *HNO*. 1996;44:526-531.
- Eby TL, Nadol JB, Jr. Postnatal growth of the human temporal bone. Implications for cochlear implants in children. *Ann Otol Rhinol Laryngol*. 1986;95:356-364.
- Edamatsu H, Yamashita K. [Three-dimensional CT of the ossicles of the middle ear]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1995;98:245-253.
- Edelstein DR, Parisier SC, Han JC. Acquired cholesteatoma in the pediatric age group. *Otolaryngol Clin North Am*. 1989;22:955-966.
- Edstrom S, Lundin K, Jeppsson PH. Secretory otitis media. Aspects on treatment and control. *ORL-J-Otorhinolaryngol-Relat-Spec*. 1977;39:68-73.

- Egeli E, Kiris M. Is aspiration necessary before tympanostomy tube insertion? *Laryngoscope*. 1998;108:443-444.
- Egelund E, Bak-Pedersen K. Suppurative labyrinthitis caused by anaerobic bacteria. *J Laryngol Otol*. 1994;108:413-414.
- Egger M, Smith GD, Schneider M, al. e. Bias in meta-analysis detected by a simple, graphical test. *Br Med J*. 1997;315:629-634.
- Egusa K, Huang CC, Haddad J, Jr. Heat shock proteins in acute otitis media. *Laryngoscope*. 1995;105:708-713.
- Ehsani B, Collo D. [Three years experience with ionomer cement in reconstructive middle ear surgery]. *Laryngorhinootologie*. 1994;73:381-384.
- Eichenwald HE. Otitis media in the child. *Hospital Practice (Office Edition)*. 1985;20:51-55, 57, 60-61.
- Eichenwald H. Developments in diagnosing and treating otitis media. *Am Fam Physician*. 1985;31:155-164.
- Eilers R, Widen J, Urbano R, Hudson T, Gonzales L. Optimization of automated hearing test algorithms: A comparison of data from simulations and young children. *Ear Hear*. 1991;12:199-204.
- Eimas PD, Kavanagh JF. Otitis media, hearing loss, and child development: a NICHD conference summary. *Public Health Rep*. 1986;101:289-293.
- Eiriksson TH, Sigurgeirsson B, Ardal B, Sigfusson A, Valdimarsson H. Cord blood IgE levels are influenced by gestational age but do not predict allergic manifestations in infants. *Pediatr Allergy Immunol*. 1994;5:5-10.
- Eisenman DJ, Parisier SC. Is chronic otitis media with cholesteatoma associated with neurosensory hearing loss? *Am J Otol*. 1998;19:20-25.
- el-Guindy A. A correlative manometric and endoscopic study of tubal function in chronic otitis media with effusion. *Acta Otolaryngol*. 1998;118:692-696.
- el-Sayed Y, Zakzouk S. Point prevalence of type B tympanogram in Riyadh. *Int J Pediatr Otorhinolaryngol*. 1995;31:53-61.
- el-Sayed Y, al-Sarhani A, al-Essa AR. Otological manifestations of primary ciliary dyskinesia. *Clin Otolaryngol Allied Sci*. 1997;22:266-270.
- el-Seifi A. Myringoplasty (repair of total or subtotal drum perforations). *J Laryngol Otol*. 1974;88:731-740.
- el-Shamy HA. Bacteriology of chronic secretory otitis media in children. *J Egypt Public Health Assoc*. 1993;68:495-505.
- Elahi MM, Elahi F, Elahi A, Elahi SB. Paediatric hearing loss in rural Pakistan. *J Otolaryngol*. 1998;27:348-353.
- Elam M, Harell M, Luntz M, Fuchs C, Sade J. Middle ear pressure variations during 50% N2O anesthesia as a function of mastoid pneumatization. *Am J Otol*. 1998;19:709-711.
- Elango S, Purohit GN, Hashim M, Hilmi R. Hearing loss and ear disorders in Malaysian school children. *Int J Pediatr Otorhinolaryngol*. 1991;22:75-80.
- Elango S, Than T. Mastoiditis in Kelantan. *Med J Malaysia*. 1995;50:233-236.
- Elango S. Parapharyngeal space lipoma. *Ear Nose Throat J*. 1995;74:52-53.
- Elbrond O. Defects of the auditory ossicles in ears with intact tympanic membrane. Clinical studies. *Acta Oto-Laryngologica - Supplement*. 1970;264:1-51.
- Elbrond O, Birch L. Daily impedance audiometric screening of children in a day-care institution. *Auris Nasus Larynx*. 1985;12:S216-S218.
- Elcock HW, Lord IJ. Bromhexine hydrochloride in chronic secretory otitis media--a clinical trial. *Br J Clin-Pract*. 1972;26:276-278.
- Eldridge R, Brody JA, Wetmore N. Hearing loss and otitis media on Guam. *Arch Otolaryngol*. 1970;91:148-153.
- Eliachar I. Audiologic manifestations in otitis media. *Otolaryngol Clin North Am*. 1978;11:769-776.
- Eliachar I, Moscona AR. Reconstruction of the laryngotracheal complex in children using the sternocleidomastoid myocutaneous flap. *Head and Neck Surgery*. 1981;4:16-21.

- Eliachar I, Joachims HZ. Long-term ventilation of the middle ear. An update. *Scand Audiol*. 1982;11.
- Eliachar I, Joachims HZ, Goldsher M, Golz A. Assessment of long-term middle ear ventilation. *Acta Otolaryngol*. 1983;96:105-112.
- Elias-Jones AC, Sequeira J, Leitch RN, Heard SR. Tuberculosis presenting as laryngeal stridor in a child. *J Infect*. 1988;16:61-64.
- Elies W, Pletan Y. An international medico-economic survey of 2007 children with recurrent nasopharyngitis and acute otitis media. Preliminary findings. *Drugs*. 1997;54:5-12.
- Ellefsen B, Bonding P. Facial palsy in acute otitis media. *Clin Otolaryngol*. 1996;21:393-395.
- Elliott MA, Studen-Pavlovich DA, Ranalli DN. Prevalence of selected pediatric conditions in children with Pierre Robin sequence. *Pediatr Dent*. 1995;17:106-111.
- Elliott CA, Zalzal GH, Gottlieb WR. Acute otitis media and facial paralysis in children. *Ann Otol Rhinol Laryngol*. 1996;105:58-62.
- Ellis MA, Lee WW, Wallace IF, Gravel JS. Hearing sensitivity and otitis media in one-year old infants: a preliminary report. In: Lim DJ, Bluestone CD, Casselbrant M, Klein JO, Ogra PL, eds. *Proceedings of the Sixth International Symposium on Recent Advances in Otitis Media*. Hamilton: BC Decker; 1995:396.
- Ellis MA, Lee WW, Wallace IF, Gravel JS. Hearing sensitivity and otitis media in one-year old infants: a preliminary report. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:396-398.
- Ellison RS, Altemeier WA. Effect of use of a measured dispensing device on oral antibiotic compliance. *CLIN. PEDIATR. (PHILADELPHIA)*. 1982;21:668-671.
- Ellison GW, Donnell RL, Daniel GB. Nasopharyngeal epidermal cyst in a dog. *J Am Vet Med Assoc*. 1995;207:1590-1592.
- Elverland HH, Mair IW, Haugeto OK, Schroder KE. Influence of adenoid hypertrophy on secretory otitis media. *Ann Otol Rhinol Laryngol*. 1981;90:7-11.
- Emery M, Weber PC. Hearing loss due to myringotomy and tube placement and the role of preoperative audiograms. *Arch Otolaryngol Head and Neck Surgery*. 1998;124:421-424.
- Endo LH, Antunes AB, Vidolin C, Bilecki MM, Magalhaes KVB. Secretory media otitis: Clinical treatment vs placebo. OTITE MEDIA SECRETORA: TRATAMENTO CLINICO VERSUS PLACEBO. *Revista Brasileira De Otorrinolaringologia*. 1997;63:116-119.
- Endo LH, Antunes AB, Vidolin C, Bilecki MM, Magalhaes KVB. Secretory media otitis: Clinical treatment vs placebo. *Revista Brasileira de Otorrinolaringologia*. 1997;63:116-119.
- Engdahl B, Arnesen AR, Mair IW. Otoacoustic emissions in the first year of life. *Scand Audiol*. 1994;23:195-200.
- Engel F, Blatz R, Kellner J, Palmer M, Weller U, Bhadki S. Breakdown of the round window membrane permeability barrier evoked by streptolysin O: possible etiologic role in development of sensorineural hearing loss in acute otitis media. *Infect Immun*. 1995;63:1305-1310.
- Engel JM, Anteunis LJC, Hendricks JJT, Marres EHMA. Epidemiologic aspects of otitis media with effusion in infancy. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:47-49.
- Engel J, Anteunis L, Volovics A, Hendriks J, Marres E. Risk factors of otitis media with effusion during infancy. *Int J Pediatr Otorhinolaryngol*. 1999;48:239-249.
- Engel J, Anteunis L, Volovics A, Hendriks J, Marres E. Prevalence rates of otitis media with effusion from 0 to 2 years of age: healthy-born versus high-risk-born infants. *Int J Pediatr Otorhinolaryngol*. 1999;47:243-251.
- Engel JAM, Anteunis LJC, Volovics A, Hendriks JJT, Manni JJ. Chronic otitis media with effusion during infancy, have parent-reported symptoms prognostic value? A prospective longitudinal study from 0 to 2 years of age. *Clin Otolaryngol Allied Sci*. 1999;24:417-423.
- Engelhard D, Cohen D, Strauss N, Sacks TG, Jorczak-Sarni L, Shapiro M. Randomised study of myringotomy, amoxicillin/clavulanate, or both for acute otitis media in infants. *Lancet*. 1989;2:141-143.

- Englender M, Somech E, Harell M. Laser myringotomy (L-myringotomy) and ventilating tubes: A preliminary comparative study. *Lasers in Medical Science*. 1999;14:62-66.
- English GM, Hildyard VH, Hemenway WG, Davidson S. Autograft and homograft incus transpositions in chronic otitis media. *Laryngoscope*. 1971;81:1434-1447.
- Englund JA, Suarez CS, Kelly J, Tate DY, Balfour HH, Jr. Placebo-controlled trial of varicella vaccine given with or after measles-mumps-rubella vaccine. *J Pediatr*. 1989;114:37-44.
- Enin EP, Morenko VM. [Polysorb as an immobilizing matrix for the drugs used for the local therapy of otitis media]. *Vestn Otorinolaringol*. 1993;41-42.
- Enomoto F, Ichikawa G, Nagaoka I, Yamashita T. [Evaluation of arachidonic acid metabolites in experimental rat otitis media with effusion]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1995;98:959-967.
- Enomoto F, Ichikawa G, Nagaoka I, Yamashita T. [Evaluation of the effect of erythromycin on otitis media with effusion in experimental rat models]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:1126-1135.
- Eppes SC, Klein JD, Lewis LL. Ceftriaxone for acute otitis media [letter]. *Pediatrics*. 1997;100:157-158.
- Epstein MM, Gruskay F. Selective deficiency in pneumococcal antibody response in children with recurrent infections. *Ann Allergy Asthma Immunol*. 1995;75:125-131.
- Erkan M, Aslan T, Sevuk E, Guney E. Bacteriology of chronic suppurative otitis media. *Ann Otol Rhinol Laryngol*. 1994;103:771-774.
- Erlach A, Zechner G. Tubotympanic catarrh in childhood. Diagnosis and therapy. *Wien Klin Wochenschr*. 1983;95:396-399.
- Ernst A, Issing PR. [Ear infections]. *Med Monatsschr Pharm*. 1994;17:294-298.
- Ernstson S, Sundberg L. Erythromycin in the treatment of otitis media with effusion (OME). *J Laryngol Otol*. 1984;98:767-769.
- Ernstson S, Anari M. Cefaclor in the treatment of otitis media with effusion. *Acta-Otolaryngol-Suppl-Stockh*. 1985:17-21.
- Ernstson S, Sundberg L. Erythromycin in the treatment of otitis media with effusion: Timing and long-term effects. *Current Therapeutic Research, Clinical and Experimental*. 1985;38.
- Esposito S, D'Errico G, Montanaro C. Topical and oral treatment of chronic otitis media with ciprofloxacin. A preliminary study. *Arch Otolaryngol Head Neck Surg*. 1990;116:557-559.
- Esposito S, Noviello S, D'Errico G, Montanaro C. Topical ciprofloxacin vs intramuscular gentamicin for chronic otitis media [see comments]. *Arch Otolaryngol Head Neck Surg*. 1992;118:842-844.
- Etzel RA, Pattishall EN, Haley NJ, Fletcher RH, Henderson FW. Passive smoking and middle ear effusion among children in day care. *Pediatrics*. 1992;90:228-232.
- Everberg G. Conductive lesions in children and young adults in past and present. Prevalence, causes and treatment. *Acta Otolaryngol*. 1966;Suppl:186+.
- Eviatar A, Goodhill V. Myringo-manometry: observations in normal and pathologic ears. A preliminary report. *Laryngoscope*. 1970;80:1847-1858.
- Ey JL, Holberg CJ, Aldous MB, Wright AL, Martinez FD, Taussig LM. Passive smoke exposure and otitis media in the first year of life. Group Health Medical Associates. *Pediatrics*. 1995;95:670-677.
- Fabian P, Lonnerholm G, Jerrmark-Tera IB, Kleberg A, Melander H. [Effects and adverse effects of decongestants in otosalpingitis]. *Lakartidningen*. 1986;83:3508-3513.
- Facione N. Quality of life issues in chronic otitis media with effusion: parameters for future study. *Int J Pediatr Otorhinolaryngol*. 1991;22:167-179.
- Faden H, Brodsky L, Bernstein J, et al. Otitis media in children: local immune response to nontypeable *Haemophilus influenzae*. *Infect Immun*. 1989;57:3555-3559.
- Faden H, Bernstein J, Brodsky L, Stanievich J, Ogra PL. Effect of prior antibiotic treatment on middle ear disease in children. *Ann Otol Rhinol Laryngol*. 1992;101:87-91.

- Faden H, Hong JJ, Pahade N. Immune response to *Moraxella catarrhalis* in children with otitis media: opsonophagocytosis with antigen-coated latex beads. *Ann Otol Rhinol Laryngol*. 1994;103:522-524.
- Faden H, Doern G, Wolf J, Blocker M. Antimicrobial susceptibility of nasopharyngeal isolates of potential pathogens recovered from infants before antibiotic therapy: implications for the management of otitis media. *Pediatr Infect Dis J*. 1994;13:609-612.
- Faden H, Harabuchi Y, Hong JJ. Epidemiology of *Moraxella catarrhalis* in children during the first 2 years of life: relationship to otitis media. *J Infect Dis*. 1994;169:1312-1317.
- Faden H. Comparison of the local immune response to nontypable *Haemophilus influenzae* (nHI) and *Moraxella catarrhalis* (MC) during otitis media. *Adv Exp Med Biol*. 1995;371B:733-736.
- Faden H, Duffy L, Hong JJ. Adherence of nontypable *Haemophilus influenzae* to respiratory epithelium of otitis prone and normal children. *Acta Oto-Laryngologica - Supplement*. 1996;523:142-144.
- Faden H, Duffy L, Williams A, Krystofik DA, Wolf J. Epidemiology of nasopharyngeal colonization with nontypeable *Haemophilus influenzae* in the first two years of life. *Acta Oto-Laryngologica - Supplement*. 1996;523:128-129.
- Faden H, Duffy L, Foels T, Hong JJ. Adherence of nontypeable *Haemophilus influenzae* to respiratory epithelium of otitis-prone and normal children. *Ann Otol Rhinol Laryngol*. 1996;105:367-370.
- Faden H, Duffy L, Wasielewski R, Wolf J, Krystofik D, Tung Y. Relationship between nasopharyngeal colonization and the development of otitis media in children. Tonawanda/Williamsville Pediatrics. *J Infect Dis*. 1997;175:1440-1445.
- Fagan JJ, Prescott CA. Ascariasis and acute otitis media. *Int J Pediatr Otorhinolaryngol*. 1993;26:67-69.
- Fagelson M, Martin FN. Sound pressure in the external auditory canal during bone-conduction testing. *J Am Acad Audiol*. 1994;5:379-383.
- Fair L, Louw B. Early communication intervention with young children with Pierre Robin sequence. *South African Journal of Communication Disorders - die Suid-Afrikaanse Tydskrif vir Kommunikasieafwykings*. 1998;45:51-60.
- Fajemisin AA. Rhabdomyosarcoma of the middle ear and mastoid. *J Laryngol Otol*. 1974;88:809-816.
- Falaki NN. Index of suspicion. Case I. Langerhans cell histiocytosis. *Pediatr Rev*. 1994;15:117-118.
- Falk B. Negative middle ear pressure induced by sniffing. A tympanometric study in persons with healthy ears. *J Otolaryngol*. 1981;10:299-305.
- Falk B. Sniff-induced negative middle ear pressure: study of a consecutive series of children with otitis media with effusion. *Am J Otolaryngol*. 1982;3:155-162.
- Falk B. Variability of the tympanogram due to eustachian tube closing failure. *Scand Audiol Suppl*. 1983;17:11-17.
- Falser N, Mittermayer H, Weuta H. Antibacterial treatment of otitis and sinusitis with ciprofloxacin and penicillin V--a comparison. *Infection*. 1988;S51-S54.
- Farber JM. Therapy for acute otitis media [letter; comment]. *Arch Pediatr Adolesc Med*. 1996;150:1315.
- Farkas Z, Katona G, Pataki L. Epidemiology of hearing disability in children - A survey in some European countries. *J Audiological Med*. 1998;7:1-3.
- Farrior JB, Endicott JN. Congenital mixed deafness: cerebrospinal fluid otorrhea. Ablation of the aqueduct of the cochlea. *Laryngoscope*. 1971;81:684-699.
- Farrior JB. XXXII Wherry Memorial Lecture. The ear surgeon of tomorrow. Tympanomastoidectomy techniques and classification. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1977;84:15-37.
- Farrugia EJ, Raza SA, Phillipps JJ. Tuberculous otitis media--a case report. *J Laryngol Otol*. 1997;111:58-59.
- Farwell JR, Blackner G, Sulzbacher S, Adelman L, Voeller M. First febrile seizures. Characteristics of the child, the seizure, and the illness. *Clin Pediatr*. 1994;33:263-267.
- Faye-Lund H. Acute and latent mastoiditis. *J Laryngol Otol*. 1989;103:1158-1160.
- Feagans L, Sanyal M, Henderson F, Collier A, Appelbaum M. Relationship of middle ear disease in

- early childhood to later narrative and attention skills. *J Pediatr Psychol.* 1987;12:581-594.
- Feagans LV, Blood IM. Language and behavioral sequelae of otitis media in infants and young children attending day-care centers. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:521-523.
- Feagans L, Kipp E, Blood I. The effects of otitis media on the attention skills of day-care-attending toddlers. *Dev Psychol.* 1994;30:701-708.
- Feder HM, Jr. Comparative tolerability of ampicillin, amoxicillin, and trimethoprim-sulfamethoxazole suspensions in children with otitis media. *Antimicrob-Agents-Chemother.* 1982;21:426-427.
- Feder HM, Jr. Defining outcomes for otitis media studies [letter; comment]. *J Pediatr.* 1993;122:669-670.
- Federspil P. [Treatment of "suppurating ear" with intact middle ear tubes]. *Laryngorhinootologie.* 1993;72:209-210.
- Feenstra L, Sanna M, Zini C, Gamoletti R, Delogu P. Surgical treatment of brain herniation into the middle ear and mastoid. *Am J Otol.* 1985;6:311-315.
- Feilen SE, Federspil P. [Long-term outcome of tympanoplasty in chronic suppurative middle ear infection in childhood]. *HNO.* 1996;44:143-147.
- Feiner MV, Pardue KM, Raffin MJM, Matz GJ. Infant hearing screening program: High-risk factors for hearing loss. *Seminars in Hearing.* 1996;17:165-170.
- Feinmesser R, Segal K, Granot E. Minimal middle ear effusion: an indication for ventilation tubes in infants with protracted vomiting. *J Otolaryngol.* 1993;22:108-109.
- Felder H. Chronic otitis media in children. *Pediatr Ann.* 1976;5:474-477.
- Felder H. The use of tympanostomy tubes. *Pediatr Ann.* 1988;17:616, 618-619.
- Felding JU. "The longitudinal Hjorring-population-study". Results at 6 years of follow-up. *Scand Audiol Suppl.* 1983;17:55-59.
- Feldman AS. Tympanometry: application and interpretation. *Ann Otol Rhinol Laryngol.* 1976;85:202-208.
- Feldman AS. Tympanometry: Application and interpretation. . *The Annals of Otolology, Rhinology and Laryngology*; 1976:202-208.
- Feldman W, Richardson H, Rennie B, Dawson P. A trial comparing cefaclor with co-trimoxazole in the treatment of acute otitis media. *Arch-Dis-Child.* 1982;57:594-596.
- Feldman RM, Fria TJ, Palfrey CC, Dellecker CM. Effects of rate of air pressure change on tympanometry. *Ear Hear.* 1984;5:91-95.
- Feldman S, Doolittle M, Lott L, Roberson P, Hughes WT. Similar hematologic changes in children receiving trimethoprim-sulfamethoxazole or amoxicillin for otitis media. *J Pediatr.* 1985;106:995-1000.
- Feldman W, Momy J, Dulberg C. Trimethoprim-sulfamethoxazole v. amoxicillin in the treatment of acute otitis media. *CMAJ.* 1988;139:961-964.
- Feldman W, Sutcliffe T, Dulberg C. Twice-daily antibiotics in the treatment of acute otitis media: trimethoprim-sulfamethoxazole versus amoxicillin-clavulanate [see comments]. *CMAJ.* 1990;142:115-118.
- Feldman HM, Paradise JL, Colborn DK, et al. Word production at age 2 years in relation to otitis media during the first two years of life. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:328.
- Feldman HM, Dollaghan CA, Campbell TF, et al. Parent-reported language and communication skills at one and two years of age in relation to otitis media in the first two years of life. *Pediatrics.* 1999;104:e52.
- Feldmann H. Homolateral and contralateral masking of tinnitus. *Journal of Laryngology and Otolology - Supplement.* 1981:60-70.
- Feldmann H. Differential diagnosis of acute hearing impairment. *Diagnostik.* 1985;18:13-15.
- Fenton JE, O'Sullivan TJ. The otological manifestations of Wegener's granulomatosis. *J Laryngol Otol.* 1994;108:144-146.

- Ferekidis E, Vlachou S, Douniadakis D, Apostolopoulos N, Adamopoulos G. Multiple-frequency tympanometry in children with acute otitis media. *Otolaryngology and Head and Neck Surgery*. 1999;121:797-801.
- Ferguson PJ, Saulsbury FT. Successful treatment of chronic Mycobacterium abscessus otitis media with clarithromycin. *Pediatr Infect Dis J*. 1996;15:384-385.
- Fernandes D, Gupta S, Sly RM, Frazer M. Tympanometry in children with allergic respiratory disease. *Annals of Allergy*. 1978;40:181-184.
- Fernandez-Blasini N. Use and abuse of ventilation tubes. *Am J Otol*. 1985;6:142-145.
- Ferrer HP. The use of impedance measurements in the diagnosis of serous otitis media. *Int J Pediatr Otorhinolaryngol*. 1983;5:243-250.
- Ferrer HP. Impedance Measurements in the Diagnosis of Otitis Media with Effusion. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:246-249.
- Ferroni A, Nguyen L, Gehanno P, Boucot I, Berche P. Clonal distribution of penicillin-resistant Streptococcus pneumoniae 23F in France. *J Clin Microbiol*. 1996;34:2707-2712.
- Ficnar B, Huzjak N, Oreskovic K, Matrapazovski M, Klinar I. Azithromycin: 3-day versus 5-day course in the treatment of respiratory tract infections in children. Croatian Azithromycin Study Group. *J Chemother*. 1997;9:38-43.
- Fielder CP. The effect of adenoidectomy on nasal resistance to airflow. *Acta Otolaryngol*. 1985;100:444-449.
- Fields JA. Tuberculous mastoiditis. *Laryngoscope*. 1967;77:489-492.
- Fields MJ, Allison RS, Corwin P, White PS, Doherty J. Microtympanometry, microscopy and tympanometry in evaluating middle ear effusion prior to myringotomy. *N Z Med J*. 1993;106:386-387.
- Fiellau NM, Hojslet PE, Felding JU. Adenoidectomy for Eustachian tube dysfunction: Long-term results from a randomized controlled trial. *ACTA-OTO-LARYNGOL*. 1982;94:129-131.
- Fiellau-Nikolajsen M. Tympanometry in three-year-old children. II. Seasonal influence on tympanometric results in non-selected groups of three-year-old children. *Scand Audiol*. 1979;8:181-185.
- Fiellau-Nikolajsen M. Tympanometry in 3-year-old children. Type of care as an epidemiological factor in secretory otitis media and tubal dysfunction in unselected populations of 3-year-old children. *ORL J Otorhinolaryngol Relat Spec*. 1979;41:193-205.
- Fiellau-Nikolajsen M, Lous J. Tympanometry in three-year-old children. A cohort study on the prognostic value of tympanometry and operative findings in middle ear effusion. *ORL J Otorhinolaryngol Relat Spec*. 1979;41:11-25.
- Fiellau-Nikolajsen M, Lous J. Prospective tympanometry in 3-year-old children. A study of the spontaneous course of tympanometry types in a nonselected population. *Arch Otolaryngol*. 1979;105:461-466.
- Fiellau-Nikolajsen M. Tympanometry in 3-year-old children. Type of case as an epidemiological factor in secretory otitis media and tubal dysfunction in unselected populations of 3-year-old children. *Orl*. 1979;41:193-205.
- Fiellau-Nikolajsen M, Falbe-Hansen J, Knudstrup P. Adenoidectomy for middle ear disorders: a randomized controlled trial. *Clin-Otolaryngol*. 1980;5:323-327.
- Fiellau-Nikolajsen M. Tympanometry and middle ear effusion: a cohort-study in three-year-old children. *Int J Pediatr Otorhinolaryngol*. 1980;2:39-49.
- Fiellau-Nikolajsen M, Falbe-Hansen J, Knudstrup P. Tympanometry in three-year-old children. III. Correlation between tympanometry and findings at paracentesis in a prospectively followed population of otherwise healthy children aged 3--4 years. *Scand Audiol*. 1980;9:49-54.
- Fiellau-Nikolajsen M. Tympanometry in three-year-old children. Prevalence and spontaneous course of MEE. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:223-227.
- Fiellau-Nikolajsen M. Serial tympanometry and middle ear status in 3-year-old children. *ORL J Otorhinolaryngol Relat Spec*. 1980;42:220-232.

- Fiellau-Nikolajsen M. Tympanometry in three-year-old children: Prevalence and spontaneous course of MEE. *Ann Otol Rhinol Laryngol*. 1980;89.
- Fiellau-Nikolajsen M. Tympanometry in three-year-old children. The 3-year follow-up of a cohort study. *ORL J Otorhinolaryngol Relat Spec*. 1981;43:89-103.
- Fiellau-Nikolajsen M. Tympanometry and secretory otitis media. Observations on diagnosis, epidemiology, treatment, and prevention in prospective cohort studies of three-year-old children. *Acta Oto-Laryngologica - Supplement*. 1983;394:1-73.
- Fiellau-Nikolajsen M. Tympanometric prediction of the magnitude of hearing loss in preschool-children with secretory otitis media. *Scand Audiol Suppl*. 1983;17:68-72.
- Fiellau-Nikolajsen M. Epidemiology of secretory otitis media. A descriptive cohort study. *Ann Otol Rhinol Laryngol*. 1983;92:172-177.
- Fiellau-Nikolajsen M, Felding JU, Fischer HH. Adenoidectomy for Eustachian Tube Dysfunction: Long-Term Results from a Randomized Controlled Trial. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:302-306.
- Fiellau-Nikolajsen M. Tympanometric prediction of hearing loss in secretory otitis media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:326-329.
- Fiellau-Nikolajsen M. Audiological aspects on treatment of SOM. Indications and results. *Scand Audiol Suppl*. 1986;26:77-81.
- Figueras G, Garcia O, Vall O, Massaguer X, Salvado M. Otogenic *Fusobacterium necrophorum* meningitis in children. *Pediatr Infect Dis J*. 1995;14:627-628.
- Fileni A, Colosimo C, Jr., Moschini M, Malena S, Gugliantini P. Tomography in the pre-operative evaluation of ear malformations. Report of 47 cases, 58 ears. *J Laryngol Otol*. 1985;99:433-438.
- Filiaci F, Masieri S, Zambetti G, Orlando MP. Nasal hypersensitivity in purulent middle ear effusion. *Allergol Immunopathol*. 1997;25:91-94.
- Filipo R, Barbara M, Monini S, Mancini P. Clarion cochlear implants: surgical implications. *J Laryngol Otol*. 1999;113:321-325.
- Fini-Storchi I, Ninu MB. Atypical intranasal foreign body. *Ear Nose Throat J*. 1996;75:796-799.
- Finitzo T, Roland P, Friel-Patti S, Hieber P, Brown KC, Formby E. Incidence, Prevalence, and Duration of Otitis Media in Infants. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:15-17.
- Finitzo T, Friel-Patti S, Chinn K, Brown O. Tympanometry and otoscopy prior to myringotomy: issues in diagnosis of otitis media. *Int J Pediatr Otorhinolaryngol*. 1992;24:101-110.
- Finkelstein MW, Hammond HL, Jones RB. Hyalinosis cutis et mucosae. *Oral Surgery, Oral Medicine, Oral Pathology*. 1982;54:49-58.
- Finkelstein Y, Talmi YP, Rubel Y, Bar-Ziv J, Zohar Y. Otitis media with effusion as a presenting symptom of chronic sinusitis. *J Laryngol Otol*. 1989;103:827-832.
- Finkelstein Y, Ophir D, Talmi YP, Shabtai A, Strauss M, Zohar Y. Adult-onset otitis media with effusion. *Arch Otolaryngol Head Neck Surg*. 1994;120:517-527.
- Finney JW, Friman PC, Rapoff MA, Christophersen ER. Improving compliance with antibiotic regimens for otitis media. Randomized clinical trial in a pediatric clinic. *Am-J-Dis-Child*. 1985;139:89-95.
- Fior R, Veljak C. Late results and complications of tympanostomy tube insertion for prophylaxis of recurrent purulent otitis media in pediatric age. *Int J Pediatr Otorhinolaryngol*. 1984;8:139-146.
- Fireman P. Eustachian tube obstruction and allergy: a role in otitis media with effusion? *J Allergy Clin Immunol*. 1985;76:137-140.
- Fireman P. The role of antihistamines in otitis. *J Allergy Clin Immunol*. 1990;86:638-641.
- Fireman P. Otitis media and its relation to allergic rhinitis. *Allergy Asthma Proc*. 1997;18:135-143.
- Fireman P. Treatment strategies designed to minimize medical complications of allergic rhinitis. *Am J Rhinol*. 1997;11:95-102.

- Fireman P. Otitis media and eustachian tube dysfunction: connection to allergic rhinitis. *J Allergy Clin Immunol.* 1997;99:S787-S797.
- Fischler RS, Todd NW, Feldman CM. Otitis media and language performance in a cohort of Apache Indian children. *Am J Dis Child.* 1985;139:355-360.
- Fish B, Banerjee AR, Jennings C, Narula AA. Meeting of the Otorhinolaryngological Research Society (ORS), London, april 1996: The effect of anaesthetic agents on tympanometry and middle ear effusions. *Clin Otolaryngol Allied Sci.* 1998;23.
- Fitz CR, Harwood-Nash DC. Radiology of the ear in children. *Radiol Clin North Am.* 1974;12:553-570.
- Fitz-Hugh GS, Stone RT. Serous otitis media in children. *Virginia Medical Monthly.* 1966;93:61-65.
- Fitzhardinge PM, Kazemi M, Ramsay M, Stern L. Long-term sequelae of neonatal meningitis. *Dev Med Child Neurol.* 1974;16:3-8.
- Fjermedal O, Laukli E. Paediatric auditory brainstem response and pure-tone audiometry: threshold comparisons. A study of 142 difficult-to-test children. *Scand Audiol.* 1989;18:105-111.
- Fjermedal O, Laukli E. Paediatric auditory brainstem response and pure-tone audiometry: Threshold comparisons. A study of 142 difficult-to-test children. *Scand Audiol.* 1989;18:105-111.
- Flanagan PM, Knight LC, Thomas A, Browning S, Aymat A, Clayton MI. Hearing aids and glue ear. *Clin Otolaryngol Allied Sci.* 1996;21:297-300.
- Fleisher GR, Rosenberg N, Vinci R, et al. Intramuscular versus oral antibiotic therapy for the prevention of meningitis and other bacterial sequelae in young, febrile children at risk for occult bacteremia [see comments]. *J Pediatr.* 1994;124:504-512.
- Flisberg K, Hallgarde U, Paulsson B. Tympanometry before and during nitrous oxide anesthesia with middle ear effusion. *Am J Otolaryngol.* 1982;3:344-348.
- Fliess DM, Krauss M, Gorodischer R, Bearman J, Lieberman A. [Cefaclor and trimethoprim-sulfamethoxazole for recurrent otitis media]. *Harefuah.* 1989;117:361-363.
- Fliess DM, Dagan R, Houry Z, Lieberman A. Medical management of chronic suppurative otitis media without cholesteatoma in children [see comments]. *J Pediatr.* 1990;116:991-996.
- Fliess DM, Lieberman A, Dagan R. Medical sequelae and complications of acute otitis media. *Pediatr Infect Dis J.* 1994;13:S34-S40; discussion S50-S54.
- Flood J. Glue ear. *Nursing Times.* 1989;85:38-41.
- Floret D, Dumont C. Neurological complications of otitis media. *Medecine et Maladies Infectieuses.* 1988;18:486-492.
- Flottorp G, Solberg S. Mechanical impedance of human headbones (forehead and mastoid portion of the temporal bone) measured under ISO/IEC conditions. *J Acoust Soc Am.* 1976;59:899-906.
- Fogelman Y. [Otitis media in childhood and later cognitive and academic difficulties]. *Harefuah.* 1993;124:570-572.
- Folsom RC, Weber BA, Thompson G. Auditory brainstem responses in children with early recurrent middle ear disease. *Ann Otol Rhinol Laryngol.* 1983;92:249-253.
- Fombour JP, Barrault S, Koubbi G, et al. Study of the efficacy and safety of ciprofloxacin in the treatment of chronic otitis. *Chemotherapy.* 1994;40 S:29-34.
- Fong R. Resident's column. The ear and hearing. *Pediatr Ann.* 1999;28:396-398.
- Force RW, Hart MC, Plummer SA, Powell DA, Nahata MC. Topical ciprofloxacin for otorrhea after tympanostomy tube placement. *Arch Otolaryngol Head Neck Surg.* 1995;121:880-884.
- Ford K, Labbok M. Breast-feeding and child health in the United States. *J Biosoc Sci.* 1993;25:187-194.
- Ford KL, 3rd. Aunt Minnie's corner. High-riding jugular bulb. *J Comput Assist Tomogr.* 1998;22:508.
- Forer M, Murtagh J. Acute otitis media. *Aust Fam Physician.* 1995;24:2093, 2097.
- Forgays DK, Hasazi JE, Wasserman RC. Recurrent otitis media and parenting stress in mothers of two-year-old children. *Dev Behav Pediatr.* 1992;13:321-325.

- Fornadley JA, Burns JK. The effect of surfactant on eustachian tube function in a gerbil model of otitis media with effusion. *Otolaryngol Head Neck Surg.* 1994;110:110-114.
- Forquer BD, Linthicum FH, Jr. Middle ear effusion: relationship of tympanometry and air-bone gap to viscosity. *Ear Hear.* 1980;1:87-90.
- Forseni M, Eriksson A, Bagger-Sjoberg D, Nilsson J, Hultcrantz M. Development of tympanosclerosis: can predicting factors be identified? *Am J Otol.* 1997;18:298-303.
- Forsgren J, Samuelson A, Lindberg A, Rynnel-Dagoo B. Quantitative bacterial culture from adenoid lymphatic tissue with special reference to *Haemophilus* [corrected] [published erratum appears in *Acta Otolaryngol* (Stockh) 1994 Jan;114(1):112]. *Acta Otolaryngol.* 1993;113:668-672.
- Forsgren J, Rynnel-Dagoo B, Christensson B. In situ analysis of the immune microenvironment of the adenoid in children with and without secretory otitis media. *Ann Otol Rhinol Laryngol.* 1995;104:189-196.
- Forsgren J, Samuelson A, Borrelli S, Christensson B, Jonasson J, Lindberg AA. Persistence of nontypeable *Haemophilus influenzae* in adenoid macrophages: a putative colonization mechanism. *Acta Otolaryngol.* 1996;116:766-773.
- Forte V, Turner A, Liu P. Objective tinnitus associated with abnormal mastoid emissary vein. *J Otolaryngol.* 1989;18:232-235.
- Foshee WS, Qvarnberg Y. Comparative United States and European trials of loracarbef in the treatment of acute otitis media. *Pediatr Infect Dis J.* 1992;11:S12-S19.
- Foshee WS. Loracarbef (LY163892) versus amoxicillin-clavulanate in the treatment of bacterial acute otitis media with effusion. *J Pediatr.* 1992;120:980-986.
- Fradis M, Brodsky A, Ben-David J, Srujo I, Larboni J, Podoshin L. Chronic otitis media treated topically with ciprofloxacin or tobramycin. *Arch Otolaryngol Head Neck Surg.* 1997;123:1057-1060.
- Francois M. [Efficacy and tolerance of a local application of phenazone and chlorhydrate lidocaine (Otipax) in infants and children with congestive otitis]. *Annales de Pediatrie.* 1993;40:481-484.
- Francois M, Wiener-Vacher SR, Falala M, Narcy P. Audiological assessment of infants and children with preauricular tags. *Audiology.* 1995;34:1-5.
- Francois M. [Treatment of acute otitis media]. *Arch Pediatr.* 1995;2:86-88.
- Francois M, Laccourreye L, Huy ET, Narcy P. Hearing impairment in infants after meningitis: detection by transient evoked otoacoustic emissions [see comments]. *J Pediatr.* 1997;130:712-717.
- Franklin DJ, Starke JR, Brady MT, Brown BA, Wallace RJ, Jr. Chronic otitis media after tympanostomy tube placement caused by *Mycobacterium abscessus*: a new clinical entity? *Am J Otol.* 1994;15:313-320.
- Franklin JH, Marck PA. Outcome analysis of children receiving tympanostomy tubes. *J Otolaryngol.* 1998;27:293-297.
- Franzetti M, Reali E, Felisati D, al. e. Valutazione comparativa dell'amoxicillina e del cefaclor nel trattamento dell'otite media acuta dell'età pediatrica. Cefaclor compared with amoxicillin in the treatment of acute otitis media of infants and children. *Rivista-Italiana-di-Pediatria.* 1982;8:297-300.
- Fraser JG. Deafness and chronic otitis media. *Br Med J.* 1970;2:95-97.
- Fraser JG. Secretory otitis media in childhood. A survey of current understanding and management. *Clin Pediatr.* 1971;10:261-264.
- Fraser JG, Mehta M, Fraser PA. The medical treatment of secretory otitis media. A clinical trial of three commonly used regimes. *J Laryngol Otol.* 1977;91:757-765.
- Fraysse B, Calvet H, Faure P, Schutz D. Value of fenspiride (Pneumorel 80 mg) in the preoperative treatment of chronic open tympanum otitis. Double-blind placebo-controlled study. *Rhinol-Suppl.* 1988:31-41.
- Freeark K, Frank SJ, Wagner AE, Lopez M, Olmsted C, Girard R. Otitis media, language development, and parental verbal stimulation. *J Pediatr Psychol.* 1992;17:173-185.
- Freeman CM, Chandler JR, Jr. The radical mastoid operation. *South Med J.* 1974;67:1061-1066.

- Freeman BA, Parkins C. The prevalence of middle ear disease among learning impaired children. Does a higher prevalence indicate an association? *Clin Pediatr*. 1979;18:205-212.
- Freeman D, Le CT. Evaluation of Ventilating Tubes and Myringotomy for the Treatment of Otitis Media. *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:272-275.
- Freeman CR, Krischer JP, Sanford RA, et al. Final results of a study of escalating doses of hyperfractionated radiotherapy in brain stem tumors in children: a Pediatric Oncology Group study. *Int-J-Radiat-Oncol-Biol-Phys*. 1993;27:197-206.
- Fremaux A, Sissia G, Geslin P. [In vitro antibacterial activity of pristinamycin against penicillin resistant *Streptococcus pneumoniae*]. *Pathol Biol*. 1993;41:636-640.
- Frese KA, Hoppe F. [Morphologic studies of autologous and homologous ossicles after long-term implantation]. *Laryngorhinotologie*. 1996;75:330-334.
- Freyss GE, Narcy PP, Manac'h Y, Toupet MG. Acoustic reflex as a predictor of middle ear effusion. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:196-199.
- Fria TJ, Sabo DL. Auditory brainstem responses in children with otitis media with effusion. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:200-206.
- Fria TJ, Cantekin EI, Probst G. Validation of an automatic otoadmittance middle ear analyzer. *Ann Otol Rhinol Laryngol*. 1980;89:253-256.
- Fria TJ, Cantekin EI, Eichler JA, Mandel EM, Bluestone CD, Rockette HE. The Effect of Otitis Media with Effusion ("Secretory" Otitis Media) on Hearing Sensitivity in Children. *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:320-324.
- Fria TJ, Cantekin EI, Eichler JA. Hearing acuity of children with otitis media with effusion. *Arch Otolaryngol*. 1985;111:10-16.
- Fried M, Kelly J, Zubick H, Vernick D, Strome M. Acoustic reflectivity for diagnosis of middle ear effusions: Comparison with results of myringotomy. *New dimensions in otorhinolaryngology - head and neck surgery*. 1985;2:931-932.
- Fried MP, Vernick DM, Silberstein V, Kelly JH, Strome M. The effects of anesthesia on middle-ear effusions. *Laryngoscope*. 1988;98:23-25.
- Friedland IR. Cefixime therapy for otitis media [letter]. *Pediatr Infect Dis J*. 1993;12:544-545.
- Friedland IR, McCracken GH, Jr. Management of infections caused by antibiotic-resistant *Streptococcus pneumoniae* [see comments]. *N Engl J Med*. 1994;331:377-382.
- Friedman RA, Doyle WJ, Casselbrant ML, et al. Immunologic-mediated eustachian tube obstruction: A double-blind crossover study. *J Allergy Clin Immunol*. 1983;71:442-447.
- Friedman RA, Doyle WJ, Casselbrant ML, et al. Immunologic-mediated eustachian tube obstruction: A double-blind crossover study. *J Allergy Clin Immunol*. 1983;71:442-447.
- Friedman HD, Landaw SA. Recent-onset myelodysplastic syndrome mimicking acute leukemia during infection. *Ann Hematol*. 1996;72:85-88.
- Friedman RA, Brackmann DE, van Loveren HR, Hitselberger WE. Management of the contracted mastoid in the translabyrinthine removal of acoustic neuroma. *Arch Otolaryngol Head Neck Surg*. 1997;123:342-344.
- Friedman I, Weir N. Tuberculosis of the ear and a Nepalese experience [letter]. *J Laryngol Otol*. 1997;111:408.
- Friedmann I. The pathology of acute and chronic infections of the middle ear cleft. *Ann Otol Rhinol Laryngol*. 1971;80:391-396.
- Friedmann I, Spellacy E, Crow J, Watts RW. Histopathological studies of the temporal bones in Hurler's disease [mucopolysaccharidosis (MPS) IH]. *J Laryngol Otol*. 1985;99:29-41.
- Friedmann I. On the pathogenesis of glue ear [letter; comment]. *J Laryngol Otol*. 1994;108:631.
- Friel-Patti S, Finitzo-Hieber T, Conti G, Brown KC. Language delay in infants associated with middle ear disease and mild, fluctuating hearing impairment. *Pediatr Infect Dis*. 1982;1:104-109.
- Friel-Patti S, Finitzo T, Meyerhoff WL, Hieber JP. Speech-language learning and early middle ear disease: A procedural report Otitis media and child

- development. In: JF K, ed. *Otitis media and child development*. Parkton, Maryland: York Press; 1986:129-138.
- Friel-Patti S, Finitzo T, Hieber JP. Communication disorders screening in a pediatric practice. *Seminars in Hearing*. 1987;8:143-148.
- Friel-Patti S, Finitzo T. Language learning in a prospective study of otitis media with effusion in the first two years of life. *J Speech Hear Res*. 1990;33:188-194.
- Friel-Patti S, Finitzo T. Speech-language learning in the first three years in children with tympanostomy tubes for recurrent or persistent otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:523-527.
- Friel-Patti S, Finitzo T, Chinn KM, Lindgren B. Effects of day-care setting on incidence of OME and language development in a cohort of children followed prospectively. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:569-573.
- Friese KH, Kruse S, Moeller H. [Acute otitis media in children. Comparison between conventional and homeopathic therapy]. *HNO*. 1996;44:462-466.
- Friese KH, Kruse S, Ludtke R, Moeller H. The homoeopathic treatment of otitis media in children--comparisons with conventional therapy. *Int-J-Clin-Pharmacol-Ther*. 1997;35:296-301.
- Fritz W, Schafer J, Klein HJ. Hearing loss after microvascular decompression for trigeminal neuralgia. *J Neurosurg*. 1988;69:367-370.
- Froehle RM. Ear infection: a retrospective study examining improvement from chiropractic care and analyzing for influencing factors. *J Manipulative Physiol Ther*. 1996;19:169-177.
- Froehlich P, Morgon A. Impact of clinical practice guidelines [letter]. *Lancet*. 1995;346:1039-1040.
- Froelich P, Morgon A. Antibiotic prophylaxis of otitis media [letter]. *Lancet*. 1995;346:708.
- Froom J, Culpepper L, Grob P, et al. Diagnosis and antibiotic treatment of acute otitis media: report from International Primary Care Network. *Br Med J*. 1990;300:582-586.
- Froom J, Culpepper L. Otitis media in day-care children. A report from the International Primary Care Network. *J Fam Pract*. 1991;32:289-294.
- Froom J, Culpepper L, Bridges-Webb C, et al. Effect of patient characteristics and disease manifestations on the outcome of acute otitis media at 2 months [see comments]. *Arch Fam Med*. 1993;2:841-846.
- Froom J, Culpepper L, Bridges-Webb C, et al. Effect of patient characteristics and disease manifestations on the outcome of acute otitis media at 2 months [see comments]. *Arch Fam Med*. 1993;2:841-846.
- Froom J, Culpepper L, Jacobs M, et al. Antimicrobials for acute otitis media? A review from the International Primary Care Network. *Br Med J*. 1997;315:98-102.
- Fry J, Dillane JB, McNab Jones RF, Kalton G, Andrew E. The outcome of acute otitis media. (A report to the Medical Research Council). *British Journal of Preventive and Social Medicine*. 1969;23:205-209.
- Fry J. Acute otitis media in general practice. *Proceedings of the Royal Society of Medicine*. 1970;63:741-742.
- Fry J. Discussion on the aftermath of acute otitis media. *Practitioner*. 1970;204:582.
- Fuchs M, Arnold W. Indication for the use of ventilating tubes in secretory otitis. *Laryngol Rhinol Otol*. 1986;65:21-23.
- Fucsek M. [Attempt at prevention of chronic otitis media in childhood]. *Orv Hetil*. 1993;134:513-516.
- Fugas M. Effects of sulphur dioxide and smoke on the incidence of secretory otitis media [letter; comment]. *Arh Hig Rada Toksikol*. 1994;45:55.
- Fujihara K, Fujihara T, Yamanaka N. Secretory IgA and squamous epithelization in adenoids of children with otitis media with effusion. *Acta Oto-Laryngologica - Supplement*. 1996;523:155-157.
- Fujimori I, Goto R, Hisamatsu K, et al. [Participation in causing O.M.E. with nasopharyngeal alpha-Streptococcus]. *Kansenshogaku Zasshi - Journal of the Japanese Association for Infectious Diseases*. 1995;69:982-986.
- Fujimori I, Kikushima K, Goto R, Hisamatsu K, Murakami Y, Yamada T. Investigation of the

- nasopharyngeal bacterial flora in children with otitis media with effusion. *ORL J Otorhinolaryngol Relat Spec.* 1996;58:147-150.
- Fujimori I, Hisamatsu K, Kikushima K, Goto R, Murakami Y, Yamada T. The nasopharyngeal bacterial flora in children with otitis media with effusion [see comments]. *Eur Arch Otorhinolaryngol.* 1996;253:260-263.
- Fujimori I. The nasopharyngeal bacterial flora in children with otitis media with effusion [Eur Arch Otorhinolaryngol (1996) 253:260-263] [letter; comment]. *Eur Arch Otorhinolaryngol.* 1997;254:113.
- Fujimoto M, Kira J, Murai H, Yoshimura T, Takizawa K, Goto I. Hypertrophic cranial pachymeningitis associated with mixed connective tissue disease; a comparison with idiopathic and infectious pachymeningitis. *Intern Med.* 1993;32:510-512.
- Fujioka O. The immunological role of the outer membrane proteins of non-typable *Hemophilus influenzae* in otitis media with effusion in children. *Eur Arch Otorhinolaryngol.* 1991;248:483-486.
- Fujita A, Honjo I, Kurata K, Gan I, Takahashi H. Refractory otitis media with effusion from viewpoints of eustachian tube dysfunction and nasal sinusitis. *Am J Otolaryngol.* 1993;14:187-190.
- Fukuda T, Sugie H, Ito M, Kikawada T. Bilateral facial palsy caused by bilateral masked mastoiditis. *Pediatr Neurol.* 1998;18:351-353.
- Fulghum RS, Marrow HG. Experimental otitis media with *Moraxella* (*Branhamella*) *catarrhalis*. *Ann Otol Rhinol Laryngol.* 1996;105:234-241.
- Fuller AP. Otitis media and the surgical physiology of the middle ear. *Proceedings of the Royal Society of Medicine.* 1970;63:744-746.
- Fuller CG, Schoettler JJ, Gilsanz V, Nelson MD, Jr., Church JA, Richards W. Sinusitis in status asthmaticus. *Clin Pediatr.* 1994;33:712-719.
- Funk JB, Ruppert ES. Language disorders and behavioral problems in preschool children. *J Dev Behav Pediatr.* 1984;5:357-360.
- Funke G, Stubbs S, Altwegg M, Carlotti A, Collins MD. *Turicella otitidis* gen. nov., sp. nov., a coryneform bacterium isolated from patients with otitis media. *Int J Syst Bacteriol.* 1994;44:270-273.
- Furman S, Berkowicz L, Dippenaar J, et al. Cefetamet pivoxil vs cefaclor in the treatment of acute otitis media in children. *Drugs.* 1994:21-26.
- Furst G, Mann W. [Sigmoid sinus thrombosis, a therapeutic problem]. *Laryngorhinootologie.* 1993;72:153-157.
- Furukawa M, Kubo N, Yamashita T. Biochemical evidence of platelet-activating factor (PAF) in human middle ear effusions. *Laryngoscope.* 1995;105:188-191.
- Fuse T, Aoyagi M, Suzuki T, Koike Y. [Clinical application of transiently evoked otoacoustic emissions in screening for auditory dysfunction]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan].* 1993;96:1125-1132.
- Fuse T, Tada Y, Aoyagi M, Sugai Y. CT detection of facial canal dehiscence and semicircular canal fistula: comparison with surgical findings. *J Comput Assist Tomogr.* 1996;20:221-224.
- Fyllingen G, Arnesen AR, Ronnevig J. Phenoxymethylpenicillin two or three times daily in bacterial upper respiratory tract infections: a blinded, randomized and controlled clinical study. *Scand J Infect Dis.* 1991;23:755-761.
- Gacek RR. The surgical management of labyrinthine fistulae in chronic otitis media with cholesteatoma. *Ann Otol Rhinol Laryngol.* 1974;83:1-19.
- Gadomski AM, Permutt T, Stanton B. Correcting respiratory rate for the presence of fever. *J-Clin-Epidemiol.* 1994;47:1043-1049.
- Gadzhimirzaev GA. [Characteristics of the course of temporal lobe abscesses in patients with multiple otogenous intracranial complications]. *Vestn Otorinolaringol.* 1996:47-49.
- Gadzhimirzaev GA, Dzhamaludinov IA. [Otogenic abscess of temporal lobe breaking into the lateral ventricle of brain with good outcome]. *Vestn Otorinolaringol.* 1997:54.
- Gaffney RJ, Walsh M. The pencil grip technique for middle ear effusion aspiration. *Int J Pediatr Otorhinolaryngol.* 1991;21:179-181.

- Gahrn-Hansen B, Hornstrup MK. [Extraintestinal infections caused by *Vibrio parahaemolyticus* and *Vibrio alginolyticus* at the county of Funen 1987-1992]. *Ugeskr Laeger*. 1994;156:5279-5282.
- Gaihede M, Lildholdt T, Lunding J. Sequelae of secretory otitis media: Changes in middle ear biomechanics. *Acta Oto Laryngologica*. 1997;117:382-389.
- Gaillot O, Berche P. In vitro susceptibility to ciprofloxacin of bacterial strains isolated from chronic otitis media and chronic sinusitis. *Drugs*. 1995;49:200-202.
- Galetti G, Martini A, Bergamini G, et al. Efficacy and tolerability of brodimoprim in bacterial otitis media in children. Controlled study versus cefaclor. *J Chemother*. 1993;45:283-286.
- Galetti G, Martini A, Bergamini G, et al. Efficacy and tolerability of brodimoprim in bacterial otitis media in children. Controlled study versus cefaclor. *J Chemother*. 1993;5:551-555.
- Gallo O, Bani D, Rucci L, Fini-Storchi O. Does the epithelium play a central role in the immune function of rhinopharyngeal tonsils? An immunocytochemical and ultrastructural study. *Int J Pediatr Otorhinolaryngol*. 1991;22:219-229.
- Gamoletti R, Lanzarini P, Sanna M, Zini C. Regenerated middle ear mucosa after tympanoplasty. Part II. Scanning electron microscopy. *Otolaryngol Head Neck Surg*. 1986;94:430-434.
- Gan VN, Kusmiesz H, Shelton S, Nelson JD. Comparative evaluation of loracarbef and amoxicillin-clavulanate for acute otitis media. *Antimicrob-Agents-Chemother*. 1991;35:967-971.
- Gan VN, McCarty JM, Chu SY, Carr R. Penetration of clarithromycin into middle ear fluid of children with acute otitis media. *Pediatr Infect Dis J*. 1997;16:39-43.
- Gananla MCM, Mangabeira Albernaz PL, Ueda HK, Silva MM. Econazol no tratamento das otites medias agudas ou cronicas reacutizadas. / Econazole in the treatment of acute or reacutized chronic otitis media. *Acta-AWHO*. 1984;3:67-69.
- Ganbo T, Hisamatsu K, Shimomura S, Nakajima T, Inoue H, Murakami Y. Inhibition of mucociliary clearance of the eustachian tube by leukotrienes C4 and D4. *Ann Otol Rhinol Laryngol*. 1995;104:231-236.
- Ganbo T, Hisamatsu K, Kikushima K, Nakajima M, Inoue H, Murakami Y. Effects of platelet activating factor on mucociliary clearance of the eustachian tube. *Ann Otol Rhinol Laryngol*. 1996;105:140-145.
- Ganbo T, Sando I, Balaban CD, Suzuki C, Sudo M. Immunohistochemistry of lymphocytes and macrophages in human celloidin-embedded temporal bone sections with acute otitis media. *Ann Otol Rhinol Laryngol*. 1997;106:662-668.
- Gannon MM, Jagger C, Haggard MP. Maternal blood group in otitis media with effusion. *Clin Otolaryngol*. 1994;19:327-331.
- Garber LZ, Dort JC. Cholesteatoma: diagnosis and staging by CT scan. *J Otolaryngol*. 1994;23:121-124.
- Garcia RD, Baker AS, Cunningham MJ, Weber AL. Lateral sinus thrombosis associated with otitis media and mastoiditis in children. *Pediatr Infect Dis J*. 1995;14:617-623.
- Garcia-Rodriguez JA, Garcia-Sanchez JE, Garcia-Garcia MI, Garcia-Sanchez E, Munoz-Bellido JL, Ramos-Macias A. Efficacy of topical ciprofloxacin in the treatment of ear infections in adults [letter]. *J-Antimicrob-Chemother*. 1993;31:452-453.
- Garin P, Remacle M. Laser-assisted myringotomy combined with adenoidectomy in children: preliminary results. *Acta Otorhinolaryngol Belg*. 1999;53:105-108.
- Garland J. "Glue ear". *N Engl J Med*. 1970;282:339-340.
- Garrard KR, Clark BS. Otitis media: the role of speech-language pathologists. *ASHA*. 1985;27:35-39.
- Garred P, Brygge K, Sorensen CH, Madsen HO, Thiel S, Svejgaard A. Mannan-binding protein--levels in plasma and upper-airways secretions and frequency of genotypes in children with recurrence of otitis media. *Clin Exp Immunol*. 1993;94:99-104.
- Garrett JA, Stewart JL. Hearing loss and otitis media on Guam: impact of professional services. *Asia Pac J Public Health*. 1989;3:213-218.
- Garrison MW, Malone CL, Eiland J, Anderson DE. Influence of pH on the antimicrobial activity of clarithromycin and 14-hydroxylarthritis against

- Haemophilus influenzae using an in vitro pharmacodynamic model. *Diagn Microbiol Infect Dis.* 1997;27:139-145.
- Garzon Calles JA. [Our experience with reconstructive surgery++ of the middle ear in tympanoplasties with mastoidectomy]. *Acta Otorrinolaringol Esp.* 1994;45:315-327.
- Garzon Calles JA. [The comparative audiometric statistical study of the results obtained with plastipore or with autologous material in tympanoplasty with mastoidectomy]. *Acta Otorrinolaringol Esp.* 1994;45:243-248.
- Gaskins JD, Holt RJ, Kyong CU, Weart CW, Ward J. Chemoprophylaxis of recurrent otitis media using trimethoprim/sulfamethoxazole. *Drug-Intell-Clin-Pharm.* 1982;16:387-390.
- Gastpar H, Smit R, Schlenter W. Rapid help for children with acute otitis media. *TW Padiatrie.* 1995;8:531-534.
- Gastpar H, Smit R, Schlenter W. Successful treatment of childhood otitis media with the new cephalosporin cefetamet pivoxil. *Therapiewoche.* 1995;45:1834-1837.
- Gates GA, Cooper JC, Jr. Effect of anesthetic gases on middle ear pressure in the presence of effusion. *Ann-Otol-Rhinol-Laryngol-Suppl.* 1980;89:62-64.
- Gates GA, Wachtendorf CA, Holt GR, Hearne III EM. History of Treated Persistent Otitis Media with Effusion. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:346-348.
- Gates GA, Wachtendorf C, Hearne EM, Holt GR. Treatment of chronic otitis media with effusion: results of tympanostomy tubes. *Am J Otolaryngol.* 1985;6:249-253.
- Gates GA, Wachtendorf C, Holt GR, Hearne EM. Medical treatment of chronic otitis media with effusion (secretory otitis media). *Otolaryngol Head Neck Surg.* 1986;94:350-354.
- Gates GA. Differential otomanometry. *Am J Otolaryngol.* 1986;7:147-150.
- Gates GA. Otolgic referral: indications and expectations. *Pediatr Infect Dis.* 1986;5:1-5.
- Gates GA, Avery C, Cooper JC, Hearne EM, Holt GR. Predictive value of tympanometry in middle ear effusion. *Ann Otol Rhinol Laryngol.* 1986;95:46-50.
- Gates GA, Avery CA, Prihoda TJ, Cooper JC, Jr. Effectiveness of adenoidectomy and tympanostomy tubes in the treatment of chronic otitis media with effusion. *N Engl J Med.* 1987;317:1444-1451.
- Gates GA, Avery CA, Prihoda TJ. Effect of adenoidectomy upon children with chronic otitis media with effusion. *Laryngoscope.* 1988;98:58-63.
- Gates GA, Avery CA, Cooper JC, Jr., Prihoda TJ. Chronic secretory otitis media: effects of surgical management. *Ann-Otol-Rhinol-Laryngol-Suppl.* 1989:2-32.
- Gates GA. Adenoidectomy for otitis media with effusion. *Ann Otol Rhinol Laryngol Suppl.* 1994;163:54-58.
- Gates GA. The appropriateness of tympanostomy tubes for children [letter]. *JAMA.* 1995;273:699; discussion 700-701.
- Gates GA. Sizing up the adenoid. *Arch Otolaryngol Head Neck Surg.* 1996;122:239-240.
- Gates GA. Cost-effectiveness considerations in otitis media treatment. In: Lim D, Bluestone CD, Casselbrant M, Klein J, Ogra P, eds. *Proceedings of the Sixth International Symposium.* Fort Lauderdale, FL: B.C. Decker Inc.; 1996a:1-4.
- Gates GA. Cost-effectiveness considerations in otitis media treatment. *Otolaryngol Head Neck Surg.* 1996b;114:525-530.
- Gatley MS. A foreign body in the ear mimicking secretory otitis media. *Practitioner.* 1971;207:817-818.
- Gaze MN, Keay DG, Smith IM, Hardcastle PF. Routine nasopharyngeal biopsy in adult secretory otitis media. *Clin Otolaryngol Allied Sci.* 1992;17:183-184.
- Gebhart DE. Tympanostomy tubes in the otitis media prone child. *Laryngoscope.* 1981;91:849-866.
- Gehanno P, Taillebe M, Denis P, et al. Short-course cefotaxime compared with five-day co-amoxyclav in acute otitis media in children. *J-Antimicrob-Chemother.* 1990:29-36.

- Gehanno P, Cohen B. Effectiveness and safety of ofloxacin in chronic otitis media and chronic sinusitis in adult outpatients. *Eur Arch Otorhinolaryngol.* 1993;250:S13-S14.
- Gehanno P, Berche P, Boucot I, et al. Comparative efficacy and safety of cefprozil and amoxicillin/clavulanate in the treatment of acute otitis media in children. *J-Antimicrob-Chemother.* 1994;33:1209-1218.
- Gehanno P, Barry B, Bobin S, Safran C. Twice daily cefpodoxime proxetil compared with thrice daily amoxicillin/clavulanic acid for treatment of acute otitis media in children. *Scand-J Infect Dis.* 1994;26:577-584.
- Gehanno P, Lenoir G, Berche P. In vivo correlates for *Streptococcus pneumoniae* penicillin resistance in acute otitis media. *Antimicrob Agents Chemother.* 1995;39:271-272.
- Gehanno P, Lenoir G, Barry B, Bons J, Boucot I, Berche P. Evaluation of nasopharyngeal cultures for bacteriologic assessment of acute otitis media in children. *Pediatr Infect Dis J.* 1996;15:329-332.
- Gehanno P. Multicenter study of the efficacy and safety of oral ciprofloxacin in the treatment of chronic suppurative otitis media in adults. The French Study Group. *Otolaryngol-Head-Neck-Surg.* 1997;117:83-90.
- Gehanno P, Sednaoui P, Nisse-Durgeat S. Acute otitis media in adults: A comparative study of cerotiam hexetil and amoxicillin/clavulanic acid efficacy: OTITE MOYENNE AIGUE DE L'ADULTE: ETUDE COMPARATIVE DU TRAITEMENT PAR CEFOTIAM HEXETIL VERSUS AMOXICILLINE/ACIDE CLAVULANIQUE. *Medicine Et Maladies Infectieuses.* 1998;28:522-528.
- Gentry LR, Jacoby CG, Turski PA, Houston LW, Strother CM, Sackett JF. Cerebellopontine angle-petromastoid mass lesions: comparative study of diagnosis with MR imaging and CT. *Radiology.* 1987;162:513-520.
- George JC, Caldemeyer KS, Kreipke DL, Chalian AA, Moran CC. Solitary plasmacytoma of the mastoid bone presenting as coalescent mastoiditis. *Arch Otolaryngol Head Neck Surg.* 1994;120:1393-1394.
- Gersdorff MC. Comparative study between the normally hearing child and the hard of hearing child, by acoustic impedance measurements of the ear. *Arch Otorhinolaryngol.* 1977;217:13-31.
- Gersdorff M, Scholtes JL, Yousif A, Robillard TH. Secretory otitis media, tympanometry and general anesthesia. In: Sade J, ed. *Acute and secretory otitis media.* Amsterdam: Kugler publications; 1986:39-44.
- Gersdorff MC. Diagnostic value of tympanometry in otitis media with effusion. *Acta Otorhinolaryngol Belg.* 1992;46:361-368.
- Gersdorff MCH, Nouwen J, Decat M, Degols JC, Bosch P. Labyrinthine fistula after cholesteatomatous chronic otitis media. *Am J Otol.* 2000;21:32-35.
- Geslin P, Fremaux A, Sissia G. [Epidemiology of *Streptococcus pneumoniae* antibiotic resistance]. *Arch Pediatr.* 1996;3:93s-95s.
- Ghosh LM. Non-suppurative otitis media. *J Indian Med Assoc.* 1988;86:253-254.
- Ghufloor K, Diver J, O'Flynn P. Acute on-chronic middle ear disease. *International Journal of Clinical Practice.* 1998;52:274-275.
- Giamarellou H, Perdikaris G, Galanakis N, Davoulos G, Mandragos K, Sfikakis P. Pefloxacin versus ceftazidime in the treatment of a variety of gram-negative-bacterial infections. *Antimicrob-Agents-Chemother.* 1989;33:1362-1367.
- Giannoni C, Sulek M, Friedman EM, Duncan NO, 3rd. Acquired nasopharyngeal stenosis: a warning and review. *Arch Otolaryngol Head Neck Surg.* 1998;124:163-167.
- Gianoli GJ, Worley NK, Guarisco JL. Pediatric tympanoplasty: the role of adenoidectomy. *Otolaryngol Head Neck Surg.* 1995;113:380-386.
- Gibb AG. President's address. Tympanosclerosis. *Proceedings of the Royal Society of Medicine.* 1976;69:155-162.
- Gibb AG. Long-term tympanic ventilation by Per-Lee tube. *J Laryngol Otol.* 1986;100:503-508.
- Gibb AG, Tan KK, Sim RS. The Singapore swing. *J Laryngol Otol.* 1997;111:527-530.

- Gibson WS, Jr., Cochran W. Otolgia in infants and children--a manifestation of gastroesophageal reflux. *Int J Pediatr Otorhinolaryngol.* 1994;28:213-218.
- Gibson PG, Stuart JE, Wlodarczyk J, Olson LG, Hensley MJ. Nasal inflammation and chronic ear disease in Australian Aboriginal children. *J-Paediatr-Child-Health.* 1996;32:143-147.
- Giebink GS, Juhn SK, Weber ML, Le CT. The bacteriology and cytology of chronic otitis media with effusion. *Pediatr Infect Dis.* 1982;1:98-103.
- Giebink GS, Le CT, Paparella MM. Epidemiology of otitis media with effusion in children. *Arch Otolaryngol.* 1982;108:563-566.
- Giebink GS, Batalden PB, Russ JN, Le CT. Cefaclor v amoxicillin in treatment of acute otitis media. *AM-J-DIS-CHILD.* 1984;138:287-292.
- Giebink GS. Epidemiology and Natural History of Otitis Media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:5-9.
- Giebink GS, Batalden PB, Russ JN, Le CT. Cefaclor versus amoxicillin in the treatment of acute otitis media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:287-290.
- Giebink GS, Batalden PB, Le CT, et al. Randomized Controlled Trial Comparing Trimethoprim-Sulfamethoxazole, Prednisone, Ibuprofen, and No Treatment in Chronic Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:240-244.
- Giebink GS, Batalden PB, Le CT, Lassman FM, Buran DJ, Seltz AE. A controlled trial comparing three treatments for chronic otitis media with effusion. *Pediatr Infect Dis J.* 1990;9:33-40.
- Giebink GS, Daly K, Buran DJ, Satz M, Ayre T. Predictors for postoperative otorrhea following tympanostomy tube insertion. *Arch Otolaryngol Head Neck Surg.* 1992;118:491-494.
- Giebink GS, Koskela M, Vella PP, Harris M, Le CT. Pneumococcal capsular polysaccharide-meningococcal outer membrane protein complex conjugate vaccines: immunogenicity and efficacy in experimental pneumococcal otitis media. *J Infect Dis.* 1993;167:347-355.
- Giebink GS. Immunology: promise of new vaccines. *Pediatr Infect Dis J.* 1994;13:1064-1068.
- Giebink GS. Preventing otitis media. *Ann Otol Rhinol Laryngol Suppl.* 1994;163:20-23.
- Giebink GS. Treatment of persistent otitis media [letter; comment]. *Pediatr Infect Dis J.* 1995;14:922-923.
- Giebink GS, Meier JD, Quartey MK, Liebeler CL, Le CT. Immunogenicity and efficacy of Streptococcus pneumoniae polysaccharide-protein conjugate vaccines against homologous and heterologous serotypes in the chinchilla otitis media model. *J Infect Dis.* 1996;173:119-127.
- Giebink GS, Daly KA, Lindgren B, et al. Seven-year prospective study of tympanic membrane pathology after tympanostomy tube treatment of chronic otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:380-383.
- Giebink GS. Pneumococcal vaccination of children with recurrent sinusitis. *Pediatr Infect Dis J.* 1997;16:535-536.
- Gil Tutor E. [Labyrinthine complications of chronic cholesteatoma in middle ear otitis]. *An Otorrinolaringol Ibero Am.* 1997;24:77-84.
- Gilbert JG. Swimming and grommets: a prospective survey [see comments]. *N Z Med J.* 1994;107:244-245.
- Giles M, O'Brien P. Otitis media and hearing loss in the children of the Ruatoki valley: a continuing public health problem. *N Z Med J.* 1989;102:160-161.
- Giles M, O'Brien P. The prevalence of hearing impairment amongst Maori schoolchildren. *Clin Otolaryngol Allied Sci.* 1991;16:174-178.
- Gill NW. Congenital atresia of the ear. A review of the surgical findings in 83 cases. *J Laryngol Otol.* 1969;83:551-587.
- Gillette R. Otitis media in adults [letter; comment]. *J Am Board Fam Pract.* 1994;7:275-276.
- Gimenez F, Marco-Algarra J. The prognostic value of mucociliary clearance in predicting success in tympanoplasty. *J Laryngol Otol.* 1993;107:895-897.

- Gimsing S, Bergholtz LM. Audiologic screening of seven- and ten-year-old children. *Scand Audiol*. 1983;12:171-177.
- Gimsing S. Gas absorption in serous otitis. A clinical aspect. *Ann Otol Rhinol Laryngol*. 1983;92:305-308.
- Ginsburg CM, McCracken GH, Jr., Thomas ML, Clahsen J. Comparative pharmacokinetics of amoxicillin and ampicillin in infants and children. *Pediatrics*. 1979;64:627-631.
- Girard AE, Cimochowski CR, Faiella JA. The comparative activity of azithromycin, macrolides and amoxycillin against streptococci in experimental infections. *J Antimicrob Chemother*. 1993;31:29-37.
- Girard M. Ear disease and schizophrenia: confounding factors [letter; comment]. *Acta Psychiatr Scand*. 1996;93:219-220.
- Girard AE, Cimochowski CR, Faiella JA. Correlation of increased azithromycin concentrations with phagocyte infiltration into sites of localized infection. *J Antimicrob Chemother*. 1996;37:9-19.
- Givens GD, Seidemann MF. Acoustic immittance testing of the Eustachian tube. *Ear Hear*. 1984;5:297-299.
- Gladstone HB, Jackler RK, Varav K. Tympanic membrane wound healing. An overview. *Otolaryngol Clin North Am*. 1995;28:913-932.
- Glass R. The association of middle ear effusion and auditory learning disabilities in children. *Rehabilitation Literature*. 1981;42:81-85.
- Glasscock MED. Pediatric otology. *J Tenn Med Assoc*. 1971;64:19-28.
- Glasscock MED. "All that palsies is not Bell's". *Medical Times*. 1974;102:78-92.
- Glasscock MED. Symposium: contraindications to tympanoplasty. II. An exercise in clinical judgment. *Laryngoscope*. 1976;86:70-76.
- Glasscock MED, Kanok MM. Tympanoplasty--a chronological history. *Otolaryngol Clin North Am*. 1977;10:469-477.
- Glasscock MED, Miller GW, Drake FD, Kanok MM. Surgery of the skull base. *Laryngoscope*. 1978;88:905-923.
- Glasscock MED, Wiet RJ, Jackson CG, Dickins JR. Rehabilitation of the face following traumatic injury to the facial nerve. *Laryngoscope*. 1979;89:1389-1404.
- Glasscock MED, Dickins JR, Wiet R. Cholesteatoma in children. *Laryngoscope*. 1981;91:1743-1753.
- Gliklich RE, Cunningham MJ, Eavey RD. The cause of aural polyps in children. *Arch Otolaryngol Head Neck Surg*. 1993;119:669-671.
- Gliklich RE, Eavey RD, Iannuzzi RA, Camacho AE. A contemporary analysis of acute mastoiditis. *Arch Otolaryngol Head Neck Surg*. 1996;122:135-139.
- Going JA, Ervin DM. Otitis media: when are tubes and/or adenoidectomy needed? *Journal - South Carolina Medical Association*. 1994;90:483-484.
- Goksu N, Ataoglu H, Kemaloglu YK, Ataoglu O, Ozsokmen D, Akyildiz N. Experimental otitis media induced by coagulase negative staphylococcus and its L-forms. *Int J Pediatr Otorhinolaryngol*. 1996;37:201-216.
- Goksu N, Kemaloglu YK, Ataoglu O, Ileri F, Hicyilmaz C. Incidental tumours during middle ear surgery. *J Otolaryngol*. 1996;25:195-199.
- Goksu N, Kemaloglu YK, Koybasioglu A, Ileri F, Ozbilen S, Akyildiz N. Clinical importance of the Korner's septum. *Am J Otol*. 1997;18:304-306.
- Gold S, Kamerer DB, Hirsch BE, Cass SP. Hypercoagulability in otologic patients. *Am J Otolaryngol*. 1993;14:327-331.
- Goldbart A, Yagupsky P, Markus N, Fraser D, Dagan R. Prevalence of antimicrobial resistance among pneumococcal isolates from children with otitis media in southern Israel. *Pediatr Infect Dis J*. 1997;16:521-523.
- Goldberg B, Goycoolea MV, Schleivert PM, et al. Passage of albumin from the middle ear to the inner ear in otitis media in the chinchilla. *Am J Otolaryngol*. 1981;2:210-214.
- Goldblatt EL, Dohar J, Nozza RJ, et al. Topical ofloxacin versus systemic amoxicillin/clavulanate in purulent otorrhea in children with tympanostomy tubes. *Int J Pediatr Otorhinolaryngol*. 1998;46:91-101.

- Golden JS, Johnston GD. Problems of distortion in doctor-patient communications. *Psychiatry in Medicine*. 1970;1:127-149.
- Goldfarb J, Medendorp S. New therapies for otitis media [editorial]. *Clin Pediatr*. 1994;33:647-648.
- Goldie P, Jung TT, Hellstrom S. Arachidonic acid metabolites in experimental otitis media and effects of anti-inflammatory drugs. *Ann Otol Rhinol Laryngol*. 1993;102:954-960.
- Goldstein NA, Sculerati N. Compliance with prophylactic antibiotics for otitis media in a New York City clinic. *Int J Pediatr Otorhinolaryngol*. 1994;28:129-140.
- Goldstein NA, Roland JT, Jr., Sculerati N. Complications of tympanostomy tubes in an inner city clinic population. *Int J Pediatr Otorhinolaryngol*. 1996;34:87-99.
- Goldstein NA, Casselbrant ML, Bluestone CD, Kurs-Lasky M. Intratemporal complications of acute otitis media in infants and children. *Otolaryngol Head Neck Surg*. 1998;119:444-454.
- Golz A, Angel Yeger B, Parush S. Evaluation of balance disturbances in children with middle ear effusion. *Int J Pediatr Otorhinolaryngol*. 1998;43:21-26.
- Golz A, Angel-Yeger B, Parush S. Evaluation of balance disturbances in children with middle ear effusion. *Int J Pediatr Otorhinolaryngol*. 1998;43:21-26.
- Gomez JR, Gomez G. Comparative trial of erythromycin and tetracycline in common infections found in general practice. *Br-J-Clin-Pract*. 1968;22:475-477.
- Gomez Rueda JC, Garcia Sanchez A, Povedano Rodriguez V, Madrid Sanchez C, Lopez Guerrero M. [A descriptive study of hearing in children]. *Acta Otorrinolaringol Esp*. 1994;45:173-176.
- Gonzalez C, Arnold JE, Woody EA, et al. Prevention of recurrent acute otitis media: chemoprophylaxis versus tympanostomy tubes. *Laryngoscope*. 1986;96:1330-1334.
- Gonzalez Sanchez M, Sanchez Munoz C, Orueta Sanchez R. [What is the treatment of choice in acute otitis media? (letter; comment)]. *Aten Primaria*. 1995;15:58-59.
- Goo YA, Hori MK, Voorhies JH, Jr., Kuo CC, Wang SP, Campbell LA. Failure to detect Chlamydia pneumoniae in ear fluids from children with otitis media. *Pediatr Infect Dis J*. 1995;14:1000-1001.
- Gooch WM, 3d, Gan VN, Corder WT, Khurana CM, Andrews WP, Jr. Clarithromycin and cefaclor suspensions in the treatment of acute otitis media in children. *Pediatr Infect Dis J*. 1993;12:S128-S133.
- Gooch WM, 3rd, Blair E, Puopolo A, et al. Clinical comparison of cefuroxime axetil suspension and amoxicillin/clavulanate suspension in the treatment of pediatric patients with acute otitis media with effusion. *Clin-Ther*. 1995;17:838-851.
- Gooch WM, 3rd, Blair E, Puopolo A, et al. Effectiveness of five days of therapy with cefuroxime axetil suspension for treatment of acute otitis media. *Pediatr Infect Dis J*. 1996;15:157-164.
- Gooch WM, 3rd, Philips A, Rhoades R, Rosenberg R, Schaten R, Starobin S. Comparison of the efficacy, safety and acceptability of cefixime and amoxicillin/clavulanate in acute otitis media. *Pediatr Infect Dis J*. 1997;16:S21-S24.
- Gooch WM, 3rd, Adelglass J, Kelsey DK, Masica D, Johns D, Jr., Weinberg BC. Loracarbef versus clarithromycin in children with acute otitis media with effusion. *Clin Ther*. 1999;21:711-722.
- Goode RL, Friedrichs R, Falk S. Effect on hearing thresholds of surgical modification of the external ear. *Ann Otol Rhinol Laryngol*. 1977;86:441-450.
- Goodey RJ, Bowers M. Antibiotic treatment of secretory otitis media assessed by impedance audiometry. *N Z Med J*. 1975;82:187-188.
- Goodhill V. Some crucial problems in case selection and surgical technique in tympanoplasty. *Ann Otol Rhinol Laryngol*. 1967;76:587-598.
- Goodhill V. Pediatric deafness. 2. A stroll through the broad fields of otological problems in childhood. *J Otolaryngolog Soc Aust*. 1970;3:89-93.
- Goodhill V, Dirks D, Malmquist C. Bone-conduction thresholds. Relationships of frontal and mastoid measurements in conductive hypacusis. *Arch Otolaryngol*. 1970;91:250-256.
- Goodhill V, Ben H. Senturia lecture. Leaking labyrinth lesions, deafness, tinnitus and dizziness. *Ann Otol Rhinol Laryngol*. 1981;90:99-106.

- Goodwin MH, Jr., Shaw JR, Feldman CM. Distribution of otitis media among four Indian populations in Arizona. *Public Health Rep.* 1980;95:589-594.
- Goorin AM, Hershey BJ, Levin MJ, et al. Use of trimethoprim-sulfamethoxazole to prevent bacterial infections in children with acute lymphoblastic leukemia. *Pediatr-Infect-Dis.* 1985;4:265-269.
- Gordon N. Intermittent deafness and learning. *Dev Med Child Neurol.* 1986;28:364-369.
- Gordon AG. Some comments on Bishop's annotation "Developmental dysphasia and otitis media". *J Child Psychol Psychiatry.* 1988;29:361-368.
- Gordon AG. Debate and argument: interpretation of auditory impairment and markers for brain damage in autism [comment]. *J Child Psychol Psychiatry.* 1993;34:587-592; discussion 593-596.
- Gordon AG. Ear disease and schizophrenia--brain not needed? [letter; comment]. *Acta Psychiatr Scand.* 1996;93:409-411.
- Gordts F, Clement PA, Derde MP. [Lens drain versus Donaldson drain: intermediate results of a prospective comparative study of a new versus a classical ventilation tube]. *Acta-Otorhinolaryngol-Belg.* 1989;43:59-65.
- Gordts F, Clement PA, Derde MP. Lens tube vs Donaldson tube: results of a prospective study comparing a new with a conventional ventilation tube. *Clin Otolaryngol.* 1993;18:410-414.
- Gosain AK, Conley SF, Marks S, Larson DL. Submucous cleft palate: diagnostic methods and outcomes of surgical treatment. *Plast Reconstr Surg.* 1996;97:1497-1509.
- Gotay-Rodriguez VM, Schuknecht HF. Experiences with type IV tympanomastoidectomy. *Laryngoscope.* 1977;87:522-528.
- Gothamy B, Fujita S, Hayden RC, Jr. Rhabdomyosarcoma--a temporal bone report. *Arch Otolaryngol.* 1973;98:106-111.
- Gottlieb MI, Zinkus PW, Thompson A. Chronic middle ear disease and auditory perceptual deficits: is there a link? *Clin Pediatr.* 1979;18:725-732.
- Gottschalk GH. Nonsurgical management of otitis media with effusion. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:301-302.
- Gould HJ, Caldarelli DD. Hearing and otopathology in Apert syndrome. *Arch Otolaryngol.* 1982;108:347-349.
- Govender D, Naidoo K, Chetty R. Granuloma inguinale (donovanosis): an unusual cause of otitis media and mastoiditis in children. *Am J Clin Pathol.* 1997;108:510-514.
- Goycoolea MV, Paparella MM, Muchow D. Mastoidotomy tympanotomy approach for cochlear implantation. *Laryngoscope.* 1987;97:766-771.
- Goycoolea MV, Muchow DC. Sustained release of antimicrobials in the middle ear using a biodegradable support. *Ann Otol Rhinol Laryngol Suppl.* 1994;163:46-48.
- Goycoolea MV. Oval and round window membrane changes in otitis media in the human. An ultrastructural study. *Acta Otolaryngol.* 1995;115:282-285.
- Grace AR, Pfliegerer AG. Dysequilibrium and otitis media with effusion: what is the association? *J Laryngol Otol.* 1990;104:682-684.
- Grafstein E, Fernandes CM, Samoyloff S. Lateral sinus thrombosis complicating mastoiditis. *Ann Emerg Med.* 1995;25:420-423.
- Graham MD. Surgical exposure of the facial nerve indications and techniques. *J Laryngol Otol.* 1975;89:557-575.
- Graham MD, Kemink JL. Surgical management of Meniere's disease with endolymphatic sac decompression by wide bony decompression of the posterior fossa dura: technique and results. *Laryngoscope.* 1984;94:680-683.
- Graham JM, East CA, Fraser JG. UCH/RNID single channel cochlear implant: surgical technique. *Journal of Laryngology and Otology - Supplement.* 1989;18:14-19.
- Grant HR, Quiney RE, Mercer DM, Lodge S. Cleft palate and glue ear. *Arch-Dis-Child.* 1988;63:176-179.
- Grasl M, Welleschik B. Functional results of middle-ear ventilation tubes in cases of chronic seromuco-

- tympanum (SMT). Observations covering a period of up to two years after the operation. *Laryngol Rhinol Otol.* 1983;62:394-401.
- Gravel JS, McCarton CM, Ruben RJ. Otitis media in neonatal intensive care unit graduates: a 1-year prospective study. *Pediatrics.* 1988;82:44-49.
- Gravel JS, Wallace IF. Listening and language at 4 years of age: effects of early otitis media. *J Speech Hear Res.* 1992;35:588-595.
- Gravel JS, Wallace IF, Ruben RJ. Auditory capabilities of preschoolers with and without a history of otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:543-545.
- Gravel JS, Wallace IF, Ruben RJ. Early otitis media and later educational risk. *Acta Otolaryngol.* 1995;115:279-281.
- Gravel JS, Ellis MA. Examining the auditory consequences of otitis media with effusion: the audiogram and beyond. *Semin Hear.* 1995;16:44-59.
- Gravel JS. Hearing and auditory sequelae. In: Lim DJ, Bluestone CD, Casselbrant M, Klein JO, Ogra PL, eds. *Proceedings of the Sixth International Symposium on Recent Advances in Otitis Media.* Hamilton: BC Decker; 1995:30-32.
- Gravel JS, Wallace IF, Ellis MA, Lee WW, Mody M, Ruben RJ. Higher-order auditory abilities at nine years of age and early otitis media. In: Lim DJ, Bluestone CD, Casselbrant M, Klein JO, Ogran PL, eds. *Proceedings of the Sixth International Symposium on Recent Advances in Otitis Media.* Hamilton: BC Decker; 1995.
- Gravel JS, Wallace IF, Ruben RJ. Auditory consequences of early mild hearing loss associated with otitis media. *Acta Otolaryngol.* 1996;116:219-221.
- Gravel JS, Wallace IF, Ellis MA, Lee WW, Mody M, Ruben RJ. Higher-order auditory abilities at nine years of age and early otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:356-358.
- Gravel JS, Nozza RJ. Hearing loss among children with otitis media with effusion. In: Roberts JE, Wallace IF, Henderson FW, eds. *Otitis media in young children.* Baltimore (MD): Paul H. Brookes Publishing Co; 1997:63-92.
- Gravel JS, Wallace IF. Language, speech, and educational outcomes of otitis media. *J Otolaryngol.* 1998;27:17-25.
- Gravel JS, Wallace IF. Effects of otitis media with effusion on hearing in the first 3 years of life. *J Sp Lang Hear Res.* 2000;43:631-644.
- Gray BM. Immune globulin administration as an approach to prevention of acute otitis media [editorial; comment]. *J Pediatr.* 1993;123:739-741.
- Gray RF, Irving RM. Cochlear implants in chronic suppurative otitis media. *Am J Otol.* 1995;16:682-686.
- Green SM, Rothrock SG. Single-dose intramuscular ceftriaxone for acute otitis media in children [see comments]. *Pediatrics.* 1993;91:23-30.
- Green BA, Vazquez ME, Zlotnick GW, et al. Evaluation of mixtures of purified Haemophilus influenzae outer membrane proteins in protection against challenge with nontypeable H. influenzae in the chinchilla otitis media model. *Infect Immun.* 1993;61:1950-1957.
- Green SM, Rothrock SG, Nesper TP, Hummel CB. Outcome of acute otitis media with abnormal tympanometric patterns in children. *Acad Emerg Med.* 1994;1:346-353.
- Green BA, Doyle WJ, Cowell JL. Chinchilla model of experimental otitis media for study of nontypable Haemophilus influenzae vaccine efficacy. *Methods Enzymol.* 1994;235:59-68.
- Green KM, de Carpentier JP, Curley JW. An unusual complication of T-tubes. *J Laryngol Otol.* 1997;111:282-283.
- Greenfield BJ, Selesnick SH, Fisher L, Ward RF, Kimmelman CP, Harrison WG. Aural tuberculosis. *Am J Otol.* 1995;16:175-182.
- Greenstone M, Rutman A, Dewar A, Mackay I, Cole PJ. Primary ciliary dyskinesia: cytological and clinical features. *Quarterly Journal of Medicine.* 1988;67:405-423.
- Gregg JB, Roberts KM, Colleran MJ. Ear disease and hearing loss, Pierre, South Dakota, 1962-1982. *S D J Med.* 1983;36:9-17.

- Greval RS, Ram S. Bacteriological patterns of chronic suppurative otitis media in Ludhiana. *Indian J Med Sci.* 1996;50:192-195.
- Greville KA, Keith WJ, Laven JW. Performance of children with previous OME on central auditory measures. *Australian Journal of Audiology.* 1985;7:69-78.
- Greville A. Preschool ear screening [letter]. *N Z Med J.* 1995;108:44.
- Grewal DS, Baser B, Shahani RN, Khanna S. Tuberculous otitis media presenting as complications: report of 18 cases. *Auris Nasus Larynx.* 1991;18:199-208.
- Grewal DS, Bhargava P, Mistry B, Gaikwad N. Tuberculoma of the mastoid. *J Laryngol Otol.* 1995;109:232-235.
- Grievink EH, Peters SA, van Bon WH, Schilder AG. The effects of early bilateral otitis media with effusion on language ability: a prospective cohort study. *J Speech Hear Res.* 1993;36:1004-1012.
- Griffith TE. Epidemiology of otitis media--an interracial study. *Laryngoscope.* 1979;89:22-30.
- Grimaldi PM. The value of impedance testing in diagnosis of middle ear effusion. *J Laryngol Otol.* 1976;90:141-152.
- Groenen P, Crul T, Maassen B, van Bon W. Perception of voicing cues by children with early otitis media with and without language impairment. *J Speech Hear Res.* 1996;39:43-54.
- Groeneveld PH, Visser HJ, de Groot R, Bosboom R. [Post-pharyngitis sepsis caused by *Fusobacterium necrophorum*: Lemierre's syndrome (letter; comment)]. *Ned Tijdschr Geneesk.* 1993;137:1526.
- Grol R, Thomas S, Roberts R. Development and implementation of guidelines for family practice: lessons from The Netherlands [editorial]. *J Fam Pract.* 1995;40:435-439.
- Groothuis JR, Sell SH, Wright PF, Thompson JM, Altmeier WAd. Otitis media in infancy: tympanometric findings. *Pediatrics.* 1979;63:435-442.
- Grossan M. Children who have had a complete and adequate adenoidectomy [letter; comment]. *Ear Nose Throat J.* 1995;74:128.
- Grossman D. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA.* 1995;273:699; discussion 700-1.
- Grosso P, Rupp RR. Pure-tone and tympanometric screening: an ideal pair in identification audiometry. *Journal of the American Audiology Society.* 1978;4:11-15.
- Grote JJ, Kuijpers W. Middle ear effusion and sinusitis. *J Laryngol Otol.* 1980;94:177-183.
- Grote JJ. Reconstruction of the middle ear with hydroxylapatite implants: long-term results. *Ann Otol Rhinol Laryngol Suppl.* 1990;144:12-16.
- Grote JJ, Hesselting SC, Tjebbes GJ, van Blitterswijk CA. Effect of HA-1A monoclonal IgM antibody on endotoxin-induced proliferation of cultured rat middle ear epithelium. *Ann Otol Rhinol Laryngol.* 1995;104:226-230.
- Grote JJ. [Antibiotics in otitis media with effusion (see comments)]. *Ned Tijdschr Geneesk.* 1997;141:76-77.
- Gruber WC, Belshe RB, King JC, et al. Evaluation of live attenuated influenza vaccines in children 6-18 months of age: Safety, immunogenicity, and efficacy. *J Infect Dis.* 1996;173:1313-1319.
- Grundfast KM. Management of otitis media: a controversial issue [comment]. *Pediatr Infect Dis J.* 1991;10:269-274.
- Grundfast KM. Management of otitis media and the New Agency for Health Care Policy and Research Guideline. *Arch Otolaryngol Head Neck Surg.* 1994;120:797-798.
- Grundfast KM. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA.* 1995;273:699-700; discussion 700-701.
- Gryczynska D, Powajbo K. Clinical results of cefuroxime axetil therapy for acute otitis media in children. *Pediatr Pol.* 1999;74:569-571.
- Guay DR, Craft JC. Overview of the pharmacology of clarithromycin suspension in children and a comparison with that in adults. *Pediatr Infect Dis J.* 1993;12:S106-S111.
- Gubas J, Sente M, Zomborčević S, Takacs K, Ivkic M, Berkes B. [Personal experience with the occurrence of pediatric otitis of allergic etiology in

- the North Backa Region]. *Med Pregl*. 1993;46:133-136.
- Guerrier TH. Open cavity mastoidectomy in children. Hearing results at 5 years. *Adv Otorhinolaryngol*. 1988;40:138-141.
- Gulya AJ. Environmental tobacco smoke and otitis media. *Otolaryngol Head Neck Surg*. 1994;111:6-8.
- Gundersen T, Gluck E. The middle ear mucosa in serous otitis media. *Arch Otolaryngol*. 1972;96:40-44.
- Gundersen T, Tonning FM. Ventilating tubes in the middle ear. *Arch Otolaryngol*. 1976;102:198-199.
- Gundersen T, Tonning FM, Kveberg KH. Ventilating tubes in the middle ear. Long-term observations. *Arch Otolaryngol*. 1984;110:783-784.
- Gunnarson AD, Finitzo T. Conductive hearing loss in infancy: effects on later auditory brainstem electrophysiology. *J Speech Hear Res*. 1991;34:1207-1215.
- Guo Y, Wu Y, Chen W, Lin J. Endotoxic damage to the stria vascularis: the pathogenesis of sensorineural hearing loss secondary to otitis media? *J Laryngol Otol*. 1994;108:310-313.
- Gupta AK, Nagarkar NM, Mann SB, Gupta SK. Bilateral otogenic temporal lobe and post-aural abscesses. *J Laryngol Otol*. 1997;111:284-285.
- Gutierrez E, Cuervo E. Efficiency and safety of sulfamonomethoxime compared with cefaclor in the treatment of acute otitis media in children. *International Pediatrics*. 1996;11:38-40.
- Gutman LT, Wilfert CM, Idriss ZH, Schmidt E, Andrews S, Katz SL. Single-dose trials of monovalent A/New Jersey/76 (Hsw1N1) influenza virus vaccine in children in Durham, North Carolina. *J Infect Dis*. 1977;S575-S578.
- Guttenplan MD, Tom LW, DeVito MA, Handler SD, Wetmore RF, Potsic WP. Radial versus circumferential incision in myringotomy and tube placement. *Int J Pediatr Otorhinolaryngol*. 1991;21:211-215.
- Gyde MC. When the weeping stopped: an otologist views otorrhea and gentamicin. *Arch Otolaryngol*. 1976;102:542-546.
- Gyde MC, Randall RF. [Double-blind comparative study of trimethoprim-sulphacetamide-polymyxin B and gentamicin in the treatment of otorrhea (author's transl)]. *Ann-Otolaryngol-Chir-Cervicofac*. 1978;95:43-55.
- Gyde MC. A double-blind comparative study of trimethoprim-polymyxin B versus trimethoprim-sulfacetamide-polymyxin B otic solutions in the treatment of otorrhea. *J Laryngol Otol*. 1981;95:251-259.
- Gyde MC. A double-blind comparative study of trimethoprim-polymyxin B versus trimethoprim-sulfacetamide-polymyxin B otic solutions in the treatment of otorrhea. *J LARYNGOL OTOL*. 1981;95:251-259.
- Gyde MC. [Double-blind comparative trial of trimethoprim-polymyxin B and trimethoprim-sulphacetamide-polymyxin B ear drops in the treatment of otorrhea (author's transl)]. *Ann-Otolaryngol-Chir-Cervicofac*. 1981;98:37-40.
- Gyde MC, Norris D, Kavalec EC. The weeping ear: clinical re-evaluation of treatment. *J Int Med Res*. 1982;10:333-340.
- Gyo K, Goode RL, Miller C. Effect of middle ear modification on umbo vibration. Human temporal bone experiments with a new vibration measuring system. *Arch Otolaryngol Head Neck Surg*. 1986;112:1262-1268.
- Gyo K, Jyokou H, Komori M, Zenke K. A case of acquired petrous cholesteatoma associated with insidious middle ear infection treated by staging the surgical procedures. *Auris Nasus Larynx*. 1995;22:192-196.
- Gyo K, Sasaki Y, Yumoto E, Yanagihara N. Residual bacterial infection in the tympanic cavity following surgery for ears with chronic discharge. *Auris Nasus Larynx*. 1996;23:13-19.
- H.C. P, Drake AF, Hall JW, Grose JH. The masking-level difference in children having a history of otitis media with effusion. *Arch Otolaryngol*. 1991;117:718-723.
- Haapaniemi JJ. Pure-tone audiometric and impedance measurements in school-aged children in Finland. *Eur Arch Otorhinolaryngol*. 1997;254:269-273.

- Haberkamp TJ, Tanyeri H. Surgical techniques to facilitate endoscopic second-look mastoidectomy. *Laryngoscope*. 1999;109:1023-1027.
- Habib MA. Non-suppurative otitis media in children. (A retrospective study of 100 cases). *J Laryngol Otol*. 1979;93:129-133.
- Haddad J, Jr. Treatment of acute otitis media and its complications. *Otolaryngol Clin North Am*. 1994;27:431-441.
- Haddad J, Jr., Gonzalez C, Kurland G, Orenstein DM, Casselbrant ML. Ear disease in children with cystic fibrosis. *Arch Otolaryngol Head Neck Surg*. 1994;120:491-493.
- Hadfield PJ, Shah BK, Glover GW. Facial palsy due to tuberculosis: the value of CT. *J Laryngol Otol*. 1995;109:1010-1012.
- Hadfield PJ, Rowe-Jones JM, Bush A, Mackay IS. Treatment of otitis media with effusion in children with primary ciliary dyskinesia. *Clin Otolaryngol Allied Sci*. 1997;22:302-306.
- Hafner H, Anteby I, Pratt H, Goldsher M, Shenhav R, Joachims HZ. Auditory brainstem evoked potentials in evaluating the efficacy of surgical ventilation of the middle ear. *Int J Pediatr Otorhinolaryngol*. 1986;12:13-22.
- Hagan WE, Tabb HG, Cox RH, Travis LW. Gunshot injury to the temporal bone: an analysis of thirty-five cases. *Laryngoscope*. 1979;89:1258-1272.
- Hagerman RJ, Altshul-Stark D, McBogg P. Recurrent otitis media in the fragile X syndrome. *Am J Dis Child*. 1987;141:184-187.
- Haggard MP. Hearing as a community health problem. *Br Med Bull*. 1977;43:1027-1037.
- Haggard MP. Population studies into hearing disorders. Implications for general practice. *Practitioner*. 1983;227:1043-1049.
- Haggard MP, McCormick B, Gannon MM, Spencer H. The paediatric otological caseload resulting from improved screening in the first year of life. *Clin Otolaryngol Allied Sci*. 1992;17:34-43.
- Haggard MP, Lim MJ, Smith D, Fantini DA. Long-term OME sequelae in binaural hearing. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:546-549.
- Haggard MP, Birkin JA, Browning GG, Gatehouse S, Lewis S. Behavior problems in otitis media. *Pediatr Infect Dis J*. 1994;13:S43-S50; discussion S50-54.
- Haggard MP. Commentary: reduced confusion over ear effusion? [comment]. *Br Med J*. 1997;314:354.
- Haines ST, Kraynak MA. Twice-daily cefaclor therapy. *Ann Pharmacother*. 1994;28:1353-1355.
- Hakansson B, Liden G, Tjellstrom A, et al. Ten years of experience with the Swedish bone-anchored hearing system. *Ann Otol Rhinol Laryngol Suppl*. 1990;151:1-16.
- Hakansson B, Tjellstrom A, Carlsson P. Percutaneous vs. transcutaneous transducers for hearing by direct bone conduction. *Otolaryngol Head Neck Surg*. 1990;102:339-344.
- Halama AR, Voogt GR, Musgrave GM. Prevalence of otitis media in children in a black rural community in Venda (South Africa). *Int J Pediatr Otorhinolaryngol*. 1986;11:73-77.
- Hall LJ, Asuncion J, Lukat M. Allergy skin testing under general anesthesia with treatment response in ninety-two patients with chronic serous otitis media. *Am J Otol*. 1980;2:150-157.
- Hall LJ. Chronic serous otitis media. *J Ky Med Assoc*. 1981;79:73-77.
- Hall DM, Hill P. When does secretory otitis media affect language development? *Arch Dis Child*. 1986;61:42-47.
- Hall JW, Derlacki ED. Binaural hearing after middle-ear surgery. *J Otol Rhinol Laryngol*. 1986;95:118-124.
- Hall JW, Grose JH, Pillsbury HC. Predicting binaural hearing after stapedectomy from pre-surgery results. *Arch Otolaryngol*. 1990;116:946-950.
- Hall JW, Grose JH. The effect of otitis media with effusion on the masking-level difference and the auditory brainstem response. *J Speech Hear Res*. 1993;36:210-217.
- Hall PJ, Farrior JB. Aspergillus mastoiditis. *Otolaryngol Head Neck Surg*. 1993;108:167-170.

- Hall JW, Grose JH. Effect of otitis media with effusion on comodulation masking release in children. *J Speech Hear Res.* 1994;37:1441-1449.
- Hall JW, 3rd, Grose JH, Pillsbury HC. Long-term effects of chronic otitis media on binaural hearing in children. *Arch Otolaryngol Head Neck Surg.* 1995;121:847-852.
- Hall D. 'Otitis media with effusion' [letter; comment]. *Dev Med Child Neurol.* 1997;39:280.
- Hall MJ, Lawrence L. Ambulatory surgery in the United States, 1995. Advance data from vital and health statistics; no 296. Hyattsville (MD): National Center for Health Statistics; 1997.
- Hall JW, 3rd, Grose JH, Dev MB, Ghiassi S. The effect of masker interaural time delay on the masking level difference in children with history of normal hearing or history of otitis media with effusion. *Ear Hear.* 1998;19:429-433.
- Hall JW, 3rd, Grose JH, Dev MB, Drake AF, Pillsbury HC. The effect of otitis media with effusion on complex masking tasks in children. *Arch Otolaryngol Head Neck Surg.* 1998;124:892-896.
- Hallmo P, Mair IW. Drilling in ear surgery. A comparison of pre- and postoperative bone-conduction thresholds in both the conventional and extended high-frequency ranges. *Scand Audiol.* 1996;25:35-38.
- Halsted C, Lepow ML, Balassanian N, Emmerich J, Wolinsky E. Otitis media: microbiology and evaluation of therapy. *Ann-N-Y-Acad-Sci.* 1967;145:372-378.
- Halsted C, Lepow ML, Balassanian N, Emmerich J, Wolinsky E. Otitis media. Clinical observations, microbiology, and evaluation of therapy. *Am-J-Dis-Child.* 1968;115:542-551.
- Hamada E, Iwano T, Ushiro K, Tada N, Kinoshita T, Kumazawa T. Animal model of otitis media with effusion. *Acta Oto-Laryngologica - Supplement.* 1993;500:70-74.
- Hamaguchi F, Hamaguchi Y, Juhn SK, Sakakura Y. The relationship between antigen levels and middle ear inflammation in antigen-induced otitis media in the chinchilla. *Arch Otorhinolaryngol.* 1988;245:42-46.
- Hamaguchi Y, Sakakura Y. Neutrophil elastase and its complex with alpha 1-antitrypsin in the pathogenesis of chronic suppurative otitis media. *Ann Otol Rhinol Laryngol Suppl.* 1992;157:26-31.
- Hamilton MA, McKenzie-Pollock M, Heath ME. Aural health in 227 Northland school and preschool children. *N Z Med J.* 1980;91:59-62.
- Hampal S, Flood LM, Kumar BU. The mini-grommet and tympanosclerosis. *J Laryngol Otol.* 1991;105:161-164.
- Hampton SM, Adams DA. Perforation rates after ventilation tube insertion: does the positioning of the tube matter? *Clin-Otolaryngol.* 1996;21:548-549.
- Hamrick HJ, Garfunkel JM. Therapy for acute otitis media: applicability of metaanalysis to the individual patient [editorial; comment]. *J Pediatr.* 1994;124:431.
- Hanafee WN, Wilson GH. Pontocerebellar angle tumors. Newer diagnostic methods. *Arch Otolaryngol.* 1970;92:236-243.
- Hanafee WN, Gussen R, Rand RW. Laminography of the mastoid in the basal projection. *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.* 1970;110:111-118.
- Handa J, Yamamoto I, Morita R, Kousaka T, Fujita T, Handa H. 99mTc-polyphosphate and 99mTc-diphosphonate bone scintigraphy in neurosurgical practice. *Surg Neurol.* 1974;2:307-310.
- Handler SD, Potsic WP, Marsh RR. A trial of Biolite ventilation tubes in children: Is further use warranted? *Otolaryngology and Head and Neck Surgery.* 1983;91:437-440.
- Handler SD. Adenoidectomy for secretory otitis media (I). *Arch Otolaryngol Head and Neck Surgery.* 1990;116.
- Handler SD. Current indications for tympanostomy tubes. *Am J Otolaryngol.* 1994;15:103-108.
- Handzic J, Bagatin M, Subotic R, Cuk V. Hearing levels in Pierre Robin syndrome. *Cleft Palate Craniofac J.* 1995;32:30-36.
- Hanson MS, Lapcevich CV, Haun SL. Progress on development of the live BCG recombinant vaccine vehicle for combined vaccine delivery. *Ann N Y Acad Sci.* 1995;754:214-221.

- Hanson MJ. Acute otitis media in children. *Nurse Pract.* 1996;21:72-74, 80.
- Hanson MJ. Otitis media with effusion. *Lippincotts Primary Care Practice.* 1997;1:168-171.
- Harabuchi Y, Faden H, Yamanaka N, Duffy L, Wolf J, Krystofik D. Nasopharyngeal colonization with nontypeable *Haemophilus influenzae* and recurrent otitis media. Tonawanda/Williamsville Pediatrics. *J Infect Dis.* 1994;170:862-866.
- Harabuchi Y, Faden H, Yamanaka N, Duffy L, Wolf J, Krystofik D. Human milk secretory IgA antibody to nontypeable *Haemophilus influenzae*: possible protective effects against nasopharyngeal colonization. *J Pediatr.* 1994;124:193-198.
- Harabuchi Y, Hamamoto M, Kodama H, Kataura A. Spontaneous immunoglobulin production by adenoidal and tonsillar lymphocytes in relation to age and otitis media with effusion. *Int J Pediatr Otorhinolaryngol.* 1996;35:117-125.
- Harabuchi Y, Murakata H, Goh M, et al. Serum antibodies specific to CD outer membrane protein of *Moraxella catarrhalis*, P6 outer membrane protein of non-typeable *Haemophilus influenzae* and capsular polysaccharides of *Streptococcus pneumoniae* in children with otitis media with effusion. *Acta Otolaryngol.* 1998;118:826-832.
- Harada T, Yamasoba T, Yagi M. Sensorineural hearing loss associated with otitis media with effusion. *ORL J Otorhinolaryngol Relat Spec.* 1992;54:61-65.
- Harakeh H, Bosley GS, Keihlbauch JA, Fields BS. Heterogeneity of rRNA gene restriction patterns of multiresistant serotype 6B *Streptococcus pneumoniae* strains. *J Clin Microbiol.* 1994;32:3046-3048.
- Harbert F, Young IM. The low frequency air-bone gap in sensorineural deafness. *Ann Otol Rhinol Laryngol.* 1969;78:107-111.
- Harbert F, Young IM, Menduke H. Audiologic findings in serous otitis media. *Eye, Ear, Nose and Throat Monthly.* 1970;49:409-411.
- Harder H, Arlinger S. Ear-canal compared to mastoid electrode placement in BRA. *Scand Audiol Suppl.* 1981;13:55-57.
- Hardjasudarma M, Edwards RL, Ganley JP, Aarstad RF. Magnetic resonance imaging features of Gradenigo's syndrome. *Am J Otolaryngol.* 1995;16:247-250.
- Hardy AM, Fowler MG. Child care arrangements and repeated ear infections in young children [see comments]. *Am J Public Health.* 1993;83:1321-1325.
- Harell M, Shea JJ. Hazards of ventilation tubes. *Adv Otorhinolaryngol.* 1978;23:22-28.
- Hariri MA. Sensorineural hearing loss in bullous myringitis. A prospective study of eighteen patients. *Clin Otolaryngol Allied Sci.* 1990;15:351-353.
- Harker LA, Van Wagoner R. Application of impedance audiometry as a screening instrument. *Acta Otolaryngol.* 1974;77:198-201.
- Harkness P, Brown P, Fowler S, Grant H, Ryan R, Topham J. Mastoidectomy audit: results of the Royal College of surgeons of England comparative audit of ENT surgery. *Clin Otolaryngol Allied Sci.* 1995;20:89-94.
- Harley EH. 7th Annual meeting of the American Society of Pediatric Otolaryngology, April 14 and 15, 1992, Palm Desert, Calif. *Arch Otolaryngol Head and Neck Surgery.* 1992;118.
- Harley EH, Sdralis T, Berkowitz RG. Acute mastoiditis in children: a 12-year retrospective study. *Otolaryngol Head Neck Surg.* 1997;116:26-30.
- Harris I, Barton S, Gussen R, Goodhill V. Gelfilm-induced neotympanic membrane in tympanoplasty. *Laryngoscope.* 1971;81:1826-1837.
- Harris JP, Keithley EM. Inner ear inflammation and round window otosclerosis. *Am J Otol.* 1993;14:109-112.
- Harrison CJ, Hedrick JA, Block SL, Gilchrist MJ. Relation of the outcome of conjunctivitis and the conjunctivitis-otitis syndrome to identifiable risk factors and oral antimicrobial therapy. *Pediatr Infect Dis J.* 1987;6:536-540.
- Harrison CJ, Chartrand SA, Pichichero ME. Microbiologic and clinical aspects of a trial of once daily cefixime compared with twice daily cefaclor for treatment of acute otitis media in infants and children. *Pediatr Infect Dis J.* 1993;12:62-69.
- Harrison HC, Jacobson I, Havas TE. Otitis media in general practice [letter; comment]. *Med J Aust.* 1994;160:584.

- Harrison CJ. Rational selection of antimicrobials for pediatric upper respiratory infections. *Pediatr Infect Dis J*. 1995;14:S121-S129.
- Harrison CJ. The other effect of intravenously administered respiratory syncytial virus-enriched immune globulin for prophylaxis: less acute otitis media [editorial; comment]. *J Pediatr*. 1996;129:193-196.
- Harrison CJ, Chartrand SA, Rodriguez W, et al. Middle ear effusion concentrations of cefixime during acute otitis media with effusion and otitis media with effusion. *Pediatr Infect Dis J*. 1997;16:816-817.
- Harrison CJ. Using antibiotic concentrations in middle ear fluid to predict potential clinical efficacy. *Pediatr Infect Dis J*. 1997;16:S12-S16.
- Harrison H, Fixsen A, Vickers A. A randomized comparison of homoeopathic and standard care for the treatment of glue ear in children. *Complementary Therapies in Medicine*. 1999;7:132-135.
- Harsten G, Nettelbladt U, Schalen L, Kalm O, Prellner K. Language development in children with recurrent acute otitis media during the first three years of life. Follow-up study from birth to seven years of age. *J Laryngol Otol*. 1993;107:407-412.
- Hartley C, Saeed SR, Lyons TJ. Non-cholesteatomatous suppurative otitis media: facial nerve palsy in an immunocompromised patient. *J Laryngol Otol*. 1995;109:755-758.
- Hartwein J, Leuwer RM, Kehrl W. The total reconstruction of the tympanic membrane by the "crown-cork" technique. *Am J Otolaryngol*. 1992;13:172-175.
- Harvey RM. Deafness in children. 3. Treatment. *Nursing Times*. 1968;64:1694-1695.
- Harvey SA, Paparella MM, Sperling NM, Alleva M. The flexible (conservative surgical) approach for chronic otitis media in young children. *Laryngoscope*. 1992;102:1399-1403.
- Harvey SA, Fox MC. Relevant issues in revision canal-wall-down mastoidectomy. *Otolaryngol Head Neck Surg*. 1999;121:18-22.
- Harvey SA, Lin SY. Double cartilage block ossiculoplasty in chronic ear surgery. *Laryngoscope*. 1999;109:911-914.
- Harwood-Nash DC. The radiology of rhabdomyosarcomas of the middle ear with intracranial extension in children. *Clin Radiol*. 1971;22:321-329.
- Hasenstab MS. Auditory processing and cognitive performance of five- and six-year-old children with recurrent otitis media with effusion. *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:549-551.
- Hashash M, Attallah M, Joharjy I. The "temporocele". *J Otolaryngol*. 1995;24:370-374.
- Hashiguchi K, Ogawa H, Koga K, Tateno H, Yamazaki Y. Otitis media with effusion associated with Chlamydia trachomatis infection in children. *Auris Nasus Larynx*. 1990;17:149-155.
- Hassel DM, Schott HC, 2nd, Tucker RL, Hines MT. Endoscopy of the auditory tube diverticula in four horses with otitis media/interna. *J Am Vet Med Assoc*. 1995;207:1081-1084.
- Hatanaka E. Results of treatment with large ventilating tubes and grommet tubes in children with middle ear effusion. *Otolaryngology*. 1983;55:915-919.
- Hatcher J, Smith A, Mackenzie I, et al. A prevalence study of ear problems in school children in Kiambu district, Kenya, May 1992. *Int J Pediatr Otorhinolaryngol*. 1995;33:197-205.
- Hathaway TJ, Katz HP, Dershewitz RA, Marx TJ. Acute otitis media: who needs posttreatment follow-up? *Pediatrics*. 1994;94:143-147.
- Hatrack AG, Howlett DC, Cox TCS. Funny turns. *Br J Radiol*. 1998;71:895-896.
- Hattori T. [3D-CT of the temporal bone area with high-speed processing]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1994;97:2233-2238.
- Hattori Y. [Otitis media with effusion in children]. *Nippon Ika Daigaku Zasshi - Journal of the Nippon Medical School*. 1994;61:160-163.
- Haugeto OK, Elverland HH, Schroder KE, Mair IWS. Chronic secretory otitis media. *Tidsskr Nor Laegeforen*. 1973;100.

- Haugeto OK, Elverland HH, Schroder KE, Mair IW. Chronic secretory otitis media. *Acta Otolaryngologica - Supplement*. 1979;360:192-194.
- Haugeto OK, Schroder KE, Mair IWS. Secretory otitis media, oral decongestant and antihistamine. *J Otolaryngol*. 1981;10:359-362.
- Haughton PM. Validity of tympanometry for middle ear effusions. *Arch Otolaryngol*. 1977;103:505-513.
- Haughton PM, Pardoe K. Normal pure tone thresholds for hearing by bone conduction. *Br J Audiol*. 1981;15:113-121.
- Haughton PM, Pardoe K. A comparison of otoscopy and tympanometry in the diagnosis of middle ear effusion. *Clinical Physics and Physiological Measurement*. 1982;3:213-220.
- Haughton PM. A system for generating a variable mechanical impedance and its use in an investigation of the electromechanical properties of the B71 audiometric bone vibrator. *Br J Audiol*. 1982;16:1-7.
- Hauswald M, Anison C. Prescribing analgesics: the effect of patient age and physician specialty. *Pediatr Emerg-Care*. 1997;13:262-263.
- Havas T, Koutsis A, Jacobson I. Nasal balloon auto-inflation (Otovent) as a treatment of otitis media with effusion in children. *Australian Journal of Otolaryngology*. 1995;2:37-41.
- Havas T, Koutsis A. Preliminary experience with intraoperative, transiently evoked otoacoustic emissions in otitis media with effusion. *Australian Journal of Otolaryngology*. 1996;2:234-236.
- Havas T, Koutsis A. The measurement of transiently evoked otoacoustic emissions in the auditory assessment of children with tympanostomy tubes in situ. *Australian Journal of Otolaryngology*. 1997;2:472-474.
- Hawkins DB, Dru D, House JW, Clark RW. Acute mastoiditis in children: a review of 54 cases. *Laryngoscope*. 1983;93:568-572.
- Hayden GF, Randall JE, Randall JC, Hendley JO. Topical phenylephrine for the treatment of middle ear effusion. *ARCH-OTOLARYNGOL*. 1984;110:512-514.
- Hayes D, Jerger J. Impedance audiometry in otologic diagnosis. *Otolaryngol Clin North Am*. 1978;11:759-767.
- Hayes E, Babin R, Platz C. The otologic manifestations of mucopolysaccharidoses. *Am J Otol*. 1980;2:65-69.
- Hazan A. [Serous otitis]. *Soins - Chirurgie*. 1993;7-10.
- Head M. Does nose blowing help hearing in glue ear? *Nurs-Times*. 1992;88:53.
- Heaf M, Hutchings S, Bunch K. Does nose blowing improve hearing in serous otitis? A community study [see comments]. *Br-J-Gen-Pract*. 1991;41:377-379.
- Heald MM, Matkin ND, Meredith KE. Pressure-equalization (PE) tubes in treatment of otitis media: national survey of otolaryngologists. *Otolaryngol Head Neck Surg*. 1990;102:334-338.
- Health AAoPCoS. Impedance bridge (tympanometer) as a screening device in schools. *Pediatrics*. 1987;79:472.
- Healy GB, Teele DW. The microbiology of chronic middle ear effusions in children. *Laryngoscope*. 1977;87:1472-1478.
- Healy GB, Smith HG. Current concepts in the management of otitis media with effusion. *Am J Otolaryngol*. 1981;2:138-144.
- Healy GB. Antimicrobial therapy of chronic otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1984;8:13-17.
- Healy GB. Antimicrobial Therapy for Chronic Otitis Media with Effusion. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:285-287.
- Healy GB. Otitis media. *Pediatr Rev*. 1992;13:23-24.
- Healy GB, McGill TJ, Sullivan KF, et al. Outcome factors in ventilation tube insertion: a prospective monitoring program. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:301-304.
- Healy GB. Quick reference guide for clinicians. Managing otitis media with effusion in young children: a commentary [see comments]. *Arch Otolaryngol Head Neck Surg*. 1994;120:1049-1050.

- Healy GB. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA*. 1995;273:700; discussion 700-701.
- Heaton JM, Bingham BJ, Osborne J. A comparison of performance of Shepard and Sheehy collar button ventilation tubes. *J Laryngol Otol*. 1991;105:896-898.
- Heaton JM, Mills RP. Otorrhoea via ventilation tubes in adults and children. *Clin Otolaryngol*. 1993;18:496-499.
- Heaton JM, Mills RP. Factors associated with positive bacteriological cultures of chronic middle ear effusions. *Clin Otolaryngol*. 1995;20:262-265.
- Hebblethwaite EM, Brown GW, Cox DM. A comparison of the efficacy and safety of cefuroxime axetil and augmentin in the treatment of upper respiratory tract infections. *Drugs-Exp-Clin-Res*. 1987;13:91-94.
- Hedges LV, Olkin I. *Statistical Methods for meta-analysis*. San Diego: Academic Press; 1985.
- Heermann J. Autograft tragal and conchal palisade cartilage and perichondrium in tympanomastoid reconstruction. *Ear Nose Throat J*. 1992;71:344-349.
- Heery LB. Exclusive breast-feeding for at least 4 months protects against otitis media [letter; comment]. *Pediatrics*. 1994;93:537-538.
- Hefelfinger DC. Cefixime therapy for otitis media [letter; comment]. *Pediatr Infect Dis J*. 1993;12:703-705.
- Hegewald M, Heitman R, Wiederhold ML, Cooper JC, Gates GA. High-frequency electrostimulation hearing after mastoidectomy. *Otolaryngol Head Neck Surg*. 1989;100:49-56.
- Heggie AA. Concepts in the management of temporomandibular ankylosis. *Annals of the Royal Australasian College of Dental Surgeons*. 1996;13:132-135.
- Heikkinen T. Temporal development of acute otitis media during upper respiratory tract infection. *Pediatr Infect Dis J*. 1994;13:659-661.
- Heikkinen T, Ruuskanen O, Ziegler T, Waris M, Puhakka H. Clinical and laboratory observations. Short-term use of amoxicillin-clavulanate during upper respiratory tract infection for prevention of acute otitis media. *J Pediatr*. 1995;126:313-316.
- Heikkinen T, Ruuskanen O, Ziegler T, Waris M, Puhakka H. Short-term use of amoxicillin-clavulanate during upper respiratory tract infection for prevention of acute otitis media. *J Pediatr*. 1995;126:313-316.
- Heikkinen T, Waris M, Ruuskanen O, Putto-Laurila A, Mertsola J. Incidence of acute otitis media associated with group A and B respiratory syncytial virus infections. *Acta Paediatr*. 1995;84:419-423.
- Heikkinen T, Ruuskanen O. Signs and symptoms predicting acute otitis media [see comments]. *Arch Pediatr Adolesc Med*. 1995;149:26-29.
- Heikkinen T, Ruuskanen O. New prospects in the prevention of otitis media. *Ann Med*. 1996;28:23-30.
- Heiskanen-Kosma T, Korppi M, Jokinen C, Heinonen K. Risk factors for community-acquired pneumonia in children: a population-based case-control study. *Scand J Infect Dis*. 1997;29:281-285.
- Hellier WP, Corbridge RJ, Watters G, Freeland AP. Grommets and patient satisfaction: an audit. *Ann R Coll Surg Engl*. 1997;79:428-431.
- Hellin Meseguer D, Merino Galvez E, Armengot Carceller M. [Adenoidectomy and nasal mucociliary transport]. *An Otorrinolaringol Ibero Am*. 1994;21:455-462.
- Hemlin C, Brauner A, Carenfelt C, Wretling B. Test-retest reliability of the nasopharyngeal culture in children. *APMIS*. 1989;97:887-890.
- Hemlin C, Hallden G, Hed J. Flow cytometric quantification of lymphocyte subpopulations and immunoglobulin-containing cells in adenoid tissue in relation to secretory otitis media and age. *Acta Otolaryngol*. 1995;115:443-448.
- Hemlin C, Carenfelt C, Papatziarnos G. Single dose of betamethasone in combined medical treatment of secretory otitis media. *Ann-Otol-Rhinol-Laryngol*. 1997;106:359-363.
- Hemmer VH, Ratner NB. Communicative development in twins with discordant histories of recurrent otitis media. *J Commun Disord*. 1994;27:91-106.

- Henderson JP, McCullough WP. Otitis media in suckler calves [letter]. *Vet Rec.* 1993;132:24.
- Henderson FW, Zeisel SA, Burchinal MR, et al. Natural history of middle ear effusion among African American infants and toddlers followed prospectively in group child care. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:44-47.
- Hendolin PH, Karkkainen U, Himi T, Markkanen A, Ylikoski J. High incidence of *Alloioococcus* otitis in otitis media with effusion. *Pediatr Infect Dis J.* 1999;18:860-865.
- Hendrickse WA, Kusmiesz H, Shelton S, Nelson JD. Five vs. ten days of therapy for acute otitis media. *Pediatr Infect Dis J.* 1988;7:14-23.
- Henriksen AO, Stenfors LE. The Lappish way of treating otitis media over the centuries. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:262-264.
- Hentzer E. Ultrastructure of the normal mucosa in the human middle ear, mastoid cavities, and eustachian tube. *Ann Otol Rhinol Laryngol.* 1970;79:1143-1157.
- Hentzer E, Jorgensen MB. The submucous layer of the middle ear in chronic otitis media. I. Secretory otitis media. A histological and ultrastructural study. *Archiv fur Klinische und Experimentelle Ohren-, Nasen- und Kehlkopfheilkunde.* 1972;201:108-118.
- Hentzer E. Ultrastructure of the middle-ear mucosa in secretory otitis media. II. Mucous effusion. *Acta Otolaryngol.* 1972;73:467-475.
- Hentzer E. Ultrastructure of the middle-ear mucosa in secretory otitis media. I. Serous effusion. *Acta Otolaryngol.* 1972;73:394-401.
- Heppt W, Lutz H. Clinical experiences with ofloxacin sequential therapy in chronic ear infections. *Eur Arch Otorhinolaryngol.* 1993;250:S19-S21.
- Herberts G, Jeppsson PH, Nylen O, Branefors-Helander P. Acute otitis media. Etiological and therapeutical aspects on acute otitis media. *Practica Oto-Rhino-Laryngologica.* 1971;33:191-202.
- Herer GR. Editorial: Otitis media and educational achievement. *Eye, Ear, Nose and Throat Monthly.* 1974;53:447-448.
- Hergils L, Magnuson B, B. F. Tympanometry compared with simultaneous direct pressure measurement in normal human middle ears. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:45-46.
- Hergils L, Magnuson B. Middle ear gas composition in pathologic conditions: Mass spectrometry in otitis media with effusion and atelectasis. *Ann Otol Rhinol Laryngol.* 1997;106:743-745.
- Herman P, Yen PT, Tu TY, et al. Pathophysiology of middle ear epithelium: a new role for prostaglandin E2. *Am J Otolaryngol.* 1994;15:258-266.
- Hermans R, Baert AL, Debruyne F, Feenstra L. [The contribution of proton spin resonance tomography in the diagnosis of petrous bone anomalies]. *Ned Tijdschr Geneesk.* 1994;138:1401-1405.
- Hern JD, Hasnie A, Shah NS. A long-term review of the Shah Permanent tube. *J Laryngol Otol.* 1995;109:277-280.
- Heron TG. Glue ear [letter; comment] [see comments]. *J R Soc Med.* 1994;87:182.
- Herranz Jordan B, Sanchez Casado ML, Carrasco Claver F. [Otitis media in pediatric primary care]. *Aten Primaria.* 1993;12:102-103, 105-108.
- Heshiki Z, Tagliarini JV, Javaroni AC. Effect of chronic otitis media without complication of the sensorineural hearing loss. *Revista Brasileira de Otorrinolaringologia.* 1994;60:174-176.
- Hesseling SC, van Blitterswijk CA, Lim DJ, DeMaria TF, Bakaletz LO, Grote JJ. Effect of endotoxin on cultured rat middle ear epithelium, rat meatal epidermis, and human keratinocytes. *Am J Otol.* 1994;15:762-768.
- Hester TO, Jones RO, Archer SM, Haydon RC. Prophylactic antibiotic drops after tympanostomy tube placement. *Arch Otolaryngol Head Neck Surg.* 1995;121:445-448.
- Hester TO, Jones RO. Prophylactic antibiotics in surgery for chronic ear disease. *Laryngoscope.* 1998;108:1334-1337.
- Hick JF. Signs and symptoms predicting acute otitis media [letter; comment]. *Arch Pediatr Adolesc Med.* 1995;149:1285.

- Hicks GW, Wright JW, Jr., Wright JWd. Cerebrospinal fluid otorrhea. *Laryngoscope*. 1980;90:1-25.
- Hicks GW, Wright JW, Jr., Wright JWd. Otologic disorders in children. *Journal of the Indiana State Medical Association*. 1982;75:798-801.
- Hicks JN. Secondary tobacco smoke and preventive and protective measures. *Laryngoscope*. 1995;105:1287-1289.
- Hignett W. Effect of otitis media on speech, language, and behavior. *Ann Otol Rhinol Laryngol*. 1983;96.
- Hilding DA, Ammerman S. Tympanostomy tube complications and efficacy in children of a rural community. *West J Med*. 1986;144:318-320.
- Hildmann H, Hildmann A. [Tympanic effusion]. *HNO*. 1993;41:455-464.
- Hildmann H, Sudhoff H. Cholesteatoma in children. *Int J Pediatr Otorhinolaryngol*. 1999;49:S81-S86.
- Hill J, Hutton DA, Green GG, Birchall JP, Pearson JP. Culture of human middle ear mucosal explants; mucin production. *Clin Otolaryngol Allied Sci*. 1992;17:491-496.
- Hillyard SA, Galambos R. Effects of stimulus and response contingencies on a surface negative slow potential shift in man. *Electroencephalogr Clin Neurophysiol*. 1967;22:297-304.
- Himi T, Kamimura M, Kataura A, Imai K. Quantitative analysis of soluble cell adhesion molecules in otitis media with effusion. *Acta Otolaryngol*. 1994;114:285-288.
- Himi T, Harabuchi Y, Shintani T, Yamaguchi T, Kataura A. Surgical strategy of cochlear implant in patients with otitis media. *Adv Otorhinolaryngol*. 1997;52:158-160.
- Hinchcliffe R, Prasansuk S. Epidemiology and SOM. A review. *Scandinavian Audiology Supplementum*. 1986;26:53-58.
- Hind SE, Wade AR, Haggard MP. Optimization of a cognitive test battery for assessing OME sequelae. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:346-350.
- Hinton AE, Buckley G. Parental smoking and middle ear effusions in children. *J Laryngol Otol*. 1988;102:992-996.
- Hinton A, Herdman RC, Hartley C, O'Keefe L. The incidence of bacteria in middle ear effusions. *Clin Otolaryngol*. 1996;21:158-161.
- Hiranandani LH, Deshpande CK. Histopathological study of the middle-ear cleft. *J Laryngol Otol*. 1969;83:529-550.
- Hiroyuki T. [Bacterial quantification and anti-bacterial antibodies in otitis media with effusion in children]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:959-968.
- Hiroyuki T, Tetsuo H. [Antibody titers to bacterial antigens in middle ear effusion of otitis media with effusion]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:952-958.
- Hirsch A. Behavioural tests: applications and limitations in comparison with brainstem response audiometry. *Acta Oto-Laryngologica - Supplement*. 1991;482:118-124; discussion 125.
- Hirsch BE, Kamerer DB, Doshi S. Single-stage management of cholesteatoma. *Otolaryngol Head Neck Surg*. 1992;106:351-354.
- Hisamatsu K, Ganbo T, Nakazawa T, et al. Clinical efficacy of Tranilast on otitis media with effusion in children. *Auris-Nasus-Larynx*. 1994;21:150-157.
- Hlobil H. Temporary threshold shift in patients with serous otitis media. *Arch Oto Rhino Laryngol*. 1979;225:211-219.
- Hoang KD, Pollack CV, Jr. Antibiotic use in the emergency department. IV: Single-dose therapy and parenteral-loading dose therapy. *J Emerg Med*. 1996;14:619-628.
- Hoberman A, Paradise JL, Kaleida PH. Ceftriaxone for otitis media [letter; comment]. *Pediatrics*. 1993;92:507; discussion 508.
- Hoberman A, Paradise JL, Block S, Burch DJ, Jacobs MR, Balanescu MI. Efficacy of amoxicillin/clavulanate for acute otitis media: relation to *Streptococcus pneumoniae* susceptibility. *Pediatr Infect Dis J*. 1996;15:955-962.

- Hoberman A, Paradise JL, Reynolds EA, Urkin J. Efficacy of Auralgan for treating ear pain in children with acute otitis media. *Arch Pediatr Adolesc Med.* 1997;151:675-678.
- Hoberman A, Paradise JL, Burch DJ, et al. Equivalent efficacy and reduced occurrence of diarrhea from a new formulation of amoxicillin/clavulanate potassium (Augmentin (R)) for treatment of acute otitis media in children. *Pediatr Infect Dis J.* 1997;16:463-470.
- Hoberman A, Paradise JL, Burch DJ, et al. Equivalent efficacy and reduced occurrence of diarrhea from a new formulation of amoxicillin/clavulanate potassium (Augmentin) for treatment of acute otitis media in children. *Pediatr Infect Dis J.* 1997;16:463-470.
- Hoberman A, Paradise JL, Wald ER. Tympanocentesis technique revisited. *Pediatr Infect Dis J.* 1997;16:S25-S26.
- Hobson R, Gould I, Govan J. Burkholderia (Pseudomonas) cepacia as a cause of brain abscesses secondary to chronic suppurative otitis media. *Eur J Clin Microbiol Infect Dis.* 1995;14:908-911.
- Hodson AH. Glue ear [letter; comment] [see comments]. *J R Soc Med.* 1993;86:247.
- Hodson AH. Glue ear [letter; comment]. *J R Soc Med.* 1994;87:571.
- Hoffman RA. Serous otitis media: A rationale for therapy. *Bull Ny Acad Med.* 1980;56:728-733.
- Hoffman-Lawless K, Keith RW, Cotton RT. Auditory processing abilities in children with previous middle ear effusion. *Ann Otol Rhinol Laryngol.* 1981;90:543-545.
- Hogan SC, Meyer SE, Moore DR. Binaural unmasking returns to normal in teenagers who had otitis media in infancy. *Audiol Neurootol.* 1996;1:104-111.
- Hogan SC, Moore DR. Long-term follow-up of binaural masking level differences in children with a history of otitis media. *Br J Audiol.* 1996;30:131-132.
- Hogan SC, Stratford KJ, Moore DR. Duration and recurrence of otitis media with effusion in children from birth to 3 years: prospective study using monthly otoscopy and tympanometry [see comments]. *Br Med J.* 1997;314:350-353.
- Hohmann A. Experimental mastoidectomy with replacement of posterior bony canal wall in primates. *Adv Otorhinolaryngol.* 1983;31:39-49.
- Holborow C. Prevention of deafness in rural tropical areas. *Trop Doct.* 1985;15:39-41.
- Holliday RA, Reede DL. MRI of mastoid and middle ear disease. *Radiol Clin North Am.* 1989;27:283-299.
- Holm VA, Kunze LH. Effect of chronic otitis media on language and speech development. *Pediatrics.* 1969;43:833-839.
- Holm E, Seibaek M, Iversen PB. Two cases of otolaryngeal tuberculosis in a Danish married couple. *J Laryngol Otol.* 1995;109:1080-1081.
- Holm-Jensen S, Sorensen CH, Tos M. Repetitive tympanometric screenings in 4-year-old children. Seasonal influence on secretory otitis and tubal dysfunction. *ORL J Otorhinolaryngol Relat Spec.* 1981;43:164-174.
- Holmberg K, Axelsson A, Hansson P, Renvall U. The correlation between otoscopy and otomicroscopy in acute otitis media during healing. *Scand Audiol.* 1985;14:191-199.
- Holmberg K, Axelsson A, Hansson P, Renvall U. Comparison of tympanometry and otomicroscopy during healing of otitis media. *Scand Audiol.* 1986;15:3-8.
- Holmes N, Conway MJ, Flood L, Fraser JG, Stewart A. Language development in a group of very low-birth-weight children whose postauricular myogenic response was tested in infancy. *Pediatrics.* 1983;71:257-261.
- Holmquist J. The role of the eustachian tube in myringoplasty. *Acta Otolaryngol.* 1968;66:289-295.
- Holmquist J, Hallen O. Eustachian tube function and the mastoid air cell system in tympanoplasty. *Otolaryngol Clin North Am.* 1970;3:95-102.
- Holmquist J, Renvall U. Eustachian tube function in secretory otitis media. *Arch Otolaryngol.* 1974;99:59-61.
- Holmquist J, Oleander R, Hallen O. Peroperative drill-generated noise levels in ear surgery. *Acta Otolaryngol.* 1979;87:458-460.

- Holmquist J, Jarlstedt J, Tjellstrom A. Surgery of the Mastoid in Ears with Middle Ear Effusion. . *Proceedings of the Second International Symposium: Recent Advances in Otitis Media with Effusion*; 1980:322-333.
- Holmquist J, Al Fadala S, Qattan Y. Prevalence of secretory otitis media among school children in Kuwait. *J Laryngol Otol*. 1987;101:116-119.
- Holt GR, Young WC. Acute coalescent mastoiditis. *Otolaryngol Head Neck Surg*. 1981;89:317-321.
- Holt GR, Watson MJ. The otolaryngologist's role in the craniofacial anomalies team. *Otolaryngol Head Neck Surg*. 1984;92:406-409.
- Holt E, Guyer B, Hughart N, et al. The contribution of missed opportunities to childhood underimmunization in Baltimore. *Pediatrics*. 1996;97:474-480.
- Holt DE, Walker L. Radiographic appearance of the middle ear after ventral bulla osteotomy in five dogs with otitis media. *Veterinary Radiology and Ultrasound*. 1997;38:182-184.
- Holtby I, Elliott K, Kumar U. Is there a relationship between proximity to industry and the occurrence of otitis media with effusion in school entrant children? *Public Health*. 1997;111:89-91.
- Holte L, Margolis RH. Screening tympanometry. *Seminars in Hearing*. 1987;8:329-337.
- Holzmann D, Huisman TA, Linder TE. Lateral dural sinus thrombosis in childhood. *Laryngoscope*. 1999;109:645-651.
- Homer JJ, Johnson IJ, Jones NS. Middle ear infection and sixth nerve palsy. *J Laryngol Otol*. 1996;110:872-874.
- Homoe P, Lynnerup N, Videbaek H. CT-scanning of ancient Greenlandic Inuit temporal bones. *Acta Otolaryngol*. 1992;112:674-679.
- Homoe P, Lynnerup N, Rasmussen N, Skovgaard LT. Statistical model estimating the occurrence of otitis media from temporal bone pneumatization. *Ann Otol Rhinol Laryngol*. 1994;103:469-473.
- Homoe P, Christensen RB, Breatlau P. Hearing in elementary school children in Nuuk and Sisimiut, Greenland. *Arctic Med Res*. 1995;54:145-150.
- Homoe P, Lynnerup N, Skovgaard LT. Pneumatization and otitis media in Greenlandic Inuit before European colonization. *J Otolaryngol*. 1995;24:330-335.
- Homoe P, Prag J, Farholt S, et al. High rate of nasopharyngeal carriage of potential pathogens among children in Greenland: results of a clinical survey of middle-ear disease. *Clin Infect Dis*. 1996;23:1081-1090.
- Homoe P, Lynnerup N, Skovgaard LT, Rasmussen N. Estimation of otitis media in ancient populations. A study of past and present Greenlandic Inuit. *J Laryngol Otol*. 1996;110:1114-1119.
- Homoe P, Christensen RB, Breatlau P. Prevalence of otitis media in a survey of 591 unselected Greenlandic children. *Int J Pediatr Otorhinolaryngol*. 1996;36:215-230.
- Homoe P. Present aspects of otitis media among children in Greenland. *Int J Pediatr Otorhinolaryngol*. 1999;49:169-172.
- Honda K, Tanke M, Kumazawa T. Otitis media with effusion and tubal tonsil (video). *Acta Oto-Laryngologica - Supplement*. 1988;454:218-221.
- Honjo I, Hamasaki H, Okazaki N, Kumazawa T. Acoustic analysis of the inflation sound in Eustachian catheterization. *Arch Otorhinolaryngol*. 1980;229:183-190.
- Honjo I, Tashima K, Mitoma T, Hamada E. Effect of adenoidectomy on eustachian tube function. *Auris Nasus Larynx*. 1985;12:S231-S233.
- Honjo I. [Imaging diagnosis and function tests--exudative otitis media (CT, MRI, ear canal function tests, and tympanography)]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:954-957.
- Hoover KM, Chermak GD, Doyle CS. A comparative study of immittance screening procedures with preschool-aged children. *Am J Otol*. 1982;4:142-147.
- Hopkin RJ, Bergeson PS, Pinckard KC, Lewis K, Pinckard RC. Otitis externa posing as mastoiditis [published erratum appears in Arch Pediatr Adolesc Med 1995 Sep;149(9):1028]. *Arch Pediatr Adolesc Med*. 1994;148:1346-1349.

- Hopkins S. Clinical safety and tolerance of azithromycin in children. *J-Antimicrob-Chemother.* 1993;111-117.
- Hopkinson NT, Schramm VL, Bosse BF, Leggett SH. A comparison of results--acoustic susceptance and otolaryngology. *Journal of the American Audiology Society.* 1978;3:191-199.
- Hoppe JE, Koster S, Bootz F, Niethammer D. Acute mastoiditis--relevant once again. *Infection.* 1994;22:178-182.
- Hori F, Kawauchi H, Mogi G. Effect of S-carboxymethylcysteine on the clearance of middle ear effusion: An experimental study. *Ann Otol Rhinol Laryngol.* 1994;103:567-575.
- Horn KL, Erasmus MD, Akiya FI. Suppurative petrous apicitis: osteitis or osteomyelitis? an imaging case report. *Am J Otolaryngol.* 1996;17:54-57.
- Horowitz FD. Design factors in the assessment of intelligence. *Ann Otol Rhinol Laryngol Suppl.* 1979;88:64-77.
- Horowitz FD, Leake Hd. Effects of otitis media on cognitive development. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:264-268.
- Hoshino T, Miyashita H, Asai Y. Computed tomography of the temporal bone in tuberculous otitis media. *J Laryngol Otol.* 1994;108:702-705.
- Host A. Mechanisms in adverse reactions to food. The ear. *Allergy.* 1995;50:64-67.
- Host A. Otitis serosa: a food allergy? *Monogr Allergy.* 1996;32:195-197.
- Hotomi M, Tabata T, Kakiuchi H, Kunimoto M. Detection of Haemophilus influenzae in middle ear of otitis media with effusion by polymerase chain reaction. *Int J Pediatr Otorhinolaryngol.* 1993;27:119-126.
- Hotomi M, Samukawa T, Yamanaka N. Interleukin-8 in otitis media with effusion. *Acta Otolaryngol.* 1994;114:406-409.
- Hough JV, Stuart WD. Middle ear injuries in skull trauma. *Laryngoscope.* 1968;78:899-937.
- Hough JV. Tympanoplasty with the interior fascial graft technique and ossicular reconstruction. *Laryngoscope.* 1970;80:1385-1413.
- Houghton DJ, White PS, Browning GG. Predictors of outcome in children with otitis media with effusion. *Clin Otolaryngol Allied Sci.* 1998;23:48-50.
- House HP. 'Everywhere the old order changes and happy are those who can change with it'. *J Laryngol Otol.* 1976;90:41-48.
- House JW, Sheehy JL. Cholesteatoma with intact tympanic membrane: a report of 41 cases. *Laryngoscope.* 1980;90:70-76.
- House WF. Surgical considerations in cochlear implantation. *Ann Otol Rhinol Laryngol Suppl.* 1982;91:15-20.
- House WF, Luxford WM, Courtney B. Otitis media in children following the cochlear implant. *Ear Hear.* 1985;6:24S-26S.
- House WF. Cochlear implants in children--point, counterpoint. *Am J Otol.* 1988;9:161-162.
- Howard JE, Nelson JD, Clahsen J, Jackson LH. Otitis media of infancy and early childhood. A double-blind study of four treatment regimens. *Am-J-Dis-Child.* 1976;130:965.
- Howard JE, Nelson JD, Clahsen J, Jackson LH. Otitis media of infancy and early childhood. A double-blind study of four treatment regimens. *CURR THER.* 1977;18:92.
- Howard JD, Elster AD, May JS. Temporal bone: three-dimensional CT. Part I. Normal anatomy, techniques, and limitations. *Radiology.* 1990;177:421-425.
- Howie VM, Ploussard JH. Bacterial etiology and antimicrobial treatment of exudative otitis media: relation of antibiotic therapy to relapses. *South-Med-J.* 1971;64:233-239.
- Howie VM, Ploussard JH. Efficacy of fixed combination antibiotics versus separate components in otitis media. Effectiveness of erythromycin estolate, triple sulfonamide, ampicillin, erythromycin estolate- triple sulfonamide, and placebo in 280 patients with acute otitis media under two and one-half years of age. *Clin-Pediatr-Phila.* 1972;11:205-214.
- Howie VM, Ploussard JH, Sloyer J. Comparison of ampicillin and amoxicillin in the treatment of otitis media in children. *J Infect Dis.* 1974;129:suppl:S181-S184.

- Howie VM, Ploussard JH. Treatment of serous otitis media with ventilatory tubes. *Clin Pediatr*. 1974;13:919-921.
- Howie VM, Ploussard JH, Sloyer JL. Natural history of otitis media. . *The Annals of Otolology, Rhinology and Laryngology*; 1976:18-19.
- Howie VM. Acute and recurrent otitis media. In: B J, ed. *Hearing Loss in Children*. Baltimore: University Park Press; 1977:421-430.
- Howie VM, Jensen NJ, Fleming JW, Peeler MB, Meigs S. The effect of early onset of otitis media on educational achievement. *Int J Pediatr Otorhinolaryngol*. 1979;1:151-155.
- Howie VM. Developmental sequelae of chronic otitis media: a review. *J Dev Behav Pediatr*. 1980;1:34-38.
- Howie VM, Schwartz RH. Acute otitis media. One year in general pediatric practice. *Am J Dis Child*. 1983;137:155-158.
- Howie VM, Dillard R, Lawrence B. In vivo sensitivity test in otitis media: efficacy of antibiotics. *Pediatrics*. 1985;75:8-13.
- Howie VM. Otitis media. *Pediatr Rev*. 1993;14:320-323.
- Hozawa K, Suzuki M, Jingu K, Takahashi Y, Takasaka T. Low-dose, long-term erythromycin treatment for secretory otitis media in childhood. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:217-219.
- Hsu MM, Young YH, Lin KL. Eustachian tube function of patients with nasopharyngeal carcinoma. *Ann Otol Rhinol Laryngol*. 1995;104:453-455.
- Hsu GS, Levine SC, Giebink GS. Management of otitis media using agency for health care policy and research guidelines. *Otolaryngology and Head and Neck Surgery*. 1998;118:437-443.
- Huang TS, Lee FP. Congenital cholesteatoma: review of twelve cases. *Am J Otol*. 1994;15:276-281.
- Huang JL, Lin CY. A hereditary C3 deficiency due to aberrant splicing of exon 10. *Clin Immunol Immunopathol*. 1994;73:267-273.
- Huang MH, Lee ST, Rajendran K. A fresh cadaveric study of the paratubal muscles: implications for eustachian tube function in cleft palate. *Plast Reconstr Surg*. 1997;100:833-842.
- Hubbard TW, Paradise JL, McWilliams BJ, Elster BA, Taylor FH. Consequences of unremitting middle-ear disease in early life. Otologic audiologic and developmental findings in children with cleft palate. *N Engl J Med*. 1985;312:1529-1534.
- Huber CJ, Stangler SR, Routh DK. The BOEL test as a screening device for otitis media in infants. *Nurs Res*. 1978;27:178-180.
- Hug JE. A planimetric study of temporal bone pneumatization. *Arch Otorhinolaryngol*. 1986;243:304-308.
- Hughes WT, Kuhn S, Chaudhary S, et al. Successful chemoprophylaxis for *Pneumocystis carinii* pneumonitis. *N Engl J Med*. 1977;297:1419-1426.
- Hughes KB. Management of middle-ear effusions in children. *J Laryngol Otol*. 1984;98:677-684.
- Hughes LA, Wight D. Tympanostomy tubes: long-term effects. *Am Fam Physician*. 1988;38:186-190.
- Hughes CE, Spear RK, Shinabarger CE, Tuna IC. Septic pulmonary emboli complicating mastoiditis: Lemierre's syndrome revisited. *Clin Infect Dis*. 1994;18:633-635.
- Hui Y, Park A, Crysedale WS, Forte V. Ototoxicity from ototopical aminoglycosides. *J Otolaryngol*. 1997;26:53-56.
- Hultcrantz M, Sylven L. Turner's syndrome and hearing disorders in women aged 16-34. *Hear Res*. 1997;103:69-74.
- Hung W. Impedance audiometry in secretory otitis. *Acta Otorhinolaryngol Belg*. 1974;28:499-509.
- Hunter D. Serous otitis media. *Journal of the Medical Association of the State of Alabama*. 1980;49:19-23.
- Hunter LL, Margolis RH, Rykken JR, Giebink GS. Multifrequency tympanometry in normal children and children recovering from otitis media-a preliminary report. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:46-49.
- Hunter LL, Margolis RH, Giebink GS. Identification of hearing loss in children with otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:59-61.

- Hunter LL, Margolis RH, Giebink GS, Schmidth JL, Le CT, Daly KA. Long-term prospective study of hearing loss in children after tympanostomy tube treatment of chronic otitis media with effusion. In: Lim DJ, Bluestone CD, Casselbrant M, Klein JO, Ogra PL, eds. *Proceedings of the Sixth International Symposium on Recent Advances in Otitis Media*. Hamilton: BC Decker; 1995:383.
- Hunter LL, Margolis RH, Rykken JR, Le CT, Daly KA, Giebink GS. High frequency hearing loss associated with otitis media. *Ear Hear*. 1996;17:1-11.
- Hunter LL, Margolis RH, Giebink GS, Schmitz JL, Le CT, Daly KA. Long-term prospective study of hearing loss in children after tympanostomy tube treatment of chronic otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:383-386.
- Hunter LL, Margolis RH. Effects of tympanic membrane abnormalities on auditory function. *J Am Acad Audiol*. 1997;8:431-446.
- Hurley MM, Guzell JR, Vernon-Feagans L. Examination of otitis media, quality of child care, and language skills. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:416-418.
- Hurst PL. Involvement of a prepaid health plan in prospective studies on tonsillectomy and adenoidectomy. *Ann Otol Rhinol Laryngol*. 1975;84:22-24.
- Hurst DS. Allergy management of refractory serous otitis media. *Otolaryngol Head Neck Surg*. 1990;102:664-669.
- Hurst DS, Venge P. The presence of eosinophil cationic protein in middle ear effusion. *Otolaryngol Head Neck Surg*. 1993;108:711-722.
- Hurst DS. Association of otitis media with effusion and allergy as demonstrated by intradermal skin testing and eosinophil cationic protein levels in both middle ear effusions and mucosal biopsies. *Laryngoscope*. 1996;106:1128-1137.
- Hurst DS, Venge P. Levels of eosinophil cationic protein and myeloperoxidase from chronic middle ear effusion in patients with allergy and/or acute infection. *Otolaryngol Head Neck Surg*. 1996;114:531-544.
- Hurst DS, Fredens K. Eosinophil cationic protein in mucosal biopsies from patients with allergy and otitis media with effusion. *Otolaryngol Head Neck Surg*. 1997;117:42-48.
- Hurst DS, Weekley M, Ramanarayanan MP. Evidence of possible localized specific immunoglobulin E production in middle ear fluid as demonstrated by ELISA testing. *Otolaryngol Head Neck Surg*. 1999;121:224-230.
- Hurst DS, Amin K, Seveus L, Venge P. Evidence of mast cell activity in the middle ears of children with otitis media with effusion. *Laryngoscope*. 1999;109:471-477.
- Hussain MA, Ali EM, Ahmed HS. Otitis media in Sudanese children: presentation and bacteriology. *East Afr Med J*. 1991;68:679-685.
- Hussain SS. Extrusion rate of Shah and Shepard ventilation tubes in children. *Ear Nose Throat J*. 1992;71:273-275.
- Hussl B, Welzl-Mueller K. Secretory otitis media and mastoid pneumatization. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:79-82.
- Hutchings SA. Audiometric screening in schools--2. A child with bilateral sensorineural loss and secretory otitis media. *Nursing Times*. 1978;74:1991-1994.
- Hutchings ME, Meyer SE, Moore DR. Binaural masking level differences in infants with and without otitis media with effusion. *Hear Res*. 1992;63:71-78.
- Hutchinson JC, Jr., Caldarelli DD, Valvassori GE, Pruzansky S, Parris PJ. The otologic manifestations of mandibulofacial dysostosis. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1977;84:ORL520-8.
- Huttenbrink KB. [Surgical treatment of chronic otitis media. III: Middle ear reconstruction]. *HNO*. 1994;42:701-718.
- Huttenbrink KB. [Surgical treatment of chronic otitis media. II: Cholesteatoma removal, open and closed techniques]. *HNO*. 1994;42:648-657.
- Huttenbrink KB. [Surgical treatment of chronic otitis media. I: Indications, preoperative care and surgical principles]. *HNO*. 1994;42:582-593.
- Huttenbrink KB. [Acoustically optimized middle ear prostheses. New techniques for future research and

- development of improved implants (comment)]. *HNO*. 1997;45:509-511.
- Hutton JB. Effect of middle ear pathology on selected psychoeducational measures following surgical treatment. *Percept Mot Skills*. 1983;57:1095-1100.
- Hutton DA, Fogg FJ, Murty G, Birchall JP, Pearson JP. Preliminary characterization of mucin from effusions of cleft palate patients. *Otolaryngol Head Neck Surg*. 1993;109:1000-1006.
- Iarlykov SA, Poliakova SD, Zemskov AM. [Correction of immunologic disorders in patients with chronic suppurative otitis media]. *Vestn-Otorinolaringol*. 1995;1995:9-11.
- Ibekwe AO, Okoye BC. Subperiosteal mastoid abscesses in chronic suppurative otitis media. *Ann Otol Rhinol Laryngol*. 1988;97:373-375.
- Ibekwe AO, al Shareef Z, Benayam A. Anaerobes and fungi in chronic suppurative otitis media. *Ann Otol Rhinol Laryngol*. 1997;106:649-652.
- Ichijo H, Hosokawa M, Shinkawa H. Differences in size and shape between the right and left sigmoid sinuses. *Eur Arch Otorhinolaryngol*. 1993;250:297-299.
- Ichijo H, Hosokawa M, Shinkawa H. The relationship between mastoid pneumatization and the position of the sigmoid sinus. *Eur Arch Otorhinolaryngol*. 1996;253:421-424.
- Ichimiya I, Kurono Y, Mogi G. Immunology of the tympanic membrane. *Acta Otorhinolaryngol Belg*. 1995;49:121-125.
- Ichimiya I, Kurono Y, Mogi G. Immunological potential of the tympanic membrane. Observation under normal and inflammatory conditions. *Am J Otolaryngol*. 1997;18:165-172.
- Iemma M, Maurer J. Distorsion product otoacoustic emissions in children before and after adenotomy, tonsillectomy and myringotomy. *Oto Rhino Laryngologia Nova*. 1997;7:14-20.
- Iino Y, Kaneko Y, Takasaka T. Endotoxin in middle ear effusions tested with Limulus assay. *Acta Otolaryngol*. 1985;100:42-50.
- Iino Y, Yuasa R, Kaneko Y, Takasaka T, Kawamoto K. Prognosis and endotoxin contents in middle ear effusions in cases after acute otitis media. *Acta Otolaryngologica - Supplement*. 1987;435:85-89.
- Iino Y, Ishitoya J, Ikeda M, et al. [Factors on delayed recovery of otitis media with effusion in children--clinical and bacteriological study]. *Nippon-Jibiinkoka-Gakkai-Kaiho*. 1989;92:1183-1191.
- Iino Y, Nakamura Y, Koizumi T, Toriyama M. Prognostic factors for persistent middle ear effusion after acute otitis media in children. *Acta Otolaryngol*. 1993;113:761-765.
- Iino Y, Nakamura Y, Koizumi T, Toriyama M. Prognostic factor for persistent middle ear effusion after acute otitis media in children. *Acta Otolaryngologica*. 1993;113:761-765.
- Iino Y, Sugita K, Toriyama M, Kudo K. Erythromycin therapy for otitis media with effusion in sinobronchial syndrome. *Arch Otolaryngol Head Neck Surg*. 1993;119:648-651.
- Iino Y, Imamura Y, Hiraishi M, Yabe T, Suzuki J. Mastoid pneumatization in children with congenital cholesteatoma: an aspect of the formation of open-type and closed-type cholesteatoma. *Laryngoscope*. 1998;108:1071-1076.
- Ijaduola TG. Acute otalgia in Nigerian children. *Trop Geogr Med*. 1985;37:343-344.
- Ikarashi F, Nakano Y, Okura T. The relationship between the degree of chronic middle ear inflammation and tympanic bulla pneumatization in the pig as animal model. *Eur Arch Otorhinolaryngol*. 1994;251:100-104.
- Ikarashi F, Nakano Y, Okura T. Pneumatization of the tympanic bulla after blockage of the ventilation route through the eustachian tube in the pig. *Ann Otol Rhinol Laryngol*. 1996;105:784-790.
- Ikeda K, Takasaka T. In vitro activity of ototopical drops against middle ear pathogens. *Am J Otol*. 1993;14:170-171.
- Ikeda S, Tsuchihashi N, Kawashiro N, Kanzaki J. Management of acute otitis media. Assessment of therapeutic strategy in Japan today. *Int J Technol Assess Health Care*. 1994;10:426-435.
- Ilecki HJ, Baxter JD. Arctic audiology: trials, tribulations, and occasional successes. *J Otolaryngol*. 1981;10:294-298.

- Illig PA. Successful approaches to reducing ear disease among native Alaskan children. *Alaska Med.* 1980;22:4-8.
- Imamura N, Kato T, Suoya Y, Soda T, Shiraiishi K, Morizono T. Changes in bone conduction audiograms in patients with otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:398-400.
- Inagaki M, Sakakura Y, Shimizu T, Majima Y, Ukai K. Ultrastructure of mucous blanket in otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1988;97:313-317.
- Indudharan R, Dharap AS, Htun YN. An unusual differential diagnosis of myringitis bullosa haemorrhagica. *Trop Geogr Med.* 1995;47:227-228.
- Indudharan R, Haq JA. Use of pre-reduced swabs in bacteriology of chronic suppurative otitis media. *J Laryngol Otol.* 1996;110:950-951.
- Infante-Rivard C, Fernandez A. Otitis media in children: frequency, risk factors, and research avenues. *Epidemiol Rev.* 1993;15:444-465.
- Ingelstedt S, Jonson B, Rundcrantz H. Gas tension and pH in middle ear effusion. *Ann Otol Rhinol Laryngol.* 1975;84:198-202.
- Ingram TT. Intermittent hearing loss in young children. *Dev Med Child Neurol.* 1976;18:239-241.
- Ingram JM. Nothing to sneeze about: allergies and allergic rhinitis. *J Ark Med Soc.* 1996;93:81-86.
- Ingvarsson L, Lundegren K, Olofsson G. Epidemiology of acute otitis media in children-a cohort study in an urban population. In: Lim DJ, Bluestone CD, Klein JO, Nelson D, eds. *Recent advances in otitis media with effusion.* Philadelphia (PA): BD Decker; 1984:19-22.
- Ingvarsson L. Acute otalgia in children - findings and diagnosis. *Acta Paediatrica Scandinavica.* 1982;71:705-710.
- Ingvarsson L, Lundgren K, Olofsson B. Incidence and Risk Factors of Acute Otitis Media in Children: Longitudinal Cohort Studies in an Urban Population. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:6-8.
- Ingvarsson L, Bastos I, Westin L, Larsson A. Long-term follow-up of otitis-prone children: a prospective computerized study. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:54-55.
- Inoue M, Arai S, Kawamura Y, al. e. The prophylactic effect of trimethoprim-sulfamethoxazole on infections in children with acute leukaemia. *DRUGS-EXP-CLIN-RES.* 1983;9:35-43.
- Irander K, Borres MP, Bjorksten B. Middle ear diseases in relation to atopy and nasal metachromatic cells in infancy. *Int J Pediatr Otorhinolaryngol.* 1993;26:1-9.
- Isaac ML, Oliveira JAA, Holanda F. Importance of Otomicroscopy and Acoustic Imittance measurements for the early detection of effusion in the middle ear of asymptomatic children in a pediatric outpatient clinic. *Revista Brasileira de Otorrinolaringologia.* 1999;65:122-127.
- Isaacman DJ, Purvis K, Gyuro J, Anderson Y, Smith D. Standardized instructions: do they improve communication of discharge information from the emergency department? *Pediatrics.* 1992;89:1204-1208.
- Isaacs D. The management of otitis media with effusion: goodbye to grommets? Commentary. *Curr Opin Pediatr.* 1994;6:3-6.
- Isaacson G, Rosenfeld RM. Care of the child with tympanostomy tubes: a visual guide for the pediatrician. *Pediatrics.* 1994;93:924-929.
- Isaacson G. The natural history of a treated episode of acute otitis media. *Pediatrics.* 1996;98:968-971.
- Isaacson G, Rosenfeld RM. Care of the child with tympanostomy tubes. *Pediatr Clin North Am.* 1996;43:1183-1193.
- Ishida M. Otitis media with effusion (OME) in children. *Otolaryngology Head and Neck Surgery.* 1991;63:23-28.
- Ishigami H, Nomura T, Yamada K. Sensory-neural hearing loss in acute otitis media. *Pract Otol.* 1985;78.
- Ishigooka J, Wakatabe H, Shimada E, Suzuki M, Fukuyama Y, Murasaki M, Miura S. *Rinsho Hyoka (Clinical Evaluation).* 1993;21(3):441-490

- Ishii N, Chiba M, Iizuka M, Masamune O, Kodama M, Ohta M. Sclerosing peritonitis associated with keratoconjunctivitis sicca, pleurisy, and secretory otitis media. *Intern Med.* 1993;32:311-315.
- Ishikawa T, Bernstein J, Reisman RE, Arbesman CE. Secretory otitis media: immunologic studies of middle ear secretions. *J Allergy Clin Immunol.* 1972;50:319-325.
- Ishizaka A, Sakiyama Y, Otsu M, Ozutsumi K, Matsumoto S. Successful intravenous immunoglobulin therapy for recurrent pneumococcal otitis media in young children. *Eur J Pediatr.* 1994;153:174-178.
- Isoda K, Kitahara M, Kitano H. Treatment of endolymphatic hydrops caused by otitis media. *Equilibrium Research.* 1988;47:109-110.
- Issing PR, Schonemark M, Kempf HG, Lenarz T. [Indications for middle ear obliteration within the scope of cochlear implant management]. *Laryngorhinootologie.* 1996;75:727-731.
- Ito K, Wada K, Nomura Y, Fukazawa O, Hirabayashi C, Taguchi K. On fluctuation of hearing in otitis media with effusion after myringotomy. *Auris Nasus Larynx.* 1985;12:S255-S257.
- Ito M, Tajima A, Nitta T, Sato K, Ishii S, Ragsdale B. Massive cranial ossifying myxoma in a child. *Clin Neurol Neurosurg.* 1990;92:271-275.
- Ito Y, Shinogi J, Yuta A, Okada E, Taki M, Matsukage H. Clinical records: a case report of Wegener's granulomatosis limited to the ear. *Auris Nasus Larynx.* 1991;18:281-289.
- Ito K, Ito Y, Mizuta K, et al. Bacteriology of chronic otitis media, chronic sinusitis, and paranasal mucopyocele in Japan. *Clin Infect Dis.* 1995;20:S214-S219.
- Ivarsson A. A New Impedance Method for Measuring Middle Ear Mechanics and Eustachian Tube Function. . *Proceedings of the Second International Symposium: Recent Advances in Otitis Media with Effusion;* 1980:207-210.
- Iversen M, Birch L, Lundqvist GR, Elbrond O. Middle ear effusion in children and the indoor environment: an epidemiological study. *Arch Environ Health.* 1985;40:74-79.
- Iwai N, Miyazu M, Nakamura H, Katayama M, Kasai K. Studies on rokitamycin in pediatrics. *41.* 1988;7.
- Iwaki E, Saito T, Tsuda G, et al. Timing for removal of tympanic ventilation tube in children. *Auris Nasus Larynx.* 1998;25:361-368.
- Iwano T, Kinoshita T, Hamada E, Doi T, Ushiro K, Kumazawa T. Otitis media with effusion and eustachian tube dysfunction in adults and children. *Acta Oto-Laryngologica - Supplement.* 1993;500:66-69.
- Iwano T, Ushiro K, Yukawa N, et al. Active opening function of the human eustachian tube: comparison between sonotubometry and pressure equilibration test. *Acta Oto-Laryngologica - Supplement.* 1993;500:62-65.
- Jaber L, Gabriel R, Merlob P. Meconium aspiration and otitis media in children. *Eur J Pediatr.* 1993;152:164-165.
- Jackler RK, Dillon WP, Schindler RA. Computed tomography in suppurative ear disease: a correlation of surgical and radiographic findings. *Laryngoscope.* 1984;94:746-752.
- Jackler RK, Schindler RA. Role of the mastoid in tympanic membrane reconstruction. *Laryngoscope.* 1984;94:495-500.
- Jackler RK. CT and MRI of the ear and temporal bone: Current state of the art and future prospects. *Am J Otol.* 1988;9:232-239.
- Jackson CG, Levine SC, McKennan KX. Hemangioma of the middle ear. *Am J Otol.* 1987;8:131-132.
- Jackson MA, Burry VF, Olson LC, Duthie SE, Kearns GL. Breakthrough sepsis in macrolide-resistant pneumococcal infection. *Pediatr Infect Dis J.* 1996;15:1049-1051.
- Jackson CG, Pappas DG, Jr., Manolidis S, et al. Brain herniation into the middle ear and mastoid: concepts in diagnosis and surgical management. *Am J Otol.* 1997;18:198-205; discussion 205-206.
- Jacob A, Rupa V, Job A, Joseph A. Hearing impairment and otitis media in a rural primary school in south India. *Int J Pediatr Otorhinolaryngol.* 1997;39:133-138.

- Jacobs MR. Increasing importance of antibiotic-resistant *Streptococcus pneumoniae* in acute otitis media. *Pediatr Infect Dis J*. 1996;15:940-943.
- Jacobson JA, Metcalf TJ, Parkin JL, Wenerstrom LG, Matsen JM. Evaluation of cefaclor and amoxicillin in the treatment of acute otitis media. *Postgrad-Med-J*. 1979;39-41.
- Jacobsson S, Fogh A, Larsson P, Lomborg S. Evaluation of amoxicillin clavulanate twice daily versus thrice daily in the treatment of otitis media in children. Danish-Swedish Study Group. *Eur J Clin Microbiol Infect Dis*. 1993;12:319-324.
- Jaeschke R, Guyatt G, Sackett DL. Users' guides to the medical literature: III. How to use an article about diagnostic test: A. Are the results of study valid? *J Am Med Assoc*. 1994;271:389-391.
- Jaffe BF. The incidence of ear diseases in the Navajo Indians. *Laryngoscope*. 1969;79:2126-2134.
- Jahn AF, Tonndorf J. Lateralization of bone-conducted sounds. *Am J Otolaryngol*. 1982;3:133-140.
- Jaisinghani VJ, al. e. Tympanic membrane/middle ear pathologic correlates in chronic otitis media. *Laryngoscope*. 1999;109:712-716.
- Jaklis A, Tohme S. Coalescent mastoiditis in a child with severe congenital neutropenia. Report of a case. *Journal Medical Libanais - Lebanese Medical Journal*. 1996;44:96-99.
- Jakob T, Wright CG, Robinson K, Meyerhoff WL. Ototoxicity of topical ticarcillin and clavulanic acid in the chinchilla. *Arch Otolaryngol Head Neck Surg*. 1995;121:39-43.
- Jakubikova J, Zavodna M. Examinations of hearing by otoacoustic emissions in children after insertion of ventilation tubes. *Otorinolaryngol Foniatr*. 1999;48:6-10.
- Jamal MN. Imaging and management of angiofibroma. *Eur Arch Otorhinolaryngol*. 1994;251:241-245.
- Jamal TS. Avoidance of postoperative blockage of ventilation tubes. *Laryngoscope*. 1995;105:833-834.
- James JM. Role of food allergy in serous otitis media [letter; comment]. *Ann Allergy Asthma Immunol*. 1995;74:277-278.
- Jan MM. Facial paralysis: a presenting feature of rhabdomyosarcoma. *Int J Pediatr Otorhinolaryngol*. 1998;46:221-224.
- Janeke JB. Recurrent otitis media in the young child [letter]. *S Afr Med J*. 1993;83:867.
- Janeke JB. Foreign bodies in the ear canal--take them out, but look behind: [letter]. *S Afr Med J*. 1993;83:698.
- Jang CH, Merchant SN. Histopathology of labyrinthine fistulae in chronic otitis media with clinical implications. *Am J Otol*. 1997;18:15-25.
- Jansen C. Heterologous tympanoplasty. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1973;77:ORL111-6.
- Jansen C. Cholesteatoma in children. *Clin Otolaryngol Allied Sci*. 1978;3:349-352.
- Janson H, Melhus A, Hermansson A, Forsgren A. Protein D, the glycerophosphodiester phosphodiesterase from *Haemophilus influenzae* with affinity for human immunoglobulin D, influences virulence in a rat otitis model. *Infect Immun*. 1994;62:4848-4854.
- Jantunen E, Koivula I. [Persistent ear infection, impaired hearing and fever]. *Duodecim*. 1994;110:1797-1799.
- Janzen VD. Mastoid obliteration with primary ossicular reconstruction. *J Otolaryngol*. 1981;10:321-324.
- Janzen VD. Ossiculoplasty using a hemi-incus interposition. *J Otolaryngol*. 1984;13:211-212.
- Janzen VD, Schaefer D. Etiology of deafness in Robarts School for the Deaf. *J Otolaryngol*. 1984;13:47-48.
- Jardine A. Diagnosing glue ear. *Practitioner*. 1989;233:985-986.
- Jardine A, Rosedale M, Birchall MA. Are hearing tests performed in General Practice at the 3 [quarter]-year developmental assessment a reliable indicator of the presence of otitis media with effusion? *Clin Otolaryngol Allied Sci*. 1998;23.
- Jardine AH, Maw AR, Coulton S. Dry tap at myringotomy: a three-year study of 1688 children

- undergoing myringotomy. *Clin Otolaryngol Allied Sci.* 1999;24:266-269.
- Jardine AH, Griffiths MV, Midgley E. The acceptance of hearing aids for children with otitis media with effusion. *J Laryngol Otol.* 1999;113:314-317.
- Jauris-Heipke S, Leake ER, Billy JM, DeMaria TF. The effect of antibiotic treatment on the release of endotoxin during nontypable *Haemophilus influenzae*-induced otitis media in the chinchilla. *Acta Otolaryngol.* 1997;117:109-112.
- Jawahar S, Moody C, Chan M, Finberg R, Geha R, Chatila T. Natural Killer (NK) cell deficiency associated with an epitope-deficient Fc receptor type IIIA (CD16-II). *Clin Exp Immunol.* 1996;103:408-413.
- Jecker P, Pabst R, Westermann J. The mucosa of the middle ear and Eustachian tube in the young rat: number of granulocytes, macrophages, dendritic cells, NK cells and T and B lymphocytes in healthy animals and during otitis media. *Acta Otolaryngol.* 1996;116:443-450.
- Jehle D, Cottingham E. Acoustic otoscopy in the diagnosis of otitis media. *Ann-Emerg-Med.* 1989;18:396-400.
- Jensen JH, Leth N, Bonding P. Topical application of decongestant in dysfunction of the Eustachian tube: a randomized, double-blind, placebo-controlled trial. *Clin-Otolaryngol.* 1990;15:197-201.
- Jensen PM, Lous J. Treatment of acute otitis media in Danish general practice. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:226-228.
- Jensen W. Drug treatment of otitis media. *S D J Med.* 1997;50:137-138.
- Jensen PM, Lous J. Criteria, performance and diagnostic problems in diagnosing acute otitis media. *Fam Pract.* 1999;16:262-268.
- Jeppsson P, Nylen O, Liden G. Audiological aspects of acute otitis media. *Acta Otolaryngol.* 1973;75:439-442.
- Jerger J. Clinical experience with impedance audiometry. *Arch Otolaryngol.* 1970;92:311-324.
- Jerger J, Anthony L, Jerger S, Mauldin L. Studies in impedance audiometry. 3. Middle ear disorders. *Arch Otolaryngol.* 1974;99:165-171.
- Jerger S, Jerger J, Mauldin L, Segal P. Studies in impedance audiometry. II. Children less than 6 years old. *Arch Otolaryngol.* 1974;99:1-9.
- Jerger JF, Hayes D. The cross-check principle in pediatric audiometry. *Arch Otolaryngol.* 1976;102:614-620.
- Jerger S, Jerger J, Alford BR, Abrams S. Development of speech intelligibility in children with recurrent otitis media. *Ear Hear.* 1983;4:138-145.
- Jero J, Virolainen A, Salo P, Leinonen M, Eskola J, Karma P. PCR assay for detecting *Streptococcus pneumoniae* in the middle ear of children with otitis media with effusion. *Acta Otolaryngol.* 1996;116:288-292.
- Jero J, Virolainen A, Virtanen M, Eskola J, Karma P. Prognosis of acute otitis media: Factors associated with poor outcome. *Acta Oto Laryngologica.* 1997;117:278-283.
- Jero J, Karma P. Prognosis of acute otitis media. Factors associated with the development of recurrent acute otitis media. *Acta Oto-Laryngologica - Supplement.* 1997;529:30-33.
- Jero J, Karma P. Bacteriological findings and persistence of middle ear effusion in otitis media with effusion. *Acta Oto-Laryngologica - Supplement.* 1997;529:22-26.
- Jesic S, Radulovic R, Arsovic N. Altered immunoregulations in otosclerosis: presence of autoantibodies in otosclerotic sera samples. *Eur Arch Otorhinolaryngol Suppl.* 1997;1:S50-S52.
- Jimenez Antolin JA, Lasso Luis O, Munoz Platon E, Rodriguez Francos M, Galdeano Granda E. [Myringotomy and transtympanic ventilation tubes in secretory otitis media. A study of 108 children]. *Acta Otorrinolaringol Esp.* 1994;45:415-419.
- Jin CS, Hamaguchi Y, Sakakura Y. ELISA to determine immunoreactive *Pseudomonas aeruginosa* elastase in chronic suppurative otitis media. *International Archives of Allergy and Applied Immunology.* 1991;96:193-198.
- Jin YT, Tsai ST, Li C, et al. Prevalence of human papillomavirus in middle ear carcinoma associated

- with chronic otitis media. *Am J Pathol*. 1997;150:1327-1333.
- Job A, Kurien M, Jacob A, Mathew J. Bilateral simultaneous hearing preservation mastoidectomy in otogenic meningitis. *Ann Otol Rhinol Laryngol*. 1998;107:872-875.
- Johansson U, Hellstrom S, Anniko M. Round window membrane in serous and purulent otitis media. Structural study in the rat. *Ann Otol Rhinol Laryngol*. 1993;102:227-235.
- John WR, Valle-Jones JC. Treatment of otitis media in children. A comparison between cefaclor and amoxicillin. *Practitioner*. 1983;227:1805-1809.
- Johnson RL. Chronic otitis media in school age Navajo Indians. *Laryngoscope*. 1967;77:1990-1995.
- Johnson SE, Foord RD. Cephalixin dosage in general practice assessed by double-blind trial. *Curr-Med-Res-Opin*. 1972;1:37-48.
- Johnson EW. Clinical application of special hearing tests. *Arch Otolaryngol*. 1973;97:92-95.
- Johnson LP, Parkin JL, Stevens MH, et al. Action of general anesthesia on middle ear effusions. *Arch Otolaryngol*. 1980;106:100-102.
- Johnson AP, Murray JA, Maran AG. Errors in the assessment of nasopharyngeal airway by radiography. *J Laryngol Otol*. 1983;97:1017-1026.
- Johnson DW, Voorhees RL, Lufkin RB, Hanafee W, Canalis R. Cholesteatomas of the temporal bone: role of computed tomography. *Radiology*. 1983;148:733-737.
- Johnson CE, Carlin SA, Super DM, et al. Cefixime compared with amoxicillin for treatment of acute otitis media. *J Pediatr*. 1991;119:117-122.
- Johnson DL, Swank P, Howie VM, Baldwin CD, Owen M, Luttman D. Does HOME add to the prediction of child intelligence over and above SES? *J Genet Psychol*. 1993;154:33-40.
- Johnson MD, Contrino A, Contrino J, Maxwell K, Leonard G, Kreutzer D. Murine model of otitis media with effusion: immunohistochemical demonstration of IL-1 alpha antigen expression. *Laryngoscope*. 1994;104:1143-1149.
- Johnson MD, Fitzgerald JE, Leonard G, Burleson JA, Kreutzer DL. Cytokines in experimental otitis media with effusion. *Laryngoscope*. 1994;104:191-196.
- Johnson JJ, Brooks T, Hutton DA, Birchall JP, Pearson JP. Compositional differences between bilateral middle ear effusions in otitis media with effusion: evidence for a different etiology? *Laryngoscope*. 1997;107:684-689.
- Johnson M, Leonard G, Kreutzer DL. Murine model of interleukin-8-induced otitis media. *Laryngoscope*. 1997;107:1405-1408.
- Johnston O. III health and developmental delays in Adelaide four-year-old children. *Australian Paediatric Journal*. 1980;16:248-254.
- Johnstone DE. Decongestant-antihistamine combination for otitis media with effusion in children. *N Engl J Med*. 1998;340:1598-1599.
- Johannott SC. Differences in chronic otitis media between rural and urban Eskimo children: a comparative study. *Clin Pediatr*. 1973;12:415-419.
- Jolin SW, Howell JM. Infrared emission detection tympanic thermometry [letter; comment]. *Am J Emerg Med*. 1995;13:605.
- Jolin SW, Howell JM, Milzman DP, Stair TO, Butzin CA. Infrared emission detection tympanic thermometry may be useful in diagnosing acute otitis media [see comments]. *Am J Emerg Med*. 1995;13:6-8.
- Jonathan DA. Sonotubometry: its role in childhood glue ear. *Clin Otolaryngol Allied Sci*. 1989;14:151-154.
- Jones RF. Long-term investigation of hearing in otitis media. *Proceedings of the Royal Society of Medicine*. 1970;63:742-744.
- Jones HM. Cranial pneumatocele. *Proceedings of the Royal Society of Medicine*. 1970;63:257-262.
- Jones RF. The aftermath of acute otitis media. Adverse factors. *Practitioner*. 1970;204:583.
- Jones HM. The problem of recurrent meningitis. *Proceedings of the Royal Society of Medicine*. 1974;67:1141-1147.

- Jones EA, Jr., Thomas LR, Davis NC. The significance of secretory IgA in middle ear fluid. *Annals of Allergy*. 1979;42:236-240.
- Jones RO, Pillsbury HC. Histiocytosis X of the head and neck. *Laryngoscope*. 1984;94:1031-1035.
- Jones R, Bain J. Three-day and seven-day treatment in acute otitis media: a double-blind antibiotic trial. *J-R-Coll-Gen-Pract*. 1986;36:356-358.
- Jones NS. Cerebrospinal fluid otorrhea at myringotomy. A meningocele through a defect in the tegmen. *Int J Pediatr Otorhinolaryngol*. 1991;21:79-83.
- Jones RN. Can antimicrobial activity be sustained? An appraisal of orally administered drugs used for respiratory tract infections. *Diagn Microbiol Infect Dis*. 1997;27:21-28.
- Jorgensen F, Holmquist J. Toynbee phenomenon and middle ear disease. *Am J Otol*. 1984;5:291-294.
- Jorgensen F, Andersson B, Larsson SH, Nylén O, Eden CS. Children with Frequent Attacks of Acute Otitis Media: A Re-Examination after Eight Year. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:141-145.
- Jorgensen F, Andersson B, Hanson LA, Nylén O, Eden CS. Gamma-globulin treatment of recurrent acute otitis media in children. *Pediatr Infect Dis J*. 1990;9:389-394.
- Jorgensen F, Hansson HA, Petruson B, Andersson B. Nasal mucosal changes in children treated with gammaglobulin. Aspects on middle ear pathology and nasopharyngeal bacteriology. *Acta Otolaryngol*. 1991;111:785-796.
- Josebe Unzaga M, Rojo P, Pardo C, Melero P, Cisterna R. [Alloiooccus otitidis: a more common microorganism than we thought? (letter)]. *Enferm Infecc Microbiol Clin*. 1997;15:174-175.
- Joseph PR. Otitis media in practice [letter; comment]. *Clin Pediatr*. 1993;32:512.
- Jossart GH, Canafax DM, Erdmann GR, et al. Effect of Streptococcus pneumoniae and influenza A virus on middle ear antimicrobial pharmacokinetics in experimental otitis media. *Pharm Res*. 1994;11:860-864.
- Jubb TF, Vassallo RI, Wroth RH. Suppurative otitis in cattle associated with ear mites (Raillietia auris). *Aust Vet J*. 1993;70:354-355.
- Juergens AL. Traumatic tympanic perforation. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1974;78:ORL261-3.
- Juhn SK, Tolan CT, Garvis WJ, Cross DS, Giebink GS. The levels of IL-1 beta in human middle ear effusions. *Acta Oto-Laryngologica - Supplement*. 1992;493:37-42.
- Juhn SK, Garvis WJ, Lees CJ, Le CT, Kim CS. Determining otitis media severity from middle ear fluid analysis. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:43-45.
- Julien G, Baxter JD, Crago M, Ilecki HJ, Therien F. Chronic otitis media and hearing deficit among native children of Kuujjuaraapik (Northern Quebec): a pilot project. *Can J Public Health*. 1987;78:57-61.
- Julien N, Perie S, Lassen C, Sevali Garcia J, Sterkers O. [Bacterial epidemiology of chronic otitis. Prophylactic and therapeutic deductions]. *Ann Otolaryngol Chir Cervicofac*. 1993;110:81-86.
- Jung TTK. Classification of otitis media and surgical principles. *Otolaryngol Clin North Am*. 1999 Jun;32:369-383.
- Juni P, Witschi A, Bloch R, Egger M. The hazards of scoring the quality of clinical trials for meta-analysis. *J Am Med Assoc*. 1999;282:1054-1060.
- Jury SC. Prevention of severe mucosecretory ear disease and its complications in patients with cleft lip and palate malformations. *Folia Phoniatr Logop*. 1997;49:177-180.
- Kaada B, Hognestad S, Havstad J. Transcutaneous nerve stimulation (TNS) in tinnitus. *Scand Audiol*. 1989;18:211-217.
- Kafetzis DA. Multi-investigator evaluation of the efficacy and safety of cefprozil, amoxicillin-clavulanate, cefixime and cefaclor in the treatment of acute otitis media. *Eur J Clin Microbiol Infect Dis*. 1994;13:857-865.
- Kafetzis DA, Malaka-Zafiriou C, Bairamis T, Roilides E, Valeri R, Stamler DA. Comparison of the efficacy and tolerability of clarithromycin suspension and cefuroxime axetil suspension in the treatment of

- acute otitis media in paediatric patients. *Clinical Drug Investigation*. 1997;14:192-199.
- Kafetzis DA, Astra H, Mitropoulos L. Five-day versus ten-day treatment of acute otitis media with cefprozil. *Eur J Clin Microbiol Infect Dis*. 1997;16:283-286.
- Kaga K, Ichimura K. A preliminary report: clinical effects of otic solution of ofloxacin in infantile myringitis and chronic otitis media. *Int J Pediatr Otorhinolaryngol*. 1998;42:199-205.
- Kahonen K, Palva T, Bergroth V, Kontinen YT, Reitamo S. Immunohistochemical identification of inflammatory cells in secretory and chronic otitis media and cholesteatoma using monoclonal antibodies. *Acta Otolaryngol*. 1984;97:431-436.
- Kaleida PH, Bluestone CD, Rockette HE, et al. Amoxicillin-clavulanate potassium compared with cefaclor for acute otitis media in infants and children [published erratum appears in *Pediatr Infect Dis J* 1987 Aug;6(8):734]. *Pediatr Infect Dis J*. 1987;6:265-271.
- Kaleida PH, Casselbrant ML, Rockette HE, et al. Amoxicillin or myringotomy or both for acute otitis media: results of a randomized clinical trial. *Pediatrics*. 1991;87:466-474.
- Kaleida PH, Stool SE. Assessment of otoscopists' accuracy regarding middle-ear effusion. Oscopic validation. *Am J Dis Child*. 1992;146:433-435.
- Kaleida PH, Stool SE, Karabin JC. Assessment of otoscopic accuracy in diagnosis of middle-ear effusion in children ("otoscopic validation"). . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:41.
- Kaleida PH, Hoberman A, Smith CG. Assessment and enhancement of otoscopic diagnostic accuracy using videotaped otoendoscopic examinations. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:160.
- Kallail KJ, Rainbolt HR, Bruntzel MD. Passive smoking and middle ear problems in Kansas public school children. *J Commun Disord*. 1987;20:187-196.
- Kalm O, Prellner K, Christensen P. The effect of intravenous immunoglobulin treatment in recurrent acute otitis media. *Int J Pediatr Otorhinolaryngol*. 1986;11:237-246.
- Kalm O, Johnson U, Prellner K. HLA frequency in patients with chronic secretory otitis media. *Int J Pediatr Otorhinolaryngol*. 1994;30:151-157.
- Kalpana R, Chamyal PC. Study of prevalence and aetiology of the hearing loss amongst school going children. *Indian Journal of Otolaryngology and Head and Neck Surgery*. 1997;49:142-144.
- Kameswaran S, Kumar PV, Jeyapaul JI, Manoharan S. Audiological and haematological studies on the Todas of Nilgiris. *J Laryngol Otol*. 1976;90:325-333.
- Kamimura M, Himi T, Kataura A. Cell adhesion molecules of experimental otitis media in the rat. *Acta Otolaryngol*. 1996;116:857-862.
- Kamimura M, Himi T, Kataura A. In vitro regulation of neutrophil migration by beta 2 integrins (LFA-1 and Mac-1) in patients with otitis media. *Eur Arch Otorhinolaryngol*. 1997;254:150-152.
- Kaneko A, Doi T, Hosoda Y, Iwano T, Yamashita T. Direct measurement of eustachian tube compliance. *Acta Otolaryngol*. 1996;116:594-598.
- Kaneko Y, Takasaka T, Sakuma M, Kambayashi J, Okitsu T. Middle ear inflation as a treatment for secretory otitis media in children. *Acta Otolaryngol*. 1997;117:564-568.
- Kangsarak J, Foonant S, Ruckphaopunt K, Navacharoen N, Teotrakul S. Extracranial and intracranial complications of suppurative otitis media. Report of 102 cases. *J Laryngol Otol*. 1993;107:999-1004.
- Kangsarak J, Navacharoen N, Foonant S, Ruckphaopunt K. Intracranial complications of suppurative otitis media: 13 years' experience. *Am J Otol*. 1995;16:104-109.
- Kanzaki J, Taiji H, Kanke H, Shiga H. Evaluation of the eustachian tube in normal subjects and in patients with otitis media with effusion by high resolution computerized tomography. *Auris Nasus Larynx*. 1985;12:S52-S54.
- Kapidzic A, Basic F, Volic A. [Anaerobic bacteria in chronic otitis media]. *Med Arh*. 1995;49:27-29.
- Kaplan GJ, Fleshman JK, Bender TR, Baum C, Clark PS. Long-term effects of otitis media: a ten-year

- cohort study of Alaskan Eskimo children. *Pediatrics*. 1973;52:577-585.
- Kaplan SL, Mason EO, Jr. Antimicrobial agents: resistance patterns of common pathogens. *Pediatr Infect Dis J*. 1994;13:1050-1053.
- Kaplan DM, Leiberman A, Noghreya A, Fliss DM. Acute Salmonella mastoiditis in an infant. *Int J Pediatr Otorhinolaryngol*. 1995;32:87-91.
- Kaplan DM, Fliss DM, Kraus M, Dagan R, Leiberman A. Audiometric findings in children with chronic suppurative otitis media without cholesteatoma. *Int J Pediatr Otorhinolaryngol*. 1996;35:89-96.
- Kaplan SL. Streptococcus pneumoniae: impact of antibiotic resistance in pediatrics. *Curr Probl Pediatr*. 1997;27:187-195.
- Kaplan B, Wandstrat TL, Cunningham JR. Overall cost in the treatment of otitis media. *Pediatr Infect Dis J*. 1997;16:S9-S11.
- Kaplan DM, Kraus M, Puterman M, Niv A, Leiberman A, Fliss DM. Orogenic lateral sinus thrombosis in children. *Int J Pediatr Otorhinolaryngol*. 1999;49:177-183.
- Kapur YP, Oyer HJ. Ear disease in developing countries: a proposal. *Folia Phoniatr Logop*. 1996;48:150-155.
- Kara CO, Ozuer MZ, Kilic I, Yalcin AN, Ergin H. Comparison of amoxicillin with second and third generation cephalosporins in the treatment of acute otitis media. *Infezioni in Medicina*. 1998;6:93-95.
- Karabaev KE, Antoniv VF, Bekmuradov RU. [Pathogenetic validation of optimal antioxidant therapy in suppurative inflammatory otic diseases in children]. *Vestn Otorinolaringol*. 1997;5-7.
- Karjalainen H. Cellular events in relation to bacteria-specific antibodies in middle ear effusion during acute otitis media. *Acta Otolaryngol*. 1991;111:750-755.
- Karjalainen H, Koskela M, Luotonen J, Sipila P. Secretory antibodies specific to Streptococcus pneumoniae, Haemophilus influenzae and Branhamella catarrhalis in middle ear effusion during acute otitis media. *Acta Otolaryngol*. 1991;111:524-529.
- Karjalainen H, Koskela M, Luotonen J, Herva E, Sipila P. Occurrences of antibodies against Streptococcus pneumoniae, Haemophilus influenzae and Branhamella catarrhalis in middle ear effusion and serum during the course of acute otitis media. *Acta Otolaryngol*. 1991;111:112-119.
- Karkanevatos A, Lesser TH. Grommet insertion in children: a survey of parental perceptions. *J Laryngol Otol*. 1998;112:732-741.
- Karlsson Y. [Antibiotics in acute otitis a touchstone in the debate on resistance]. *Lakartidningen*. 1997;94:3021.
- Karma P, Pukander J, Sipila M, et al. Prevention of otitis media in children by pneumococcal vaccination. *Am J Otolaryngol*. 1985;6:173-184.
- Karma PH, Penttila MA, Sipila MM, Timonen MS. Diagnostic Value of Otosopic Signs in Acute Otitis Media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:44-47.
- Karma P, Sipila M, Rahko T. Hearing and hearing loss in 5-year-old children. Pure-tone thresholds and the effect of acute otitis media. *Scand Audiol*. 1989;18:199-203.
- Karma PH, Penttila MA, Sipila MM, Kataja MJ. Otosopic diagnosis of middle ear effusion in acute and non-acute otitis media. I. The value of different otoscopic findings. *Int J Pediatr Otorhinolaryngol*. 1989;17:37-49.
- Karma PH, Sipila MM, Kataja MJ, Penttila MA. Pneumatic otoscopy and otitis media. I. Value of different tympanic membrane findings and their combinations. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:41-45.
- Karma PH, Sipila MM, Rahko KT. Hearing and history of acute otitis media in childhood. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:552-554.
- Karma PH, Bakaletz LO, Giebink GS, Mogi G, Rynnel-Dagoo B. Immunological aspects of otitis media: present views on possibilities of immunoprophylaxis of acute otitis media in infants and children. *Int J Pediatr Otorhinolaryngol*. 1995;32:S127-S134.

- Karma PH, Laitila P, M.E., Sipila M, Manninen MP, Rahko T. Sensorineural hearing and childhood acute otitis media in adolescents. In: Lim DJ, Bluestone CD, Casselbrant M, Klein JO, Ogra PL, eds. *Proceedings of the Sixth International Symposium on Recent Advances in Otitis Media*. Hamilton: BC Decker; 1995:387.
- Karma PH, Laitila PME, Sipila M, Manninen MP, Rahko KT. Sensorineural hearing and childhood acute otitis media in adolescents. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:367-369.
- Karov I. Preoperative treatment of children with chronic suppurative otitis media. *Folia Med*. 1996;38:63-69.
- Kasemsuwan L, Schachern P, Paparella MM, Le CT. Residual mesenchyme in temporal bones of children. *Laryngoscope*. 1996;106:1040-1043.
- Kasemsuwan L, Clongsuesuek P. A double blind, prospective trial of topical ciprofloxacin versus normal saline solution in the treatment of otorrhoea. *Clin-Otolaryngol*. 1997;22:44-46.
- Kass JR, Beebe ME. Serous otitis media. *Nurse Pract*. 1979;4:25-28.
- Katz S, Schmelzer B, Van Rompaey D. Surgical management of chronic otitis media with effusion. *Acta Otorhinolaryngol Belg*. 1995;49:69-73.
- Kavanagh KT, Clark ST. Comparison of the mastoid to vertex and mastoid to high forehead electrode arrays in recording auditory evoked potentials. *Ear Hear*. 1989;10:259-261.
- Kawabata I, Nomura Y, Kikuchi K. Azeptin(TM)'s efficacy in patients with otitis media with effusio. *Practica Otologica*. 1993;86:895-909.
- Kawakami M, Hattori Y, Nakamura S. Reflection of structural abnormality in the axoneme of respiratory cilia in the clinical features of immotile cilia syndrome. *Intern Med*. 1996;35:617-623.
- Kawamoto K. Clinical and experimental studies on the pathogenesis of otitis media with effusion. *Auris Nasus Larynx*. 1985;12:S11-S14.
- Kawamura S, Sugita R, Fujimaki T, al. e. A randomized, controlled trial of bacampicillin vs. cephalexin in the treatment of acute purulent otitis media. *PRACT-OTOL-(KYOTO)*. 1985;78:1147-1165.
- Kawana M, Kawana C, Amesara R, Juhn SK, Giebink GS. Neutrophil oxygen metabolite inhibition of cultured chinchilla middle ear epithelial cell growth. *Ann Otol Rhinol Laryngol*. 1994;103:812-816.
- Kawana M. Early inflammatory changes of the Haemophilus influenzae-induced experimental otitis media. *Auris Nasus Larynx*. 1995;22:80-85.
- Kawanami M, Sato N, Kashiwamura M, et al. [Evoked oto-acoustic emissions in patients with secretory otitis media]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:1423-1429.
- Kawasaki Y, Sakamoto Y, Honmura Y, et al. Long-term results of ventilation tube for otitis media with effusion in children. *Auris Nasus Larynx*. 1985;12:S225-S227.
- Kawata R, Mizukoshi O, Kuriyama K, Urade Y. Prostaglandin content in human middle ear effusions. *Arch Otorhinolaryngol*. 1989;246:133-136.
- Kayhty H, Eskola J. New vaccines for the prevention of pneumococcal infections. *Emerg Infect Dis*. 1996;2:289-298.
- Kazama S, Yagihashi T, Morita T, Awakura T, Shimada A, Umemura T. Isolation of Mycoplasma hyorhinis and Mycoplasma arginini from the ears of pigs with otitis media. *Res Vet Sci*. 1994;56:108-110.
- Kazanas SG, Maw AR. Tympanometry, stapedius reflex and hearing impairment in children with otitis media with effusion. *Acta-Otolaryngol-Stockh*. 1994;114:410-414.
- Kean H. Current concepts of otitis media. *IMS - Industrial Medicine and Surgery*. 1971;40:19-21.
- Kearns GL, Reed MD, Jacobs RF, Ardite M, Yogev RD, Blumer JL. Single-dose pharmacokinetics of ceftibuten (SCH 39720) in infants and children. *Antimicrob-Agents-Chemother*. 1991;35:2078-2084.
- Kearns GL, Young RA. Ceftibuten pharmacokinetics and pharmacodynamics. Focus on paediatric use. *Clin Pharmacokinet*. 1994;26:169-189.

- Keating LW, Fria TJ. Report on the status of calibration of bone vibrators in selected clinics. *Audiology*. 1974;13:205-211.
- Kedjanyi WK, Bath AP, Ball RY, Hosni AA, Wickstead M. Metastatic adenocarcinoma of the temporal bone. *J Laryngol Otol*. 1994;108:710-712.
- Keim RJ. Common ear diseases: recognition and management. *Postgrad Med*. 1977;61:72-80.
- Keim RJ, Erdreich J, Love TJ. Thermal hazards in mastoid surgery: an evaluation of instruments and irrigation techniques. *Otolaryngology and Head and Neck Surgery*. 1979;87:472-478.
- Keith RW, Murphy KP, Martin F. Acoustic impedance measurement in the otological assessment of multiply handicapped children. *Clin Otolaryngol Allied Sci*. 1976;1:221-224.
- Kelly B, Alexander D. Effect of otitis media on infrared tympanic thermometry. *Clin Pediatr*. 1991;30:46-48; discussion 49.
- Kelly HA, Weeks SA. Ear disease in three aboriginal communities in Western Australia [see comments]. *Med J Aust*. 1991;154:240-245.
- Kelly KM. Recurrent otitis media: genetic immunoglobulin markers in children and their parents [letter]. *Int J Pediatr Otorhinolaryngol*. 1993;25:279-280.
- Kemaloglu YK, Goksu N, Ozbilen S, Akyildiz N. Otitis media with effusion and craniofacial analysis-II: "Mastoid-middle ear-eustachian tube system" in children with secretory otitis media. *Int J Pediatr Otorhinolaryngol*. 1995;32:69-76.
- Kemaloglu YK. Developmental anatomy of the supratubal recess in temporal bones from fetuses and children [letter; comment]. *Am J Otol*. 1997;18:125-126.
- Kemaloglu YK, Sener T, Beder L, Bayazit Y, Goksu N. Predictive value of acoustic reflectometry (angle and reflectivity) and tympanometry. *Int J Pediatr Otorhinolaryngol*. 1999;48:137-142.
- Kempf HG, Johann K, Weber BP, Lenarz T. Complications of cochlear implant surgery in children. *Am J Otol*. 1997;18:S62-S63.
- Kemphorne J, Giebink GS. Pediatric approach to the diagnosis and management of otitis media. *Otolaryngol Clin North Am*. 1991;24:905-929.
- Kendall G, Inglis M. The experience of parenting a child with glue ear. *Nursing Praxis in New Zealand*. 1993;8:27-33.
- Kenna MA, Bluestone CD, Reilly JS, Lusk RP. Medical management of chronic suppurative otitis media without cholesteatoma in children. *Laryngoscope*. 1986;96:146-151.
- Kenna MA, Bluestone CD. Medical Management of Chronic Suppurative Otitis Media Without Cholesteatoma. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:222-226.
- Kenna MA, Bluestone CD, Fall P, et al. Cefixime versus cefaclor in treatment of acute otitis media with effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:217-218.
- Kenna MA, Rosane BA, Bluestone CD. Medical management of chronic suppurative otitis media without cholesteatoma in children--update 1992. *Am J Otol*. 1993;14:469-473.
- Kenna MA. Treatment of chronic suppurative otitis media. *Otolaryngol Clin North Am*. 1994;27:457-472.
- Kenna MA BC, Fall P, Stephenson J, Kurs-Lasky M, Wucher FP, Blatter MM, Reisinger KS. Cefuroxime axetil versus cefaclor in treatment of acute otitis media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:214-216.
- Kennedy TL, Gore LB. Middle ear effusions and the nitrous oxide myth. *Laryngoscope*. 1982;92:169-172.
- Kenney RD, Fortenberry JD, Surratt SS, Ribbeck BM, Thomas WJ. Evaluation of an infrared tympanic membrane thermometer in pediatric patients [see comments]. *Pediatrics*. 1990;85:854-858.
- Keohane J. Hearing aids in glue ear. *Br Med J*. 1970;1:367.
- Keohane JD, Ruby RR, Janzen VD, MacRae DL, Parnes LS. Medial meatal fibrosis: the University of Western Ontario experience. *Am J Otol*. 1993;14:172-175.

- Kerr AG, Byrne JE. Concussive effects of bomb blast on the ear. *J Laryngol Otol.* 1975;89:131-143.
- Kerr AG, Toner JG, McKee GJ, Smyth GD. Role and results of cortical mastoidectomy and endolymphatic sac surgery in Meniere's disease. *J Laryngol Otol.* 1989;103:1161-1166.
- Kessler ME, Randolph K. The effects of early middle ear disease on the auditory abilities of third grade children. *J Acad Rehabil Audiol.* 1984;12:6-20.
- Kessner DM, Kalk CE, Singer J. Assessing health quality--the case for tracers. *N Engl J Med.* 1973;288:189-194.
- Kessner DM. Screening high-risk populations: a challenge to primary medical care. *J Community Health.* 1976;1:216-225.
- Khakimov AM, Arifov SS, Faizulaeva FN. [Atypical thrombosis of venous collectors of posterior cranial fossa as a complication of chronic otitis media, purulent]. *Vestn Otorinolaringol.* 1997;55.
- Khan NA. The L-shaped homograft incus as substitute for the ossicular chain and bridge plasty in radical cavities. *Acta Otorhinolaryngol Belg.* 1974;28:627-634.
- Khan JA, Marcus P, Cummings SW. S-carboxymethylcysteine in otitis media with effusion. (A double-blind study). *J Laryngol Otol.* 1981;95:995-1001.
- Khan JA. A comparative study of mucodyne and a decongestant combination in otitis media with effusion. *FORUM SER R SOC MED, No.* 1982.
- Khan NA. Technique and clinical importance of eustachian tube radiography. *Am J Otol.* 1985;6:222-224.
- Khasanov SA, Omonov Sh E, Setvaldieva IA. [Chronic suppurative otitis media complicated by septicemia and disseminated intravascular coagulation syndrome in a 2-year-old child]. *Vestn Otorinolaringol.* 1995;49.
- Khasanov SA, Omonov SE. [Outcomes of heterobrophomastoidoplasty in surgical treatment of chronic otitis media purulent in children]. *Vestn Otorinolaringol.* 1997:17-18.
- Khurana CM. A multicenter, randomized, open label comparison of azithromycin and amoxicillin/clavulanate in acute otitis media among children attending day care or school. *Pediatr Infect Dis J.* 1996;15:S24-S29.
- Kieserman SP, Stern J. Malignant transformation of nasopharyngeal lymphoid hyperplasia. *Otolaryngol Head Neck Surg.* 1995;113:474-476.
- Kikuchi S, Yamasoba T, Iinuma T. An analysis of bone destruction in cholesteatomas by high resolution computed tomography. *Auris Nasus Larynx.* 1993;20:11-17.
- Kikuchi A, Funakubo T, Kohsyu H. A study of fungal infections in otorhinolaryngology. *Acta Oto-Laryngologica - Supplement.* 1994;511:224-227.
- Kikuno K, Goto S, Iwasaki H, et al. [Two patients with acute promyelocytic leukemia whose relapse was noted by cytodiagnosis of middle ear discharge]. *Rinsho Ketsueki - Japanese Journal of Clinical Hematology.* 1996;37:323-328.
- Kilby D, Richards SH, Hart G. Grommets and glue ears: two-year results. *J Laryngol Otol.* 1972;86:881-888.
- Kim HK, Bluestone CD, Blatter MM, et al. Comparison of bacampicillin and amoxicillin in acute otitis media with effusion. *Bull-N-Y-Acad-Med.* 1983;59:515-523.
- Kim JY, Lee CH. Clinical study on the efficacy of tonsilloadenoidectomy. *Acta Oto Laryngologica Supplement.* 1988;106:265-272.
- Kim DG, Hong SC, Kim HJ, et al. Cerebral aspergillosis in immunologically competent patients. *Surg Neurol.* 1993;40:326-331.
- Kim CS, Jung HW, Yoo KY. Prevalence of otitis media and allied diseases in Korea--results of a nation-wide survey, 1991. *J Korean Med Sci.* 1993;8:34-40.
- Kim CS, Jung HW, Yoo KY. Prevalence and risk factors of chronic otitis media in Korea: results of a nation-wide survey. *Acta Otolaryngol.* 1993;113:369-375.
- Kim CS, Kim HJ. Auditory brain stem response changes after application of endotoxin to the round window membrane in experimental otitis media. *Otolaryngol Head Neck Surg.* 1995;112:557-565.

- Kimball S. Acoustic reflectometry: spectral gradient analysis for improved detection of middle ear effusion in children. *Pediatr Infect Dis J*. 1998;17:552-555; discussion 580.
- King JT. Modified exploratory anterior tympanotomy in chronic secretory otitis media in children. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1972;76:1292-1295.
- King GE, Markowitz LE, Heath J, et al. Antibody response to measles-mumps-rubella vaccine of children with mild illness at the time of vaccination. *JAMA*. 1996;275:704-707.
- Kinney SE, Wood BG. Surgical treatment of skull-base malignancy. *Otolaryngol Head Neck Surg*. 1984;92:94-99.
- Kinney SE. Intact canal wall tympanoplasty with mastoidectomy for cholesteatoma: long-term follow-up. *Laryngoscope*. 1988;98:1190-1194.
- Kinnman J, Lke CW. Cerebrospinal fluid otorrhea. *J Laryngol Otol*. 1966;80:66-72.
- Kinoshita K. [The roles of interleukin-1 alpha, tumor necrosis factor-alpha and parathyroid hormone-related protein in bone resorption of cholesteatoma otitis]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1994;97:1472-1480.
- Kinsella JB, Fenton J, Donnelly MJ, McShane DP. Tympanostomy tubes and early post-operative otorrhea. *Int J Pediatr Otorhinolaryngol*. 1994;30:111-114.
- Kinsella JB, O'Sullivan P, McShane DP. The role of the middle ear and tonsil in the etiology of febrile convulsions. *Int J Pediatr Otorhinolaryngol*. 1995;32:153-157.
- Kirkwood CR, Kirkwood ME. Otitis media and learning disabilities: The case for a causal relationship. *J Fam Pract*. 1983;17:219-227.
- Kiroglu MM, Aydogan B. Plain roentgenographic changes of the paranasal sinuses in cases with and without otitis media with effusion. *Annals of Medical Sciences*. 1996;5:84-86.
- Kiroglu M, Tap O, Mete UO, et al. Ultrastructure of the nasopharyngeal orifice epithelium of the eustachian tube in otitis media with effusion. *J Submicrosc Cytol Pathol*. 1997;29:79-84.
- Kiroglu MM, Ozbilgin K, Aydogan B, et al. Adenoids and otitis media with effusion: a morphological study. *Am J Otolaryngol*. 1998;19:244-250.
- Kirsch CM, Wehner JH, Jensen WA, Kagawa FT, Campagna AC. Tuberculous otitis media. *South Med J*. 1995;88:363-366.
- Kirtane MV, Merchant SN, Raje AR, Zantye SP, Shah KL. Sensorineural hearing loss in chronic otitis media--a statistical evaluation. *J Postgrad Med*. 1985;31:183-186.
- Kitanoski B, Haralampiev K. Differentially diagnostic problems concerning conductive hearing loss. *Symp Otorhinolaryngol Jugosl*. 1984;19:253-258.
- Kitchens GG. Relationship of environmental tobacco smoke to otitis media in young children. *Laryngoscope*. 1995;105:1-13.
- Kiuchi S. Diagnostic value of axial CT scan. *Otolaryngology*. 1983;55:167-178.
- Kivimae P. Long tympanostomy tubes increase the possibility to live a normal life. *Lakartidningen*. 1983;80.
- Kjellman NI, Synnerstad B, Hansson LO. Atopic allergy and immunoglobulins in children with adenoids and recurrent otitis media. *Acta Paediatrica Scandinavica*. 1976;65:593-600.
- Kjellman NI, Harder H, Lindwall L, Synnerstad B. Longterm treatment with brompheniramine and phenylpropanolamine in recurrent otitis media--a double-blind study. *J-Otolaryngol*. 1978;7:257-61.
- Klein JO. Design factors in the assessment of intelligence. *Ann Otol Rhinol Laryngol*. 1979;88:99-106.
- Klein SW, Olson AL, Perrin J, et al. Prevention and treatment of serous otitis media with an oral antihistamine. A double-blind study in pediatric practice. *Clin-Pediatr-Phila*. 1980;19:342-347.
- Klein JO. Persistent middle ear effusions: Natural history and morbidity. *Pediatr Infect Dis*. 1982;1.
- Klein JO. Otitis media and the development of speech and language. *Pediatr Infect Dis*. 1984;3:389-391.

- Klein JO. Antimicrobial prophylaxis for recurrent acute otitis media. *Pediatr Ann.* 1984;13:398-403.
- Klein JO, D.W. T, R. M, P. M, B.A. R. Otitis Media with Effusion During the First Three Years of Life and Development of Speech and Language. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:332-334.
- Klein JO. Emerging perspectives in management and prevention of infections of the respiratory tract in infants and children. *Am J Med.* 1985;78:38-44.
- Klein JO. Otitis media: diagnosis and epidemiology. *Clin Ther.* 1988;10:2-7.
- Klein JO, Chase C, Teele DW, Menyuk P, Rosner BA, Group tGBOMS. Otitis media and the development of speech, language and cognitive abilities at seven years of age. In: Lim DJ BC, Klein JO, Nelson JD, ed. *Recent advances in otitis media with effusion.* Philadelphia: Decker; 1988:396-397.
- Klein JO, Teele DW, Rosner BA, et al. Epidemiology of acute otitis media in Boston children from birth to seven years of age. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:14-15.
- Klein JO, Tos M, Hussl B, Naunton RF, Ohyama M, van Cauwenberge PB. Recent advances in otitis media. Definition and classification. *Ann Otol Rhinol Laryngol Suppl.* 1989;139:10.
- Klein AJ, Armstrong BL, Greer MK, Brown FRd. Hyperacusis and otitis media in individuals with Williams syndrome. *J Speech Hear Disord.* 1990;55:339-344.
- Klein JO, Teele DW, Pelton SI. New concepts in otitis media: results of investigations of the Greater Boston Otitis Media Study Group. *Adv Pediatr.* 1992;39:127-156.
- Klein JO. Microbiologic efficacy of antibacterial drugs for acute otitis media [published erratum appears in *Pediatr Infect Dis J* 1994 Dec;13(12):1125]. *Pediatr Infect Dis J.* 1993;12:973-975.
- Klein JO, Wise R. At the sixth international congress for infectious diseases, Prague, Czech Republic, April 1994: Introduction. *Eur J Clin Microbiol Infect Dis.* 1994;13:837-838.
- Klein JO. Otitis media [see comments]. *Clin Infect Dis.* 1994;19:823-833.
- Klein JO. Lessons from recent studies on the epidemiology of otitis media. *Pediatr Infect Dis J.* 1994;13:1031-1034.
- Klein JO. Current issues in upper respiratory tract infections in infants and children: rationale for antibacterial therapy. *Pediatr Infect Dis J.* 1994;13:S5-S9; discussion S20-S22.
- Klein JO. Antimicrobial therapy issues facing pediatricians. *Pediatr Infect Dis J.* 1995;14:415-419.
- Klein JO. [Microbiological evaluation of effectiveness of antibacterial drugs for the acute inflammation of the middle ear]. *Pediatr Pol.* 1995;70:91-94.
- Klein JO, Bluestone CD. Management of otitis media in the era of managed care. *Adv Pediatr Infect Dis.* 1996;12:351-386.
- Klein JO. Role of nontypeable *Haemophilus influenzae* in pediatric respiratory tract infections. *Pediatr Infect Dis J.* 1997;16:S5-S8.
- Klein JO. *Haemophilus influenzae*: its role in pediatric infections. Introduction. *Pediatr Infect Dis J.* 1997;16:S3-S4.
- Kleinman LC, Kosecoff J, Dubois RW, Brook RH. The medical appropriateness of tympanostomy tubes proposed for children younger than 16 years in the United States [see comments]. *JAMA.* 1994;271:1250-1255.
- Kletzker GR, Smith PG, McIntire LD, Leonetti JP. Presentation and management of uncommon lesions of the middle ear. *Am J Otol.* 1995;16:634-642.
- Klugman KP, Coffey TJ, Smith A, Wasas A, Meyers M, Spratt BG. Cluster of an erythromycin-resistant variant of the Spanish multiply resistant 23F clone of *Streptococcus pneumoniae* in South Africa. *Eur J Clin Microbiol Infect Dis.* 1994;13:171-174.
- Klugman KP. Epidemiology, control and treatment of multiresistant pneumococci. *Drugs.* 1996;52:42-46.
- Knappe MV, Gregor RT. Luc's abscess--a rare complication of middle-ear infection. *J Laryngol Otol.* 1997;111:461-464.

- Knight LC, Hilger A. The effects of grommet insertion on Eustachian tube function. *Clin Otolaryngol.* 1993;18:459-461.
- Knishkowsky B, Palti H, Adler B, Tepper D. Effect of otitis media on development: a community-based study. *Early Hum Dev.* 1991;26:101-111.
- Koba R, Yagi M, Tabe H, Kawabata I. Kinetic analysis of cell proliferation using bromodeoxyuridine labeling and in situ detection of dying cells in the tympanic membrane and middle ear cholesteatoma. *Arch Histol Cytol.* 1996;59:339-346.
- Kobayashi H, Zusho H. When to remove the ventilation tube--judgement using T-tube on the time to remove the tube. *Auris Nasus Larynx.* 1985;12:S247-S248.
- Kobayashi K, Kodama H, Takezawa H, Suzuki T, Kataura A. Elevation of bone conduction threshold in children with middle ear effusion. *Int J Pediatr Otorhinolaryngol.* 1988;16:95-100.
- Kobayashi K, Yamanaka N, Kataura A, Ohtani S, Saito T, Akino T. Presence of an 80 kilodalton protein, cross-reacted with monoclonal antibodies to pulmonary surfactant protein A, in the human middle ear. *Ann Otol Rhinol Laryngol.* 1992;101:491-495.
- Kobayashi T, Yaginuma Y, Toshima M, et al. Use of surfactant in the treatment of secretory otitis media: a preliminary report. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:286-289.
- Kodama H, Asakura K. [Role of surface tension lowering substances in the function of normal and diseased eustachian tubes of guinea pigs]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:674-684.
- Kodama A, Kitahara M, Ozawa H, Izukura H. A ventilation capacity test for the Eustachian tube using a soundproof pressure chamber. *Acta Oto-Laryngologica - Supplement.* 1994;510:99-103.
- Kodama H, Faden H, Harabuchi Y, Kataura A, Bernstein JM, Brodsky L. Adenoid lymphocyte responses to outer membrane protein P6 of nontypable *Haemophilus influenzae* in children with and without otitis media. *Acta Oto-Laryngologica - Supplement.* 1996;523:153-154.
- Koebshell KA, Margolis RH. Tympanometric gradient measured from normal preschool children [published erratum appears in *Audiology* 1989;28(2):following 116]. *Audiology.* 1986;25:149-157.
- Koenigsberger MR, Chandrasekhar SS. [An infant with dizziness]. *Rev Neurol.* 1995;23:S410-S417.
- Kohli V, Singhi S, Sharma P, Ganguly NK. Value of serum C-reactive protein concentrations in febrile children without apparent focus. *Ann Trop Paediatr.* 1993;13:373-378.
- Kohsyu H, Aoyagi M, Tojima H, et al. Facial nerve enhancement in Gd-MRI in patients with Bell's palsy. *Acta Oto-Laryngologica - Supplement.* 1994;511:165-169.
- Koike Y. Facial palsies due to skull trauma. *Arch Otolaryngol.* 1972;95:434-436.
- Koivunen P, Alho OP, Uhari M, Partanen A, Luotonen J. General anesthesia with and without nitrous oxide (N2O) and the weight of middle ear effusion in children undergoing adenoidectomy and tympanostomy. *Laryngoscope.* 1996;106:724-726.
- Koivunen P, Alho OP, Uhari M, Niemela M, Luotonen J. Minitympanometry in detecting middle ear fluid. *J Pediatr.* 1997;131:419-422.
- Kokko E. Chronic secretory otitis media in children. A clinical study. *Acta Oto-Laryngologica - Supplement.* 1974;327:1-44.
- Kokko E, Palva T. Clinical results and complications of tympanostomy. . *The Annals of Otolaryngology, Rhinology and Laryngology;* 1976:277-279.
- Kollar A, Lamonthe MG. Changes of the threshold of bone conduction in acute otitis media. *Ceskoslovenska Otolaryngologie.* 1982;31:340-346.
- Komoroski EM, Graham CJ, Kirby RS. A comparison of interventions to improve clinic follow-up compliance after a pediatric emergency department visit. *Pediatr-Emerg-Care.* 1996;12:87-90.
- Komune S, Hisashi K, Wakizono S, Inoue H, Uemura T. Importance of atticotomy in chronic otitis media with fixation of ossicles. *Auris Nasus Larynx.* 1992;19:23-28.
- Konstantareas MM, Homatidis S. Ear infections in autistic and normal children. *J Autism Dev Disord.* 1987;17:585-594.

- Kontiokari T, Niemela M, Uhari M. Middle ear effusion among children diagnosed and treated actively for acute otitis media. *Eur J Pediatr*. 1998;157:731-734.
- Kontrogianni A, Ferekidis E, Ntouniadakis E, Psarommatis I, Apostolopoulos N, Adamopoulos G. Multiple-frequency tympanometry in children with otitis media with effusion. *ORL J Otorhinolaryngol Relat Spec*. 1996;58:78-81.
- Koos WT, Day JD, Matula C, Levy DI. Neurotopographic considerations in the microsurgical treatment of small acoustic neurinomas. *J Neurosurg*. 1998;88:506-512.
- Koriwchak M. Temporal bone cancer. *Am J Otol*. 1993;14:623-626.
- Korppi M, Leinonen M, Saikku P. Chlamydial infection and reactive airway disease [letter; comment]. *Arch Pediatr Adolesc Med*. 1995;149:341-342.
- Koskela M. Antibody response of young children to parenteral vaccination with pneumococcal capsular polysaccharides: a comparison between antibody levels in serum and middle ear effusion. *Pediatr Infect Dis*. 1986;5:431-434.
- Kosling S, Keiner S. [Meningitis. Meningitis, induced by aggressive labyrinthitis]. *HNO*. 1997;45:570-571.
- Kosowicz J, Rzymiski K. Radiological features of the skull in Klinefelter's syndrome and male hypogonadism. *Clin Radiol*. 1975;26:371-378.
- Kossowska E, Chmielik M, Komorowska A, Zaleski W. [Sultamicillin in treatment of acute middle ear infection in children]. *Pol Tyg Lek*. 1993;48:9-10.
- Koutnouyan HA, Baird A, Ryan AF. Acidic and basic FGF mRNA expression in the middle ear mucosa during experimental acute and chronic otitis media. *Laryngoscope*. 1994;104:350-358.
- Koyuncu M, Mason SM, Saunders MW. Electrocochleography in endolymphatic hydrops using tone-pip and click stimuli. *Clin Otolaryngol Allied Sci*. 1994;19:73-78.
- Koyuncu M, Saka MM, Tanyeri Y, et al. Effects of otitis media with effusion on the vestibular system in children. *Otolaryngol Head Neck Surg*. 1999;120:117-121.
- Kozak LJ, Hall MJ, Pokras R, Lawrence L. Ambulatory Surgery in the United States, 1994. Advance Data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1997 Mar.
- Kramer BM, Kaseff LG. The surgical correlation of x-ray findings by polytomography. With special reference to chronic otitis. *Laryngoscope*. 1967;77:1099-1108.
- Kramer AH, McCullough DW. The prevalence of otitis media with effusion among Inuit children. *International Journal of Circumpolar Health*. 1998;57:265-267.
- Kraus EM. Hearing results with clothespin ossiculoplasty: preliminary report on the Kraus Modified Schuring Ossicle-Cup Prosthesis (Clothespin Prosthesis). *Otolaryngol Head Neck Surg*. 1993;109:26-34.
- Kremer M, Podoshin L, Fradis M. Treatment of serous otitis media with tympanic ventilation tubes. *Ear Nose Throat J*. 1979;58:203-209.
- Kries R, Huisman JJ, Bode C, et al. Pediatric screening for hearing loss in six-month-old infants: Improved efficacy with the use of a parent questionnaire. *Laryngo Rhino Otologie*. 1995;74:543-548.
- Krueger WW, Wagner AP. Needle placement with transtympanic electrocochleography. *Laryngoscope*. 1997;107:1671-1673.
- Kruk-Zagajewska A, Jedras M. [Congenital auricular fistula imitating otogenic complication]. *Otolaryngol Pol*. 1996;50:622-627.
- Kubo T. [Diagnostic imaging and physiological function tests--cholesteatomatous otitis media]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:612-615.
- Kudrjavcev T, Schoenberg BS. Otitis media and developmental disability. Epidemiologic considerations. *Ann Otol Rhinol Laryngol Suppl*. 1979;88:88-98.
- Kuijpers W. Persisting changes in the structure of the tympanic membrane. *Acta Otorhinolaryngol Belg*. 1995;49:181-185.

- Kuijpers W, Vennix PP, Peters TA, Ramaekers FC. Squamous metaplasia of the middle ear epithelium. *Acta Otolaryngol.* 1996;116:293-298.
- Kulik JA, Carlino P. The effect of verbal commitment and treatment choice on medication compliance in a pediatric setting. *J Behav Med.* 1987;10:367-376.
- Kumar V, Patial RK, Mahindroo NK. Meningeal tuberculosis secondary to an unusual primary site. *J Assoc Physicians India.* 1996;44:749.
- Kumazawa T, Ushiro K. Clinical evaluation of S-CMC syrup applied in the treatment of otitis media with effusion. Double blind comparative test with placebo. *ACTA OTO-LARYNGOL SUPPL.* 1989;107:56-62.
- Kumazawa T, Iwano T, Ushiro K, Tsuruhara K, Hosodo Y, Doi T. Tubotympanoplasty. *Acta Oto-Laryngologica - Supplement.* 1993;500:14-17.
- Kumazawa T, Iwano T, Ushiro K, Kinoshita T, Hamada E, Kaneko A. Eustachian tube function tests and their diagnostic potential in normal and diseased ears. *Acta Oto-Laryngologica - Supplement.* 1993;500:10-13.
- Kummer A. An open comparative random study with Brodimoprim(Reg.trademark) and doxycyclin in 46 patients affected with upper airway infections. *CHEMIOTERAPIA.* 1982;1:153.
- Kupperman D, Tange RA. Long-term results of glass ionomer cement, Ionocem, in the middle ear of the rat. *Acta Otorhinolaryngol Belg.* 1997;51:27-30.
- Kurata K, Fujita A, Sakakihara J, Honjo I. Validity of adenoideotomy for treatment of otitis media with effusion. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:312-314.
- Kurata K, Takahashi H, Fujita A, Honjo I. Clinical efficacy of clarithromycin treatment of refractory otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:236-238.
- Kurien M, Job A, Mathew J, Chandy M. Otogenic intracranial abscess: concurrent craniotomy and mastoidectomy--changing trends in a developing country. *Arch Otolaryngol Head Neck Surg.* 1998;124:1353-1356.
- Kuroki A, Moller AR. Microsurgical anatomy around the foramen of Luschka in relation to intraoperative recording of auditory evoked potentials from the cochlear nuclei. *J Neurosurg.* 1995;82:933-939.
- Kurono Y, Shigemi H, Kodama S, Mogi G. The role of adenoids in nasopharyngeal colonization with nontypeable Haemophilus influenzae. *Acta Oto-Laryngologica - Supplement.* 1996;523:147-149.
- Kuschke ER. Chronic middle ear effusions (secretory otitis media). *S Afr Med J.* 1979;56:443-445.
- Kuttner K, Buntzel J, Andra K. [Follow-up of mastoiditis and mastoidectomy]. *Laryngorhinootologie.* 1996;75:65-69.
- Kuyvenhoven M, de Melker R, van der Velden K. Prescription of antibiotics and prescribers' characteristics. A study into prescription of antibiotics in upper respiratory tract infections in general practice. *Fam Pract.* 1993;10:366-370.
- Kvaerner KJ, Arnesen AR. Hearing impairment in Oslo born children 1989-91. Incidence, etiology and diagnostic delay. *Scand Audiol.* 1994;23:233-239.
- Kvaerner KJ, Tambs K, Harris JR, Magnus P. The relationship between otitis media and intrauterine growth: a co-twin control study. *Int J Pediatr Otorhinolaryngol.* 1996;37:217-225.
- Kvaerner KJ, Nafstad P, Hagen JA, Mair IW, Jaakkola JJ. Early acute otitis media and siblings' attendance at nursery. *Arch Dis Child.* 1996;75:338-341.
- Kvaerner KJ, Tambs K, Harris JR, Mair IW, Magnus P. Otitis media: relationship to tonsillitis, sinusitis and atopic diseases. *Int J Pediatr Otorhinolaryngol.* 1996;35:127-141.
- Kvaerner KJ, Nafstad P, Hagen J, Mair IW, Jaakkola JJ. Early acute otitis media: determined by exposure to respiratory pathogens. *Acta Oto-Laryngologica - Supplement.* 1997;529:14-18.
- Kvaerner KJ, Tambs K, Harris JR, Magnus P. Distribution and heritability of recurrent ear infections. *Ann Otol Rhinol Laryngol.* 1997;106:624-632.
- Kveton JF, Pillsbury HCd, Sasaki CT. Nasal obstruction. Adenoiditis vs adenoid hypertrophy. *Arch Otolaryngol.* 1982;108:315-318.

- Kveton JF. Hearing loss in the absence of otitis media. *Pediatr Rev.* 1994;15:115-116.
- Kwong DL, Wei WI, Sham JS, et al. Sensorineural hearing loss in patients treated for nasopharyngeal carcinoma: a prospective study of the effect of radiation and cisplatin treatment [see comments]. *Int J Radiat Oncol Biol Phys.* 1996;36:281-289.
- Kylen P, Arlinger SD, Bergholtz LM. Peroperative temporary threshold shift in ear surgery. An electrocochleographic study. *Acta Otolaryngol.* 1977;84:393-401.
- Kylen P, Harder H, Jerlvald L, Arlinger S. Reliability of bone-conducted electrocochleography. A clinical study. *Scand Audiol.* 1982;11:223-226.
- Lacher G. [Clinical trial of Otipax: auricular pulverizations]. *Rev-Laryngol-Otol-Rhinol-Bord.* 1969;90:719-722.
- Lacosta JL, Infante JC, Undabeitia E, Gastanares MJ. [The microbiology of secretory otitis]. *An Otorrinolaringol Ibero Am.* 1995;22:439-448.
- Lacosta JL, Manrique M, Infante JC. [Study of the nasopharyngeal microflora obtained by a cotton swab]. *Acta Otorrinolaringol Esp.* 1995;46:191-194.
- Lacosta JL, Zabaleta M, Erdozain I. [The evolution of otitis media with effusion treated by transtympanic drainage]. *Acta Otorrinolaringol Esp.* 1996;47:349-353.
- Lacosta JL, Infante JC, Pison F. [Considerations regarding functional cholesteatoma surgery. II. Open techniques]. *Acta Otorrinolaringol Esp.* 1996;47:277-280.
- Lacosta JL, Infante JC, Pison F. [Functional surgery of cholesteatoma. I. Closed techniques]. *Acta Otorrinolaringol Esp.* 1997;48:115-120.
- Lagace E. Antibiotic treatment for AOM. *J Fam Pract.* 1997;45:202-203.
- Lagging E, Papatziarnos G, Hallden G, Hemlin C, Harfast B, Van Hage-Hamsten M. T-cell subsets in adenoids and peripheral blood related to age, otitis media with effusion and allergy. *APMIS.* 1998;106:354-360.
- Lahikainen EA, Vuori M, Virtanen S. Azidocillin and ampicillin concentrations in middle ear effusion. *Acta Otolaryngol.* 1977;84:227-232.
- Laird NM, Mosteller F. Some statistical methods for combining experimental results. *Int J Technol Assess Health Care.* 1990;6:5-30.
- Laitila P, Karma P, Sipila M, Manninen M, Rakho T. Extended high frequency hearing and history of acute otitis media in 14-year-old children in Finland. *Acta Oto-Laryngologica - Supplement.* 1997;529:27-29.
- Lakshmi V, Rao RR, Dinakar I. Bacteriology of brain abscess--observations on 50 cases. *J Med Microbiol.* 1993;38:187-190.
- Lambert PR. Oral steroid therapy for chronic middle ear perfusion: a double-blind crossover study. *Otolaryngol-Head-Neck-Surg.* 1986;95:193-199.
- Lamore PJ. Vibrotactile threshold for hairy skin and its transformation into equivalent bone-conduction loss for the mastoid. *Audiology.* 1984;23:537-551.
- Lamothe A, Boudreault V, Blanchette M, Tetreault L, Poliquin J. Serous otitis media: a six week prospective study. *J Otolaryngol.* 1981;10:371-379.
- Lampe RM, Weir MR, McLeod HL, Artalejo Lr. A clinical trial of antihistamine, decongestant, or placebo in antibiotic-treated acute otitis media followed with pneumatic otoscopy and impedance tympanometry. *Mil-Med.* 1981;146:259-261.
- Lampe RM, Weir MR, McLeod H, Aspinall K, Artalejo L. Tympanometry in acute otitis media: prognostic implications. *Am-J-Dis-Child.* 1981;135:233-235.
- Lampe RM, Weir MR, McLeod HL, Artalejo Ld. A clinical trial of antihistamine, decongestant, or placebo in antibiotic-treated acute otitis media followed with pneumatic otoscopy and impedance tympanometry. *Mil Med.* 1981;146:259-261.
- Lampe RM, Weir MR, Spier J, Rhodes MF. Acoustic reflectometry in the detection of middle ear effusion. *Pediatrics.* 1985;76:75-78.
- Lampe RM, Schwartz RH. Diagnostic value of acoustic reflectometry in children with acute otitis media. *Pediatr Infect Dis J.* 1989;8:59-61.
- Landholt TF, Kotschwar TR. A pharmacoeconomic comparison of amoxicillin/clavulanate and cefpodoxime proxetil in the treatment of acute otitis media. *Clin Ther.* 1994;16:327-333; discussion 271-272.

- Landis L. Comment on 'otitis media in early childhood and its relationship to later phonological development'. *J Speech Hear Disord*. 1990;55.
- Landsberg R, Lang R, Wollach B, Dubin Z, Ophir D. [Lateral sinus thrombophlebitis]. *Harefuah*. 1994;126:386-389, 427.
- Lang AH, Happonen JM, Salmivalli A. An improved technique for the non-invasive recording of auditory brain-stem responses with a specially constructed meatal electrode. *Scand Audiol Suppl*. 1981;13:59-62.
- Lannigan FJ, O'Higgins P, McPhie P. The cellular mechanism of ossicular erosion in chronic suppurative otitis media. *J Laryngol Otol*. 1993;107:12-16.
- Lapidot A, Mazzarella LA, Ratanaprasatporn S. Vestibule exposure during surgery. Clinical observations in three cases of cholesteatoma. *Arch Otolaryngol*. 1970;92:24-27.
- LaRossa MM, Mitchell S, Cardinal JW. Tympanometry as a screening tool in the NICU: is it effective? *Neonatal Network*. 1993;12:33-35.
- Lashin N, Zaher S, Ragab A, ElGabri TH. Hearing loss in bullous myringitis. *Ear Nose Throat J*. 1988;67:206, 208, 210.
- Laskiewicz B, Chalstrey S, Gatland DJ, Jones N, Michaels L. Congenital cholesteatoma. *J Laryngol Otol*. 1991;105:995-998.
- Latorre F, Cassano P, De Candia N. [Muco-ciliary transport in chronic inflammatory pathology of the middle ear]. *Bollettino - Societa Italiana Biologia Sperimentale*. 1993;69:403-407.
- Latorre M, Alvarez M, Fernandez JM, Berdonces P, Llanos A, Cisterna R. A case of meningitis due to "Streptococcus zooepidemicus" [letter]. *Clin Infect Dis*. 1993;17:932-933.
- Latorre C, Munoz C, Trujillo G, Juncosa T, Claros P. Susceptibility of pneumococci isolated from middle ear effusions to antimicrobial agents commonly used in otitis media [letter] [published erratum appears in *J Antimicrob Chemother* 1994 May;33(5):1077-8]. *J Antimicrob Chemother*. 1994;33:186-187.
- Lau T, Tos M. Long-term results of surgery for chronic granulating otitis. *Am J Otolaryngol*. 1986;7:341-345.
- Lau T, Tos M. Cholesteatoma in children: recurrence related to observation period. *Am J Otolaryngol*. 1987;8:364-375.
- Lau T, Tos M. When to do tympanoplasty in children? *Adv Otorhinolaryngol*. 1988;40:156-161.
- Lau T, Tos M. Tensa retraction cholesteatoma: treatment and long-term results. *J Laryngol Otol*. 1989;103:149-157.
- Laurent C, Soderberg O, Anniko M, Hartwig S. Repair of chronic tympanic membrane perforations using applications of hyaluronan or rice paper prostheses. *ORL-J-Otorhinolaryngol-Relat-Spec*. 1991;53:37-40.
- Lauret MH. Is treatment of AOM with once-a-day amoxicillin feasible? [letter; comment]. *Clin Pediatr*. 1995;34:175.
- Laxdal OE, Merida J, Jones RH. Treatment of acute otitis media: a controlled study of 142 children. *Can-Med-Assoc-J*. 1970;102:263-268.
- Lazarev VN, Suzdaltsev AE. [Peripheral nervous system in children with chronic inflammatory otorhinolaryngologic diseases]. *Vestn Otorinolaringol*. 1994;27-30.
- Le CT, Freeman DW, Fireman BH. Evaluation of ventilating tubes and myringotomy in the treatment of recurrent or persistent otitis media. *Pediatr Infect Dis J*. 1991;10:2-11.
- Le CT, Freeman DW, Fireman BH. Evaluation of ventilating tubes and myringotomy in the treatment of recurrent or persistent otitis media [see comments]. *Pediatr Infect Dis J*. 1991;10:2-11.
- Le CT, Daly KA, Margolis RH, Lindgren BR, Giebink GS. A clinical profile of otitis media [see comments]. *Arch Otolaryngol Head Neck Surg*. 1992;118:1225-1228.
- Le CT, Daly KA, Margolis RH, Lindgren BR, Giebink GS. A clinical profile of otitis media. *Arch Otolaryngol Head and Neck Surgery*. 1992;118:1225-1228.
- Le CT, Lindgren BR, Daly KA, Giebink GS. Treatment evaluation in otitis media research [see comments]. *Arch Otolaryngol Head Neck Surg*. 1994;120:507-509.

- Le CT, Hunter LL, Margolis RH, Daly KA, Lindgren BR, Giebink GS. A clinical profile of otitis media without an intact tympanic membrane [see comments]. *Arch Otolaryngol Head Neck Surg*. 1994;120:513-516.
- Le CT, Lindgren BR. Duration of ventilating tubes: a test for comparing two clustered samples of censored data. *Biometrics*. 1996;52:328-334.
- Le CT, Lindgren BR. Interactions between otoscopic findings and tympanometric measurements in the diagnosis of otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:151-153.
- Le Bideau M, Mouzard A, Chamoux C, Richet H, Bordure P, Maugard T. [Bacteriological study in acute otitis media]. *Arch Pediatr*. 1997;4:213-218.
- Leach AJ, Boswell JB, Asche V, Nienhuys TG, Mathews JD. Bacterial colonization of the nasopharynx predicts very early onset and persistence of otitis media in Australian Aboriginal infants. *Pediatr Infect Dis J*. 1994;13:983-989.
- Leake ER, Holmes K, Lim DJ, DeMaria TF. Peptidoglycan isolated from nontypeable *Haemophilus influenzae* induces experimental otitis media in the chinchilla. *J Infect Dis*. 1994;170:1532-1538.
- Lebedev Iu A. [Clinico-audiological characteristics of secretory otitis media in children]. *Vestn Otorinolaringol*. 1996:38-42.
- Lebedev Iu A, Shakhov V. [Criteria of the evaluation of tubal function in patients with secretory otitis media]. *Vestn Otorinolaringol*. 1997:30-34.
- Lebovics RS, Murthy VV, Karmen A. Leukocyte esterase activity in effusion fluid of patients with otitis media. *Otolaryngol Head Neck Surg*. 1993;108:248-250.
- Lecks HI, Kravis LP, Wood DW. Serous otitis media: Reflections on pathogenesis and treatment: With a comment on the use of intranasal dexamethasone (turbinaire). *Clin Pediatr*. 1991;30:174-177.
- Leclercq P, Bigdeli M. [Health economics and antibiotic therapy]. *Rev Med Brux*. 1995;16:320-324.
- Lee K, Schuknecht HF. Results of tympanoplasty and mastoidectomy at the Massachusetts Eye and Ear Infirmary. *Laryngoscope*. 1971;81:529-543.
- Lee TB, Stingle WH, Ombres P, Lewis JS, Cooper LZ. Neonatal meningitis and mastoiditis caused by *Hemophilus influenzae*. *JAMA*. 1976;235:407-409.
- Lee ST. Cholesteatoma in an Asian population. *Acta Otolaryngol*. 1991;111:536-541.
- Lee PY, Drysdale AJ. Tuberculous otitis media: a difficult diagnosis. *J Laryngol Otol*. 1993;107:339-341.
- Lee RJ, Sidey C, Narula AA, James RF. The nature of the epithelium in acquired cholesteatoma: Part 3--Cytokeratin patterns in aural epithelial and cholesteatoma cells grown in cell culture. *Clin Otolaryngol*. 1994;19:516-520.
- Lee WC, Weiner GM, Campbell JB. Should nasopharyngeal biopsy be mandatory in adult unilateral glue ear? [see comments]. *J Laryngol Otol*. 1996;110:62-64.
- Lee D, Rosenfeld RM. Adenoid bacteriology and sinonasal symptoms in children. *Otolaryngol Head Neck Surg*. 1997;116:301-307.
- Lee HK, Lee EH, Choi JY, Choi HS, Kim HN. Noise level of drilling instruments during mastoidectomy. *Yonsei Med J*. 1999;40:339-342.
- Legent F, Bordure P, Beauvillain C, Berche P. Controlled prospective study of oral ciprofloxacin versus amoxicillin/clavulanic acid in chronic suppurative otitis media in adults. *Chemotherapy*. 1994:16-23.
- Lehmann MD, Charron K, Kummer A, Keith RW. The effects of chronic middle ear effusion on speech and language development -- a descriptive study. *Int J Pediatr Otorhinolaryngol*. 1979;1:137-144.
- Lehnert T. Acute otitis media in children. Role of antibiotic therapy. *Can Fam Physician*. 1993;39:2157-2162.
- Leibecke RR, Schwartz W. [Initial otologic manifestation of Wegener's granulomatosis]. *HNO*. 1994;42:119-122.
- Leiberman A, Bartal N. Untreated persistent middle ear effusion. *J Laryngol Otol*. 1986;100:875-878.

- Leiberman A, Lupu L, Landsberg R, Fliss DM. Unusual complications of otitis media. *Am J Otolaryngol*. 1994;15:444-448.
- Leibovitz E, Dagan R. Oral cephalosporins in upper respiratory infections. *Antibiot Chemother*. 1995;47:110-122.
- Leidinger J, Jahnke K. [Fatal outcome after retrograde insufflation of the eustachian tube]. *HNO*. 1995;43:108-110.
- Leigh AP, Robinson D, Millar ED. A general practice comparative study of a new third-generation oral cephalosporin, cefixime, with amoxicillin in the treatment of acute paediatric otitis media. *Br-J-Clin-Pract*. 1989;43:140-143.
- Leighton SE, Robson AK, Anslow P, Milford CA. The role of CT imaging in the management of chronic suppurative otitis media. *Clin Otolaryngol*. 1993;18:23-29.
- Lejeune HB, Cote DN. Passive smoking. *J La State Med Soc*. 1995;147:444-447.
- Lejman T, Strong M, Michno P. [Septic arthritis in newborns and infants--clinical epidemiology]. *Chir Narzadow Ruchu Ortop Pol*. 1995;60:409-413.
- Lenhardt ML, Shaia FT, Abedi E. Brain-stem evoked response waveform variation associated with recurrent otitis media. *Arch Otolaryngol*. 1985;111:315-316.
- Lesinski SG, Fox JM, Seid AB, Bratcher GO, Cotton R. Does the Silastic Eustachian Tube prosthesis improve eustachian tube function? *Laryngoscope*. 1980;90:1413-1428.
- Lesinski SG. Complications of homograft tympanoplasty. *Otolaryngol Clin North Am*. 1982;15:795-811.
- Lesinski SG. Reconstruction of hearing when malleus is absent: TORP vs. homograft TMMI. *Laryngoscope*. 1984;94:1443-1446.
- Lesinski SG. Homograft (allograft) tympanoplasty update. *Laryngoscope*. 1986;96:1211-1220.
- Lesperance MM, Grundfast KM, Rosenbaum KN. Otologic manifestations of Wolf-Hirschhorn syndrome. *Arch Otolaryngol Head Neck Surg*. 1998;124:193-196.
- Lesser TH, Clayton MI, Skinner D. Efficacy of medical treatment as an adjunct to surgery in the treatment of secretory otitis media. *J Laryngol Otol*. 1986;100:1347-1350.
- Lesserson JA, Kieserman SP, Finn DG. The radiographic incidence of chronic sinus disease in the pediatric population. *Laryngoscope*. 1994;104:159-166.
- Leston jr JA, Battin R, Tallman J, et al. An equation to help evaluate the potential adverse effects of middle ear disease upon language development. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:350-351.
- Leunig A, Mees K. Autoinflation of the middle ear with otovent(TM). *Laryngo Rhino Otologie*. 1995;74:352-354.
- Levine LR. Quantitative comparison of adverse reactions to cefaclor vs. amoxicillin in a surveillance study. *Pediatr-Infect-Dis*. 1985;4:358-361.
- Levine BA, Shelton C, Berliner KI, Sheehy JL. Sensorineural loss in chronic otitis media. Is it clinically significant? *Arch Otolaryngol Head and Neck Surgery*. 1989;115:814-816.
- Levine S, Daly K, Giebink GS. Tympanic membrane perforations and tympanostomy tubes. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:27-30.
- Levinson SR, Gill AJ, Teich L. Semipermeable membrane tubes: a prospective study. *Otolaryngol Head Neck Surg*. 1982;90:622-628.
- Leviton A. Otitis media and learning disorders. *J Dev Behav Pediatr*. 1980;1:58-63.
- Levy D, Herman M, Luntz M, Sade J. Direct demonstration of gas diffusion into the middle ear. *Acta Otolaryngol*. 1995;115:276-278.
- Lewis N. Otitis media and linguistic incompetence. *Arch Otolaryngol*. 1976;102:387-390.
- Lewis DM, Schram JL, Lim DJ, Birck HG, Gleich G. Immunoglobulin E in chronic middle ear effusions: comparison of RIST, PRIST, and RIA techniques. *Ann Otol Rhinol Laryngol*. 1978;87:197-201.
- Lewis DM, Schram JL, Birck HG, Lim DJ. Antibody activity in otitis media with effusion. *Ann Otol Rhinol Laryngol*. 1979;88:392-396.

- Lewis DR, Thompson DH, Fetter TW, Mocnik J, Shelby JH. Computerized axial tomography versus complex motion as a predictor of surgical findings in middle ear and mastoid cholesteatoma. *Laryngoscope*. 1985;95:689-691.
- Lewis DM. Histopathology associated with cochlear implants. *Ear Nose Throat J*. 1987;66:86-94.
- Lexchin J. The management of acute otitis media [letter; comment] [see comments]. *N Z Med J*. 1994;107:160.
- Li Z. [Facial nerve and petrous bone cholesteatoma]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1993;28:325-327, 380.
- Li W, Schachern PA, Morizono T, Paparella MM. The temporal bone in multiple myeloma. *Laryngoscope*. 1994;104:675-680.
- Li ZX, Zhao B, Feng Z. Brain abscess due to *Pasteurella multocida*. *Kansenshogaku Zasshi - Journal of the Japanese Association for Infectious Diseases*. 1994;68:403-406.
- Li JC. Mastoid oscillation: a critical factor for success in canalith repositioning procedure. *Otolaryngol Head Neck Surg*. 1995;112:670-675.
- Li Y, Hunter LL, Margolis RH, et al. Prospective study of tympanic membrane retraction, hearing loss, and multifrequency tympanometry. *Otolaryngol Head Neck Surg*. 1999;121:514-522.
- Liden G. Impedance audiometry. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:53-58.
- Liden G, Renvall U. Impedance and tone screening of school children. *Scand Audiol*. 1980;9:121-126.
- Liden M, Flodstrom A, Thore M. Treatment of early recurrences of acute purulent otitis media; value of myringotomy. *Acta-Otolaryngol-Stockh*. 1988;106:441-447.
- Lieberum B, Jahnke K. [Golden tube wire for temporary or permanent implantation]. *HNO*. 1996;44:140-142.
- Liening DA, McGath JH, McKinney L. Comparison of polydioxanone and silicone plastic in the prevention of adhesive otitis media in the Mongolian gerbil. *Otolaryngol Head Neck Surg*. 1995;112:303-307.
- Lijmer JG, Mol BW, Heisterkamp S, et al. Empirical evidence of design-related bias in studies of diagnostic tests. *J Am Med Assoc*. 1999;282:1061-1066.
- Lildholdt T, Courtois J, Kortholm B, Schou JW, Warrer H. The correlation between negative middle ear pressure and the corresponding conductive hearing loss in children. A 12-month study of 352 unselected 7-year-old children. *Scand Audiol*. 1979;8:117-120.
- Lildholdt T. Unilateral grommet insertion and adenoidectomy in bilateral secretory otitis media: preliminary report of the results in 91 children. *Clin Otolaryngol Allied Sci*. 1979;4:87-93.
- Lildholdt T, Courtois J, Kortholm B, Schou JW, Warrer H. The diagnosis of negative middle ear pressure in children. The accuracy of symptoms and signs assessed by tympanometry. *Acta Otolaryngol*. 1980;89:459-464.
- Lildholdt T, Cantekin EI, Marshak G, Bluestone CD, Rohn DD, Schuit KE. Pharmacokinetics of cefaclor in chronic middle ear effusions. *Ann Otol Rhinol Laryngol Suppl*. 1981;90:44-47.
- Lildholdt T, Kortholm B. Beclomethasone nasal spray in the treatment of middle-ear effusion - a double-blind study. *Int J Pediatr Otorhinolaryngol*. 1982;4:133-137.
- Lildholdt T, Cantekin EI, Bluestone CD, Rockette HE. Effect of a topical nasal decongestant on Eustachian tube function in children with tympanostomy tubes. *Acta-Otolaryngol-Stockh*. 1982;94:93-97.
- Lildholdt T. Ventilation tubes in secretory otitis media. A randomized, controlled study of the course, the complications, and the sequelae of ventilation tubes. *Acta-Otolaryngol-Suppl-Stockh*. 1983:1-28.
- Lildholdt T, Felding JU, Juul A, Kristensen S, Schouenborg P. Efficacy of perioperative ceftazidime in the surgical treatment of chronic otitis media due to *Pseudomonas aeruginosa*. Preliminary report of a prospective, controlled study. *Arch-Otorhinolaryngol*. 1986;243:167-169.
- Lildholdt T, Felding JU, Eriksen EW, Pedersen LV. [Diagnosis and treatment of ear diseases in general practice. A controlled trial of the effect of the introduction of middle ear measurement

- (tympanometry)]. *Ugeskr-Laeger*. 1991;153:3004-3007.
- Lildholdt T. Tympanometry in general practice. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:50-53.
- Lim DJ, Birck H. Ultrastructural pathology of the middle ear mucosa in serous otitis media. *Ann Otol Rhinol Laryngol*. 1971;80:838-853.
- Lin C, Kumari P, Perrotta RJ, Reidenberg BE. Penetration of ceftibuten into middle ear fluid. *Antimicrob Agents Chemother*. 1996;40:1394-1396.
- Lin J, Kim Y, Lees C, Juhn SK. Effects of platelet-activating factor (PAF) receptor blockage on mucous glycoprotein secretion in cultured chinchilla middle ear epithelium. *Acta Otolaryngol*. 1996;116:69-73.
- Lindberg K, Freijd A, Rynnel-Dagoo B, Hammarstrom L. Anti pneumococcal antibody activity in nasopharyngeal secretions in healthy adults and children. *Acta Otolaryngol*. 1993;113:673-678.
- Lindberg K, Rynnel-Dagoo B, Sundqvist KG. Cytokines in nasopharyngeal secretions; evidence for defective IL-1 beta production in children with recurrent episodes of acute otitis media. *Clin Exp Immunol*. 1994;97:396-402.
- Lindeman P, Holmquist J, Shea J. The size of the mastoid air cell system among black and white children with middle ear effusion. *Int J Pediatr Otorhinolaryngol*. 1981;3:251-256.
- Lindeman P, Holmquist J. Middle ear effusion among children after acute otitis media. A diagnostic problem. *Int J Pediatr Otorhinolaryngol*. 1981;3:145-150.
- Lindeman P, Haglund M. Size of the mastoid air cell system obtained with two types of X-ray equipment. *Acta Otolaryngol*. 1983;95:101-104.
- Linder TE, Daniels RL, Lim DJ, DeMaria TF. Effect of intranasal inoculation of *Streptococcus pneumoniae* on the structure of the surface carbohydrates of the chinchilla eustachian tube and middle ear mucosa. *Microb Pathog*. 1994;16:435-441.
- Linder TE, Zwicky S, Brandle P. Ototoxicity of ear drops: a clinical perspective. *Am J Otol*. 1995;16:653-657.
- Linder T, Funke G, Schmid S, Nadal D. [Acute otitis media with effusion: an overview of the pathogenesis and recommendations for therapy]. *Schweiz Med Wochenschr*. 1996;126:2223-33.
- Linder T. [The effectiveness of antibiotics in chronic middle ear effusion and chronic suppurative otitis media. Comment on 2 contributions from Lancet]. *HNO*. 1997;45:107-109.
- Linder TE, Marder HP, Munzinger J. Role of adenoids in the pathogenesis of otitis media: a bacteriologic and immunohistochemical analysis. *Ann Otol Rhinol Laryngol*. 1997;106:619-623.
- Lindroos R. Surgery for chronic ear disease in a non-university hospital: open cavity, obliteration and intact canal wall techniques. *Clin Otolaryngol Allied Sci*. 1991;16:252-256.
- Lindsay JR. Progress in otorhinolaryngology. *IMJ - Illinois Medical Journal*. 1969;135:565-571.
- Lindsay JR. Histopathology of deafness due to postnatal viral disease. *Arch Otolaryngol*. 1973;98:258-264.
- Lindsay RL, Tomazic T, Whitman BY, Accardo PJ. Early ear problems and developmental problems at school age. *Clin Pediatr*. 1999;38:123-132.
- Ling D, McCoy RH, Levinson ED. The incidence of middle ear disease and its educational implications among Baffin Island Eskimo children. *Can J Public Health*. 1969;60:385-390.
- Ling D, Katsarkas A, Baxter JD. Ear disease and hearing loss among Eskimo elementary school children. *Can J Public Health*. 1974;65:37-40.
- Ling D. Audiological problems of the Eskimo population in the Baffin zone. pp. 409-12. In: *Shephard RJ, Itoh S, ed. Circumpolar health. Toronto, Univ of Toronto Press*. 1976.
- Linstrom CJ, Pincus RL, Leavitt EB, Urbina MC. Otolgic neurotologic manifestations of HIV-related disease. *Otolaryngol Head Neck Surg*. 1993;108:680-687.
- Linthicum FH, Jr., Tian Q, Slattery W, 3rd. Marrow-mesenchyme connections in the fetal and newborn

- tympanum. A new entity. *Ann Otol Rhinol Laryngol*. 1997;106:466-470.
- Lippy WH, Rotolo AL, Berger KW. Bone conduction measurement: mastoid versus upper central incisor. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1966;70:1084-1088.
- Lisby-Sutch SM, Nemec-Dwyer MA, Deeter RG, Gaur SM. Therapy of otitis media. *Clinical Pharmacy*. 1990;9:15-34.
- Liston TE, Foshee WS, Pierson WD. Sulfisoxazole chemoprophylaxis for frequent otitis media. *Pediatrics*. 1983;71:524-530.
- Liston SL. Ambroise Pare and the king's mastoiditis. *Am J Surg*. 1994;167:440-442.
- Liston TE. Management of otitis media. A review. *Clin Pediatr*. 1995;34:542-548.
- Little P, Bridges A, Guragain R, Friedman D, Prasad R, Weir N. Hearing impairment and ear pathology in Nepal. *J Laryngol Otol*. 1993;107:395-400.
- Little P, Gould C, Williamson I, Warner G, Gantley M, Kinmonth AL. Reattendance and complications in a randomised trial of prescribing strategies for sore throat: the medicalising effect of prescribing antibiotics [see comments]. *Br Med J*. 1997;315:350-352.
- Liu YS, Lim DJ, Lang RW, Birck HG. Chronic middle ear effusions. Immunochemical and bacteriological investigations. *Arch Otolaryngol*. 1975;101:278-286.
- Liu SJ, Hsu CJ, Hsieh T. Chronic mastoiditis mimicking recurrence of nasopharyngeal carcinoma: report of a case. *J Formos Med Assoc*. 1993;92:1007-1009.
- Liu L, Li Z, Hu M. [Langerhans cells and human aural cholesteatoma]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1995;30:33-36.
- Loeb WJ. Radiation therapy of the nasopharynx: a 30 year view. *Laryngoscope*. 1979;89:16-21.
- Loesel LS. Detection of allergic disease in adenoid tissue. *Am J Clin Pathol*. 1984;81:170-175.
- Lof GL. Factors associated with speech-sound stimulability. *J Commun Disord*. 1996;29:255-278.
- Lofgren RH. The complaining earache-key to serous otitis media. *Pa Med*. 1968;71:40-42.
- Lonigan CJ, Fischel JE, Whitehurst GJ, Arnold DS, Valdez-Menchaca MC. The role of otitis media in the development of expressive language disorder. *Otitis Media and Language Delay*. 1992:430-440.
- Lopatin BS, Lisiutin LS. [A rare foreign body of the tympanic cavity (acryl) necessitating surgical intervention in the middle ear]. *Vestn Otorinolaringol*. 1997;54.
- Lopes FO. Amoxicillin versus amoxicillin + nimesulide in otolaryngologic infections - A randomized study. *FOHLA MED*. 1991;102:81-85.
- Lopes FO, Da SL, De MJC. Controlled randomized study of cefixime versus amoxicillin /clavulanate in the treatment of acute otitis media. *Folha Medica*. 1996;112:245-250.
- Lopes Cardoso FL, Machado ES, Souza MJ, Cunha R. Rhodococcus equi mastoiditis in a patient with AIDS. *Clin Infect Dis*. 1996;22:713.
- Lopes Filho OI, Mimica I, Betti E, Burlamaqui JC, Takara C, Mimica LJ. Eficacia clinica e bacteriológica da associação do clavulanato de potássio + amoxicilina e do cefaclor em otite média aguda em crianças / Clinical and bacteriological efficacy of the association amoxicillin-clavulanate potassium compared with cefaclor for acute otitis media in children. *Folha-m,d*. 1992;104:39-42.
- Lopez J, Eres N, Fernandez X, Buti M. [Cellulitis caused by Streptococcus pneumoniae associated with spondylodiscitis after suppurative otitis media (letter)]. *Enferm Infecc Microbiol Clin*. 1997;15:171-172.
- Lopez Amado M, Arrojo Alonso F, Garcia Sarandeses A, Herranz Gonzalez J, Martinez Vidal J. [ENT diagnosis of Wegener's syndrome]. *An Otorrinolaringol Ibero Am*. 1994;21:343-355.
- Lopez Amado M, Martinez Vidal J, Garcia Sarandeses A. [Antibiotic prophylaxis in surgery of uncomplicated cholesteatoma: review of 150 patients]. *Acta Otorrinolaringol Esp*. 1995;46:421-426.
- Lopez-Gomez M, Mediavilla Garcia JD, Duro Ruiz G, Bianchi Llave JL. [Convulsions induced by imipenem in an HIV-positive patient (letter)]. *Enferm Infecc Microbiol Clin*. 1995;13:571.

- Lopponen H, Sorri M, Pekkala R, Penna J. Secretory otitis media and high-frequency hearing loss. *Acta Oto-Laryngologica - Supplement*. 1992;493:99-107.
- Lorente DJ, Sabater F, Maristany M, et al. Multi-centre study comparing the efficacy and tolerance of topical ciprofloxacin (0,3%) versus topical gentamicin (0,3%) in the treatment of simple, non-cholesteatomatous chronic otitis media in the suppurative phase. *Anales Otorrinolaringologicos Ibero Americanos*. 1995;22:521-533.
- Lorente J, Sabater F, Maristany M, et al. [Multicenter study comparing the efficacy and tolerance of topical ciprofloxacin (0.3%) versus topical gentamicin (0.3%) in the treatment of simple, non-cholesteatomaous chronic otitis media in the suppurative phase]. *An-Otorrinolaringol-Ibero-Am*. 1995;22:521-533.
- Losada JS. Classification and treatment of loss of conductive hearing. *Medical Journal of Zambia*. 1975;9:107-111.
- Louhiala PJ, Jaakkola N, Ruotsalainen R, Jaakkola JJ. Form of day care and respiratory infections among Finnish children. *Am J Public Health*. 1995;85:1109-1112.
- Lous J, Fiellau-Nikolajsen M. Epidemiology and middle ear effusion and tubal dysfunction. A one-year prospective study comprising monthly tympanometry in 387 non-selected 7-year-old children. *Int J Pediatr Otorhinolaryngol*. 1981;3:303-317.
- Lous J. Three impedance screening programs on a cohort of seven-year-old children. Can serial impedance screening reveal chronic middle ear disease? *Scand Audiol*. 1982;11.
- Lous J. Three impedance screening programs on a cohort of seven-year-old children. Can serial impedance screening reveal chronic middle ear disease? *Scand Audiol Suppl*. 1983;17:60-64.
- Lous J, Fiellau-Nikolajsen M. A 5-year prospective case-control study of the influence of early otitis media with effusion on reading achievement. *Int J Pediatr Otorhinolaryngol*. 1984;8:19-30.
- Lous J. Linguistic and cognitive sequelae to secretory otitis media in children. *Scand Audiol Suppl*. 1986;26:71-75.
- Lous J. Screening for secretory otitis media: evaluation of some impedance screening programs for long-lasting secretory otitis media in 7-year-old children. *Int J Pediatr Otorhinolaryngol*. 1987;13:85-97.
- Lous J, Fiellau-Nikolajsen M, Jeppesen AL. Secretory otitis media and language development: a six-year follow-up study with case-control. *Int J Pediatr Otorhinolaryngol*. 1988;15:185-203.
- Lous J, Fiellau-Nikolajsen M. Early otitis media with effusion and reading achievement. *Allgemeinmedizin*. 1988;17:81-84.
- Lous J, Fiellau-Nikolajsen M, Jeppesen AL. Secretory Otitis Media and Verbal Intelligence: A Six-Year Prospective Case Control Study. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:393-395.
- Lous J. Secretory otitis media and phonology when starting school. *Scand Audiol*. 1990;19:215-222.
- Lous J. Silent reading and secretory otitis media in school children. *Int J Pediatr Otorhinolaryngol*. 1993;25:25-38.
- Lous J. Otitis media and reading achievement: a review. *Int J Pediatr Otorhinolaryngol*. 1995;32:105-121.
- Lous J. Secretory otitis media in schoolchildren. Is screening for secretory otitis media advisable? *Dan Med Bull*. 1995;42:71-99.
- Lous J. [More stringent guidelines for tympanostomy tubes in secretory otitis media in the USA]. *Ugeskr Laeger*. 1996;158:3793-3794.
- Lous J. Secretory otitis media and reading achievement. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:401-405.
- Lovdahl MJ, Reher KE, Russlie HQ, Canafax DM. Determination of cefpodoxime levels in chinchilla middle ear fluid and plasma by high-performance liquid chromatography. *Journal of Chromatography B: Biomedical Applications*. 1994;653:227-232.
- Lovejoy HM, McGuirt WF, Ayres PH, Hayes AW, Coggins CR, Sagartz J. Effects of low humidity on the rat middle ear. *Laryngoscope*. 1994;104:1055-1058.

- Lovette S. Improved diagnosis of middle ear effusions employing the objective otoscope. *Ann Otol Rhinol Laryngol*. 1976;85:229-233.
- Low WK. Middle ear pressures in patients with nasopharyngeal carcinoma and their clinical significance [see comments]. *J Laryngol Otol*. 1995;109:390-393.
- Low WK, Fong KW. Hearing disability before and after radiotherapy for nasopharyngeal carcinoma. *J Laryngol Otol*. 1996;110:121-123.
- Low WK, Lim TA, Fan YF, Balakrishnan A. Pathogenesis of middle-ear effusion in nasopharyngeal carcinoma: a new perspective. *J Laryngol Otol*. 1997;111:431-434.
- Low WK, Fong KW. Long-term post-irradiation middle ear effusion in nasopharyngeal carcinoma. *Auris Nasus Larynx*. 1998;25:319-321.
- Lowery N, Kearns GL, Young RA, Wheeler JG. Serum sickness-like reactions associated with cefprozil therapy. *J Pediatr*. 1994;125:325-328.
- Lozano F, Esteban F, Florez C, Corzo JE, Gomez-Mateos J. [Bacteremia caused by *Enterococcus avium* secondary to thrombosis of the lateral sinus and the internal jugular vein (letter)]. *Enferm Infecc Microbiol Clin*. 1996;14:458.
- Lu H, Ma H. [Long-term effect of the modified type-III tympanoplasty]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1994;29:42-44.
- Lucas KG, Howrie DL, Phebus CK. Cardiorespiratory decompensation following methylprednisolone administration [see comments]. *Pediatr Hematol Oncol*. 1993;10:249-255.
- Luchikhin LA, Derbeneva ML, Ostrovtssev IV. [Effectiveness of computerized tomography of the temporal bone in the diagnosis of chronic suppurative otitis media]. *Vestn Otorinolaringol*. 1995;31-34.
- Lucic M, Haralampiev K, Purisic S, et al. Conservative surgery in the treatment of chronic exudative otitis and the rehabilitation of hearing. *Symp Otorhinolaryngol Iugosl*. 1985;20:187-191.
- Lucic M. Exudative otitis media as a diagnostic problem. *Symp Otorhinolaryngol Iugosl*. 1986;21:77-80.
- Ludman H. ABC of ENT. Deafness in childhood. *Br Med J Clin Res Ed*. 1981;282:381-383.
- Ludman H. Neuronal activity in otology. *J Laryngol Otol*. 1986;100:989-1007.
- Lukowski M, Bialaczewski L. [Evaluation of bone conduction after chronic ear surgery and after stapedectomy]. *Otolaryngol Pol*. 1994;48:282-7.
- Luloff AK, Menyk P, Teele DW. Effect of persistent otitis media on the speech sound repertoire of infants. In: Lim DJ BC, Klein JO, Nelson JK, Ogra P, ed. *Recent Advances in Otitis Media: Proceedings of the Fifth International Symposium*: Decker Periodicals; 1993:531-533.
- Lundy LB, Graham MD, Kartush JM, LaRouere MJ. Temporal bone encephalocele and cerebrospinal fluid leaks. *Am J Otol*. 1996;17:461-469.
- Luntz M, Keren G, Nusem S, Kronenberg J. Acute mastoiditis--revisited. *Ear Nose Throat J*. 1994;73:648-654.
- Luntz M, Hodges AV, Balkany T, Dolan-Ash S, Schloffman J. Otitis media in children with cochlear implants. *Laryngoscope*. 1996;106:1403-1405.
- Luntz M, Balkany T, Hodges AV, Telischi FF. Cochlear implants in children with congenital inner ear malformations. *Arch Otolaryngol Head Neck Surg*. 1997;123:974-977.
- Luotonen M, Uhari M, Aitola L, Lukkaroinen AM, Luotonen J, Korkeamaki RL. Recurrent otitis media during infancy and linguistic skills at the age of nine years. *Pediatr Infect Dis J*. 1996;15:854-858.
- Lustig LR, Jackler RK. Neurofibromatosis type I involving the external auditory canal. *Otolaryngol Head Neck Surg*. 1996;114:299-307.
- Luxford WM, Sheehy JL. Myringotomy and ventilation tubes: a report of 1,568 ears. *Laryngoscope*. 1982;92:1293-1297.
- Luxford WM, House WF. Cochlear implants in children: medical and surgical considerations. *Ear Hear*. 1985;6:20S-23S.
- Lyn C, Jadusingsh WA, Ashman H, Chen D, Abramson A, Soutar I. Hearing screening in Jamaica: prevalence of otitis media with effusion. *Laryngoscope*. 1998;108:288-290.

- Ma KH, Tang PS, Chan KW. Aural tuberculosis. *Am J Otol.* 1990;11:174-177.
- Maassen MM, Ludtke R, Lehner R, Reischl G, Zenner HP. [New methods of type II tympanoplasty in erosion of the long incus process]. *HNO.* 1997;45:133-139.
- Maassen MM, Lehner R, Ludtke R, Strayle-Batra M, Zenner HP. Preoperative assessment of the implantable middle ear pump system using CT scans and conventional X-rays of the temporal bone. *Ear Nose Throat J.* 1997;76:457-463.
- Mabey D. Importance of clinical trials in developing countries [comment] [see comments]. *Lancet.* 1999;348:1113-1114.
- MacAdam AM, Rubio T. Tuberculous otomastoiditis in children. *Am J Dis Child.* 1977;131:152-156.
- MacAndie C, O'Reilly BF. Sensorineural hearing loss in chronic otitis media. *Clin Otolaryngol Allied Sci.* 1999;24:220-222.
- MacDonald RR, 3rd, Lusk RP, Muntz HR. Fasciaform myringoplasty in children. *Arch Otolaryngol Head Neck Surg.* 1994;120:138-143.
- MacDonald CB, Bauer PW, Cox LC, McMahon L. Otologic findings in a pediatric cohort with sickle cell disease. *Int J Pediatr Otorhinolaryngol.* 1999;47:23-28.
- Mace AL, Wallace KL, Whan MQ, Stelmachowicz PG. Relevant factors in the identification of hearing loss. *Ear Hear.* 1991;12:287-293.
- Macias JD, Wackym PA, McCabe BF. Early diagnosis of otologic Wegener's granulomatosis using the serologic marker C-ANCA. *Ann Otol Rhinol Laryngol.* 1993;102:337-341.
- Mackenzie IJ. Factors affecting the extrusion rates of ventilation tubes. *J-R-Soc-Med.* 1984;77:751-753.
- Mackenzie K, Dempster JH. External ear resonance in children with otitis media with effusion. *Clin Otolaryngol Allied Sci.* 1990;15:415-420.
- Mackenzie I, Thompson S, Smith A, Bal IS, Hatcher J. Practical advice on field studies into hearing impairment in a developing country. *Trop Doct.* 1995;25:25-28.
- Mackle GA, Giles M. The results of two years operation of the visiting specialist service to the Waikato mobile ear clinic. *N Z Med J.* 1995;108:410-413.
- Macknin ML, Jones PK. Oral dexamethasone for treatment of persistent middle ear effusion. *Pediatrics.* 1985;75:329-335.
- Macknin ML, Skibinski C, Beck G, Hughes G, Kinney S. Acoustic reflectometry detection of middle ear effusion. *Pediatr Infect Dis J.* 1987;6:866-868.
- Macknin ML, Collard ME, Mendendorp SV. Acoustic reflectometry compared to tympanometry and pure tone thresholds. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:60-64.
- MacLoughlin GJ, Barreto DG, de la Torre C, Pinetta EA, del Castillo F, Palma L. Cefpodoxime proxetil suspension compared with cefaclor suspension for treatment of acute otitis media in paediatric patients. *J-Antimicrob-Chemother.* 1996;37:565-573.
- Macmillan AS, Jr. Radiologic diagnosis of neuro-otological problems by conventional radiology. *Arch Otolaryngol.* 1969;89:52-56.
- Macnamara M, Phillips D, Proops DW. The bone anchored hearing aid (BAHA) in chronic suppurative otitis media (CSOM). *Journal of Laryngology and Otology - Supplement.* 1996;21:38-40.
- Maddox HED. Metastatic tumors of the temporal bone. *Ann Otol Rhinol Laryngol.* 1967;76:149-165.
- Madeline LA, Elster AD. Suture closure in the human chondrocranium: CT assessment. *Radiology.* 1995;196:747-756.
- Madell JR. Impact of otitis media on auditory function. In: Rosenfeld RM, Bluestone CD, eds. *Evidence-Based Otitis Media.* Saint Louis: B.C. Decker, Inc.; 1999:337-351.
- Mafee MF, Singleton EL, Valvassori GE, Espinosa GA, Kumar A, Aimi K. Acute otomastoiditis and its complications: role of CT. *Radiology.* 1985;155:391-397.
- Mafee MF, Valvassori GE, Kumar A, et al. Tumors and tumor-like conditions of the middle ear and mastoid: role of CT and MRI. An analysis of 100 cases. *Otolaryngol Clin North Am.* 1988;21:349-375.

- Mafee MF, Levin BC, Applebaum EL, Campos M, James CF. Cholesteatoma of the middle ear and mastoid. A comparison of CT scan and operative findings. *Otolaryngol Clin North Am.* 1988;21:265-293.
- Mafee MF. MRI and CT in the evaluation of acquired and congenital cholesteatomas of the temporal bone. *J Otolaryngol.* 1993;22:239-248.
- Magid SL. Surgical treatment in allergic disorders of the ear, nose, and throat. *Otolaryngol Clin North Am.* 1971;4:583-589.
- Magin RL, Oh DK, Zhang A, Webb AG, Thulin JD. Monitoring pH of otitis media effusion in chinchillas using fluorescence spectroscopy. *IEEE Trans Biomed Eng.* 1995;42:1027-1032.
- Magit AE, Stool SE. Clinical guideline development for otitis media: a report on methodology. *Otolaryngol Head Neck Surg.* 1993;109:478-481.
- Magit AE, Dolitsky JN, Doyle WJ, Swarts JD, Seroky JT, Rosenfeld RM. An experimental study of cefixime in the treatment of Streptococcus pneumoniae otitis media. *Int J Pediatr Otorhinolaryngol.* 1994;29:1-9.
- Magit AE. Guidelines for managing chronic otitis media with effusion. *West J Med.* 1995;163:153.
- Magliulo G, Gagliardi M, Muscatello M, Natale A. Masking level difference before and after surgery. *Br J Audiol.* 1990;24:117-121.
- Magliulo G, Vingolo GM, Petti R, Ronzoni R, Cristofari P. Acute mastoiditis in pediatric age. *Int J Pediatr Otorhinolaryngol.* 1995;31:147-151.
- Magliulo G, Cristofari P, Terranova G. Glomus tumor in pediatric age. *Int J Pediatr Otorhinolaryngol.* 1996;38:77-80.
- Magliulo G, Terranova G, Cristofari P, Ronzoni R. Sigmoid sinus thrombosis and imaging techniques. *Ann Otol Rhinol Laryngol.* 1996;105:991-993.
- Magliulo G, Ronzoni R, Cristofari P. Medial meatal fibrosis: current approach. *J Laryngol Otol.* 1996;110:417-420.
- Magnuson B, Falk B. Eustachian tube malfunction and middle ear disease in new perspective. *J Otolaryngol.* 1983;12:187-193.
- Magnuson B, Falk B. Diagnosis and management of eustachian tube malfunction. *Otolaryngol Clin North Am.* 1984;17:659-671.
- Magnuson K, Hellstrom S. Early structural changes in the rat tympanic membrane during pneumococcal otitis media. *Eur Arch Otorhinolaryngol.* 1994;251:393-398.
- Magnuson K, Hermansson A, Hellstrom S. Healing of tympanic membrane after myringotomy during Streptococcus pneumoniae otitis media. An otomicroscopic and histologic study in the rat. *Ann Otol Rhinol Laryngol.* 1996;105:397-404.
- Magnuson K, Hermansson A, Melhus A, Hellstrom S. The tympanic membrane and middle ear mucosa during non-typeable Haemophilus influenzae and Haemophilus influenzae type b acute otitis media: a study in the rat. *Acta Otolaryngol.* 1997;117:396-405.
- Magomedov MM, Ivanets IV, Muratov DL. [Early diagnosis of neurosensory component in various forms of conductive hearing loss]. *Vestn Otorinolaringol.* 1997:25-29.
- Mahindra S, Bery K, Malik GB, Sohail MA, Logani KB. Embryonal rhabdosarcoma of the middle ear and mastoid. *J Laryngol Otol.* 1978;92:253-258.
- Maiman LA, Becker MH, Liptak GS, Nazarian LF, Rounds KA. Improving pediatricians' compliance-enhancing practices. A randomized trial. *Am-J-Dis-Child.* 1988;142:773-779.
- Mains BT, Toner JG. Pneumatic otoscopy: study of inter-observer variability. *J Laryngol Otol.* 1989;103:1134-1135.
- Mair IW, Sohoel P, Elverland HH. Brain stem electric response audiometry and middle ear effusion. *Scand Audiol.* 1979;8:227-231.
- Mair IWS, Haugeo OK, Elverland HH, Schroder KE. Chronic secretory otitis media. *Int J Pediatr Otorhinolaryngol.* 1980;2:161-170.
- Mair IW, Fjermedal O, Laukli E. Air conduction thresholds and secretory otitis media: a conventional and extra-high frequency audiometric comparison. *Ann Otol Rhinol Laryngol.* 1989;98:767-771.
- Mair IW. Raised ABR threshold after suction aspiration of glue from the middle ear: three case studies [letter; comment]. *J Laryngol Otol.* 1996;110:106.

- Majeed A, Harris T. Acute otitis media in children [editorial; comment]. *Br Med J*. 1997;315:321-322.
- Majima Y. Tympanostomy tube therapy for pediatric otitis media with effusion. *Otolaryngology*. 1984;56:475-479.
- Majima Y, Sakakura Y, Hamaguchi Y, et al. Rheological properties of middle ear effusion and their role on mucociliary clearance. *Auris Nasus Larynx*. 1985;12:S129-S131.
- Majima Y, Hamaguchi Y, Hirata K, Takeuchi K, Morishita A, Sakakura Y. Hearing impairment in relation to viscoelasticity of middle ear effusions in children. *Ann Otol Rhinol Laryngol*. 1988;97:272-274.
- Majkus V, Skovronsky O. Operation of chronic otitis media with formation of a local reservoir of antibiotics. Clinical and functional results. *Practica Oto-Rhino-Laryngologica*. 1971;33:265-270.
- Makela PH, Sibakov M, Herva E, et al. Pneumococcal vaccine and otitis media. *Lancet*. 1980;2:547-551.
- Makela PH, Leinonen M, Pukander J, Karma P. A study of the pneumococcal vaccine in prevention of clinically acute attacks of recurrent otitis media. *Rev-Infect-Dis*. 1981:S124-S132.
- Makino K, Amatsu M, Kinishi M, Mohri M. The clinical features and pathogenesis of myringitis granulosa. *Arch Otorhinolaryngol*. 1988;245:224-229.
- Maldonado Y, Hestvik L, Wilson M, et al. Safety and immunogenicity of bovine rotavirus vaccine RIT 4237 in 3- months-old infants. *J PEDIATR-(ST. LOUIS)*. 1986;109:931-935.
- Males AG, Gray RF. Mastoid misery: quantifying the distress in a radical cavity. *Clin Otolaryngol Allied Sci*. 1991;16:12-14.
- Malkiewicz J. The fine art of giving a physical: how to assess the ears and test hearing acuity. *Rn*. 1982;45:56-63.
- Malm L, White P. Beta-agonists and surfactant in eustachian tube function. *Acta-Otolaryngol-Suppl-Stockh*. 1992:133-136.
- Man A, Winerman I. Does drill noise during mastoid surgery affect the contralateral ear? *Am J Otol*. 1985;6:334-335.
- Manach Y. Natural history of otitis media with effusion. *Medecine et Maladies Infectieuses*. 1996;26:49-52.
- Mandel EM, Bluestone CD, Cantekin EI, Ghorbanian SN, Rockette HE. Comparison of cefaclor and amoxicillin for acute otitis media with effusion. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1981;90:48-52.
- Mandel EM, Bluestone CD, Rockette HE, et al. Duration of effusion after antibiotic treatment for acute otitis media: comparison of cefaclor and amoxicillin. *Pediatr-Infect-Dis*. 1982;1:310-316.
- Mandel EM, Bluestone CD, Paradise JL, et al. Efficacy of Myringotomy with and without Tympanostomy Tube Insertion in the Treatment of Chronic Otitis Media with Effusion in Infants and Children: Results for the First Year of a Randomized Clinical Trial. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:308-313.
- Mandel EM, Rockette HE, Bluestone CD, Paradise JL, Nozza RJ. Efficacy of amoxicillin with and without decongestant-antihistamine for otitis media with effusion in children. Results of a double-blind, randomized trial. *N Engl J Med*. 1987;316:432-437.
- Mandel EM, Rockette HE, Bluestone CD, Paradise JL, Nozza RJ. Efficacy of Myringotomy with and without Tympanostomy Tube Insertion for Chronic Otitis Media With Effusion: First Year Results in Two Randomized Clinical Trials. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:266-269.
- Mandel EM, Rockette HE, Bluestone CD, Paradise JL, Nozza RJ. Myringotomy with and without tympanostomy tubes for chronic otitis media with effusion. *Arch Otolaryngol Head Neck Surg*. 1989;115:1217-1224.
- Mandel EM, Rockette HE, Paradise JL, Bluestone CD, Nozza RJ. Comparative efficacy of erythromycin-sulfisoxazole, cefaclor, amoxicillin or placebo for otitis media with effusion in children. *Pediatr Infect Dis J*. 1991;10:899-906.
- Mandel EM, Bluestone CD, Takahashi H, Casselbrant ML. Effect of adenoidectomy on

- eustachian tube function. Preliminary results of a randomized clinical trial. *Adv-Otorhinolaryngol*. 1992;227-231.
- Mandel EM, Rockette HE, Bluestone CD, Paradise JL, Nozza RJ. Efficacy of myringotomy with and without tympanostomy tubes for chronic otitis media with effusion. *Pediatr Infect Dis J*. 1992;11:270-277.
- Mandel EM, Kardatzke D, Bluestone CD, Rockette HE. A comparative evaluation of cefaclor and amoxicillin in the treatment of acute otitis media. *Pediatr Infect Dis J*. 1993;12:726-732.
- Mandel EM, Rockette HE, Bluestone CD, Paradise JL, Nozza RJ. Antibiotic therapy for otitis media with effusion. A response from Pittsburgh [see comments]. *JAMA*. 1993;269:516-517.
- Mandel EM, Casselbrant ML, Kurs-Lasky M. Acute otorrhea: bacteriology of a common complication of tympanostomy tubes. *Ann-Otol-Rhinol-Laryngol*. 1994;103:713-718.
- Mandel EM, Casselbrant ML, Rockette HE, Bluestone CD, Kurs-Lasky M. Efficacy of 20- versus 10-day antimicrobial treatment for acute otitis media. *Pediatrics*. 1995;96:5-13.
- Mandel EM, Casselbrant ML, Rockette HE, Bluestone CD, Kurs-Lasky M. Efficacy of antimicrobial prophylaxis for recurrent middle ear effusion. *Pediatr Infect Dis J*. 1996;15:1074-1082.
- Mandel EM, Casselbrant ML, Kurs-Lasky M, Bluestone CD. Efficacy of ceftibuten compared with amoxicillin for otitis media with effusion in infants and children. *Pediatr Infect Dis J*. 1996;15:409-414.
- Manders E, Tyberghein J. The effects of ventilation tube placement on hearing, speech, language, cognition and behaviour. *Acta Otorhinolaryngol Belg*. 1993;47:27-32.
- Manfre L, Lagalla R, Ferrara S, Riggio E, Tortorici M, Cardinale AE. MRI of the inner ear: use of modified GRASS and fast spin-echo sequences. A preliminary study. *Neuroradiology*. 1996;38:669-674.
- Mangabeira-Albernaz PL. The Mondini dysplasia--from early diagnosis to cochlear implant. *Acta Otolaryngol*. 1983;95:627-631.
- Mangat KS, Morrison GA, Ganniwalla TM. T-tubes: a retrospective review of 1274 insertions over a 4-year period. *Int J Pediatr Otorhinolaryngol*. 1993;25:119-125.
- Mann W. Echography of the infantile mastoid. *Arch Otorhinolaryngol*. 1978;220:291-294.
- Mann W, Jonas I, Riede UN, Beck C, Lohle E. A contribution to the pathogenesis of cholesteatoma. A histochemical and ultrastructural study. *Arch Otorhinolaryngol*. 1981;230:121-132.
- Manni JJ, Lema PN. Otitis media in Dar es Salaam, Tanzania. *J Laryngol Otol*. 1987;101:222-228.
- Mannina J. Finding an effective hearing testing protocol to identify hearing loss and middle ear disease in school-aged children. *Journal of School Nursing*. 1997;13:23-28.
- Manning SC. Sequelae of tympanostomy tubes (I). *Pediatr Infect Dis J*. 1990;9.
- Manning SC, Brown OE, Roland PS, Phillips DL. Incidence of sensorineural hearing loss in patients evaluated for tympanostomy tubes. *Arch Otolaryngol Head Neck Surg*. 1994;120:881-884.
- Manrique MJ, Hernandez J, Huarte A, et al. Treatment of secretory otitis media with ambroxol. *Acta Pediatrica Espanola*. 1987;45:17-20.
- Manrique M, Paloma V, Cervera-Paz FJ, Ruiz de Erenchun I, Garcia-Tapia R. Pitfalls in cochlear implant surgery in children. *Adv Otorhinolaryngol*. 1995;50:45-50.
- Mansbach AL. [Control of recurrent ENT infections in children]. *Rev Med Brux*. 1994;15:198-201.
- Mansfield CJ, Daniel HJ, Sumpter EA, Barnes J, Coggins D, Young M. [Manner of birth and otitis media]. *Archives Francaises de Pediatrie*. 1993;50:97-100.
- Mansfield EL, Cote DN. Barotrauma. *J La State Med Soc*. 1995;147:81-84.
- Marais J, Armstrong MW. Parental knowledge and experiences after surgery for chronic otitis media. *Br J Clin Pract*. 1996;50:187-189.
- Marchant CD, Shurin PA, Turczyk VA, et al. A randomized controlled trial of cefaclor compared with trimethoprim-sulfamethoxazole for treatment of acute otitis media. *J Pediatr*. 1984;105:633-638.

- Marchant CD, Shurin PA, Turczyk VA, Wasikowski DE, Tutihasi MA, Kinney SE. Course and outcome of otitis media in early infancy: a prospective study. *J Pediatr*. 1984;104:826-831.
- Marchant CD, Shurlin PA, Tutihasi MA, Turczyk VA, Feinstein JC. Detection of Asymptomatic Otitis Media in Early Infancy. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:32-34.
- Marchant CD, Shurin PA, Wiltshire JC, et al. Twice daily antimicrobial therapy for acute otitis media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:281-283.
- Marchant CD, Shurin PA, Johnson CE, et al. A randomized controlled trial of amoxicillin plus clavulanate compared with cefaclor for treatment of acute otitis media. *J Pediatr*. 1986;109:891-896.
- Marchant CD, McMillan PM, Shurin PA, et al. Objective diagnosis of otitis media in early infancy by tympanometry and ipsilateral acoustic reflex thresholds. *J Pediatr*. 1986;109:590-595.
- Marchant CD, Carlin SA, Johnson CE, Shurin PA. Measuring the comparative efficacy of antibacterial agents for acute otitis media: the "Pollyanna phenomenon". *J Pediatr*. 1992;120:72-77.
- Marchisio P, Principi N, Sala E, Lanzoni L, Sorella S, Massimini A. Comparative study of once-weekly azithromycin and once-daily amoxicillin treatments in prevention of recurrent acute otitis media in children. *Antimicrob-Agents-Chemother*. 1996;40:2732-2736.
- Marchisio P, Principi N, Sorella S, Sala E, Tornaghi R. Etiology of acute otitis media in human immunodeficiency virus-infected children. *Pediatr Infect Dis J*. 1996;15:58-61.
- Marchisio P, Principi N, Passali D, et al. Epidemiology and treatment of otitis media with effusion in children in the first year of primary school. *Acta-Otolaryngol-Stockh*. 1998;118:557-562.
- Marcus SM. Assessing non-consent bias with parallel randomized and nonrandomized clinical trials. *J Clin Epidemiol*. 1997;50:823-828.
- Marget W, Thulin E. [Blood concentrations of different oral penicillin suspensions on the market (author's transl)]. *Med-Klin*. 1974;69:1611-1613.
- Marghzar S. AuD should do more [letter]. *ASHA*. 1995;37:9-10.
- Margolis CZ, Porter B, Barnoon S, Pilpel D. Reliability of the middle ear examination. *Isr J Med Sci*. 1979;15:23-28.
- Margolis RN, Heller JW. Screening tympanometry: criteria for medical referral. *Audiology*. 1987;26:197-208.
- Margolis RH, Hunter LL. Audiologic evaluation of the otitis media patient. *Otolaryngol Clin North Am*. 1991;24:877-899.
- Margolis RH, Hunter LL, Rykken JR, Giebink GS. Effects of otitis media on extended high-frequency hearing in children. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:540-543.
- Margolis RH, Nelson DA. Acute otitis media with transient sensorineural hearing loss. A case study. *Arch Otolaryngol Head Neck Surg*. 1993;119:682-686.
- Margolis RH, Hunter LL, Rykken JR, Giebink GS. Effects of otitis media on extended high-frequency hearing in children. *Ann Otol Rhinol Laryngol*. 1993;102:1-5.
- Margolis RH, Hunter LL, Giebink GS. Tympanometric evaluation of middle ear function in children with otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:34-38.
- Margolis RH, Schachern PL, Hunter LL, Sutherland C. Multifrequency tympanometry in chinchillas. *Audiology*. 1995;34:232-247.
- Marion MS, Hinojosa R, Libi S. Histopathology update. *Am J Otolaryngol*. 1995;16:194-195.
- Maritz NG, Uys IC, Louw B. Otitis media and language performance in learning disabilities. *South African Journal of Communication Disorders - die Suid-Afrikaanse Tydskrif vir Kommunikasieafwykings*. 1988;35:17-23.
- Marks NJ, Mills RP, Shaheen OH. A controlled trial of cotrimoxazole therapy in serous otitis media. *J Laryngol Otol*. 1981;95:1003-1009.
- Marks NJ, Mills RP, Shaheen OH. Cotrimoxazole in the treatment of serous otitis. A follow-up report. *J Laryngol Otol*. 1983;97:213-215.

- Marone SAM, Bento RF, Costa EG, Sennes LU, Bogar P, Miniti A. Neurosensorial hearing loss in otitis media with effusion. *Revista Brasileira de Otorrinolaringologia*. 1993;59:194-196.
- Maroudias N, Economides J, Christodoulou P, Helidonis E. A study on the otoscopic and audiological findings in patients with Down's syndrome in Greece. *Int J Pediatr Otorhinolaryngol*. 1994;29:43-49.
- Marsh RR, Handler SD. Hearing impairment in ventilator-dependent infants and children. *Int J Pediatr Otorhinolaryngol*. 1990;20:213-217.
- Marshak G, Neriah ZB. Adenoidectomy versus tympanostomy in chronic secretory otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:316-318.
- Marshall FP, Cable HR. The effect of nitrous oxide on middle-ear effusions. *J Laryngol Otol*. 1982;96:893-897.
- Marshall SG, Bierman CW, Shapiro GG. Otitis media with effusion in childhood. *Annals of Allergy*. 1984;53:370-378.
- Marshall J, Narula AA. Persistent glue ear in children [letter; comment]. *Br Med J*. 1993;306:454.
- Marshall SG KC, Pierson WE, Shapiro GG, Bierman CW. Prevalence of middle ear dysfunction and otitis media with effusion in atopic children. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:240.
- Martin JA. Problems of diagnosis of hearing loss in the young child. *Proceedings of the Royal Society of Medicine*. 1971;64:571-574.
- Martin FN, Butler EC, Burns P. A variation of the type B tympanogram. *Laryngoscope*. 1973;83:1783-1785.
- Martin HC, Westwood GF, Bamford JM. Real ear to coupler differences in children having otitis media with effusion. *Br J Audiol*. 1996;30:71-78.
- Martin BD, Macdonald SM. The management of ear disease: guidelines for Aboriginal health care programs. *International Journal of Circumpolar Health*. 1998;57:268-275.
- Martin-Hirsch DP, Woodhead CJ, Vize CE. Long-term ventilation of the middle ear using a tympanotomy technique. *J Laryngol Otol*. 1995;109:1151-1154.
- Martinez SA, McNellis EL, Weber PC, Adkins WJ. Bilateral acute coalescent mastoiditis in an immunocompromised infant with a rare leukocyte adhesion deficiency. *Otolaryngol Head Neck Surg*. 1999;120:926-928.
- Martinez-Berriotxo A, Montejo M, Aguirrebengoa K, Gonzalez de Zarate P, Aguirre C. [Otomastoiditis caused by Aspergillus in AIDS]. *Enferm Infecc Microbiol Clin*. 1997;15:200-202.
- Marttila TI. Results of audiometrical screening in Finnish schoolchildren. *Int J Pediatr Otorhinolaryngol*. 1986;11:39-46.
- Maruyama J, Aritomo H, Inaki S, Kobayashi J, Yanagihara N. [Clinical studies on acute otitis media in infants less than one year old]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:402-410.
- Marx J, Osguthorpe JD, Parsons G. Day care and the incidence of otitis media in young children. *Otolaryngol Head Neck Surg*. 1995;112:695-699.
- Masin JS, Hostoffer RW, Arnold JE. Otitis media following tympanostomy tube placement in children with IgG2 deficiency. *Laryngoscope*. 1995;105:1188-1190.
- Mason JD, Mason SM, Gibbin KP. Raised ABR threshold after suction aspiration of glue from the middle ear: three case studies [see comments]. *J Laryngol Otol*. 1995;109:726-728.
- Mason WH. The management of common infections in ambulatory children. *Pediatr Ann*. 1996;25:620-629.
- Massias L, Buffe P, Cohen B, et al. Study of the distribution of oral ciprofloxacin into the mucosa of the middle ear and the cortical bone of the mastoid process. *Chemotherapy*. 1994;40:3-7.
- Masters L, Marsh GEd. Middle ear pathology as a factor in learning disabilities. *Journal of Learning Disabilities*. 1978;11:103-106.
- Matar GM, Sidani N, Fayad M, Hadi U. Two-step PCR-based assay for identification of bacterial etiology of otitis media with effusion in infected Lebanese children. *J Clin Microbiol*. 1998;36:1185-1188.

- Matas KE, Brown NC, Holman EJ. Measuring outcomes in nursing centers: otitis media as a sample case. *Nurse Pract.* 1996;21:116-118, 120, 122 passim.
- Mathew T, Nordstrom K. On the equivalence of meta-analysis using literature and using individual patient data. *Biometrics.* 1999;55:1221-1223.
- Matin MA, Khan AH, Khan FA, Haroon AA. A profile of 100 complicated cases of chronic suppurative otitis media. *J R Soc Health.* 1997;117:157-159.
- Matsune S, Takahashi H, Sando I. Mucosa-associated lymphoid tissue in middle ear and Eustachian tube in children. *Int J Pediatr Otorhinolaryngol.* 1996;34:229-236.
- Matsuoka A, Shitara T, Okamoto M, Furukawa K, Sano H. [Cholesteatoma in children--sex differences]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:1430-1437.
- Matsuoka A. [Inflammatory middle ear diseases in children--sex differences]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1994;97:436-449.
- Matt BH, Miller RP, Meyers RM, Campbell JM, Cotton RT. Incidence of perforation with Goode T-tube. *Int J Pediatr Otorhinolaryngol.* 1991;21:1-6.
- Mattila PS, Tarkkanen J. B- and T-lymphocyte subpopulations in the adenoids of children with otitis media. *APMIS.* 1996;104:698-704.
- Mattila PS, Tarkkanen J. Age-associated changes in the cellular composition of the human adenoid. *Scand J Immunol.* 1997;45:423-427.
- Mattucci KF, Greenfield BJ. Middle ear effusion--allergy relationships [see comments]. *Ear Nose Throat J.* 1995;74:752-756, 758.
- Maw AR. Chronic otitis media with effusion (glue ear) and adenotonsillectomy: Prospective randomised controlled study. *Br Med J.* 1586;287:1586-1588.
- Maw AR. Chronic otitis media with effusion (glue ear) and adenotonsillectomy: prospective randomised controlled study. *Br Med J Clin Res Ed.* 1983;287:1586-1588.
- Maw AR. Chronic otitis media with effusion and adeno-tonsillectomy--a prospective randomized controlled study. *Int J Pediatr Otorhinolaryngol.* 1983;6:239-246.
- Maw AR. Chronic otitis media with effusion (glue ear) and adenotonsillectomy: prospective randomised controlled study. *Br Med J Clin Res Ed.* 1983;287:1586-1588.
- Maw AR, Jeans WD, Cable HR. Adenoidectomy. A prospective study to show clinical and radiological changes two years after operation. *J Laryngol Otol.* 1983;97:511-518.
- Maw AR. Chronic otitis media with effusion and adeno-tonsillectomy. A prospective randomized controlled study. *Int J Pediatr Otorhinolaryngol.* 1983;6:239-246.
- Maw AR. Chronic Otitis Media with Effusion and Adenotonsillectomy: A Prospective Randomized Controlled Study. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:299-302.
- Maw AR. Age and adenoid size in relation to adenoidectomy in otitis media with effusion. *Am J Otolaryngol.* 1985;6:245-248.
- Maw AR. Factors affecting adenoidectomy for otitis media with effusion (glue ear). *J-R-Soc-Med.* 1985;78:1014-1018.
- Maw AR. The long term effect of adenoidectomy on established otitis media with effusion in children. *Auris-Nasus-Larynx.* 1985:S234-S236.
- Maw AR, Herod F. Otosopic, impedance, and audiometric findings in glue ear treated by adenoidectomy and tonsillectomy. A prospective randomised study. *Lancet.* 1986;1:1399-1402.
- Maw AR. Glue ear (otitis media with effusion). *Practitioner.* 1987;231:1108-1112.
- Maw AR, Parker A. Surgery of the tonsils and adenoids in relation to secretory otitis media in children. *Acta-Otolaryngol-Suppl-Stockh.* 1988:202-207.
- Maw AR, Tiwari RS. Children with glue ear: how do they present? *Clin Otolaryngol Allied Sci.* 1988;13:171-177.

- Maw AR. Tonsils and adenoids. Their relation to secretory otitis media. *Adv Otorhinolaryngol.* 1988;40:81-88.
- Maw AR. Early and Late Effects of Surgery for Otitis Media with Effusion. ; 1988.
- Maw AR. Development of tympanosclerosis in children with otitis media with effusion and ventilation tubes. *J Laryngol Otol.* 1991;105:614-617.
- Maw AR, Smith IM, Lance GN. Lateral cephalometric analysis of children with otitis media with effusion: a comparison with age and sex matched controls. *J Laryngol Otol.* 1991;105:71-77.
- Maw AR, Parker AJ, Lance GN, Dilkes MG. The effect of parental smoking on outcome after treatment for glue ear in children. *Clin Otolaryngol Allied Sci.* 1992;17:411-414.
- Maw R, Bawden R. Spontaneous resolution of severe chronic glue ear in children and the effect of adenoidectomy, tonsillectomy, and insertion of ventilation tubes (grommets). *Br Med J.* 1993;306:756-760.
- Maw AR, Bawden R, O'Keefe L, Gurr P. Does the type of middle ear aspirate have any prognostic significance in otitis media with effusion in children? *Clin Otolaryngol Allied Sci.* 1993;18:396-399.
- Maw AR, Parker AJ. A model to refine the selection of children with otitis media with effusion for adenoidectomy. *Clin Otolaryngol Allied Sci.* 1993;18:164-170.
- Maw AR, Bawden R. Does adenoidectomy have an adjuvant effect on ventilation tube insertion and thus reduce the need for re-treatment? *Clin Otolaryngol Allied Sci.* 1994;19:340-343.
- Maw AR, Bawden R. Factors affecting resolution of otitis media with effusion in children. *Clin-Otolaryngol.* 1994;19:125-130.
- Maw AR, Bawden R. The long term outcome of secretory otitis media in children and the effects of surgical treatment: a ten year study. *Acta-Otorhinolaryngol-Belg.* 1994;48:317-324.
- Maw AR, Bawden R. Tympanic membrane atrophy, scarring, atelectasis and attic retraction in persistent, untreated otitis media with effusion and following ventilation tube insertion. *Int J Pediatr Otorhinolaryngol.* 1994;30:189-204.
- Maw AR. Glue ear [letter; comment]. *Lancet.* 1995;345:922.
- Maw AR. Grommets: what GPs need to know. *Practitioner.* 1996;240:450-453.
- Maw AR, Bawden R. Long-term sequelae of the tympanic membrane following otitis media with effusion and after ventilation tubes. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:379.
- Maw R, Wilks J, Harvey I, Peters TJ, Golding J. Early surgery compared with watchful waiting for glue ear and effect on language development in preschool children: a randomised trial. *Lancet.* 1999;353:960-963.
- Mawson S, Mawson B, D. GJ, A. H. Terramycin [oxytetracycline] in the treatment of acute otitis media in children. *Br Med J.* 1953;1:817-819.
- Mawson SR. Myringotomy. *Br Med J.* 1968;3:539-541.
- Mawson SR, Brennan J. Long-term follow up of 129 glue ears. *Proceedings of the Royal Society of Medicine.* 1969;62:460-463.
- Mawson SR, Lord I. Tympanoplasty in Britain. *Ann Otol Rhinol Laryngol.* 1972;81:686-689.
- Mawson SR, Fagan P. Tympanic effusions in children. Long-term results of treatment by myringotomy, aspiration and indwelling tubes (grommets). *J Laryngol Otol.* 1972;86:105-119.
- Mawson SR. Middle ear effusions: definitions. *Ann Otol Rhinol Laryngol.* 1976;85:12-14.
- Maxson S, Yamauchi T. Acute otitis media. *Pediatr Rev.* 1996;17:191-195; quiz 196.
- Maxwell KS, Fitzgerald JE, Burleson JA, Leonard G, Carpenter R, Kreutzer DL. Interleukin-8 expression in otitis media. *Laryngoscope.* 1994;104:989-995.
- Maxwell K, Leonard G, Kreutzer DL. Cytokine expression in otitis media with effusion. Tumor necrosis factor soluble receptor. *Arch Otolaryngol Head Neck Surg.* 1997;123:984-988.

- May M, Fria TJ, Blumenthal F, Curtin H. Facial paralysis in children: differential diagnosis. *Otolaryngol Head Neck Surg*. 1981;89:841-848.
- Maynard JE, Fleshman JK, Tschopp CF. Otitis media in Alaskan Eskimo children. Prospective evaluation of chemoprophylaxis. *JAMA*. 1972;219:597-599.
- McAskile K. The radical mastoidectomy. *J Otolaryngol*. 1980;9:143-148.
- McCabe BF. Clinical aspects of the differential diagnosis of end-organ vertigo. *Ann Otol Rhinol Laryngol*. 1968;77:193-198.
- McCabe BF. The incidence, site, treatment and fate of labyrinthine fistula. *Clin Otolaryngol Allied Sci*. 1978;3:239-242.
- McCaig LF, Hughes JM. Trends in antimicrobial drug prescribing among office-based physicians in the United States [see comments]. *JAMA*. 1995;273:214-219.
- McCandless GA, Thomas GK. Impedance audiometry as a screening procedure for middle ear disease. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1974;78:ORL98-102.
- McCarthy PE, Hosgood G, Pechman RD. Traumatic ear canal separations and para-aural abscessation in three dogs. *J Am Anim Hosp Assoc*. 1995;31:419-424.
- McCarty JM, Phillips A, Wiisanen R. Comparative safety and efficacy of clarithromycin and amoxicillin/clavulanate in the treatment of acute otitis media in children. *Pediatr Infect Dis J*. 1993;12:S122-S127.
- McCarty J. A multicenter, open label trial of azithromycin for the treatment of children with acute otitis media. *Pediatr Infect Dis J*. 1996;15:S10-S14.
- McCracken GH, Jr. Considerations in selecting an antibiotic for treatment of acute otitis media. *Pediatr Infect Dis J*. 1994;13:1054-1057.
- McCracken GH, Jr. Emergence of resistant *Streptococcus pneumoniae*: a problem in pediatrics. *Pediatr Infect Dis J*. 1995;14:424-428.
- McCurdy JA. Letter: Impedance audiometry suggested. *Pediatrics*. 1974;54:384.
- McCurdy JA, Jr. The tonsillectomy-adenoidectomy dilemma. *Am Fam Physician*. 1977;16:137-141.
- McCurdy JA, Jr. Middle ear effusion: current concepts. *Am Fam Physician*. 1978;17:107-111.
- McDermott JC. Immittance screening for aural problems in school children. *J Sch Health*. 1982;52:462-468.
- McDermott JC. Physical and behavioral aspects of middle ear disease in school children. *J Sch Health*. 1983;53:463-466.
- McDermott JC, Giebink GS, Le CT, Harford ER, Paparella MM. Children with persistent otitis media. Audiometric and tympanometric findings. *Arch Otolaryngol*. 1983;109:360-363.
- McDonald TJ, Neel HBd, O'Connell EJ. Managing ear infection in children. *Postgrad Med*. 1981;69:77-79, 82-83.
- McDonald JM, Seipp WS, Gordon EM, Heroy J. Audiologic findings in achondroplasia. *Basic Life Sci*. 1988;48:143-147.
- McDonald JA, Saulsbury FT. Chronic *Candida albicans* otitis media in children with immunodeficiency. *Pediatr Infect Dis J*. 1997;16:529-531.
- McDowell PR, Gaudin PB, Wu TC, Francis H. Pathologic quiz case. Adenovirus infection of the adenoids. *Arch Otolaryngol Head Neck Surg*. 1994;120:668-671.
- McGee TM. Pediatric deafness. 3. Glue ear. *J Otolaryngol Soc Aust*. 1970;3:93-96.
- McGee TJ, Clemis JD. Effects of conductive hearing loss on auditory brainstem response. *Ann Otol Rhinol Laryngol*. 1982;91:304-309.
- McGee R, Silva PA, Stewart IA. Behaviour problems with otitis media with effusion: A report from the Dunedin Multidisciplinary Child Development Study. *New Zealand Med J*. 1982;95:655-657.
- McGrae JD, Jr. Keratitis, ichthyosis, and deafness (KID) syndrome with adult onset of keratitis component. *Int J Dermatol*. 1990;29:145-146.
- McGregor DH, Cherian R, Kepes JJ, Kepes M. Case reports: heterotopic brain tissue of middle ear

- associated with cholesteatoma. *Am J Med Sci.* 1994;308:180-183.
- McGuinness RJ. Carboxymethylcysteine in the glue ear syndrome. *Br-J-Clin-Pract.* 1977;31:105-106.
- McGuirt WF, Jr., Stool SE. Cerebrospinal fluid fistula: the identification and management in pediatric temporal bone fractures. *Laryngoscope.* 1995;105:359-364.
- McKennan KX. Endoscopic 'second look' mastoidoscopy to rule out residual epitympanic/mastoid cholesteatoma. *Laryngoscope.* 1993;103:810-814.
- McKenzie E, Magian V, Stokes R. A study of the recommended pass/fail criteria for impedance audiometry in a school screening program. *J Otolaryngol.* 1982;11:40-45.
- McLaughlin MR, Jannetta PJ, Clyde BL, Subach BR, Comey CH, Resnick DK. Microvascular decompression of cranial nerves: lessons learned after 4400 operations [see comments]. *J Neurosurg.* 1999;90:1-8.
- McLay K. Options for treating otitis media. *Practitioner.* 1996;240:42-47.
- McLinn SE. Recurrence of otitis media after antibiotic therapy: comparison of cephradine and amoxicillin. *J Int Med Res.* 1979;7:546-550.
- McLinn SE. Cefaclor in treatment of otitis media and pharyngitis in children. *Am-J-Dis-Child.* 1980;134:560-563.
- McLinn SE, Goldberg F, Kramer R, Saltstein E, Bomze JP, Deitch MW. Double-blind multicenter comparison of cyclacillin and amoxicillin for the treatment of acute otitis media. *J Pediatr.* 1982;101:617-621.
- McLinn SE, Serlin S. Cyclacillin versus amoxicillin as treatment for acute otitis media. *Pediatrics.* 1983;71:196-199.
- McLinn SE. Randomized, open label, multicenter trial of cefixime compared with amoxicillin for treatment of acute otitis media with effusion. *Pediatr Infect Dis J.* 1987;6:997-1001.
- McLinn SE, Moskal M, Goldfarb J, et al. Comparison of cefuroxime axetil and amoxicillin-clavulanate suspensions in treatment of acute otitis media with effusion in children [published erratum appears in *Antimicrob Agents Chemother* 1994 Oct;38(10):2516]. *Antimicrob-Agents-Chemother.* 1994;38:315-318.
- McLinn SE, McCarty JM, Perrotta R, et al. Multicenter controlled trial comparing ceftibuten with amoxicillin /clavulanate in the empiric treatment of acute otitis media. *Pediatr Infect Dis J.* 1995;14:S108-S114.
- McLinn SE, McCarty JM, Perrotta R, Pichichero ME, Reidenberg BE. Multicenter controlled trial comparing ceftibuten with amoxicillin/clavulanate in the empiric treatment of acute otitis media. Members of the Ceftibuten Otitis Media United States Study Group. *Pediatr Infect Dis J.* 1995;14:S108-S114.
- McLinn S. A multicenter, double blind comparison of azithromycin and amoxicillin/ clavulanate for the treatment of acute otitis media in children. *Pediatr Infect Dis J.* 1996;15:S20-S23.
- McLinn S, Williams D. Incidence of antibiotic-resistant *Streptococcus pneumoniae* and beta-lactamase-positive *Haemophilus influenzae* in clinical isolates from patients with otitis media. *Pediatr Infect Dis J.* 1996;15:S3-S9.
- McMahan JT, Calenoff E, Croft DJ, Barenholtz L, Weber LD. Chronic otitis media with effusion and allergy: modified RAST analysis of 119 cases. *Otolaryngol Head Neck Surg.* 1981;89:427-431.
- McMahon SR, Rimsza ME, Bay RC. Parents can dose liquid medication accurately. *Pediatrics.* 1997;100:330-333.
- McMillan JA. Upper respiratory tract infections in children. *Curr Opin Pediatr.* 1993;5:50-54.
- McNeill RA. Phenethicillin and penicillin G in acute suppurative otitis media in childhood. *Br Med J.* 1962;1:360-362.
- McNeill RA. Ossicular reconstruction in effective ear disease. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1974;78:ORL264-8.
- McNicoll WD. Otitis media with effusion in children and its association with deformity of the vomer-ethmoid suture. *J Laryngol Otol.* 1983;97:203-212.

- McPherson B, Holborow CA. A study of deafness in West Africa: the Gambian Hearing Health Project. *Int J Pediatr Otorhinolaryngol*. 1985;10:115-135.
- McPherson B, Smyth V, Scott J. External ear resonance as a screening technique in children with otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1993;25:81-89.
- McPherson B, Rajender Kumar PV, Wollman D. Hearing loss in Western Samoan children. *Int J Pediatr Otorhinolaryngol*. 1994;29:227-234.
- McRae D, Gatland DJ, Youngs R, Cook J. Aspiration of middle ear effusions prior to grommet insertion an etiological factor in tympanosclerosis. *J-Otolaryngol*. 1989;18:229-231.
- Medellin G, Roark R, Berman S. The usefulness of symptoms to identify otitis media. *Arch Pediatr Adolesc Med*. 1996;150:98.
- Meester SG, MacKay J. A parametric model for cluster correlated categorical data. *Biometrics*. 1994;50:954-963.
- Meguro H, Fujii R, Terashima I. [Clinical evaluation of a new oral penem, SY5555, in the pediatric field]. *Jpn J Antibiot*. 1995;48:41-48.
- Mehta S. Silent otitis media: an autopsy study in stillborns and neonates. *Ear Nose Throat J*. 1990;69:296, 299-300, 311-317.
- Meis JF, Neeleman C. [Problems of resistance in *Streptococcus pneumoniae*]. *Ned Tijdschr Geneesk*. 1996;140:141-144.
- Meistrup LKI, Thomsen J, Mygind N, al. e. Penicillin treatment of acute middle ear infections in children. How long should treatment continue? *UGESKR LAEG*. 1983;145:1201-1204.
- Meistrup-Larsen KI, Mygind N, Thomsen J, Sorensen H, Vesterhauge S. Oral norephedrine in the treatment of acute otitis media. Results of a double-blind, placebo-controlled trial. *Acta-Otolaryngol-Stockh*. 1978;86:248-250.
- Meistrup-Larsen KI, Mygind N, Thomsen J, al. e. Oral nor-ephedrine therapy in acute otitis media. Report of a double-blind, placebo-controlled clinical trial. *UGESKR LAEG*. 1980;142:2773-2775.
- Meistrup-Larsen KI, Mygind N, Thomsen J, al. e. Penicillin therapy in acute otitis media. Report of a double-blind, placebo-controlled clinical trial. *UGESKR LAEG*. 1980;142:2768-2772.
- Meistrup-Larsen KI, Mygind N, Thomsen J, Larsen PK, Thomsen VF, Sorensen H. [Penicillin therapy of acute otitis media. A double-blind placebo-controlled study]. *Ugeskr-Laeger*. 1980;142:2768-2772.
- Meistrup-Larsen KI, Mygind N, Thomsen J, Sorensen H, Vesterhauge S. [Peroral norephedrine therapy of acute otitis media. A double-blind placebo-controlled study]. *Ugeskr-Laeger*. 1980;142:2733-2735.
- Meistrup-Larsen KI, Andersen MS, Helweg J, Deigaard J, Peitersen E. Variations in tympanograms in children attending group-care during a one-year period. *ORL J Otorhinolaryngol Relat Spec*. 1981;43:153-163.
- Meistrup-Larsen KI, Sorensen H, Johnsen NJ, Thomsen J, Mygind N, Sederberg-Olsen J. Two versus seven days penicillin treatment for acute otitis media. A placebo controlled trial in children. *Acta-Otolaryngol-Stockh*. 1983;96:99-104.
- Meistrup-Larsen KI, Thomsen J, Mygind N, Sorensen H, Johnsen NJ, Sederberg-Olsen J. [Penicillin therapy of acute otitis media in children. How long should treatment continue?]. *Ugeskr-Laeger*. 1983;145:1201-1204.
- Melchor C, Shotton JC. Should nasopharyngeal biopsy be mandatory in adult unilateral glue ear? [letter; comment]. *J Laryngol Otol*. 1996;110:996-997.
- Melcon Diez E, de Diego Sastre JI. [Ossicular reconstruction in the surgery of the middle ear: comparative study]. *Acta Otorrinolaringol Esp*. 1994;45:229-232.
- Melhus A, Hermansson A, Prellner K. Nontypeable and encapsulated *Haemophilus influenzae* yield different clinical courses of experimental otitis media. *Acta Otolaryngol*. 1994;114:289-294.
- Melhus A, Hermansson A, Akkoyunlu M, Forsgren A, Prellner K. Experimental recurrent otitis media induced by *Haemophilus influenzae*: protection and serum antibodies. *Am J Otolaryngol*. 1995;16:383-390.
- Melhus A, Hermansson A, Forsgren A, Prellner K. Effect of *Haemophilus influenzae* type b conjugate vaccine in combination with peroral immunization

- with *Escherichia coli* on experimental otitis media. *Int J Pediatr Otorhinolaryngol.* 1996;36:1-12.
- Melhus A, Hermansson A, Forsgren A, Prellner K. A resolved pneumococcal infection protects against nontypeable *Haemophilus influenzae*: an evaluation of different routes of whole cell immunization in protection against experimental acute otitis media. *Int J Pediatr Otorhinolaryngol.* 1997;39:119-131.
- Mellinger-Birdsong AK. Estimates of numbers of civilians treated with nasopharyngeal radium irradiation in the United States. *Otolaryngol Head Neck Surg.* 1996;115:429-432.
- Meltzer EO, Orgel HA, Jalowayski AA. Histamine levels and nasal cytology in children with chronic otitis media and rhinitis. *Ann Allergy Asthma Immunol.* 1995;74:406-410.
- Memmini G, Casani A, Moggi C. [An update on the treatment of otitis media with effusion in children. The indications for transtympanic drainage]. *Pediatr Med Chir.* 1994;16:345-348.
- Mendelman PM, Del Beccaro MA, McLinn SE, Todd WM. Cefpodoxime proxetil compared with amoxicillin-clavulanate for the treatment of otitis media [published erratum appears in *J Pediatr* 1993 Mar;122(3):502] [see comments]. *J Pediatr.* 1992;121:459-465.
- Mendelson T, Salamy A, Lenoir M, McKean C. Brain stem evoked potential findings in children with otitis media. *Arch Otolaryngol.* 1979;105:17-20.
- Menyuk P. Design factors in the assessment of language development in children with otitis media. *Ann Otol Rhinol Laryngol Suppl.* 1979;88:78-87.
- Menyuk P. Effect of persistent otitis media on language development. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:257-263.
- Merchant SN, Rosowski JJ, Ravicz ME. Middle ear mechanics of type IV and type V tympanoplasty: II. Clinical analysis and surgical implications. *Am J Otol.* 1995;16:565-575.
- Merchant SN, Wang P, Jang CH, et al. Efficacy of tympanomastoid surgery for control of infection in active chronic otitis media. *Laryngoscope.* 1997;107:872-877.
- Merchant SN, Ravicz ME, Voss SE, Peake WT, Rosowski JJ. Toynbee Memorial Lecture 1997. Middle ear mechanics in normal, diseased and reconstructed ears. *J Laryngol Otol.* 1998;112:715-731.
- Merifield DO, Parker NJ, Nicholson NC. Therapeutic management of chronic suppurative otitis media with otic drops. *Otolaryngol Head Neck Surg.* 1993;109:77-82.
- Mertens H, Schwenk B. Diagnosis and frequency of relapse of secretory otitis media in childhood. *HNO.* 1988;36:507-510.
- Meurman OH, Sarkkinen HK, Puhakka HJ, Virolainen ES. Local IgA-class antibodies against respiratory viruses in middle ear and nasopharyngeal secretions of children with secretory otitis media. *Laryngoscope.* 1980;90:304-311.
- Meyer S, Hugo R, Louw B, Grimbeek RJ. Screening for middle-ear disease in schools for hearing-impaired children. *Int J Pediatr Otorhinolaryngol.* 1989;17:163-170.
- Meyer J, Duffy L, Faden H. Effect of oral antibiotics on nasopharyngeal colonization with nontypable *Haemophilus influenzae* [letter]. *Pediatr Infect Dis J.* 1995;14:164-165.
- Meyer zum Gottesberge A. [Dimorphism of cerumen, facts and theory]. *Laryngorhinootologie.* 1995;74:606-610.
- Meyerhoff WL. Medical management of hearing loss. *Postgrad Med.* 1977;62:103-112.
- Meyerhoff WL. Use of tympanostomy tubes in otitis media. *Ann Otol Rhinol Laryngol.* 1981;90:537-542.
- Meyerhoff WL, Truelson J. Cholesteatoma staging. *Laryngoscope.* 1986;96:935-939.
- Meyerhoff WL. Bluestone et al.: Audiometry and tympanometry in relation to middle ear effusions in children.: (*Laryngoscope.* 1973;83:594-604). *Laryngoscope.* 1996;106:684-687.
- Mezzedimi C, Passali GC, Bellussi L, Passali D. Late consequences of otitis media with effusion: Changes on linguistic and psycho-intellective development in children affected by this disease. *Otorinolaringologia Pediatrica.* 1998;9:205-210.
- Michael BN, Matar S, Siegel DM. Pathologic quiz case 1. Furuncular myiasis mimicking clinical

- mastoiditis. *Arch Otolaryngol Head Neck Surg.* 1995;121:1200, 1202-1203.
- Michaels L, Soucek S, Liang J. The ear in the acquired immunodeficiency syndrome: I. Temporal bone histopathologic study. *Am J Otol.* 1994;15:515-522.
- Michel O. [Self-expanding ear canal tamponade]. *Laryngorhinootologie.* 1994;73:169.
- Miles VH, Fischer PR. Variations in the treatment of common infections [letter]. *Pediatr Infect Dis J.* 1997;16:826-827.
- Millen SJ, Meyer G. Surgical management of CSF otorhinorrhea following retrosigmoid removal of cerebellopontine angle tumors. *Am J Otol.* 1993;14:585-589.
- Miller WE, Holman CB, Dockerty MB, Devine KD. Roentgenologic manifestations of malignant tumors of the nasopharynx. *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.* 1969;106:813-823.
- Miller GF. Influence of an oral decongestant on Eustachian tube function in children. *J-Allergy.* 1970;45:187-193.
- Miller MH. Neonatal and infant auditory screening programs. An evaluation of their current status. *Clin Pediatr.* 1971;10:340-345.
- Miller J, Donaldson J. Primate model for studies of clinical problems of middle ear functions. *Ann Otol Rhinol Laryngol.* 1976;85:194-201.
- Miller SA, Omene JA, Bluestone CD, Torkelson DW. A point prevalence of otitis media in a Nigerian village. *Int J Pediatr Otorhinolaryngol.* 1983;5:19-29.
- Miller MB, Koltai PJ, Hetherington SV. Bacterial antigens and neutrophil granule proteins in middle ear effusions. *Arch Otolaryngol Head Neck Surg.* 1990;116:335-337.
- Miller AJ, Gianoli GJ. Eustachian tube dysfunction. *J La State Med Soc.* 1996;148:329-333.
- Mills R, Uttley A, McIntyre M. Relationship between acute suppurative otitis media and chronic secretory otitis media: role of antibiotics. *J R Soc Med.* 1984;77:754-757.
- Mills RP, Cherry JR. Subjective tinnitus in children with otological disorders. *Int J Pediatr Otorhinolaryngol.* 1984;7:21-27.
- Mills RP. Persistent middle ear effusions in children with recurrent acute otitis media. *Clin Otolaryngol Allied Sci.* 1987;12:97-101.
- Mills RP. Management of retraction pockets of the pars tensa. *J Laryngol Otol.* 1991;105:525-528.
- Mills RP, Padgham ND. Management of childhood cholesteatoma. *J Laryngol Otol.* 1991;105:343-345.
- Mills R, Vaughan-Jones R. A prospective study of otitis media with effusion in adults and children. *Clin Otolaryngol Allied Sci.* 1992;17:271-274.
- Mills RP. The influence of pathological and technical variables on hearing results in ossiculoplasty. *Clin Otolaryngol Allied Sci.* 1993;18:202-205.
- Mills RP, Irani BS, Vaughan-Jones RJ, Padgham ND. Maxillary sinusitis in children with otitis media with effusion. *J Laryngol Otol.* 1994;108:842-844.
- Mills RP, Tay HL. Findings at initial surgery for childhood otitis media with effusion and subsequent outcome. *Clin Otolaryngol Allied Sci.* 1995;20:461-464.
- Mills R. The management of childhood otitis media with effusion. *J R Soc Med.* 1996;89:132-134.
- Mills R. Risk factors for chronicity in childhood otitis media with effusion. *Clin Otolaryngol Allied Sci.* 1999;24:343-345.
- Milner RM, Weller CR, Brenman AK. Management of the hearing impaired child with serous otitis media. *Int J Pediatr Otorhinolaryngol.* 1985;9:233-239.
- Milstein S. The history of mastoid surgery. *Am J Otol.* 1980;1:174-178.
- Milton CM, Cousins VC. A radiological assessment of the usefulness of Macewen's triangle as a surgical landmark. *J Laryngol Otol.* 1986;100:1225-1234.
- Milvio C. Nimesulide for the treatment of painful inflammatory process in the ear, nose and throat areas: a double-blind controlled study with benzydamine. *J Int Med Res.* 1984;12:327-332.

- Minami T, Kubo N, Tomoda K, Yamashita T, Kumazawa T. Regional blood flow volume in the eustachian tube. *Acta Oto-Laryngologica - Supplement*. 1993;500:80-83.
- Minatogawa T, Kumoi T, Inamori T, Oki K, Machizuka H. Hyogo ear bank experience with allograft tympanoplasty--review of tympanoplasties on 68 ears. *Am J Otol*. 1990;11:157-163.
- Minatogawa T, Machizuka H, Kumoi T. Evaluation of mastoid obliteration surgery. *Am J Otol*. 1995;16:99-103.
- Minja BM, Machemba A. Prevalence of otitis media, hearing impairment and cerumen impaction among school children in rural and urban Dar es Salaam, Tanzania. *Int J Pediatr Otorhinolaryngol*. 1996;37:29-34.
- Minja BM. Aetiology of deafness among children at the Buguruni school for the deaf in Dar es Salaam, Tanzania. *Int J Pediatr Otorhinolaryngol*. 1998;42:225-231.
- Mink A, Bauer M. Tubomanometry. Values in ears with traumatic and chronic perforations. *Clin Otolaryngol*. 1993;18:291-293.
- Mironov AA. [An optimized variant of plastic repair in a total-cavity rehabilitative hearing-preserving operation on the middle ear]. *Vestn Otorinolaringol*. 1994;16-22.
- Misbah SA, Griffiths H, Mitchell T, Freeland A, Haeney MR, Chapel HM. Antipolysaccharide antibodies in 450 children with otitis media. *Clin Exp Immunol*. 1997;109:67-72.
- Mitchell DB, Ford GR, Albert D, Waldron J. Acoustic reflectometry as an aid to the diagnosis of glue ear. *Br J Clin Pract*. 1990;44:557-559.
- Mitchell DK, Van R, Mason EH, Norris DM, Pickering LK. Prospective study of toxigenic *Clostridium difficile* in children given amoxicillin/clavulanate for otitis media. *Pediatr Infect Dis J*. 1996;15:514-519.
- Mitrovic M, Haralampiev K, Dzinic M. Problems in diagnosis and treatment of cholesteatoma in children. *Int J Pediatr Otorhinolaryngol*. 1991;21:149-153.
- Miura M, Takahashi H, Honjo I, Hasebe S, Tanabe M. Influence of the gas exchange function through the middle ear mucosa on the development of sniff-induced middle ear diseases. *Laryngoscope*. 1998;108:683-686.
- Miyake H, Tanabe H, Tanahashi T, Ishigami H. Studies on mastoidplasty using autogenous bonemarrow and free skingraft. *Nagoya J Med Sci*. 1967;30:23-36.
- Mizukami C, Yamamoto E. Endolymphatic hydrops and otitis media. *Equilibrium Research*. 1988;47:101-103.
- Moar JJ. Drowning--postmortem appearances and forensic significance. A case report. *S Afr Med J*. 1983;64:792-795.
- Modai J. The clinical use of macrolides. *J Antimicrob Chemother*. 1988;22:145-153.
- Mody M, Schwartz RG, Gravel JS, Wallace IF, Ellis MA, Lee WW. Speech perception and verbal memory in children with otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:339-342.
- Mody M, Schwartz RG, Gravel JS, Ruben RJ. Speech perception and verbal memory in children with and without histories of otitis media. *Journal of Speech, Language, and Hearing Research*. 1999;42:1069-1079.
- Moerman M, Dierick J, Mestdagh J, Boedts D, Van Cauwenberge P. Mastoiditis caused by atypical mycobacteria. *Int J Pediatr Otorhinolaryngol*. 1993;28:69-76.
- Moffat DA, da Cruz MJ, Batten A, Hardy DG. Use of autologous osteocyte containing bone pate for closure of tegmental defects. *Am J Otol*. 1998;19:819-823.
- Mogi G, Maeda S, Yoshida T, Watanabe N. Radioimmunoassay of IgE in middle ear effusions. *Acta Otolaryngol*. 1976;82:26-32.
- Mogi G, Maeda S, Yoshida T, Watanabe N. Otitis media with effusion: specific antibody activities against exotoxins in middle ear effusions. *Laryngoscope*. 1976;86:1043-1055.
- Mogi G. [Paranasal sinuses, middle ear, and allergy]. *Arerugi - Japanese Journal of Allergology*. 1995;44:1355-1360.
- Moher D, Pham B, Klassen TP, Schulz KF, Berlin JA, Jadad AR, Liberati A. What contributions do

- languages other than English make on the results of meta-analyses? *J Clinical Epi.* 2000; 53:964-72.
- Mohs E, Rodriguez-Solares A, Rivas E, el Hoshy Z. A comparative study of azithromycin and amoxicillin in paediatric patients with acute otitis media. *J-Antimicrob-Chemother.* 1993;73-79.
- Moissenet D, Guet L, Valcin M, et al. [Molecular epidemiology of pneumococci with decreased susceptibility to penicillin isolated in a Parisian pediatric hospital]. *Pathol Biol.* 1996;44:423-429.
- Mokry C. Otitis media in children [letter]. *N Engl J Med.* 1995;333:1151; discussion 1152.
- Mol JG, Appelman CLM, Hordijk GJ, de Melker RA, Touw-Otten FWMM, Leppink GJ. Double Blind Randomized Clinical Trial on the Effect of Different Treatments in Recurrent Acute Otitis Media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:226-227.
- Molina Jimenez FJ, Foguet Vidal A, Perez Alvarez F, Castillo Salinas F, Macia Marti J. [Conservative treatment of brain abscess in pediatrics: two case reports]. *An Esp Pediatr.* 1993;39:539-541.
- Moller P. Negative middle ear pressure and hearing thresholds in secretory otitis media. A double-blind crossover study with Lunerlin. *Scand-Audiol.* 1980;9:171-176.
- Moller P. Tympanosclerosis of the ear drum in secretory otitis media. *Acta Oto-Laryngologica - Supplement.* 1984;414:171-177.
- Moller P, Dingsor G. Otitis media with effusion: can erythromycin reduce the need for ventilating tubes? *J Laryngol Otol.* 1990;104:200-202.
- Moller H, Tos M. Point and period prevalence of otitis media with effusion evaluated by daily tympanometry. *J Laryngol Otol.* 1990;104:937-941.
- Moller H, Tos M. Daily impedance audiometric screening of children. Validity of impedance tympanoscope ZS331 compared with impedance audiometer AZ7. *Scand Audiol.* 1992;21:9-14.
- Moloungney B, Ruthnum P, Chan E. Case reports: invasive Haemophilus influenzae type a infections. *Can Commun Dis Rep.* 1997;23:82-84.
- Monsell EM, Harley RE. Eustachian tube dysfunction. *Otolaryngol Clin North Am.* 1996;29:437-444.
- Montalt J, Barona R, Armengot M, Basterra J. [Secretory middle ear otitis with severe sensorineural deafness]. *An Otorrinolaringol Ibero Am.* 1997;24:27-37.
- Montandon P, Benchaou M, Guyot JP. Modified canal wall-up mastoidectomy with mastoid obliteration for severe chronic otitis media. *ORL J Otorhinolaryngol Relat Spec.* 1995;57:198-201.
- Montgomery WW. Surgery for acoustic neurinomas: a proposal. *Ann Otol Rhinol Laryngol Suppl.* 1984;112:59-62.
- Moody SA, Alper CM, Doyle WJ. Daily tympanometry in children during the cold season: association of otitis media with upper respiratory tract infections. *Int J Pediatr Otorhinolaryngol.* 1998;45:143-150.
- Moon CN, Jr., Hahn M. Pneumatic otoscopy and impedance studies in middle ear diagnosis. *Laryngoscope.* 1978;88:1439-1448.
- Moore DC, Best GF. A sensorineural component in chronic otitis media. *Laryngoscope.* 1980;90:1360-1366.
- Moore DR, Hutchings ME, Meyer SE. Binaural masking level differences in children with a history of otitis media. *Audiology.* 1991;30:91-101.
- Moore DR, Lippe WR, Rubel EW. Effects of middle ear pressure on frequency representation in the central auditory system. *Hear Res.* 1995;89:93-100.
- Moran DM, Mutchie KD, Higbee MD, Paul LD. The use of an antihistamine-decongestant in conjunction with an anti-infective drug in the treatment of acute otitis media. *J Pediatr.* 1982;101:132-136.
- Moran DM, Mutchie KD, Higbee MD, Paul LD. Use of an antihistamine-decongestant in conjunction with an anti-infective drug in the treatment of acute otitis media. *J Pediatr.* 1982;101:132-136.
- Moran DG. A multicentre general practice study comparing pivampicillin (Pondocillin) and amoxicillin (Amoxil) in respiratory tract infections. *J Int Med Res.* 1983;11:370-374.

- Morgan DW, Sheno PM. Swimming in chlorinated water and its effect on Eustachian tube function. *J Laryngol Otol*. 1989;103:257-258.
- Morgenstern N, Jones-Crymes B. Analysis of tympanometry of a severe to profound hearing-impaired population of school-age children. *J Speech Hear Disord*. 1979;44:230-235.
- Morimitsu T, Tono T, Makino K, Miyanaga S, Ushisako Y. Improvement of the surgical technique of anterior tympanoplasty in cholesteatoma. *Rev Laryngol Otol Rhinol*. 1995;116:369-371.
- Morinaka S. Allergic otitis media with gelatinous mucoid fluid containing eosinophils. *Otolaryngol Head Neck Surg*. 1996;114:665-668.
- Morita T, Muraki Y, Awakura T, Shimada A, Umemura T. Detection of Mycoplasma hyorhinis in porcine eustachitis. *J Vet Med Sci*. 1993;55:475-477.
- Morita M, Matsunaga T. Sonotubometry with a tubal catheter as an index for the use of a ventilation tube in otitis media with effusion. *Acta Oto-Laryngologica - Supplement*. 1993;501:59-62.
- Morita T, Fukuda H, Awakura T, et al. Demonstration of Mycoplasma hyorhinis as a possible primary pathogen for porcine otitis media. *Vet Pathol*. 1995;32:107-111.
- Morita M, Harada T, Kubo T. Tubal function in otitis media with effusion and treatment with roxithromycin. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:213-215.
- Morizono T, Giebink GS, Paparella MM, Sikora MA, Shea D. Sensorineural hearing loss in experimental purulent otitis media due to Streptococcus pneumoniae. *Arch Otolaryngol*. 1985;111:794-798.
- Morris MS. Otitis media [letter; comment]. *Arch Otolaryngol Head Neck Surg*. 1995;121:1434-1436.
- Morrison AW. Phenethicillin and benzylpenicillin in acute otitis media. *Br Med J*. 1961;2:8-11.
- Morrison AW. The preoperative value of tympanometry. *Acta Otorhinolaryngol Belg*. 1974;28:442-449.
- Morrongiello BA. Infants' monaural localization of sounds: effects of unilateral ear infection. *J Acoust Soc Am*. 1989;86:597-602.
- Mortensen JE. Streptococcus pneumoniae, otitis media and antimicrobial breakpoints [letter; comment]. *Pediatr Infect Dis J*. 1997;16:537.
- Morton RP, Woollons AC, McIvor NP. Nasopharyngeal carcinoma and middle ear effusion: natural history and the effect of ventilation tubes. *Clin Otolaryngol Allied Sci*. 1994;19:529-531.
- Mosca F, Gagliardi P. Impedance audiometry in the follow-up of secretory otitis media. *Quaderni di Medicina e Chirurgia*. 1994;10:233-235.
- Mostafa BE. Detection of adenoidal hypertrophy using acoustic rhinomanometry. *Eur Arch Otorhinolaryngol Suppl*. 1997;1:S27-S29.
- Motohashi H, Kobayashi T, Toshima M, et al. A seven-year school screening for secretory otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:54-57.
- Motohiro T, Sakata Y, Fujimoto T, et al. [Absorption, excretion and clinical trials of cefroxadine in the field of pediatrics (author's transl)]. *Jpn-J-Antibiot*. 1981;34:1703-1731.
- Motohiro T, Tanaka K, Koga T, et al. [Fundamental and clinical studies of sulbactam/cefoperazone in the pediatric field]. *Jpn-J-Antibiot*. 1984;37:1898-1918.
- Motohiro T, Aramaki M, Oda K, et al. [Pharmacokinetic and clinical studies on cefprozil granules in the pediatric field]. *Jpn-J-Antibiot*. 1992;45:1700-1735.
- Motohiro T, Handa S, Yamada S, et al. [Pharmacokinetics and clinical effects of cefdinir 10% fine granules in pediatrics]. *Jpn-J-Antibiot*. 1992;45:74-86.
- Moustafa HM, Khalifa MA. Tympano-cartilago-stapedioplasty: a method to improve hearing in open technique tympanoplasty. *J Laryngol Otol*. 1990;104:942-944.
- Moxham J, Wiles CM, Newham D, Edwards RH. Sternomastoid muscle function and fatigue in man. *Clin Sci*. 1980;59:463-468.
- Muchnik C, Neeman RK, Hildesheimer M. Auditory brainstem response to bone-conducted clicks in adults and infants with normal hearing and conductive hearing loss. *Scand Audiol*. 1995;24:185-191.

- Muenker G. Results after Treatment of Otitis Media with Effusion. . *Proceedings of the Second International Symposium: Recent Advances in Otitis Media with Effusion*; 1980:308-311.
- Muffat-Joly M, Barry B, Henin D, Fay M, Gehanno P, Pocidalo JJ. Otogenic meningoenkephalitis induced by *Streptococcus pneumoniae* in gerbils. *Arch Otolaryngol Head Neck Surg*. 1994;120:925-930.
- Muhaimeid H, Zakzouk S, Bafaqeeh S. Epidemiology of chronic suppurative otitis media in Saudi children. *Int J Pediatr Otorhinolaryngol*. 1993;26:101-108.
- Mukherjee D, Stephens D. Otitis media with effusion in intellectually disabled children. *J Audiological Med*. 1997;6:10-23.
- Mukherji SK, Mancuso AA, Kotzur IM, et al. CT of the temporal bone: findings after mastoidectomy, ossicular reconstruction, and cochlear implantation. *AJR. American Journal of Roentgenology*. 1994;163:1467-1471.
- Muller O. Comparison of azithromycin versus clarithromycin in the treatment of patients with upper respiratory tract infections. *J-Antimicrob-Chemother*. 1993:137-146.
- Muller O. An open comparative study of azithromycin and roxithromycin in the treatment of acute upper respiratory tract infections. *J Antimicrob Chemother*. 1996;37:83-92.
- Mumtaz MA, Schwartz RH, Grundfast KM, Baumgartner RC. Tuberculosis of the middle ear and mastoid. *Pediatr Infect Dis*. 1983;2:234-236.
- Munker G, Tratzmuller A. Is there a drug therapy for secretory otitis media? *Laryngo Rhino Otologie*. 1989;68:647-652.
- Munro KJ, Benton CL, Marchbanks RJ. Sonotubometry findings in children at high risk from middle ear effusion. *Clin Otolaryngol Allied Sci*. 1999;24:223-227.
- Muntz HR. An overview of middle ear disease in cleft palate children. *Facial Plastic Surgery*. 1993;9:177-180.
- Muntz HR. The use of silly putty as an ear plug [letter]. *Arch Otolaryngol Head Neck Surg*. 1995;121:354.
- Murakami T, Tsubaki J, Tahara Y, Nagashima T. Gradenigo's syndrome: CT and MRI findings. *Pediatr Radiol*. 1996;26:684-685.
- Murph JR, Dusdieker LB, Booth B, Murph WE. Is treatment of acute otitis media with once-a-day amoxicillin feasible? Results of a pilot study [see comments]. *Clin-Pediatr-Phila*. 1993;32:528-534.
- Murphy KW. Deafness after topical neomycin. *Br Med J*. 1970;2:114.
- Murphy TP, Wallis DL. Hearing results in pediatric patients after canal-wall-up and canal-wall-down mastoid surgery. *Otolaryngol Head Neck Surg*. 1998;119:439-443.
- Murray AB, Anderson DO, Cambon KG, Moghadam HK, Robinson GC. A survey of hearing loss in Vancouver school children. II. The association between secretory otitis media and enlarged adenoids, infection and nasal allergy. *Cmaj*. 1968;98:995-1001.
- Mustain WD. Linguistic and educational implications of recurrent otitis media. *Ear Nose Throat J*. 1979;58:218-222.
- Mutlu C, Odabasi AO, Metin K, Basak S, Erpek G. Sensorineural hearing loss associated with otitis media with effusion in children. *Int J Pediatr Otorhinolaryngol*. 1998;46:179-184.
- Myer CMd, Farrer SM, Drake AF, Cotton RT. Perilymphatic fistulas in children: rationale for therapy. *Ear Hear*. 1989;10:112-116.
- Myer CM, 3rd, France A. Ventilation tube placement in a managed care population. *Arch Otolaryngol Head Neck Surg*. 1997;123:226-228.
- Myers EN, Donaldson WF. Editorial fairness and the "Cantekin affair" [see comments]. *Pediatr Infect Dis J*. 1993;12:265-267.
- Mygind N, Meistrup-Larsen KI, Thomsen J, Thomsen VF, Josefsson K, Sorensen H. Penicillin in acute otitis media: a double-blind placebo-controlled trial. *Clin-Otolaryngol*. 1981;6:5-13.
- Mygind N, Pedersen M. Nose-, sinus- and ear-symptoms in 27 patients with primary ciliary dyskinesia. *Eur J Respir Dis - Supplement*. 1983;127:96-101.

- Mylanus EA, Snik AF, Cremers CW. Influence of the thickness of the skin and subcutaneous tissue covering the mastoid on bone-conduction thresholds obtained transcutaneously versus percutaneously. *Scand Audiol*. 1994;23:201-203.
- Mössinger P. Zur Behandlung der Otitis media mit Pulsatilla. *Der Kinderarzt*. 1985;16.
- Naclerio R, Neely JG, Alford BR. A retrospective analysis of the intact canal wall tympanoplasty with mastoidectomy. *Am J Otol*. 1981;2:315-317.
- Nadel DM, Silverstein H, Olds MJ. A new prosthesis for reconstructing the incudostapedial joint. *Am J Otol*. 1997;18:540-543.
- Nadkarni TD, Bhayani R, Goel A, Karapurkar AP. Bilateral otogenic cerebellar abscesses. *J Postgrad Med*. 1993;39:38-39.
- Nadol JB, Jr., Eavey RD. Acute and chronic mastoiditis: clinical presentation, diagnosis, and management. *Curr Clin Top Infect Dis*. 1995;15:204-229.
- Nagorsky MJ. Radiation injury of the temporal bone. *Clin Plast Surg*. 1993;20:531-534.
- Naguib MB, Hunter RE, Henley CM. Cochlear polyamines: markers of otitis media-induced cochlear damage [published erratum appears in *Laryngoscope* 1995 Mar;105(3 Pt 1):329]. *Laryngoscope*. 1994;104:1003-1007.
- Nahata MC, Koranyi KI, Luke DR, Foulds G. Pharmacokinetics of azithromycin in pediatric patients with acute otitis media. *Antimicrob Agents Chemother*. 1995;39:1875-1877.
- Naidich TP. "How I do it"--otology and neurotology. A specific issue and its solution. Air CT canalography for the evaluation of the internal auditory canals. *Laryngoscope*. 1980;90:526-530.
- Naito T, Nakajima R, Nakamura T. Meatotomy tympanoplasty with special reference to the postoperative hearing. *Acta Otolaryngol*. 1969;67:471-482.
- Nakamura H, Miyazu M, Kasai K, Iwai N, Taneda Y. Studies on sultamicillin in the field of pediatrics. *Jpn J Antibiot*. 1988;41:1874-1894.
- Namyslowski G, Czecior E, Orecka B, Glowacki J. [Otogenic sigmoid sinus thrombosis in the course of chronic otitis media]. *Otolaryngol Pol*. 1995;49:451-456.
- Namyslowski G, Misiolek M. [Use of tarflen ventilation tubes in treatment of secretory otitis media in children]. *Pediatr Pol*. 1995;70:657-660.
- Namyslowski G, Misiolek M, Kubik P, Orecka B. [Clinical analysis of indications to ventilation tube removal in otitis media with effusion]. *Otolaryngol Pol*. 1995;49:209-213.
- Nanjyo S, Suga A. [Comparative study of clinical effects of cephalexin and aminobenzyl penicillin on acute suppurative inflammation of the middle ear by double blind test]. *Jibiinkoka*. 1970;42:719-724.
- Narcy P, Bobin S, Manach Y. Sero-mucoid otitis media in children. *Annales de Pediatrie*. 1984;31:939-943.
- Naremore RC. Influences of hearing impairment on early language development. *Ann Otol Rhinol Laryngol Suppl*. 1979;88:54-63.
- Narkio-Makela M, Jerop J, Meri S. Complement activation and expression of membrane regulators in the middle ear mucosa in otitis media with effusion. *Clin Exp Immunol*. 1999;116:401-409.
- Nassar WY, Allen BM. A double-blind comparative clinical trial of cephalexin and ampicillin in the treatment of childhood acute otitis media. *Curr-Med-Res-Opin*. 1974;2:198-203.
- Nassif PS, Simpson SQ, Izzo AA, Nicklaus PJ. Interleukin-8 concentration predicts the neutrophil count in middle ear effusion. *Laryngoscope*. 1997;107:1223-1227.
- Nastasi KJ, Blaiss MS. A seven-year-old boy with sinusitis, otitis media, and asthma [clinical conference]. *Annals of Allergy*. 1994;73:15-20.
- Nathoo N, Nadvi S, van der Merwe R. Spontaneous drainage of an infratentorial extradural empyema: case report. *Br J Neurosurg*. 1997;11:75-77.
- Naunton RF. Tympanostomy tubes: the conservative approach. *Ann Otol Rhinol Laryngol*. 1981;90:529-532.
- Nayak AK, Karnad D, Mahajan MV, Shah A, Meisheri YV. Cerebellar venous infarction in chronic suppurative otitis media. A case report with review of four other cases. *Stroke*. 1994;25:1058-1060.

- Ndip RN, Obi MC, Obi CL, Nwawolo C, Igumbor EO, Obi AA. Antibiogram of bacterial isolates from cases of otitis media and lower respiratory tract infections. *Afr J Med Med Sci*. 1995;24:353-357.
- Needleman H. Effects of hearing loss from early recurrent otitis media on speech and language development. In: BF J, ed. *Hearing loss in children: A comprehensive text*. Baltimore: University Park Press; 1972:640-649.
- Needleman H. Effects of hearing loss from early recurrent otitis media on speech and language development. In: B J, ed. *Hearing Loss in Children*. Baltimore: University Park Press; 1977:640-649.
- Neel HB, 3rd, McDonald TJ. Symposium. ENT for nonspecialists. Common otologic symptoms. *Postgrad Med*. 1975;57:59-63.
- Neel HBd, Keating LW, McDonald TJ. Ventilation in secretory otitis media: effects on middle ear volume and eustachian tube function. *Arch Otolaryngol*. 1977;103:228-231.
- Neely JG. Classification of spontaneous cerebrospinal fluid middle ear effusion: review of forty-nine cases. *Otolaryngol Head Neck Surg*. 1985;93:625-634.
- Neely JG, Kuhn JR. Diagnosis and treatment of iatrogenic cerebrospinal fluid leak and brain herniation during or following mastoidectomy. *Laryngoscope*. 1985;95:1299-1300.
- Neff PA, Cantrell RW. Assessment by audiometry testing: three case reports. *Laryngoscope*. 1977;87:1052-1065.
- Neil JF, Harrison SH, Morbey RD, Robinson GA, Tate GM, Tate HT. Deafness in acute otitis media. *Br Med J*. 1966;5479:75-77.
- Nelson JD, Ginsburg CM, Mclelland O, Clahsen J, Culbertson MCJ, Carder H. Concentrations of antimicrobial agents in middle ear fluid, saliva and tears. *Int J Pediatr Otorhinolaryngol*. 1981;3:327-334.
- Nelson SM, Berry RI. Ear disease and hearing loss among Navajo children--a mass survey. *Laryngoscope*. 1984;94:316-323.
- Nelson JD, McCracken GH, Jr. The perils of persistent effusion. *Pediatr Infect Dis J*. 1990;9.
- Nelson CT, Mason EO, Jr., Kaplan SL. Activity of oral antibiotics in middle ear and sinus infections caused by penicillin-resistant *Streptococcus pneumoniae*: implications for treatment. *Pediatr Infect Dis J*. 1994;13:585-589.
- Nemzek WR, Brodie HA, Chong BW, et al. Imaging findings of the developing temporal bone in fetal specimens. *Ajnr: American Journal of Neuroradiology*. 1996;17:1467-1477.
- Neustrom MR. Immunologic evaluation of the child with recurrent otitis media [letter]. *Ear Nose Throat J*. 1997;76:584.
- Newberg LB, Ling V, Shamsuddin AM. Microscopic analysis of the mastoid bone in chronic serous otitis media. *Laryngoscope*. 1985;95:921-923.
- Newton AP. The follow up of acute otitis media in general practice. *J R Nav Med Serv*. 1995;81:127-134.
- Newton VE, Liu X, Ke X, Xu L, Bamford JM. Evaluation of the use of a questionnaire to detect hearing loss in babies in China. *Int J Pediatr Otorhinolaryngol*. 1999;48:125-129.
- Ng PC, Hiu J, Fok TF, Nelson EA, Cheung KL, Wong W. Isolated congenital tuberculosis otitis in a preterm infant. *Acta Paediatr*. 1995;84:955-956.
- Nguyen HD, Simonson TM, Fisher DJ, et al. MR evaluation of acoustic schwannoma with fractional contrast doses. *J Comput Assist Tomogr*. 1995;19:23-27.
- Nicklaus P, Dutcher PO, Kido DK, Hengerer AS, Nelson CN. New imaging techniques in diagnosis of cerebrospinal fluid fistula. *Laryngoscope*. 1988;98:1065-1068.
- Niebuhr-Jorgensen M. Autoinflation as a treatment of otitis media in children younger than three years. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:212-213.
- Niederman. Proceedings of the Fourth International Symposium of Recent Advances in Otitis Media. . 1988:273-275.
- Nield LS. Index of suspicion. Case 1. Diagnosis: Balance disturbance secondary to middle ear effusion. *Pediatr Rev*. 1994;15:369-370.

- Nielsen KO, Bak-Pedersen K. Otosurgery of incipient adhesive otitis media in children. *J Laryngol Otol.* 1984;98:341-345.
- Niemela M, Uhari M, Jounio-Ervasti K, Luotonen J, Alho OP, Vierimaa E. Lack of specific symptomatology in children with acute otitis media. *Pediatr Infect Dis J.* 1994;13:765-768.
- Niemela M, Uhari M, Hannuksela A. Pacifiers and dental structure as risk factors for otitis media. *Int J Pediatr Otorhinolaryngol.* 1994;29:121-127.
- Niemela M, Uhari M, Lautala P, Huggare J. Association of recurrent acute otitis media with nasopharynx dimensions in children. *J Laryngol Otol.* 1994;108:299-302.
- Niemela M, Uhari M, Mottonen M. A pacifier increases the risk of recurrent acute otitis media in children in day care centers. *Pediatrics.* 1995;96:884-888.
- Nieminen T, Virolainen A, Kayhty H, et al. Antibody-secreting cells and their relation to humoral antibodies in serum and in nasopharyngeal aspirates in children with pneumococcal acute otitis media. *J Infect Dis.* 1996;173:136-141.
- Nienhuys T, Westwater A, Dillon H, McConnel F. Developmental and educational effects of conductive hearing loss among Australian aboriginal children and implications for educational management. *Arctic Med Res.* 1991;Suppl:642-645.
- Nienhuys T, Sherwood J, Bush J. Hearing loss in a sample of central Sydney Aboriginal schoolchildren. *Australian Journal of Audiology.* 1991;13:13-19.
- Nienhuys TG, Boswell JB, McConnel FB. Middle ear measures as predictors of hearing loss in Australian aboriginal schoolchildren. *Int J Pediatr Otorhinolaryngol.* 1994;30:15-27.
- Niezgoda JA, Cianci P, Folden BW, Ortega RL, Slade JB, Storrow AB. The effect of hyperbaric oxygen therapy on a burn wound model in human volunteers. *Plast-Reconstr-Surg.* 1997;99:1620-1625.
- Nigam A, Samuel PR. Hyperacusis and Williams syndrome. *J Laryngol Otol.* 1994;108:494-496.
- Nikolaou A, Bourikas Z, Maltas V, Aidonis A. Ossiculoplasty with the use of autografts and synthetic prosthetic materials: a comparison of results in 165 cases. *J Laryngol Otol.* 1992;106:692-694.
- Nilson BW, Poland RL, Thompson RS, Morehead D, Baghdassarian A, Carver DH. Acute otitis media: treatment results in relation to bacterial etiology. *Pediatrics.* 1969;43:351-358.
- Niparko JK, Kemink JL, Graham MD, Kartush JM. Bioactive glass ceramic in ossicular reconstruction: a preliminary report. *Laryngoscope.* 1988;98:822-825.
- Nishimura R, Baba Y, Murakami R, et al. MR evaluation of radiation otomastoiditis. *Int J Radiat Oncol Biol Phys.* 1997;39:155-160.
- Nishioka K, Masuda Y, Okada S, Takata N, Tasaka S, Ogura Y. Bilateral sensorineural hearing loss associated with Mycoplasma pneumoniae infection. *Laryngoscope.* 1987;97:1203-1206.
- Nishioka SdA. Risk factors for acute otitis media [letter; comment]. *Clin Infect Dis.* 1997;24:283-284.
- Nissen AJ, Bui H. Complications of chronic otitis media. *Ear Nose Throat J.* 1996;75.
- Nissinen A, Gronroos P, Huovinen P, et al. Development of beta-lactamase-mediated resistance to penicillin in middle-ear isolates of Moraxella catarrhalis in Finnish children, 1978-1993. *Clin Infect Dis.* 1995;21:1193-1196.
- Nissinen A, Leinonen M, Huovinen P, et al. Antimicrobial resistance of Streptococcus pneumoniae in Finland, 1987-1990. *Clin Infect Dis.* 1995;20:1275-1280.
- Nittrouer S. The relation between speech perception and phonemic awareness: evidence from low-SES children and children with chronic OM. *J Speech Hear Res.* 1996;39:1059-1070.
- Nizet V, Colina KF, Almquist JR, Rubens CE, Smith AL. A virulent nonencapsulated Haemophilus influenzae. *J Infect Dis.* 1996;173:180-186.
- Noguera JT, Haase FR. Tympanoplasty. Results at twelve and twenty-four months. *Journal of the Medical Society of New Jersey.* 1969;66:507-509.
- Noordzij JP, Dodson EE, Ruth RA, Arts HA, Lambert PR. Chronic otitis media and sensorineural hearing loss: is there a clinically significant relation? *Am J Otol.* 1995;16:420-423.
- Northern JL. Advanced techniques for measuring middle ear function. *Pediatrics.* 1978;61:761-767.

- Northern JL. Impedance screening. An integral part of hearing screening. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:233-235.
- Northern JL, Downs MP. Hearing in children. Baltimore: Williams & Wilkins; 1991.
- Novak J. To pathogenesis of subjective tinnitus aurium in adhesive middle-ear processes. *Sbornik Vedeckych Praci Lekarske Fakulty Karlovy Univerzity V Hradci Kralove.* 1969;12:141-147.
- Novick KK. Talking with toddlers. *Psychoanal Study Child.* 1986;41:277-286.
- Nowak-Sadzikowska J, Heczko PB. [Moraxella catarrhalis as an important etiologic factor in infection of the lower bronchial tree]. *Pneumonol Alergol Pol.* 1994;62:530-532.
- Nozza RJ. Auditory Deficit in Infants with Otitis Media with Effusion: More Than a "Mild" Hearing Loss. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:376-379.
- Nozza RJ. Audiologic considerations: Beyond the threshold. *Ann Otol Rhinol Laryngol.* 1990;99:34-36.
- Nozza RJ, Bluestone CD, Kardatzke D, Bachman R. Towards the validation of aural acoustic immittance measures for diagnosis of middle ear effusion in children. *Ear Hear.* 1992;13:442-453.
- Nozza RJ, Bluestone CD, Kardatzke D, Bachman R. Identification of middle ear effusion by aural acoustic admittance and otoscopy. *Ear Hear.* 1994;15:310-323.
- Nozza RJ. The effects of mild hearing loss on infant auditory function. *Infant-Toddler Intervention.* 1994;4:285-298.
- Nozza RJ. Critical issues in acoustic-immittance screening for middle ear effusion. *Semin Hear.* 1995;16:89-98.
- Nozza RJ. The Assessment of Hearing and Middle-Ear Function in Children. In: Bluestone CD, Stool SE, and Kenna MA, editors. *Pediatric otolaryngology.* Philadelphia: W.B. Saunders Company. 1996. p. 165-206.
- Nozza RJ, Sabo DL, Mandel EM. A role for otoacoustic emissions in screening for hearing impairment and middle ear disorders in school-age children. *Ear Hear.* 1997;18:227-239.
- Nsouli TM, Nsouli SM, Linde RE, O'Mara F, Scanlon RT, Bellanti JA. Role of food allergy in serous otitis media [see comments]. *Annals of Allergy.* 1994;73:215-219.
- Nunez DA. Otitis media [letter; comment]. *J R Soc Med.* 1993;86:120.
- Nunn DR, Derkay CS, Darrow DH, Magee W, Strasnick B. The effect of very early cleft palate closure on the need for ventilation tubes in the first years of life. *Laryngoscope.* 1995;105:905-908.
- Nurbaev M. [Chronic purulent otitis media complicated with cholesteatoma, fistula and polyp of the external ear canal]. *Vestn Otorinolaringol.* 1993:47.
- Nuutinen J, Karja J, Karjalainen P. Measurement of mucociliary function of the eustachian tube. *Arch Otolaryngol.* 1983;109:669-672.
- Nuutinen J, Torkkeli T, Penttila I. The pH of secretions in sinusitis and otitis media. *J Otolaryngol.* 1993;22:79-82.
- Nylen O, Alestig K, Fasth A, et al. Infections of the ear with nontuberculous mycobacteria in three children. *Pediatr Infect Dis J.* 1994;13:653-656.
- O'Brien KL, Steinhoff MC, Edwards K, Keyserling H, Thoms ML, Madore D. Immunologic priming of young children by pneumococcal glycoprotein conjugate, but not polysaccharide, vaccines. *Pediatr Infect Dis J.* 1996;15:425-430.
- O'Brien DM. Cases from the aerospace medicine resident's teaching file :65. Complicated diagnosis of left ear pain and facial weakness in an aviator [clinical conference]. *Aviat Space Environ Med.* 1996;67:787-789.
- O'Connor AF, Moffat DA. Otogenic intracranial hypertension. Otitic hydrocephalus. *J Laryngol Otol.* 1978;92:767-775.
- O'Connor RD, Ort H, Leong AB, Cook DA, Street D, Hamburger RN. Tympanometric changes following nasal antigen challenge in children with allergic rhinitis. *Annals of Allergy.* 1984;53:468-471.
- O'Doherty B. An open comparative study of azithromycin versus cefaclor in the treatment of patients with upper respiratory tract infections. *J-Antimicrob-Chemother.* 1996:71-81.

- O'Neill JV, Katz AH, Skolnik EM. Otologic complications of radiation therapy. *Otolaryngology and Head and Neck Surgery*. 1979;87:359-363.
- O'Reilly MF. Functional analysis of episodic self-injury correlated with recurrent otitis media. *J Appl Behav Anal*. 1997;30:165-167.
- O'Shea JS, Langenbrunner DJ, McCloskey DE, Pezzullo JC, Regan JB. Diagnostic and therapeutic studies in childhood serous otitis media. Results of treatment with an antihistamine-adrenergic combination. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1980;89:285-289.
- O'Shea JS, Langenbrunner DJ, McCloskey DE, Pezzullo JC, Regan JB. Childhood serous otitis media: fifteen months' observations of children untreated compared with those receiving an antihistamine-adrenergic combination. *Clin-Pediatr-Phila*. 1982;21:150-153.
- O'Shea JS, Regan JB, Langenbrunner DJ, Pezzullo JC. Childhood otitis media with effusion: six-year follow-up. *J Otolaryngol*. 1986;15:303-305.
- O'Tuama LA, Swanson MS. Development of paranasal and mastoid sinuses: a computed tomographic pilot study. *J Child Neurol*. 1986;1:46-49.
- Obi CL, Enweani IB, Giwa JO. Bacterial agents causing chronic suppurative otitis media. *East Afr Med J*. 1995;72:370-372.
- Ochsner SF. Eosinophilic granuloma of bone; experience with 20 cases. *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*. 1966;97:719-726.
- Odabasi O, Basak O, Basak S, Mutlu C, Erpek G. Middle ear pathology in day-care centre children. *Fam Pract*. 1998;15:332-335.
- Odio CM, Kusmiesz H, Shelton S, Nelson JD. Comparative treatment trial of augmentin versus cefaclor for acute otitis media with effusion. *Pediatrics*. 1985;75:819-826.
- Ogale SB, Desouza C, Sheode J, Shah KL. The styloid process in ossicular chain reconstruction (a pilot study). *J Laryngol Otol*. 1988;102:136-137.
- Ogale SB, Dutt SN, Thakur S, Pawar M. The styloid process in ossicular chain reconstruction. II: Long-term analysis. *J Laryngol Otol*. 1994;108:111-112.
- Ogale SB, Mahajan SB, Dutt S, Sheode JH. Fate of middle ear implants. *Auris Nasus Larynx*. 1997;24:151-157.
- Ogaro FO, Orinda VA, Onyango FE, Black RE. Effect of vitamin A on diarrhoeal and respiratory complications of measles. *Trop-Geogr-Med*. 1993;45:283-286.
- Ogawa H, Hashigucci K, Kazuyama Y. [Association of Chlamydia pneumoniae infection with otitis media with effusion]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:29-34.
- Ogino S, Harada T, Matsunaga T, Tominaga Y. Use of Tranilast [N-(3,4-dimethoxycinnamoyl) anthranilic acid] in secretory otitis media. *Annals of Allergy*. 1992;68:407-412.
- Ogisi FO. Impedance screening for otitis media with effusion in Nigerian children. *J Laryngol Otol*. 1988;102:986-988.
- Ogle JW, Lauer BA. Acute mastoiditis. Diagnosis and complications. *Am J Dis Child*. 1986;140:1178-1182.
- Oh HM. Upper respiratory tract infections - otitis media, sinusitis and pharyngitis. *Singapore Med J*. 1995;36:428-431.
- Oh PI, Maerov P, Pritchard D, Knowles SR, Einarson TR, Shear NH. A cost-utility analysis of second-line antibiotics in the treatment of acute otitis media in children. *Clin Ther*. 1996;18:160-182.
- Ohashi Y, Nakai Y, Ohno Y, et al. Influenza A modification of endotoxin-induced otitis media with effusion in the guinea pig. *Eur Arch Otorhinolaryngol*. 1993;250:27-32.
- Ohashi Y, Nakai Y, Ohno Y, Sugiura Y, Okamoto H. Effects of human middle ear effusions on the mucociliary system of the tubotympanum in the guinea pig. *Eur Arch Otorhinolaryngol*. 1995;252:35-41.
- Ohnishi T, Mochizuki M, Hongo S. Complications of Otitis Media with Effusion in Japanese Children. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:360-364.

- Ohnishi T, Shirahata Y, Fukami M, Hongo S. The atelectatic ear and its classification. *Auris Nasus Larynx*. 1985;12:S211-S213.
- Ohnishi T. Sequelae of otitis media with effusion and its classification. *Otolaryngology*. 1985;57:29-35.
- Ohsaki K, Shibata A, Yamashita S, et al. Demonstrations of de- and remineralization mechanism as revealed in synthetic auditory ossicle (Apaceram) of rats by laser-Raman spectrometry. *Cell Mol Biol*. 1995;41:1155-1167.
- Oishi K, Tanaka H, Sonoda F, et al. A monoclonal antibody reactive with a common epitope of *Moraxella* (Branhamella) catarrhalis lipopolysaccharides. *Clin Diagn Lab Immunol*. 1996;3:351-354.
- Oja H, Alho OP, Laara E. Model-based estimation of the excess fraction (attributable fraction): day care and middle ear infection. *Stat Med*. 1996;15:1519-1534.
- Ojala K, Palva A, Sorri M. Late changes in hearing results after mastoid obliteration with tympanoplasty. *Arch Otolaryngol*. 1982;108:569-573.
- Ojala K, Sorri M. The preoperative state of infection in chronic otitis media correlated with postoperative hearing results. *Arch Otorhinolaryngol*. 1982;234:253-262.
- Ojala K, Sorri M, Vainio-Mattila J. Bacteriological studies after oblitative mastoid operations. *Clin Otolaryngol Allied Sci*. 1982;7:81-86.
- Ojala K, Sipila P, Sorri M, Karma P. Role of atopic allergy in chronic otitis media. Evaluation based on serum IgE and nasal/aural cytologic findings in patients with operated chronic ears. *Acta Otolaryngol*. 1982;93:55-60.
- Ojala K, Sorri M. Late post-operative hearing results correlated with the severity of tissue changes in ears with chronic otitis media. *J Laryngol Otol*. 1983;97:131-139.
- Ojala K, Sorri M, Vainio-Mattila J, Sipila P. Late results of tympanoplasty using ossicle or cortical bone. *J Laryngol Otol*. 1983;97:19-25.
- Ojeda-Vargas M, Monzon-Moreno C, Gonzalez-Romero D, Martin-Sanchez AM. [Cerebral abscess of otic origin caused conjointly by *Proteus mirabilis* and *Alcaligenes faecalis* (letter)]. *Enferm Infecc Microbiol Clin*. 1995;13:635.
- Okamoto Y, Kudo K, Ishikawa K, et al. Presence of respiratory syncytial virus genomic sequences in middle ear fluid and its relationship to expression of cytokines and cell adhesion molecules. *J Infect Dis*. 1993;168:1277-1281.
- Okamura R. [Studies on total nerve fibers of chorda tympani nerve in man]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:28-37.
- Okeke EN, Juryit Z, Ikeh EI. Open clinical trial of roxithromycin in patients of Plateau Hospitals, Jos in upper and lower respiratory tract infections. *West Afr J Med*. 1995;14:238-241.
- Okeowo PA, Casselbrant ML, Flaherty MR, et al. Prevalence of otitis media with effusion in a group of preschool children in the United States. *Ann Otol Rhinol Laryngol*. 1983;96.
- Okeowo PA. An assessment of the sequelae of untreated secretory otitis media in Nigerian children. *J Trop Pediatr*. 1985;31:216-218.
- Okitsu T, Kobayashi T, Endo S, et al. Tympanograms of otitis media with effusion: an experimental study. *Auris Nasus Larynx*. 1985;12:S222-S224.
- Okitsu T, Yoshida S, Shoji F, Taniguchi K. Acute otitis media accompanied by sensorineural hearing loss. *Practica Otolologica*. 1992;85:351-358.
- Okonska H, Krzeska-Malinowska I, Moszynski B. [Sensorineural hearing loss in the course of acute otitis media]. *Otolaryngol Pol*. 1995;49:138-142.
- Okumura T, Takahashi H, Honjo I, Takagi A, Azato R. Magnetic resonance imaging of patients with large vestibular aqueducts. *European Archives of Oto Rhino Laryngology*. 1996;253:425-428.
- Olalla I, Ortin M, Hermida G, et al. Autologous peripheral blood stem cell transplantation in a patient with previous invasive middle ear mucormycosis. *Bone Marrow Transplant*. 1996;18:1183-1184.
- Olling S, Lind L, Roos K, Karlsson G, Granstrom G, Renvall U. Cytological and bacteriological aspects of secretory otitis media. *APMIS*. 1990;98:896-900.
- Olofsson K, Hellstrom S, Hammarstrom ML. Abundance of intraepithelial gamma delta T cells in

- hypertrophic obstructive but not in chronically infected adenoids. *Clin Exp Immunol*. 1996;106:396-403.
- Olopoenia L, Young M, White D, Barnes S, Rahbar F, Fomufod A. Intravenous immunoglobulin in symptomatic and asymptomatic children with perinatal HIV infection. *J-Natl-Med-Assoc*. 1997;89:543-547.
- Olsen WO. Artificial mastoid calibration of bone vibrators. *Arch Otolaryngol*. 1967;85:314-318.
- Olson AL, Klein SW, Charney E, et al. Prevention and therapy of serous otitis media by oral decongestant: a double-blind study in pediatric practice. *Pediatrics*. 1978;61:679-684.
- Oluwole M, Mills RP. Methods of selection for adenoidectomy in childhood otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1995;32:129-135.
- Omura F, Makino K, Amatsu M, Itoh H. The role of middle ear effusions and epidermal growth factor in cholesteatoma formation in the gerbilline temporal bone. *Eur Arch Otorhinolaryngol*. 1995;252:428-432.
- Ondrey FG, Juhn SK, Adams GL. Early-response cytokine expression in adult middle ear effusions. *Otolaryngol Head Neck Surg*. 1998;119:342-345.
- Ones U, Sapan N, Somer A, et al. Prevalence of childhood asthma in Istanbul, Turkey. *Allergy*. 1997;52:570-575.
- Onion DK, Taylor C. The epidemiology of recurrent otitis media. *Am J Public Health*. 1977;67:472-474.
- Oppenheimer P. Short-term steroid therapy. Treatment of serous otitis media in children. *Arch Otolaryngol*. 1968;88:138-140.
- Orchik DJ, Morff R, Dunn JW. Impedance audiometry in serous otitis media. *Arch Otolaryngol*. 1978;104:409-412.
- Orchik DJ, Dunn JW, McNutt L. Tympanometry as a predictor of middle ear effusion. *Arch Otolaryngol*. 1978;104:4-6.
- Orchik DJ, Morff R, Dunn JW. Middle ear status at myringotomy and its relationship to middle ear immittance measurements. *Ear Hear*. 1980;1:324-328.
- Ordonez GE, Kime CE, Updegraff WR, et al. Effective treatment of acute, diffuse otitis externa. I. A controlled comparison of hydrocortisone-acetic acid, nonaqueous and hydrocortisone-neomycin-polymyxin B otic solutions. *CURR-THER-RES, CLIN-EXP*. 1978;23:SS3-SS14.
- Orlin MN, Effgen SK, Handler SD. Effect of otitis media with effusion on gross motor ability in preschool-aged children: preliminary findings. *Pediatrics*. 1997;99:334-337.
- Orvidas LJ, Fabry LB, Diacova S, McDonald TJ. Hearing and otopathology in Crouzon syndrome. *Laryngoscope*. 1999;109:1372-1375.
- Oski FA. Infant nutrition, physical growth, breastfeeding, and general nutrition. *Curr Opin Pediatr*. 1994;6:361-364.
- Ostapkovich VY. Influence of ear diseases on occupational hearing impairment. *Zhurnal Ushnykh, Nosovykh i Gorlovykh Bolezney*. 1983;43:14-18.
- Ostergard CA, Carter DR. Positive middle ear pressure shown by tympanometry. *Arch Otolaryngol*. 1981;107:353-356.
- Ostfeld E. Otitis media: the middle ear effusion total white cell count. *Am J Otol*. 1984;5:382-386.
- Ostri B, Bak-Pedersen K. Surgical management of labyrinthine fistulae in chronic otitis media with cholesteatoma by a one-stage closed technique. *ORL J Otorhinolaryngol Relat Spec*. 1989;51:295-299.
- Ostrovskii AI. [Reconstruction of the ossicle-tympanic system with a variable configuration prosthesis]. *Vestn Otorinolaringol*. 1995:37-39.
- Ostrovskii AI. [Tympanoplasty in massive destruction of bony walls of the tympanic cavity]. *Vestn Otorinolaringol*. 1995:34-36.
- Ottaviani A, Mantovani M, Scaricabarozzi I. A multicentre clinical study of nimesulide in inflammatory diseases of the ear, nose and throat. *Drugs*. 1993;46:96-99.
- Otten FW, Grote JJ. Otitis media with effusion and chronic upper respiratory tract infection in children: a randomized, placebo-controlled clinical study. *Laryngoscope*. 1990;100:627-633.
- Ovchinnikov Iu M, Dobrotin VE, Tsukerberg LI, Filimonov GP, Fedorenko VD. [Role of

- computerized tomography in the diagnosis of osteomas of the sphenoid sinus with intracranial extension]. *Vestn Otorinolaringol.* 1994;11-14.
- Ovesen T, Ledet T. Bacteria and endotoxin in middle ear fluid and the course of secretory otitis media. *Clin Otolaryngol Allied Sci.* 1992;17:531-534.
- Ovesen T, Paaske PB, Elbrond O. Accuracy of an automatic impedance apparatus in a population with secretory otitis media: principles in the evaluation of tympanometrical findings. *Am J Otolaryngol.* 1993;14:100-104.
- Ovesen T, Gaihede M, Ledet T. The effect of N-acetylcysteine on the in vitro growth of normal rabbit middle ear fibroblasts. *Clin Otolaryngol.* 1993;18:400-405.
- Ovesen T, Gaihede M, Elbrond O. The influence of endotoxin upon middle ear fibroblasts cultured in normal middle ear gas and atmospheric air. *APMIS.* 1994;102:743-752.
- Ovesen T, Gaihede M, Ledet T. In vitro growth and collagen synthesis in fibroblasts from the rabbit middle ear mucosa. *Eur Arch Otorhinolaryngol.* 1994;251:257-262.
- Ovesen T, Paaske P, Ledet T, Elbrond O. Immunohistochemical quantitation of collagen types I, II, IV and V in the ventilated and non-ventilated rabbit middle ear with otitis media with effusion. *Eur Arch Otorhinolaryngol.* 1994;251:137-142.
- Ovesen T. Implications of middle ear hyperoxia induced by ventilation tubes in otitis media with effusion. *Apmis. Supplementum.* 1995;54:1-36.
- Ovesen T, Borglum JD. New aspects of secretory otitis media, eustachian tube function and middle ear gas. *Ear Nose Throat J.* 1998;77.
- Owen MJ, Norcross K, Howie VM, Dussack L, Boone BD. Brainstem Auditory Evoked Potentials in Children with Tympanostomy Tubes. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:379-382.
- Owen MJ, Anwar R, Nguyen HK, Swank PR, Bannister ER, Howie VM. Efficacy of cefixime in the treatment of acute otitis media in children. *Am-J-Dis-Child.* 1993;147:81-86.
- Owen MJ, Baldwin CD, Swank PR, Pannu AK, Johnson DL, Howie VM. Relation of infant feeding practices, cigarette smoke exposure, and group child care to the onset and duration of otitis media with effusion in the first two years of life. *J Pediatr.* 1993;123:702-711.
- Owen MJ, Norcross-Nechay K, Howie VM. Brainstem auditory evoked potentials in young children before and after tympanostomy tube placement. *Int J Pediatr Otorhinolaryngol.* 1993;25:105-117.
- Owen MJ, Johnson DL, Swank PR, Baldwin CD, Aker J, Howie VM. Duration of otitis media with effusion from birth to 3 years of age related to language and cognitive scores at 5 years. In: Lim DJ BC, Casselbrant M, Klein JO, Ogra P, ed. *Recent Advances in Otitis Media: Proceedings of the Sixth International Symposium.* Hamilton, Ontario: B.C. Decker Inc; 1996:329-331.
- Owen MJ, Hornberger B, Pohl JF, Chonmaitree T, Howie VM. Bacteriologic and clinical efficacy of ceftriaxone in the treatment of acute otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:238-241.
- Owens RC, Jr., Nightingale CH, Nicolau DP. Ceftributen: an overview. *Pharmacotherapy.* 1997;17:707-720.
- Oyeka CA, Oyeka IC, Okeke GN. Prevalence of bacterial otitis media in primary school children in Enugu Surburb, Enugu state, Nigeria. *West Afr J Med.* 1995;14:78-81.
- Oyelami OA, Aladekomo TA, Ononye FO. A 10 year retrospective evaluation of cases of post neonatal tetanus seen in a paediatric unit of a university teaching hospital in south western Nigeria (1985 to 1994). *Cent Afr J Med.* 1996;42:73-75.
- Oyiborhoro JM, Olaniyan SO, Newman CW, Balakrishnan SL. Efficacy of acoustic otoscope in detecting middle ear effusion in children. *Laryngoscope.* 1987;97:495-498.
- Ozagar A, Koc A, Ciprut A, Tutkun A, Akdas F, Sehitoglu MA. Effects of topical otic preparations on hearing in chronic otitis media. *Otolaryngol-Head-Neck-Surg.* 1997;117:405-408.
- Ozagar A, Koc A, Ciprut A, Tutkun A, Akdas F, Sehitoglu MA. Effects of topical otic preparations on

- hearing in chronic otitis media [see comments]. *Otolaryngol Head Neck Surg.* 1997;117:405-408.
- Ozcelik T, Ataman M, Gedikoglu G. An unusual presentation: primary tuberculosis of the middle ear cleft. *Tuber Lung Dis.* 1995;76:178-179.
- Ozcelik T, Ozgirgin N, Ozcelik U, Gocmen A, Gurcan B, Kiper N. Auditory nerve-brainstem responses in cystic fibrosis patients. *Int J Pediatr Otorhinolaryngol.* 1996;35:165-169.
- Ozsoylu S. Therapy for acute otitis media [letter; comment]. *Arch Pediatr Adolesc Med.* 1996;150:1315.
- Paap CM. Management of otitis media with effusion in young children. *Ann Pharmacother.* 1996;30:1291-1297.
- Paavolainen M. Incidence, etiology and prognosis of acute purulent otitis media in Helsinki residents of various ages. *Acta Otolaryngol.* 1966;Suppl:360+.
- Paden EP, Novak MA, Beiter AL. Predictors of phonologic inadequacy in young children prone to otitis media. *J Speech Hear Disord.* 1987;52:232-242.
- Paden EP, Matthies ML, Novak MA. Recovery from OME-related phonologic delay following tube placement. *J Speech Hear Disord.* 1989;54:94-100.
- Pagano M, Africano R, Lo Pinto G. [Wegener granulomatosis: a clinical case with parossistic positional vertigo due to involvement of the lateral semicircular canal]. *Acta Otorhinolaryngol Ital.* 1996;16:438-440.
- Page JM. Audiology: a problem oriented approach. *Otolaryngol Clin North Am.* 1978;11:801-811.
- Pahor AL, Sozen N, Beetham R, Raine DN. Immunoelectrophoretic study of proteins in middle ear effusion. A study of secretory otitis media in children. *J Laryngol Otol.* 1976;90:1033-1040.
- Pahor AL. An early history of secretory otitis media. *J Laryngol Otol.* 1978;92:543-560.
- Pal'chun VT, Kriukov AI, Uzdennikov AA, Ogorodnikov DS, Pakhomov IL. [The potentials for using paracetamol in otorhinolaryngology]. *Vestn Otorinolaringol.* 1994:43-46.
- Palfrey JS, Hanson MA, Pleszczynska C, Norton S, Levine MD. Selective hearing screening for young children. *Clin Pediatr.* 1980;19:473-477.
- Pallestrini E, Cimino A, Colletti V, et al. Comparative study of rifloxacin versus clarithromycin in the short term treatment of patients with otorhinolaryngological infections. *Rivista Italiana Di Otorinolaringologia Audiologia e Foniatria.* 1995;15:236-245.
- Pallin JL, Behrends WH, Jr., Gilmartin LJ. Middle ear ventilation tubes. *J Fla Med Assoc.* 1978;65:717-719.
- Palmgren O. Long-term results of open cavity and tympanomastoid surgery of the chronic ear. *Acta Otolaryngol.* 1979;88:343-349.
- Palmisano JM, Moler FW, Revesz SM, Custer JR, Koopmann C. Chronic otitis media requiring ventilation tubes in tracheotomized ventilator dependent children. *Int J Pediatr Otorhinolaryngol.* 1994;30:177-182.
- Palmu A, Puhakka H, Rahko T, Takala AK. Diagnostic value of tympanometry in infants in clinical practice. *Int J Pediatr Otorhinolaryngol.* 1999;49:207-213.
- Palva T, Palva A, Salmivalli A. Radical mastoidectomy with cavity obliteration. *Arch Otolaryngol.* 1968;88:119-123.
- Palva T, Palva A, Dammert K. Middle ear mucosa and chronic ear disease. *Arch Otolaryngol.* 1968;87:3-11.
- Palva T, Palva A, Karja J. Myringoplasty. *Ann Otol Rhinol Laryngol.* 1969;78:1074-1080.
- Palva T, Palva A, Karja J. Results with 2- or 3-legged wire columellization in chronic ear surgery. *Ann Otol Rhinol Laryngol.* 1971;80:760-765.
- Palva T, Karja J, Palva A. Opening of the labyrinth during chronic ear surgery. *Arch Otolaryngol.* 1971;93:75-78.
- Palva T, Karja J, Palva A. High-tone sensorineural losses following chronic ear surgery. *Arch Otolaryngol.* 1973;98:176-178.
- Palva T, Palva A, Karja J. Ossicular reconstruction in chronic ear surgery. *Arch Otolaryngol.* 1973;98:340-348.

- Palva T, Raunio V. The role of the middle ear mucosa in secretory otitis media. *J Laryngol Otol*. 1975;89:491-494.
- Palva T, Palva A. Mucosal histochemistry in secretory otitis. *Ann Otol Rhinol Laryngol*. 1975;84:112-116.
- Palva A. The problem of chronic otitis media in northern Finland. pp. 403-8. In: *Shephard RJ, Itoh S, ed. Circumpolar health. Toronto, Univ of Toronto Press*. 1976.
- Palva A, Karma P, Karja J. Cholesteatoma in children. *Arch Otolaryngol*. 1977;103:74-77.
- Palva T, Holopainen E. Management of noncholesteatomatous suppurative middle ear disease in children. *Adv Otorhinolaryngol*. 1978;23:45-57.
- Palva T, Hayry P, Ylikoski J. Lymphocyte morphology in middle ear effusions. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:143-146.
- Palva T, Reitamo S, Kontinen YT, Hayry P, Rinne J. Inflammatory cell subpopulations in the middle ear mucosa of ears with effusion. *Int J Pediatr Otorhinolaryngol*. 1981;3:71-78.
- Palva T, Virtanen H. Ear surgery and mastoid air cell system. *Arch Otolaryngol*. 1981;107:71-73.
- Palva T, Makinen J. Why does middle ear cholesteatoma recur? *Arch Otolaryngol*. 1983;109:513-518.
- Palva T, Lehtinen T, Halmepuro L. Immunoglobulin E in mucoid secretory otitis media. *ORL J Otorhinolaryngol Relat Spec*. 1985;47:220-223.
- Palva T. Surgical treatment of chronic middle ear disease. II. Canal wall up and canal wall down procedures. *Acta Otolaryngol*. 1987;104:487-494.
- Palva T, Johnsson LG, Jauhiainen T, Pyykko I, Saarnivaara L. The Otorhinolaryngology Department in Helsinki: organization and otologic research. *ORL J Otorhinolaryngol Relat Spec*. 1988;50:110-118.
- Palva T. Surgical treatment of chronic middle ear disease. III. Revisions after tympanomastoid surgery. *Acta Otolaryngol*. 1988;105:82-89.
- Palva T, Johnsson LG. Epitympanic compartment surgical considerations: reevaluation. *Am J Otol*. 1995;16:505-513.
- Palva T, Ramsay H. Incudal folds and epitympanic aeration. *Am J Otol*. 1996;17:700-708.
- Pan S, Wang Z, Jiang Y. [Acoustic characteristics of external auditory meatus after tympanoplasty with open mastoid reconstruction]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1995;30:239-242.
- Panda NK, Sreedharan S, Mann SB, Sharma SC. Prognostic factors in complicated and uncomplicated chronic otitis media. *Am J Otolaryngol*. 1996;17:391-396.
- Paparella MM, Lim DJ. Pathogenesis and pathology of the "idiopathic" blue ear drum. *Arch Otolaryngol*. 1967;85:249-258.
- Paparella MM, Brady DR, Hoel R. Sensori-neural hearing loss in chronic otitis media and mastoiditis. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1970;74:108-115.
- Paparella MM, Oda M, Hiraide F, Brady D. Pathology of sensorineural hearing loss in otitis media. *Ann Otol Rhinol Laryngol*. 1972;81:632-647.
- Paparella MM. Otological manifestations of viral disease. *Adv Otorhinolaryngol*. 1973;20:144-154.
- Paparella MM. Middle ear effusions: definitions and terminology. *Ann Otol Rhinol Laryngol*. 1976;85:8-11.
- Paparella MM, Kim CS. Mastoidectomy update. *Laryngoscope*. 1977;87:1977-1988.
- Paparella MM. Labyrinthitis. pp. 81-92. In: *Bess FH, ed. Childhood deafness: causation, assessment, and management. New York, Grune and Stratton*. 1977;270.
- Paparella MM, Rybak L, Meyerhoff WL. Air caloric testing in otitis media. (preliminary studies). *Laryngoscope*. 1979;89:708-714.
- Paparella MM, Goycoolea MV, Meyerhoff WL, Shea D. Endolymphatic hydrops and otitis media. *Laryngoscope*. 1979;89:43-58.
- Paparella MM, Shea D, Meyerhoff WL, Goycoolea MV. Silent otitis media. *Laryngoscope*. 1980;90:1089-1098.

- Paparella MM, Jung TT. Experience with tympanoplasty for atelectatic ears. *Laryngoscope*. 1981;91:1472-1477.
- Paparella MM. Insidious labyrinthine changes in otitis media. *Acta Otolaryngol*. 1981;92:513-520.
- Paparella MM, Jung TT. Intact bridge tympanomastoidectomy (I.B.M.)--combining essential features of open vs. closed procedures. *J Laryngol Otol*. 1983;97:579-585.
- Paparella MM, Jung TT. Intact-bridge tympanomastoidectomy. *Otolaryngol Head Neck Surg*. 1984;92:334-338.
- Paparella MM, Morizono T, Le CT, et al. Sensorineural hearing loss in otitis media. *Ann Otol Rhinol Laryngol*. 1984;93:623-629.
- Paparella MM, Sipila P, Juhn SK, Jung TT. Subepithelial space in otitis media. *Laryngoscope*. 1985;95:414-420.
- Paparella MM, Abdelhammid MM, Schachern PA, Sahni R, Yoon TH, Da Costa SS. Otopathologic correlates of the continuum of otitis media. *Ann Otol Rhinol Laryngol*. 1990;99:17-22.
- Paparella MM, Schachern P. New developments in treating otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:7-10.
- Paparella MM, Froymovich O. Surgical advances in treating otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1994;163:49-53.
- Papastavros T, Giamarellou H, Varledjides S. Obtaining specimens of discharge from the middle ear for cultures. *Laryngoscope*. 1985;95:1413-1414.
- Papastavros T, Varlejjides S. Reversible and permanent bone conduction threshold shift in cases of chronic suppurative otitis media. *Am J Otol*. 1986;7:338-346.
- Papastavros T, Giamarellou H, Varlejjides S. Preoperative therapeutic considerations in chronic suppurative otitis media. *Laryngoscope*. 1989;99:655-659.
- Papatziamos G, van der Ploeg I, Hemlin C, Patwardhan A, Scheynius A. Increased occurrence of IgE+ and FcepsilonRI+ cells in adenoids from atopic children. *Allergy*. 1999;54:916-925.
- Pappas DG, Wolcott GT. Clinical observations of tympanometric findings in external otitis. *Eye, Ear, Nose and Throat Monthly*. 1975;54:101-103.
- Pappas DG. The origin of aural instruments. *Am J Otol*. 1979;1:121-124.
- Pappas DG. Incus reposition: goblet prosthesis. *Laryngoscope*. 1980;90:1466-1470.
- Pappas JJ, Bailey HA, Jr., McGrew RN, Graham SS. Homograft septal cartilage for attic support in intact canal wall tympanomastoidectomy and tympanoplasty. *Laryngoscope*. 1981;91:1457-1462.
- Pappas DG. Bondy's modified radical mastoidectomy revisited. *Ear Nose Throat J*. 1994;73:15-18.
- Pappas DG, Flexer C, Shackelford L. Otolological and rehabilitative management of children with Down syndrome. *Laryngoscope*. 1994;104:1065-1070.
- Pappas DG. Hermann Hugo Rudolf Schwartze (1837-1910). Reintroduction of paracentesis and mastoid surgery. *Ear Nose Throat J*. 1996;75:708-709.
- Papsin BC, Bailey CM, Albert DM, Bellman SC. Otitis media with effusion in paediatric cochlear implantees: the role of peri-implant grommet insertion. *Int J Pediatr Otorhinolaryngol*. 1996;38:13-19.
- Papsin BC, Vellodi A, Bailey CM, Ratcliffe PC, Leighton SE. Otolologic and laryngologic manifestations of mucopolysaccharidoses after bone marrow transplantation. *Otolaryngol Head Neck Surg*. 1998;118:30-36.
- Paradise JL, Bluestone CD. Toward rational indications for tonsil and adenoid surgery. *Hosp Pract*. 1976;11:79-87.
- Paradise JL, Smith CG, Bluestone CD. Tympanometric detection of middle ear effusion in infants and young children. *Pediatrics*. 1976;58:198-210.
- Paradise JL, Smith CG. Impedance screening for preschool children. State of the art. *Ann Otol Rhinol Laryngol*. 1979;88:56-65.
- Paradise JL, Bluestone CD, Rogers KD, Taylor FH. Efficacy of adenoidectomy in recurrent otitis media. Historical overview and preliminary results from a randomized, controlled trial. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1980;89:319-321.

Paradise JL, Rogers KD. On otitis media, child development, and tympanostomy tubes: new answers or old questions? *Pediatrics*. 1986;77:88-92.

Paradise JL, Bluestone CD, Rogers KD, et al. Efficacy of adenoidectomy for recurrent otitis media in children previously treated with tympanostomy-tube placement. Results of parallel randomized and nonrandomized trials. *JAMA*. 1990;263:2066-2073.

Paradise JL, Elster BA, Tan L. Evidence in infants with cleft palate that breast milk protects against otitis media. *Pediatrics*. 1994;94:853-860.

Paradise JL, Haggard MP, Lous J, Roberts JE, Schilder AG. Developmental implications of early-life otitis media. *Int J Pediatr Otorhinolaryngol*. 1995;32:S37-S44.

Paradise JL. Managing otitis media: a time for change. *Pediatrics*. 1995;96:712-715.

Paradise JL. Treatment guidelines for otitis media: the need for breadth and flexibility. *Pediatr Infect Dis J*. 1995;14:429-435.

Paradise JL, Smith CG, Sabo DL, et al. Tympanometric detection of middle ear effusion in the first versus the second year of life. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:155.

Paradise JL, Colborn DK, Bernard BS, et al. Comparison of the early results of tympanostomy tube placement and of nonsurgical management in infants with persistent otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:201.

Paradise JL, Smith CG, Sabo DL, et al. Consequences of differing tympanographic classification criteria in diagnosing middle ear effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:154.

Paradise JL, Rockette HE, Colborn DK, et al. Otitis media in 2253 Pittsburgh-area infants: prevalence and risk factors during the first two years of life [see comments]. *Pediatrics*. 1997;99:318-333.

Paradise JL. Are the ear and the heart fellow travelers of a sort? [editorial; comment]. *J Pediatr*. 1997;131:179-180.

Paradise JL. Otitis media and child development: should we worry? *Pediatr Infect Dis J*. 1998;17:1076-1083; discussion 1099-1100.

Paradise JL, Bluestone CD, Colborn DK, et al. Adenoidectomy and adenotonsillectomy for recurrent acute otitis media: Parallel randomized clinical trials in children not previously treated with tympanostomy tubes. *JAMA*. 1999;282:945-953.

Paradise JL, Feldman HM, Colborn DK, et al. Parental stress and parent-rated child behavior in relation to otitis media in the first three years of life. *Pediatrics*. 1999;104:1264-1273.

Paradise JL, Dollaghan CA, Campbell TF, et al. Language, speech sound production, and cognition in three-year-old children in relation to otitis media in their first three years of life. *Pediatrics*. 2000;105:1119-1129.

Paradise JL, Feldman HM, Campbell TF, et al. Early vs late tube placement for persistent middle-ear effusion in the first 3 years of life: effects on language, speech sound production, and cognition at age 3 years (abstract). *Pediatrics Res*. 2000;47:216A.

Paraskaki I, Lebessi E, Deliyanni V, Kafetzis DA. Bacteriology of acute otitis media in a Greek pediatric population. *J Chemother*. 1995;7:142-144.

Paraskaki I, Lebessi E, Legakis NJ. Epidemiology of community-acquired *Pseudomonas aeruginosa* infections in children. *Eur J Clin Microbiol Infect Dis*. 1996;15:782-786.

Parell GJ. Goode T tubes [letter; comment]. *Arch Otolaryngol Head Neck Surg*. 1993;119:577.

Parikh AA, Brookes GB. Subtotal petrosectomy with external canal overclosure in the management of chronic suppurative otitis media. *J Laryngol Otol*. 1994;108:197-201.

Parikh A, Scadding GK. Treatment of persistent otitis media [letter; comment]. *Lancet*. 1996;348:1517.

Parikh AA, Brookes GB. Vestibular nerve section following previous mastoidectomy. *J Laryngol Otol*. 1996;110:836-840.

Parisier SC, Edelstein DR, Han JC, Weiss MH. Management of labyrinthine fistulas caused by cholesteatoma. *Otolaryngol Head Neck Surg*. 1991;104:110-115.

- Parisier SC, Chute PM, Popp AL, Hanson MB. Surgical techniques for cochlear implantation in the very young child. *Otolaryngol Head Neck Surg.* 1997;117:248-254.
- Park IY, Kim HN, Chung MH, Park KH, Yim SB. Diagnostic Reliability of Impedance Audiometry in Case of Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:52-54.
- Park MS, Kim YB. Sustained release of antibiotic from a fibrin-gelatin-antibiotic mixture. *Laryngoscope.* 1997;107:1378-1381.
- Parker R. Routine radiography in early cholesteatomatous middle ear disease. *J Laryngol Otol.* 1975;89:151-158.
- Parker AJ, Maw AR. Treatment of glue ear in relation to radiographic palatal airway size: a predictor for outcome following adenoidectomy? *J Laryngol Otol.* 1989;103:66-70.
- Parker AJ, Maw AR, Powell JE. Rhinomanometry in the selection for adenoidectomy and its relation to preoperative radiology. *Int J Pediatr Otorhinolaryngol.* 1989;17:155-161.
- Parker AJ, Maw AR. No peak-peak tympanometric conversion following surgery for otitis media with effusion in relation to airway size: a new treatment strategy? *Clin Otolaryngol Allied Sci.* 1989;14:27-32.
- Parker AJ, Powell JE, Maw AR. Nasal mucociliary clearance and resolution of otitis media with effusion in children following adenoidectomy. *Rhinology.* 1992;30:97-101.
- Parker GS, Tami TA, Maddox MR, Wilson JF. The effect of water exposure after tympanostomy tube insertion. *Am J Otolaryngol.* 1994;15:193-196.
- Parker PC, Boles RG. Pseudomonas otitis media and bacteremia following a water birth [letter]. *Pediatrics.* 1997;99:653.
- Parkin JL, Wood GS, Wood RD, McCandless GA. Drill- and suction-generated noise in mastoid surgery. *Arch Otolaryngol.* 1980;106:92-96.
- Parks RR, Huang CC, Haddad J, Jr. Evidence of oxygen radical injury in experimental otitis media. *Laryngoscope.* 1994;104:1389-1392.
- Parks RR, Huang CC, Haddad J, Jr. Superoxide dismutase in an animal model of otitis media. *Eur Arch Otorhinolaryngol.* 1995;252:153-158.
- Parks RR, Huang CC, Haddad J, Jr. Middle ear catalase distribution in an animal model of otitis media. *Eur Arch Otorhinolaryngol.* 1996;253:445-449.
- Parnes LS, Gagne JP, Hassan R. Cochlear implants and otitis media: considerations in two cleft palate patients. *J Otolaryngol.* 1993;22:345-348.
- Parsons DS, Wald ER. Otitis media and sinusitis: similar diseases. *Otolaryngol Clin North Am.* 1996;29:11-25.
- Parving A. Epidemiology of hearing loss and aetiological diagnosis of hearing impairment in childhood. *Int J Pediatr Otorhinolaryngol.* 1983;5:151-165.
- Parving A. Aetiological diagnosis in hearing-impaired children--clinical value and application of a modern examination programme. *Int J Pediatr Otorhinolaryngol.* 1984;7:29-38.
- Parving A, Christensen B. Children younger than 4 years of age, referred to an audiological department. *Int J Pediatr Otorhinolaryngol.* 1992;23:161-170.
- Parving A, Hauch AM. The causes of profound hearing impairment in a school for the deaf - a longitudinal study. *Br J Audiol.* 1994;28:63-69.
- Passali D, De Seta E, G CI, Bianchini Ciampoli M. Use of trace elements in the treatment of secretory otitis media: Preliminary results. *Clin Ter.* 1983;106:367-377.
- Passali D, Zavattini G. Multicenter study on the treatment of secretory otitis media with ambroxol. Importance of a surface-tension-lowering substance. *Respiration.* 1987;51:52-59.
- Passali D, Bellussi L. The pharmacological treatment of secretory otitis media with particular care to stimulation of surface-tension-lowering substances. *Fernstrom Foundation Series.* 1989;12.
- Passali D. Hypertrophy of adenoids and tubal functionality. *Adv Otorhinolaryngol.* 1992;47:232-240.

- Passali D, Fokkens WJ, van Cauwenberge P, Ferrara A, Scadding GK. Allergy in children. *Int J Pediatr Otorhinolaryngol.* 1995;32:S81-S86.
- Passali D, Bellussi L, De Lauretis A. Relapsing infective-phlogistic pathology of Waldeyer's ring and its relationship with secretory otitis media. *Acta Otolaryngologica - Supplement.* 1996;523:138-141.
- Passali D, Bellussi L. Rationale for the use of a surfactant stimulating drug in the treatment of secretory otitis media. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:229-231.
- Patel J, Chonmaitree T, Schmalstieg F. Effect of modulation of polymorphonuclear leukocyte migration with anti-CD18 antibody on pathogenesis of experimental otitis media in guinea pigs. *Infect Immun.* 1993;61:1132-1135.
- Patel JA, Reisner B, Vizirinia N, Owen M, Chonmaitree T, Howie V. Bacteriologic failure of amoxicillin-clavulanate in treatment of acute otitis media caused by nontypeable *Haemophilus influenzae*. *J Pediatr.* 1995;126:799-806.
- Pathak I, Bryce G. Wegener's granulomatosis masquerading as mastoiditis and lateral-sinus thrombosis. *J Otolaryngol.* 1997;26:207-209.
- Patterson M, Paparella MM. Otitis media with effusion and early sequelae. *Otolaryngol Clin North Am.* 1999 Jun;32:391-400.
- Paul R, Lynn TF, Lohr-Flanders M. History of middle ear involvement and speech/language development in late talkers. *J Speech Hear Res.* 1993;36:1055-1062.
- Paul AK, Rao AN, Ramesh GN, Kattikaran J, Sudha. Histiocytosis X presenting as chronic discharging ears [letter]. *Indian Pediatr.* 1995;32:501.
- Paulman PM, Dirks B. Screening for middle ear fluid in a rural pre-school population. *Nebr Med J.* 1982;67:158-159.
- Paulman PM, Halm DE. Screening for middle ear fluid in an urban pre-school population. *Nebr Med J.* 1984;69:307.
- Pavlopoulou J, Leotsacos P, Sereti E, Anastasiou A, Syriopoulou V. Randomized controlled study of clarithromycin versus cefaclor suspensions in the treatment of acute otitis media in children. *J Chemother.* 1995;150-153.
- Pearce PS, Saunders MA, Creighton DE, Sauve RS. Hearing and verbal-cognitive abilities in high-risk preterm infants prone to otitis media with effusion. *J Dev Behav Pediatr.* 1988;9:346-351.
- Pearlman RC, Niles LA. The incidence of hearing disorders in the schoolchildren of Trinidad. *Am J Otol.* 1981;2:311-314.
- Pearse PA, Bridges-Webb C. Otitis media in general practice [see comments]. *Med J Aust.* 1993;158:542-544.
- Pearson BW. Symposium. ENT for nonspecialists. The ear: structure and function. *Postgrad Med.* 1975;57:50-54.
- Pearson CR, Riden DK, Garth RJ, Thomas MR. Two cases of lateral sinus thrombosis presenting with extracranial head and neck abscesses. *J Laryngol Otol.* 1994;108:779-782.
- Pearson CR, Thomas MR, Cox HJ, Garth RJ. A cost-benefit analysis of the post-operative use of antibiotic ear drops following grommet insertion. *J Laryngol Otol.* 1996;12:87-90.
- Pearson N, O'Brien J, Thomas H, Ewings P, Gallier L, Bussey A. Collecting morbidity data in general practice: the Somerset morbidity project [see comments]. *Br Med J.* 1996;312:1517-1520.
- Peck JE. Hearing loss in Hunter's syndrome--mucopolysaccharidosis II. *Ear Hear.* 1984;5:243-246.
- Pedersen M, Mygind N. Rhinitis, sinusitis and otitis media in Kartagener's syndrome (primary ciliary dyskinesia). *Clin Otolaryngol Allied Sci.* 1982;7:373-380.
- Pedersen CB, Zachau-Christiansen B. Otitis media in Greenland children: acute, chronic and secretory otitis media in three- to eight-year-olds. *J Otolaryngol.* 1986;15:332-335.
- Pedersen CB, Zachau-Christiansen B. Chronic otitis media and sequelae in the population of Greenland. *Scand J Soc Med.* 1988;16:15-19.
- Peever MV, Ward JA. Successful assault on ear disease: intensive daily treatment by nurses and health workers. *Med J Aust.* 1980;1:1-4.

- Pellett FS, Cox LC, MacDonald CB. Use of acoustic reflectometry in the detection of middle ear effusion. *J Am Acad Audiol.* 1997;8:181-187.
- Pelton SI, Teele DW, Shurin PA, Klein JO. Disparate cultures of middle ear fluids. Results from children with bilateral otitis media. *Am J Dis Child.* 1980;134:951-953.
- Pelton SI. Defining resistance: breakpoints and beyond implications for pediatric respiratory infection. *Diagn Microbiol Infect Dis.* 1996;25:195-199.
- Pelton SI. New concepts in the pathophysiology and management of middle ear disease in childhood. *Drugs.* 1996;52:62-66; discussion 66-67.
- Peng JC, Hoppe F. [Is reuse of autologous ear ossicles in cholesteatoma or chronic suppurative otitis media justified?]. *Laryngorhinootologie.* 1994;73:375-380.
- Pensak ML, Glasscock MEd, Gulya AJ, Hays JW, Smith HP, Dickens JR. Cerebellopontine angle lipomas. *Arch Otolaryngol Head Neck Surg.* 1986;112:99-101.
- Per-Lee JH. Long-term middle ear ventilation. *Laryngoscope.* 1981;91:1063-1073.
- Perez de Tagle JR, Fenton JE, Fagan PA. Mastoid surgery in the only hearing ear. *Laryngoscope.* 1996;106:67-70.
- Perez Martin J. [Serous otitis media and allergy in children (editorial)]. *Rev Alerg Mex.* 1995;42:79-80.
- Perez Obon J, Fernandez Liesa R, Marin Garcia J, et al. [Cerebral abscess as a complication of the chronic otitis]. *Acta Otorrinolaringol Esp.* 1994;45:107-110.
- Perez Obon J, Marin G, Fernandez Liesa R, et al. [Report of a case of pneumocephalus secondary to otologic surgery]. *Acta Otorrinolaringol Esp.* 1995;46:223-226.
- Perez-Carmona NJ, Garcia MA, Fuentes-Rejon T. [Serous otitis media. Comparative study of carbinoxamine- pseudoephedrine vs astemizole-pseudoephedrine]. *Rev-Alerg-Mex.* 1997;44:70-73.
- Perkins R. Tympanomastoid reconstruction: an operative procedure for anatomical and functional restoration of the radicalized ear. *Laryngoscope.* 1976;86:416-430.
- Perriello VA, Ford RF, McLean WC, Schoeny ZG, Sande MA. Otitis media: a review. *Virginia Medical.* 1977;104:319-320, 325-328.
- Perrin JM, Charney E, MacWhinney JB, Jr., McInerny TK, Miller RL, Nazarian LF. Sulfisoxazole as chemoprophylaxis for recurrent otitis media. A double-blind crossover study in pediatric practice. *N Engl J Med.* 1974;291:664-667.
- Perrin P, Perrin C, Boulange M. Seromucous otitis: Physiopathology and role of impedance measurement. *Presse Thermale et Climatique.* 1988;125:10-12.
- Perry BP, Zieno SA, Yonkers AJ, Moore GF. Outcome-oriented managed care comparing efficacies of cefaclor and amoxicillin in acute and recurrent acute otitis media. *Ear Nose Throat J.* 1995;74:840-844.
- Persico M, Podoshin L, Fradis M, et al. Recurrent acute otitis media--prophylactic penicillin treatment: a prospective study. Part I. *Int J Pediatr Otorhinolaryngol.* 1985;10:37-46.
- Persico M, Barker GA, Mitchell DP. Purulent otitis media--a "silent" source of sepsis in the pediatric intensive care unit. *Otolaryngol Head Neck Surg.* 1985;93:330-334.
- Pestalozza G, Cusmano G. Evaluation of tympanometry in diagnosis and treatment of otitis media of the newborn and of the infant. *Int J Pediatr Otorhinolaryngol.* 1980;2:73-82.
- Pestalozza G, Cusmano G, Tessitore E, Bonelli A. Transtympanic drains in the treatment of serous otitis in children; anatomical versus functional long term results. *Int J Pediatr Otorhinolaryngol.* 1983;5:31-38.
- Pestalozza G, Cioce C, Romagnoli M, et al. Otitis media in newborns: Long-term follow-up, bacteriologic and cytologic investigations. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984.
- Pestalozza G, Cioce C, Facchini M. Azithromycin in upper respiratory tract infections: a clinical trial in children with otitis media. *Scan-J Infect Dis-Suppl.* 1992:22-25.
- Peters SA, Grievink EH, van Bon WH, Schilder AG. The effects of early bilateral otitis media with effusion on educational attainment: a prospective

- cohort study. *Journal of Learning Disabilities*. 1994;27:111-121.
- Peters SA, Grievink EH, van Bon WH, van den Bercken JH, Schilder AG. The contribution of risk factors to the effect of early otitis media with effusion on later language, reading, and spelling [see comments]. *Dev Med Child Neurol*. 1997;39:31-39.
- Peterson MK. Impedance audiometry and the brain-damaged child. *Dev Med Child Neurol*. 1978;20:800-802.
- Petinou K, Mody M, Schwartz RD, Gravel JS, Ellis MA, Lee WW. Impact of otitis media on early speech development: phonetic inventories. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:408-410.
- Petinou K, Schwartz RG, Mody M, Gravel JS. The impact of otitis media with effusion on early phonetic inventories: A longitudinal prospective investigation. *Clinical Linguistics and Phonetics*. 1999;13:351-367.
- Pettigrew AM. Histopathology of the temporal bone after open mastoid surgery. *Clin Otolaryngol Allied Sci*. 1980;5:227-234.
- Pfaltz CR, Griesemer C. Complications of acute middle ear infections. *Ann Otol Rhinol Laryngol Suppl*. 1984;112:133-137.
- Pfurtscheller G. Physiological reality of EEG spectral estimates. pp. 98-101. In: *Dolce G, Kunkel H, ed. CEAN: computerized EEG analysis. Stuttgart, Fischer*. 1975;150.
- Phelps PD. Preservation of hearing in the labyrinth invaded by cholesteatoma. *J Laryngol Otol*. 1969;83:1111-1114.
- Phelps PD, Lloyd GA. The radiology of carcinoma of the ear. *Br J Radiol*. 1981;54:103-109.
- Phillips MJ, Knight NJ, Manning H, Abbott AL, Tripp WG. IgE and secretory otitis media. *Lancet*. 1974;2:1176-1178.
- Phillips SG, Miyamoto RT. Congenital conductive hearing loss in Apert syndrome. *Otolaryngol Head Neck Surg*. 1986;95:429-433.
- Phillips DE, Maw AR, Harvey K. The nasopharynx and adenoid in children with glue ear compared with normal controls. *Clin Otolaryngol Allied Sci*. 1987;12:255-260.
- Phillips DE, Bates GJ, Parker AJ, Griffiths MV, Green J. Digital and mirror assessment of the adenoids at operation. *Clin Otolaryngol Allied Sci*. 1989;14:131-133.
- Piasecki K, Wysocki J. Mastoid emissary in Indian skulls. *Folia Morphologica (Warszawa)*. 1998;57:269-274.
- Pichichero ME, Berghash LR, Hengerer AS. Anatomic and audiologic sequelae after tympanostomy tube insertion or prolonged antibiotic therapy for otitis media [see comments]. *Pediatr Infect Dis J*. 1989;8:780-787.
- Pichichero ME, Berghash LR, Hengerer AS. Anatomic and audiologic sequelae after tympanostomy tube insertion or prolonged antibiotic therapy for otitis media. *Pediatr Infect Dis J*. 1989;8:780-787.
- Pichichero M, Aronovitz GH, Gooch WM, et al. Comparison of cefuroxime axetil, cefaclor, and amoxicillin-clavulanate potassium suspensions in acute otitis media in infants and children. *South-Med J*. 1990;83:1174-1177.
- Pichichero ME. Sequelae of tympanostomy tubes (I: Reply). *Pediatr Infect Dis J*. 1990;9:527-528.
- Pichichero ME. Assessing the treatment alternatives for acute otitis media [published erratum appears in *Pediatr Infect Dis J* 1994 Jun;13(6):488]. *Pediatr Infect Dis J*. 1994;13:S27-S34; discussion S50-S54.
- Pichichero ME, Pichichero CL. Persistent acute otitis media: II. Antimicrobial treatment [see comments]. *Pediatr Infect Dis J*. 1995;14:183-188.
- Pichichero ME, Pichichero CL. Persistent acute otitis media: I. Causative pathogens. *Pediatr Infect Dis J*. 1995;14:178-183.
- Pichichero ME, McLinn S, Aronovitz G, et al. Cefprozil treatment of persistent and recurrent acute otitis media. *Pediatr Infect Dis J*. 1997;16:471-478.
- Pichichero ME, Cohen R. Shortened course of antibiotic therapy for acute otitis media, sinusitis and tonsillopharyngitis. *Pediatr Infect Dis J*. 1997;16:680-695.
- Pickett BP, Shinn JB, Smith MF. Ear drop ototoxicity: reality or myth? *Am J Otol*. 1997;18:782-789; discussion 789-791.

- Pignataro O, Pignataro LD, Gallus G, Calori G, Cordaro CI. Otitis media with effusion and S-carboxymethylcysteine and/or its lysine salt: a critical overview. *Int J Pediatr Otorhinolaryngol*. 1996;35:231-241.
- Piippo T, Stefansson S, Pitkajarvi T, Lundberg C. Double-blind comparison of cefixime and cefaclor in the treatment of acute otitis media in children. *Scand J Infect Dis*. 1991;23:459-465.
- Piletta PA, Calza AM, Masouye I, Harms M, Saurat JH. Hypohidrotic ectodermal dysplasia with recurrent otitis and sebaceous gland hypertrophy of the face. *Dermatology*. 1995;191:355-358.
- Pillsbury HCd, Arenberg IK, Ferraro J, Ackley RS. Endolymphatic sac surgery. The Danish sham surgery study: an alternative analysis. *Otolaryngol Clin North Am*. 1983;16:123-127.
- Pillsbury HC, Grose JH, Hall JWd. Otitis media with effusion in children. Binaural hearing before and after corrective surgery. *Arch Otolaryngol Head Neck Surg*. 1991;117:718-723.
- Pinto SL, Mejia GV, Smoler J, Ortega I. Differential factors of otitis media in children and adults. *Laryngoscope*. 1968;78:441-450.
- Pinto SL, Smoler J, Vivar G, Ortega I. What do you mean by otitis media? *Laryngoscope*. 1969;79:1891-1901.
- Pirodda A. How a labyrinthine fistula may sometimes be useful for surgery. *Ear Nose Throat J*. 1995;74:170-172.
- Piskorski P, Keefe DH, Simmons JL, Gorga MP. Prediction of conductive hearing loss based on acoustic ear-canal response using a multivariate clinical decision theory. *J Acoust Soc Am*. 1999;105:1749-1764.
- Pit S, Jamal F, Cheah FK. Microbiology of cerebral abscess: a four-year study in Malaysia. *Journal of Tropical Medicine and Hygiene*. 1993;96:191-196.
- Pitkaranta A, Hovi T, Karma P. Interferon production by leukocytes in children with otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1996;34:25-33.
- Pitkaranta A, Virolainen A, Jero J, Arruda E, Hayden FG. Detection of rhinovirus, respiratory syncytial virus, and coronavirus infections in acute otitis media by reverse transcriptase polymerase chain reaction [see comments]. *Pediatrics*. 1998;102:291-295.
- Pitts NE, Gilbert GS, Knirsch AK, Noguchi Y. Worldwide clinical experience with sultamicillin. *APMIS. Supplementum*. 1989;97:23-34.
- Plana BM, Canet JMS, Cencillo CP, Solanes JB, Algarra JM, Mallea JC. Secretory otitis media in six-year-old children. *Revista Espanola de Pediatria*. 1997;53:436-440.
- Platonov AE, Wurzner R, Beloborodov B, et al. Paradoxical reconstitution of complement activity following plasma transfusion of an individual with deficiency of the seventh component of complement. *Immunology*. 1994;81:142-148.
- Plemmons RM, McAllister CK, Liening DA, Garces MC. Otitis media and mastoiditis due to *Mycobacterium fortuitum*: case report, review of four cases, and a cautionary note. *Clin Infect Dis*. 1996;22:1105-1106.
- Plester D. Surgical treatment of Meniere's disease. *Proceedings of the Royal Society of Medicine*. 1967;60:964-966.
- Plester D, Pusalkar A, Steinbach E. Middle ear tuberculosis. *J Laryngol Otol*. 1980;94:1415-1421.
- Plinkert PK, Ptok M. Influence of eustachian tube dysfunction on transiently evoked and distortion product otoacoustic emissions. *HNO*. 1994;42:434-440.
- Plinkert PK, Ptok M. [Changes in transitory evoked otoacoustic emissions and acoustic distortion products in disorders of eustachian tube ventilation]. *HNO*. 1994;42:434-440.
- Plinkert PK. [Pathological changes in the middle ear and delayed speech development. Preventable sequelae of disordered tube function and seromucotympanum]. *HNO*. 1995;43:53-57.
- Pluzhnikov MS, Lopotko AI. [Low-intensity laser irradiation in otorhinolaryngology]. *Vestn Otorinolaringol*. 1996:5-14.
- Podoshin L, Fradis M, Ben David J. Ototoxicity of ear drops in patients suffering from chronic otitis media. *J Laryngol Otol*. 1989;103:46-50.
- Podoshin L, Fradis M, Ben-David Y, Faraggi D. The efficacy of oral steroids in the treatment of persistent

- otitis media with effusion [see comments]. *Arch Otolaryngol Head Neck Surg.* 1990;116:1404-1406.
- Podoshin L, Fradis M, Ben-David Y, Faraggi D. The efficacy of oral steroids in the treatment of persistent otitis media with effusion. *Arch Otolaryngol Head and Neck Surgery.* 1990;116:1404-1406.
- Podoshin L, Fradis M, Ben-David Y, Bashara L, Malatskey S. [Chronic otitis media]. *Harefuah.* 1995;129:238-242, 295.
- Podoshin L, Fradis M, Ben-David J, Malatskey S. Results of surgery for chronic otitis media: a 5-year study. *Rev Laryngol Otol Rhinol.* 1995;116:109-113.
- Podoshin L, Brodzki A, Fradis M, Ben David J, Larboni J, Srugo I. [Local treatment of purulent chronic otitis media with ciprofloxacin]. *Harefuah.* 1998;134:32-36, 78.
- Podvinec M. [Co-tetroxazin (Tibirox) and doxycycline (Vibramycin) in treatment of upper respiratory tract infections: a double-blind study]. *Ther-Umsch.* 1982;39:815-820.
- Poehlman GS. Chronic otitis media with effusion. *Prim Care.* 1996;23:687-699.
- Poliakova TS, Magomedov MM, Al-Sagir MK. [Dimethyl sulfoxide in the treatment of patients with inflammatory diseases of external and middle ear]. *Vestn Otorinolaringol.* 1993:47-49.
- Politzer A. A Text-Book of the Diseases of the Ear for Students and Practitioners. . 5 ed. London: Bailliere, Tindall & Cox; 1909.
- Pollazzon P, Narne S, Guariso G. The importance of acoustic impedance measurements in middle ear pathology during acute viral respiratory illness in the first year of life. *Int J Pediatr Otorhinolaryngol.* 1981;3:319-325.
- Ponsioen BP. [Antibiotics in otitis media with effusion (letter; comment)]. *Ned Tijdschr Geneesk.* 1997;141:702.
- Ponte C, Cenjor C, Parra A, et al. Antimicrobial treatment of an experimental otitis media caused by a beta-lactamase positive isolate of *Haemophilus influenzae*. *J Antimicrob Chemother.* 1999;44:85-90.
- Poole MD. Treatment of otorrhea associated with tubes or perforations. *Ear Nose Throat J.* 1993;72:225-226.
- Poole MD. It's time to bring back diagnostic tympanocentesis [see comments]. *Ear Nose Throat J.* 1994;73:49-50.
- Poole MD. Otitis media complications and treatment failures: Implications of pneumococcal resistance. *Pediatr Infect Dis J.* 1995;14:S23-S26.
- Popova AE, Anisimova TI, Naumov AV, Khoroshevich EG, Loginova BN. [The use of pilastin for treating patients with chronic suppurative otitis media]. *Vestn Otorinolaringol.* 1996:42-43.
- Porter TA. Otoadmittance measurements in a residential deaf population. *American Annals of the Deaf (Silver Spring, MD).* 1974;119:47-52.
- Portmann M. "Open" or "closed" technique in surgery of the middle ear. *Ann Otol Rhinol Laryngol.* 1968;77:927-937.
- Portmann M. Principles of management for sequelae of otitis. *Journal of Laryngology and Otology - Supplement.* 1983;8:68-70.
- Portmann M, Portmann D, Rohou S, et al. [Efficacy and tolerability of morniflumate in acute otitis in infants: results of a randomized study versus placebo]. *Rev-Laryngol-Otol-Rhinol-Bord.* 1990;111:507-510.
- Portmann M, Darrouzet V. Use of the MUSCO NT3 tympanic isopressor in tubal dysfunction. Study of 30 cases. *Rev Laryngol Otol Rhinol.* 1990;111:177-179.
- Portoian-Shuhaiber S, Cullinan TR. Middle ear disease assessed by impedance in primary school children in south London. *Lancet.* 1984;1:1111-1112.
- Post JC, Preston RA, Aul JJ, et al. Molecular analysis of bacterial pathogens in otitis media with effusion [see comments]. *JAMA.* 1995;273:1598-1604.
- Post JC, Aul JJ, White GJ, et al. PCR-based detection of bacterial DNA after antimicrobial treatment is indicative of persistent, viable bacteria in the chinchilla model of otitis media. *Am J Otolaryngol.* 1996;17:106-111.
- Potsic WP, Cohen M, Winchester R, Whitaker L. The types of hearing loss and ear pathology noted in screening craniofacial patients. *Cleft Palate Journal.* 1979;16:164-166.

- Potsic WP, Winawer MR, Marsh RR. Tympanoplasty for the anterior-superior perforation in children. *Am J Otol.* 1996;17:115-118.
- Poulsen G, Tos M. Tubal function in chronic secretory otitis media in children. *ORL J Otorhinolaryngol Relat Spec.* 1977;39:57-67.
- Poulsen G, Tos M. Screening tympanometry in newborn infants and during the first six months of life. *Scand Audiol.* 1978;7:159-166.
- Poulsen G, Tos M. Repetitive tympanometric screenings of two-year-old children. *Scand Audiol.* 1980;9:21-28.
- Povedano-Rodriguez V, Seco-Pinero MJ, Jurado-Ramos A, Lopez-Villarejo P. [Efficacy of topical ciprofloxacin in the treatment of chronic otorrhea]. *Acta-Otorrinolaringol-Esp.* 1995;46:15-18.
- Powell RH, Burrell SP, Cooper HR, Proops DW. The Birmingham bone anchored hearing aid programme: paediatric experience and results. *Journal of Laryngology and Otology - Supplement.* 1996;21:21-29.
- Pownell PH, Wright CG, Robinson KS, Meyerhoff WL. The effect of cyclophosphamide on development of experimental cholesteatoma. *Arch Otolaryngol Head Neck Surg.* 1994;120:1114-1116.
- Poyner TF, Dass BK. Comparative efficacy and tolerability of fusidic acid/hydrocortisone cream (Fucidinregistered trade mark H cream) and miconazole /hydrocortisone cream (Daktacortregistered trade mark cream) in infected eczema. *J Eur Acad Dermatology Venereology.* 1996;7(Suppl1):S23-S29.
- Prado S, Paparella MM. Sensorineural hearing loss secondary to bacterial infection. *Otolaryngol Clin North Am.* 1978;11:40-41.
- Prasansuk S, Hinchcliffe R. Tympanic membrane perforation descriptors and hearing levels in otitis media. *Audiology.* 1982;21:43-51.
- Pratt LW. Nonsuppurative otitis media. *Journal of the Maine Medical Association.* 1966;57:31-33.
- Pratt LL, Murray J. The placement of middle ear ventilation tubes: some indications and complications. *Laryngoscope.* 1973;83:1022-1026.
- Pratt LL. Complications associated with the surgical treatment of cholesteatoma. *Laryngoscope.* 1983;93:289-291.
- Prellner K, Rydell R. Acute mastoiditis. Influence of antibiotic treatment on the bacterial spectrum. *Acta Otolaryngol.* 1986;102:52-56.
- Prellner K, Brorsson B. [Consensus on otitis. Answers to an inquiry show changed therapeutic practices]. *Lakartidningen.* 1993;90:1584-1586.
- Prellner K, Fogle-Hansson M, Jorgensen F, Kalm O, Kamme C. Prevention of recurrent acute otitis media in otitis-prone children by intermittent prophylaxis with penicillin. *Acta-Otolaryngol-Stockh.* 1994;114:182-187.
- Prellner K. Clinical aspects on antibiotic resistance: upper respiratory tract infections. *Microb Drug Resist.* 1995;1:143-147.
- Prellner K, Kahlmeter G, Marchisio P, van Cauwenberge PB. Microbiology of acute otitis media and therapeutic consequences. *Int J Pediatr Otorhinolaryngol.* 1995;32:S145-S156.
- Premachandra DJ, Woodward B, Milton CM, Sergeant RJ, Fabre JW. Long-term results of mastoid cavities grafted with cultured epithelium prepared from autologous epidermal cells to prevent chronic otorrhea. *Laryngoscope.* 1993;103:1121-1125.
- Prescott CA, Robartes WJ. Tympanoplasty surgery at the Red Cross War Memorial Children's Hospital 1986-1988. *Int J Pediatr Otorhinolaryngol.* 1991;21:227-234.
- Presswood G, Zamboni WA, Stephenson LL, Santos PM. Effect of artificial airway on ear complications from hyperbaric oxygen. *Laryngoscope.* 1994;104:1383-1384.
- Preston G. Hearing health needs for aboriginal and Torres Strait Islander people. *Aust Fam Physician.* 1994;23:51-53.
- Preston DY. Chronic suppurative otitis media without cholesteatoma management. *ORL - Head and Neck Nursing.* 1995;13:17-22.
- Principi N, Marchisio P, Bigalli L, Massironi E. Amoxicillin twice daily in the treatment of acute otitis media in infants and children. *Eur J Pediatr.* 1986;145:522-525.

- Principi N, Marchisio P, Massironi E, Grasso RM, Filiberti G. Prophylaxis of recurrent acute otitis media and middle-ear effusion. Comparison of amoxicillin with sulfamethoxazole and trimethoprim [published erratum appears in Am J Dis Child 1990 Nov;144(11):1180]. *Am-J-Dis-Child*. 1989;143:1414-1418.
- Principi N, Marchisio P. Cefixime vs amoxicillin in the treatment of acute otitis media in infants and children. *Drugs*. 1991:25-29.
- Principi N. Multicentre comparative study of the efficacy and safety of azithromycin compared with amoxicillin/clavulanic acid in the treatment of paediatric patients with otitis media. *Eur J Clin Microbiol Infect Dis*. 1995;14:669-676.
- Pringle MB, Thompson A, Reddy K. A comparison of speech audiometry and pure tone audiometry in patients with secretory otitis media. *J Laryngol Otol*. 1993;107:787-789.
- Pringle MB. Grommets, swimming and otorrhoea--a review. *J Laryngol Otol*. 1993;107:190-194.
- Prior AJ. Facial palsy caused by otitis media with effusion: the pathophysiology discussed. *ORL J Otorhinolaryngol Relat Spec*. 1995;57:348-350.
- Probst R. The nasopharyngeal bacterial flora in children with otitis media with effusion. *Eur Arch Otorhinolaryngol* (1996) 253:260-263 [letter; comment]. *Eur Arch Otorhinolaryngol*. 1997;254:19.
- Proctor LR, Kennedy DW. High-risk newborns who fail hearing screenign: implications of otological problems. *Seminars in Hearing*. 1990;11:167-176.
- Proschel U, Eysholdt U. Evoked otoacoustic emissions in children in relation to middle ear impedance. *Folia Phoniatica*. 1993;45:288-294.
- Ptok M. Conservative therapy, rehabilitation and early therapeutical promotion of auditory defects in early childhood. *Fortschritt und Fortbildung in der Medizin*. 1997;21.
- Puczynski MS, Stankiewicz JA, Cunningham DG, Mortimer JC. Follow-up visit after acute otitis media. *Br J Clin Pract*. 1985;39.
- Puczynski MS, Stankiewicz JA, O'Keefe JP. Single dose amoxicillin treatment of acute otitis media. *Laryngoscope*. 1987;97:16-18.
- Pugliese WM, Mesches DN, Wiersum J, Henriquez CL, 3rd, Krivda JF. Double-blind study: Cleocin Palmitate and Erythrocin Pediatric in otitis media in children. *Curr-Ther-Res-Clin-Exp*. 1972;14:31-34.
- Puhakka H, Haapaniemi J, Tuohimaa P, Ruuskanen O, Eskola J. Peroral prednisolone in the treatment of middle-ear effusion in children: a double-blind study. *Auris-Nasus-Larynx*. 1985:S268-S271.
- Puhakka HJ, Haapaniemi J, Tuohimaa P, Bondesson G. Clinical efficacy and tolerance of bacampicillin and amoxycillin suspensions in children with acute otitis media. *J Int Med Res*. 1989;17:41-47.
- Pukander JS, Karma PH. Persistence of Middle Ear Effusion and Its Risk Factors After an Acute Attack of Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:8-11.
- Pukander JS, Paloheimo SH, Sipila MM. Cefetamet pivoxil in pediatric otitis media. *Chemotherapy*. 1992:25-28.
- Pukander JS, Sipila MM, MJ K, PH K. The Bayesian approach to the evaluation of risk factors affecting the prolongation of middle ear effusion after acute otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:33-35.
- Pukander JS, Paloheimo SH. Cefetamet pivoxil syrup in the treatmetn of acute otitis media in children. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:248-251.
- Pukander JS, Jero JP, Kaprio EA, Sorri MJ. Clarithromycin vs. amoxicillin suspensions in the treatment of pediatric patients with acute otitis media. *Pediatr Infect Dis J*. 1993;12:S118-S121.
- Pukander J, Rautianen M. Penetration of azithromycin into middle ear effusions in acute and secretory otitis media in children. *J Antimicrob Chemother*. 1996;37:53-61.
- Pulec JL, Kamio T, Graham MD. Eustachian tube lymphatics. *Ann Otol Rhinol Laryngol*. 1975;84:483-492.
- Pulec JL. Surgically treatable sensorineural hearing loss. *Postgrad Med*. 1977;62:121-130.

- Pulec JL. Serous otitis media. *Ear Nose Throat J.* 1993;72:193.
- Pulec JL, Deguine C. Secretory otitis media (glue ear). *Ear Nose Throat J.* 1993;72:254.
- Pulec JL. Training in tympanoplasty [editorial]. *Ear Nose Throat J.* 1993;72:188.
- Pulec JL. Facial nerve neuroma. *Ear Nose Throat J.* 1994;73:721-722, 725-739, 743-752.
- Pulec JL. Tonsillectomy for serous otitis media [editorial]. *Ear Nose Throat J.* 1994;73:359.
- Pulec JL, Deguine C. Short incus and posterior perforation healed with a retracted neomembrane. *Ear Nose Throat J.* 1994;73:71.
- Pulec JL. Allergy: a commonly neglected etiology of serous otitis media [editorial; comment]. *Ear Nose Throat J.* 1995;74:739.
- Pulec JL. Hearing results in tympanoplasty [editorial]. *Ear Nose Throat J.* 1995;74:147.
- Pulec JL. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA.* 1995;273:700; discussion 700-701.
- Pulec JL. Labyrinthine fistula from cholesteatoma: surgical management. *Ear Nose Throat J.* 1996;75:143-148.
- Pulec JL, DeGuine C. Blue ear drum. *Ear Nose Throat J.* 1996;75:124.
- Pulec JL, DeGuine C. Extensive cholesterol granuloma. *Ear Nose Throat J.* 1996;75:272.
- Pulec JL, Deguine C. Classification of chronic suppurative otitis media: type III. *Ear Nose Throat J.* 1996;75:576.
- Pulec JL, DeGuine C. Classification of chronic suppurative otitis media: type I. *Ear Nose Throat J.* 1996;75:400.
- Pulec JL, Deguine C. Atelectasis and chronic suppurative otitis media. *Ear Nose Throat J.* 1997;76:290.
- Pulec JL, Deguine C. Attic cholesteatoma with facial palsy. *Ear Nose Throat J.* 1997;76:68.
- Pulec JL, Deguine C. Attic cholesteatoma producing a natural modified radical mastoidectomy. *Ear Nose Throat J.* 1998;77:10.
- Pyman C. Current management of chronic suppurative otitis media. *Med J Aust.* 1968;2:1033-1037.
- Pyman BC, Clark GM. Anatomic and surgical considerations in the design of a new receiver-stimulator suitable for implantation in young children. *Ann Otol Rhinol Laryngol Suppl.* 1995;166:428-430.
- Quaranta A, Cassano P, Cervellera G. Clinical value of the tonal masking level difference. *Audiology.* 1978;17:232-238.
- Quaranta A, Salonna I. Oto-audiologic evaluation in children with recurrent otitis media. *Otorinolaringologia Pediatrica.* 1990;1:83-87.
- Quaranta A, Bartoli R, Lozupone E, Resta L, Iurato S. Cholesteatoma in children: histopathologic findings in middle ear ossicles. *ORL J Otorhinolaryngol Relat Spec.* 1995;57:296-298.
- Quaranta A, Onofri M, Sallustio V, Iurato S. Comparison of long-term hearing results after vestibular neurectomy, endolymphatic mastoid shunt, and medical therapy. *Am J Otol.* 1997;18:444-448.
- Quevedo A, Sossouhounto R, Kissling M. Cefetamet pivoxil in otitis media. *ORL-J-Otorhinolaryngol-Relat-Spec.* 1993;55:93-96.
- Quick CA, Wagner D. Trimethoprim-sulfamethoxazole in the treatment of infections of the ears, nose, and throat. *J Infect Dis.* 1973;Suppl:696-700.
- Quick CA. Comparison of penicillin and trimethoprim-sulfamethoxazole in the treatment of ear, nose and throat infections. *Can-Med-Assoc-J.* 1975;112:83-86.
- Quinn SM. Aboriginal hearing loss and ear disease in the Australian Northern Territory. *Australian Journal of Audiology.* 1983;5:41-44.
- Quinn MK. Otitis media: a personal perspective from a son [letter; comment]. *Am Fam Physician.* 1996;54:1212, 1216.

- Qvarnberg Y, Holopainen E, Palva T. Aspiration cytology in acute otitis media. *Acta Otolaryngol.* 1984;97:443-449.
- Qvarnberg YH, Sipila PT, Thoroddsen SE. Efficacy and safety of lorocarbef versus amoxicillin in the treatment of bacterial acute otitis media with effusion. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:252-254.
- Qvarnberg Y, Valtonen H. Bacteria in middle ear effusions in children treated with tympanostomy; a 10-year series. *Acta Otolaryngol.* 1995;115:653-657.
- Rach GH, Zielhuis GA, van den Broek P. The influence of chronic persistent otitis media with effusion on language development of 2- to 4-year-olds. *Int J Pediatr Otorhinolaryngol.* 1988;15:253-261.
- Rach GH, Zielhuis GA, Van Den Broek P. Effect of Otitis Media with Effusion on Language Development of Preschool Children: Preliminary Results of a Controlled Randomized Longitudinal Study. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:391-393.
- Rach GH, Zielhuis GA, van Baarle PW, van den Broek P. The effect of treatment with ventilating tubes on language development in preschool children with otitis media with effusion. *Clin-Otolaryngol.* 1991;16:128-132.
- Raffin B, Lacher G, Devars F, Benassayag C, Boudard P, Traissac L. Anatomical and surgical particularities of cholesteatomas in children. *Arch Otorhinolaryngol.* 1989;246:271-273.
- Ragheb SM, Gantz BJ, McCabe BF. Hearing results after cholesteatoma surgery: the Iowa experience. *Laryngoscope.* 1987;97:1254-1263.
- Raghuram J, Ong YY, Wong SY. Tetanus in Singapore: report of three cases. *Ann Acad Med Singapore.* 1995;24:869-873.
- Rahko T, Koivikko A, Silvonniemi P. The occurrence of secretory otitis media in allergic children. *Clin Otolaryngol Allied Sci.* 1979;4:267-270.
- Rahko T, Karma P, Sipila M. Sensorineural hearing loss and acute otitis media in children. *Acta Otolaryngol.* 1989;108:107-112.
- Rahko T, Laitila P, Sipila M, Manninen M, Karma P. Hearing and acute otitis media in 13-year-old children. *Acta Otolaryngol.* 1995;115:190-192.
- Raigal Martin MY, Minue Lorenzo C, Calvo Corbella E, de la Corte Garcia M. [Amoxicillin: choice in the treatment of acute otitis media (letter)]. *Aten Primaria.* 1995;16:293-294.
- Raine CH, Singh SD. Tympanoplasty in children. A review of 114 cases. *J Laryngol Otol.* 1983;97:217-221.
- Raine NM, Whittet HB. Emla cream and induced vertigo [letter; comment]. *Br J Hosp Med.* 1994;51:614-615.
- Rakover Y, Shneyour A, Rosen G, Lensky Y. Comparison of the proteins of middle ear effusion with human mast cell proteins. *J Laryngol Otol.* 1995;109:1146-1150.
- Rakover Y, Keywan K, Rosen G. Safety of topical ear drops containing ototoxic antibiotics. *J Otolaryngol.* 1997;26:194-196.
- Ralph JC. The case for the tympanometer in private practice. *Pediatr Infect Dis.* 1982;1:2-3.
- Ramages LJ, Gertler R. Aural tuberculosis: a series of 25 patients. *J Laryngol Otol.* 1985;99:1073-1080.
- Raman R. Should cotton buds be banned? [letter]. *Trop Doct.* 1997;27:250.
- Raman R. Cotton-wick method for better drainage of middle ear [letter]. *Trop Doct.* 1997;27:191-192.
- Ramanikanth TV, Smith MC, Ramamoorthy R, Ramalingam KK. Postauricular cerebellar encephalocoele secondary to chronic suppurative otitis media and mastoid surgery. *J Laryngol Otol.* 1990;104:982-985.
- Rambo JH. Musculoplasty: advantages and disadvantages. *Transactions - American Otological Society.* 1965;53:164-188.
- Rambo JH. Musculoplasty for restoration of hearing in chronic suppurative ears. *Arch Otolaryngol.* 1969;89:184-190.
- Ramet J. A safety and efficacy comparative study of clarithromycin and amoxicillin/clavulanate suspensions in the short course treatment of children with acute otitis media. *Acta Therapeutica.* 1995;21:231-241.

- Ramet J, Casneuf J, Demay M, et al. Comparative safety and efficacy of clarithromycin and azithromycin suspensions in the short course treatment of children with acute otitis media. *Clinical Drug Investigation*. 1995;9:61-66.
- Ramirez-Camacho RA, Jimenez D. Comparative study in tympanoplasties with nitrous oxide anesthesia. *Laryngoscope*. 1984;94:220-222.
- Ramirez-Camacho R, Corcuera MT, Gomez-Aguado F, Garcia Berrocal JR, Pinilla M. [Imaging analysis by computer tomography in chronic middle ear otitis diagnosis]. *An Otorrinolaringol Ibero Am*. 1996;23:375-382.
- Rampelberg O, Gerard JM, Namias B, Gerard M. ENT manifestations of relapsing polychondritis. *Acta Otorhinolaryngol Belg*. 1997;51:73-77.
- Ramsden RT, Moffat DA, Gibson WP, Jay MM. S-carboxymethylcysteine in the treatment of glue ear: a double blind trial. *J Laryngol Otol*. 1977;91:847-851.
- Ramsey BW, Marcuse EK, Foy HM, et al. Use of bacterial antigen detection in the diagnosis of pediatric lower respiratory tract infections. *Pediatrics*. 1986;78.
- Randall JE, Hendley JO. A decongestant-antihistamine mixture in the prevention of otitis media in children with colds. *Pediatrics*. 1979;63:483-485.
- Randolph CC, Fraser B. Incidence and progress of middle ear effusion in allergy practice as detected by acoustic otoscope reflectometry. *Allergy Proc*. 1994;15:157-162.
- Rapin I. Conductive hearing loss: effects on children's language and scholastic skills. A review of the literature. *Ann Otol Rhinol Laryngol*. 1979;88:3-12.
- Rasmussen N, Johnsen NJ, Bohr VA. Otologic sequelae after pneumococcal meningitis: a survey of 164 consecutive cases with a follow-up of 94 survivors. *Laryngoscope*. 1991;101:876-882.
- Rasmussen F. Protracted secretory otitis media. The impact of familial factors and day-care center attendance. *Int J Pediatr Otorhinolaryngol*. 1993;26:29-37.
- Rasmussen F. Recurrence of acute otitis media at preschool age in Sweden. *J Epidemiol Community Health*. 1994;48:33-35.
- Raymond JR. Adenoidotomy [letter] [see comments]. *Ear Nose Throat J*. 1994;73:856.
- Rayner MG, Zhang Y, Gorry MC, Chen Y, Post JC, Ehrlich GD. Evidence of bacterial metabolic activity in culture-negative otitis media with effusion. *JAMA*. 1998;279:296-299.
- Reed D, Struve S, Maynard JE. Otitis media and hearing deficiency among Eskimo children: a cohort study. *American Journal of Public Health and the Nations Health*. 1967;57:1657-1662.
- Reed D, Dunn W. Epidemiologic studies of otitis media among Eskimo children. *Public Health Rep*. 1970;85:699-706.
- Reed BD, Lutz LJ. Household smoking exposure--association with middle ear effusions. *Fam Med*. 1988;20:426-430.
- Rees GL, Freeland AP. The effect of anaesthesia on tympanograms of children undergoing grommet insertion [see comments]. *Clin Otolaryngol Allied Sci*. 1992;17:200-202.
- Rees GL, Freeland AP. The effect of anaesthesia on tympanograms of children undergoing grommet insertion. *Clin Otolaryngol Allied Sci*. 1992;17:200-202.
- Reichler MR, Rakovsky J, Sobotova A, et al. Multiple antimicrobial resistance of pneumococci in children with otitis media, bacteremia, and meningitis in Slovakia. *J Infect Dis*. 1995;171:1491-1496.
- Reid R, Jr., Bradley JS, Hindler J. Pneumococcal meningitis during therapy of otitis media with clarithromycin. *Pediatr Infect Dis J*. 1995;14:1104-1105.
- Reimer A, Andreasson L, Harris S, Ivarsson A, Tjernstrom O. Tubal function and surgery in chronic otitis media. A study on the predictive value of testing tubal function, valsalva's manoeuvre and volume of ear spaces. *Acta Oto Laryngologica Supplement*. 1988;106:127-130.
- Reimer M. [Why not wait and see in spontaneously perforated otitis? (letter)]. *Lakartidningen*. 1996;93:2923-2924.

- Reina Prieto J, Hervas Palazon J. [Otitis media due to *Vibrio alginolyticus*: the risks of the Mediterranean Sea (letter)]. *An Esp Pediatr*. 1993;39:361-363.
- Reisman RE, Bernstein J. Allergy and secretory otitis media: clinical and immunologic studies. *Pediatr Clin North Am*. 1975;22:251-257.
- Reisner K. Tomography in inner and middle ear malformations: value, limits, results. *Radiology*. 1969;92:11-20.
- Reiss M, Reiss G. Indication for operative treatment of middle ear diseases - Aspects of laterality. *Wien Klin Wochenschr*. 1998;110:408-410.
- Reisser C, Mielenz H, Junemann K. [Initial clinical experience with tauroloidin instillation into the area of the middle area]. *HNO*. 1994;42:643-646.
- Rennels MB, Edwards KM, Keyserling HL, et al. Safety and immunogenicity of heptavalent pneumococcal vaccine conjugated to CRM197 in United States infants. *Pediatrics*. 1998;101:604-611.
- Renou G, Ketari M, Toutee JP, Benzaken J. [Medical treatment of seromucous otitis]. *Rev-Laryngol-Otol-Rhinol-Bord*. 1989;110:327-328.
- Renou G, Ketari M, Toutee JP, Benzaken J. Medical treatment of sero-mucous otitis. *Rev Laryngol Otol Rhinol*. 1989;110:327-328.
- Renvall U, Holmquist J. Tympanometry revealing middle ear pathology. *Ann Otol Rhinol Laryngol*. 1976;85:209-215.
- Renvall U, Liden G, Jungert S, Nilsson E. Long-term observation of ears with reduced middle ear pressure. *Acta Otolaryngol*. 1978;86:104-109.
- Renvall U, Jarlstedt J, Holmquist J. Identification of middle ear disease. *Acta Otolaryngol*. 1980;90:283-289.
- Renvall U, Liden G. Screening Procedure for Detection of Middle Ear and Cochlear Disease. . *Proceedings of the Second International Symposium: Recent Advances in Otitis Media with Effusion*; 1980:214-216.
- Renvall U, Aniansson G, Liden G. Spontaneous improvement in ears with middle ear disease. *Int J Pediatr Otorhinolaryngol*. 1982;4:245-250.
- Renvall U, Berg U. Reliability of tympanogram. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:143-146.
- Reul J, Weber U, Kotlarek F, Isensee C, Thron A. [Cerebral vein and sinus thrombosis--an important cause of benign intracranial pressure increase in childhood]. *Klinische Padiatrie*. 1997;209:116-120.
- Reves R, Budgett R, Miller D, Wadsworth J, Haines A. Study of middle ear disease using tympanometry in general practice. *Br Med J Clin Res Ed*. 1985;290:1953-1956.
- Revesz G, Ribari O. Differential diagnosis and treatment of pseudo-otosclerosis. *Acta Chirurgica Academiae Scientiarum Hungaricae*. 1969;10:253-267.
- Rhee CK, Jung TT, Miller S, Weeks D. Experimental otitis media with effusion induced by platelet activating factor. *Ann Otol Rhinol Laryngol*. 1993;102:600-605.
- Rhee CK, Park YS, Long SA, Jung TT, Davamony D. Effects of platelet activating factor on vascular permeability of the middle ear mucosa. *Ann Otol Rhinol Laryngol*. 1997;106:604-607.
- Ribaric K, Padovan I, Prevec TS. Frequency following response evoked by vibratory stimuli in profoundly deaf subjects. *Acta Otolaryngol*. 1984;97:467-471.
- Richards SH. Tympanoplasty results following the mobile-bridge technique. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1972;76:153-159.
- Richardson HC, Elliott C, Hill J. The feasibility of recording transiently evoked otoacoustic emissions immediately following grommet insertion. *Clin Otolaryngol Allied Sci*. 1996;21:445-448.
- Richardson MP, Reid A, Williamson TJ, Tarlow MJ, Rudd PT. Acute otitis media and otitis media with effusion in children with bacterial meningitis. *J Laryngol Otol*. 1997;111:913-916.
- Richier MA, Choulot JJ, Petriat B, et al. [Acute mastoiditis in children: is there a current outbreak? (letter)]. *Arch Pediatr*. 1994;1:959-960.
- Richner B, Hof E, Prader A. Hearing impairment following therapy of *Haemophilus influenzae*

- meningitis. *Helvetica Paediatrica Acta*. 1979;34:443-447.
- Riding KH, Reichert TJ, Stool SE. Otologic evaluation at a school for the deaf. *Transactions - Pennsylvania Academy of Ophthalmology and Otolaryngology*. 1978;31:98-102.
- Riedner ED, Levin LS. Hearing patterns in Morquio's syndrome (mucopolysaccharidosis IV). *Arch Otolaryngol*. 1977;103:518-520.
- Rigner P, Ruth M. Treatment with ventilation tubes in children: A two-year follow-up study. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:202-204.
- Riley DN, Herberger S, McBride G, Law K. Myringotomy and ventilation tube insertion: a ten-year follow-up. *J Laryngol Otol*. 1997;111:257-261.
- Rindernecht S. Antibiotic resistance: an emergency we can't ignore. *Iowa Med*. 1995;85:127-128.
- Riordan JM. The cost of not breastfeeding: a commentary. *Journal of Human Lactation*. 1997;13:93-97.
- Rippere V. Glue ear [letter] [see comments]. *J R Soc Med*. 1993;86:681.
- Rippers V. Glue ear [letter]. *J R Soc Med*. 1995;88:60.
- Riquelme Perez M, Gasquez Abad CI, Mena Mateo E, Mugarza Hernandez D. [Acute otitis media in a pediatrics consulting office]. *An Esp Pediatr*. 1996;44:433-436.
- Risavi R, Sprem N, Jurkovic J. Restauration of hearing in the treatment of serous otitis. *Symp Otorhinolaryngol Iugosl*. 1985;20:193-197.
- Ristic B, Haralampiev K, Filipovski R. [Complications in secretory otitis media treated with aeration-drainage tubes]. *Srp Arh Celok Lek*. 1993;121:127-129.
- Ritter FN, Arbor A. Chronic suppurative otitis media and the pathologic labyrinthine fistula. *Laryngoscope*. 1970;80:1025-1035.
- Rivier A, Carrel O, Laurent A, Wegmuller H. [Nature and antibiotic sensitivity of bacterial species isolated in secretory otitis in a cohort of children]. *Rev Med Suisse Romande*. 1996;116:121-123.
- Rizer FM, Luxford WM. The management of congenital cholesteatoma: surgical results of 42 cases. *Laryngoscope*. 1988;98:254-256.
- Rizer FM. Overlay versus underlay tympanoplasty. Part I: historical review of the literature. *Laryngoscope*. 1997;107:1-25.
- Roark R, Petrofski J, Berson E, Berman S. Practice variations among pediatricians and family physicians in the management of otitis media. *Arch Pediatr Adolesc Med*. 1995;149:839-844.
- Roark R, Berman S. Continuous twice daily or once daily amoxicillin prophylaxis compared with placebo for children with recurrent acute otitis media. *Pediatr Infect Dis J*. 1997;16:376-381.
- Robb MP, Psak JL, Pang-Ching GK. Chronic otitis media and early speech development: a case study. *Int J Pediatr Otorhinolaryngol*. 1993;26:117-127.
- Robert JE, Burchinal MR, Medley LP, et al. Otitis media, hearing sensitivity, and maternal responsiveness in relation to language during infancy. *J Pediatr*. 1995;126:481-489.
- Roberts CJ. Middle-ear deafness in schoolchildren. *Practitioner*. 1969;203:645-649.
- Roberts ME. Comparative study of pure-tone, impedance, and otoscopic hearing screening methods. A survey of native Indian children in British Columbia. *Arch Otolaryngol*. 1976;102:690-694.
- Roberts JE, Sanyal MA, Burchinal MR, Collier AM, Ramey CT, Henderson FW. Otitis media in early childhood and its relationship to later verbal and academic performance. *Pediatrics*. 1986;78:423-430.
- Roberts JE, Burchinal MR, Koch MA, Footo MM, Henderson FW. Otitis media in early childhood and its relationship to later phonological development [see comments]. *J Speech Hear Disord*. 1988;53:424-432.
- Roberts JE, Burchinal MR, Koch MA, Footo MM, Henderson FW. Otitis media in early childhood and its relationship to later phonological development. *J Speech Hear Disord*. 1988;53:424-432.
- Roberts JE, Burchinal MR, Koch MA, Collier AM, Henderson FW. Otitis Media in Early Childhood and

- Its Relationship to Later Speech and Language. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:385-388.
- Roberts JE, Burchinal MR, Koch MA, Footo MM, Henderson FW. Otitis media in early childhood and its relationship to later phonological development. *J Speech Hear Dis*. 1988;53:416-424.
- Roberts JE, Burchinal MR, Collier AM, Ramey CT, Koch MA, Henderson FW. Otitis media in early childhood and cognitive, academic, and classroom performance of the school-aged child. *Pediatrics*. 1989;83:477-485.
- Roberts JE, Burchinal MR, Davis BP, Collier AM, Henderson FW. Otitis media in early childhood and later language. *J Speech Hear Res*. 1991;34:1158-1168.
- Roberts JE, Burchinal MR, Henderson FW. Otitis media and school age outcomes. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:561-565.
- Roberts JE, Burchinal MR, Campbell F. Otitis media in early childhood and patterns of intellectual development and later academic performance. *J Pediatr Psychol*. 1994;19:347-367.
- Roberts DG, Johnson CE, Carlin SA, Turczyk V, Karnuta MA, Yaffee K. Resolution of middle ear effusion in newborns. *Arch Pediatr Adolesc Med*. 1995;149:873-877.
- Roberts JE, Burchinal MR, Medley LP, et al. Otitis media, hearing sensitivity, and maternal responsiveness in relation to language during infancy. *J Pediatr*. 1995;126:481-489.
- Roberts JE, Burchinal MR, Clarke-Klein SM. Otitis media in early childhood and cognitive, academic, and behavior outcomes at 12 years of age. *J Pediatr Psychol*. 1995;20:645-660.
- Roberts JE, Zeisel S, Medley L, et al. Otitis media, hearing sensitivity, and language development to two-year-olds. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:325-328.
- Roberts K. A preliminary account of the effect of otitis media on 15-month-olds' categorization and some implications for early language learning. *Journal of Speech, Language, and Hearing Research*. 1997;40:508-518.
- Roberts JE, Wallace IF. Language and otitis media. In: Roberts JE, Wallace IF, Henderson FW, eds. *Otitis media in young children: medical, developmental and educational considerations*. Baltimore (MD): Brooks; 1997:133-161.
- Roberts JE, Burchinal MR, Zeisel SA, et al. Otitis media, the caregiving environment, and language and cognitive outcomes at 2 years. *Pediatrics*. 1998;102:346-354.
- Roberts JE, Burchinal MR, Jackson SC, et al. Otitis media in early childhood in relation to preschool language and school readiness skills among African American children. *Pediatrics*. 2000; 106:1-11.
- Robertson MS. Chronic secretory otitis media: treatment with trans-tympanic indwelling polythene tubes. *N Z Med J*. 1968;68:390-391.
- Robertson K, Kumar A. Atypical presentations of aural tuberculosis. *Am J Otolaryngol*. 1995;16:294-302.
- Robertson LM, Marino RV, Namjoshi S. Does swimming decrease the incidence of otitis media? *J Am Osteopath Assoc*. 1997;97:150-152.
- Robinson GC, Anderson DO, Moghadam HK, Cambon KG, Murray AB. A survey of hearing loss in Vancouver school children. I. Methodology and prevalence. *Cmaj*. 1967;97:1199-1207.
- Robinson BG, Spencer RM. Electrode skin lesions following evoked response audiometry. *J Laryngol Otol*. 1972;86:363-367.
- Robinson DO, Allen DV. Racial differences in tympanometric results. *J Speech Hear Disord*. 1984;49:140-144.
- Robinson DO, Allen DV, Root LP. Infant tympanometry: differential results by race. *J Speech Hear Disord*. 1988;53:341-346.
- Robinson PJ, Lodge S, Goligher J, Bowley N, Grant HR. Secretory otitis media and mastoid air cell development. *Int J Pediatr Otorhinolaryngol*. 1993;25:13-18.
- Rocher P, Carlier R, Attal P, Doyon D, Bobin S. [Contribution and role of the scanner in the preoperative evaluation of chronic otitis.

- Radiosurgical correlation apropos of 85 cases]. *Ann Otolaryngol Chir Cervicofac.* 1995;112:317-323.
- Rockette HE CM. Methodologic issues in screening for otitis media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:42-44.
- Rockley TJ, Rhys Evans PH. Secretory otitis media--evidence for an inherited aetiology. *J Laryngol Otol.* 1986;100:389-393.
- Rockley TJ. Family studies in serous otitis media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:22-24.
- Roddey OF, Jr., Earle RJ, Haggerty R. Myringotomy in acute otitis media. A controlled study. *JAMA.* 1966;197:849-853.
- Rodriguez WJ, Schwartz RH, Sait T, et al. Erythromycin-sulfisoxazole vs amoxicillin in the treatment of acute otitis media in children. A double-blind, multiple-dose comparative study. *Am-J-Dis-Child.* 1985;139:766-770.
- Rodriguez WJ, Khan WH, Sait T, et al. Sultamicillin (sulbactam/ampicillin) versus amoxycillin in the treatment of acute otitis media in children. *J Int Med Res.* 1990;18:78D-84D.
- Rodriguez WJ, Khan W, Sait T, et al. Cefixime vs. cefaclor in the treatment of acute otitis media in children: a randomized, comparative study. *Pediatr Infect Dis J.* 1993;12:70-74.
- Rodriguez WJ, Schwartz RH, Thorne MM. Increasing incidence of penicillin- and ampicillin-resistant middle ear pathogens. *Pediatr Infect Dis J.* 1995;14:1075-1078.
- Rodriguez WJ, Schwartz RH, Akram S, Khan WN. Streptococcus pneumoniae resistant to penicillin: incidence and potential therapeutic options. *Laryngoscope.* 1995;105:300-304.
- Rodriguez AF. An open study to compare azithromycin with cefaclor in the treatment of children with acute otitis media. *J Antimicrob Chemother.* 1996;37:63-69.
- Roede J, Strutz J. [Timely therapy of chronic otitis media]. *Z Arztl Fortbild.* 1994;88:367-371.
- Roger G, Schlegel N, Chauvin P, Denoyelle F, Garabedian EN. [Predictive factors of residual cholesteatoma in children]. *Ann Otolaryngol Chir Cervicofac.* 1995;112:262-274.
- Rohn GN, Meyerhoff WL, Wright CG. Ototoxicity of topical agents. *Otolaryngol Clin North Am.* 1993;26:747-758.
- Rohrich RJ, Rowsell AR, Johns DF, et al. Timing of hard palatal closure: a critical long-term analysis. *Plast Reconstr Surg.* 1996;98:236-246.
- Roizen NJ, Martich V, Ben-Ami T, Shalowitz MU, Yousefzadeh DK. Sclerosis of the mastoid air cells as an indicator of undiagnosed otitis media in children with Down's syndrome. *Clin Pediatr.* 1994;33:439-443.
- Roland P, Finitzo T, Friel-Patti S, Brown KC, Meyerhoff WL. Relationships and Correlations Among Auditory Brainstem Response (Electrophysiology), Otoscopy, and Tympanometry in Six and Twelve Months of Infants With and Without Otitis Media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:54-57.
- Roland PS, Finitzo T, Friel-Patti S, et al. Otitis media. Incidence, duration, and hearing status. *Arch Otolaryngol Head Neck Surg.* 1989;115:1049-1053.
- Roland PS, Meyerhoff WL. Intraoperative electrophysiological monitoring of the facial nerve: is it standard of practice? *Am J Otolaryngol.* 1994;15:267-270.
- Roland PS. Clinical ototoxicity of topical antibiotic drops. *Otolaryngology and Head and Neck Surgery.* 1994;110:598-602.
- Rose AS, Prazma J, Randell SH, Baggett HC, Lane AP, Pillsbury HC. Nitric oxide mediates mucin secretion in endotoxin-induced otitis media with effusion. *Otolaryngol Head Neck Surg.* 1997;116:308-316.
- Rosell Barbera D, Cruz Caballero M. Tympanometry. *Anales Espanoles de Pediatria Supplement.* 1991;35:35-37.
- Rosen C, Forsgren A, Lofkvist T, Walder M. Acute otitis media in older children and adults treated with phenoxymethyl penicillin or erythromycin stearate. Bacteriological and immunological aspects. *Acta-Otolaryngol-Stockh.* 1983;96:247-253.

- Rosen C, Christensen P, Hovelius B, Prellner K. Effect of pneumococcal vaccination on upper respiratory tract infections in children. Design of a follow-up study. *Scand-J Infect Dis-Suppl.* 1983;39-44.
- Rosen C, Christensen P, Henrichsen J, al. e. Beneficial effect of pneumococcal vaccination on otitis media in children over two years old. *Int J Pediatr Otorhinolaryngol.* 1984;7:239-246.
- Rosen IA, Hakansson A, Aniansson G, et al. Antibodies to pneumococcal polysaccharides in human milk: lack of relationship to colonization and acute otitis media. *Pediatr Infect Dis J.* 1996;15:498-507.
- Rosenberg SI, Silverstein H, Hoffer M, Nichols M. Use of endoscopes for chronic ear surgery in children. *Arch Otolaryngol Head Neck Surg.* 1995;121:870-872.
- Rosenfeld RM, Mandel EM, Bluestone CD. Systemic steroids for otitis media with effusion in children [see comments]. *Arch Otolaryngol Head Neck Surg.* 1991;117:984-989.
- Rosenfeld RM, Post JC. Meta-analysis of antibiotics for the treatment of otitis media with effusion. *Otolaryngol Head Neck Surg.* 1992;106:378-386.
- Rosenfeld RM. Antimicrobial therapy for otitis media with effusion: the Pittsburgh response [letter; comment]. *JAMA.* 1993;270:449-450.
- Rosenfeld RM, Doyle WJ, Swarts JD, Seroky J, Greene I. Efficacy of ceftibuten for acute otitis media caused by *Hemophilus influenzae*: an animal study. *Ann Otol Rhinol Laryngol.* 1993;102:222-226.
- Rosenfeld RM, Vertrees JE, Carr J, et al. Clinical efficacy of antimicrobial drugs for acute otitis media: metaanalysis of 5400 children from thirty-three randomized trials [see comments]. *J Pediatr.* 1994;124:355-367.
- Rosenfeld RM. Comprehensive management of otitis media with effusion. *Otolaryngol Clin North Am.* 1994;27:443-455.
- Rosenfeld RM. Antibiotics for otitis media: a clarification [letter; comment]. *JAMA.* 1994;271:430.
- Rosenfeld RM. Nonsurgical management of surgical otitis media with effusion. *J Laryngol Otol.* 1995;109:811-816.
- Rosenfeld RM. What to expect from medical treatment of otitis media. *Pediatr Infect Dis J.* 1995;14:731-737; quiz 738.
- Rosenfeld RM. An evidence-based approach to treating otitis media. *Pediatr Clin North Am.* 1996;43:1165-1181.
- Rosenfeld JA, Clarity G. Acute otitis media in children. *Prim Care.* 1996;23:677-686.
- Rosenfeld RM, Mandell JR, McMahan A. Auditory function in normal-hearing children with middle ear effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:354-356.
- Rosenfeld RM, Goldsmith AJ, Tetlus L, Balzano A. Quality of life for children with otitis media. *Arch Otolaryngol Head Neck Surg.* 1997;123:1049-1054.
- Rosenfeld RM, Goldsmith AJ, Madell JR. How accurate is parent rating of hearing for children with otitis media? *Arch Otolaryngol Head Neck Surg.* 1998;124:989-992.
- Rosenfeld RM. Natural history of untreated otitis media. In: Rosenfeld RM, Bluestone CD, eds. *Evidence-Based Otitis Media.* Saint Louis: B.C. Decker Inc.; 1999a:157-177.
- Rosenfeld RM. What to expect from medical therapy. In: Rosenfeld RM, Bluestone CD, eds. *Evidence-Based Otitis Media.* Saint Louis: B.C. Decker Inc.; 1999b:179-205.
- Rosner B, Glynn RJ. Multivariate methods for clustered ordinal data with applications to survival analysis. *Stat Med.* 1997;16:357-372.
- Rossi DF. Hearing deficiency in Pueblo Indian children. Results of a mass screening program. *Rocky Mountain Medical Journal.* 1972;69:65-69.
- Rothera MP, Grant HR. Long-term ventilation of the middle ear using the Goode T-tube. *J Laryngol Otol.* 1985;99:335-337.
- Rotimi VO, Olabiyi DA, Banjo TO, Okeowo PA. Randomised comparative efficacy of clindamycin, metronidazole, and lincomycin, plus gentamicin in chronic suppurative otitis media. *West-Afr-J-Med.* 1990;9:89-97.

- Rotta AT, Asmar BI. Moraxella catarrhalis bacteremia and preseptal cellulitis. *South Med J*. 1994;87:541-542.
- Roush J, Bryant K, Mundy M, Zeisel S, Roberts J. Developmental changes in static admittance and tympanometric width in infants and toddlers. *J Am Acad Audiol*. 1995;6:334-338.
- Rovers MM, Hofstad EA, Franken-van den Brand KI, et al. Prognostic factors for otitis media with effusion in infants. *Clin Otolaryngol Allied Sci*. 1998;23:543-546.
- Rovers MM, Zielhuis GA, Straatman H, Ingels K, van der Wilt GJ, van den Broek P. Prognostic factors for persistent otitis media with effusion in infants. *Arch Otolaryngol Head Neck Surg*. 1999;125:1203-1207.
- Rowe DS. Acute suppurative otitis media. *Pediatrics*. 1975;56:285-294.
- Rowe LD. Tonsils and adenoids. When is surgery indicated? *Prim Care*. 1982;9:355-369.
- Roydhouse N. A controlled study of adenotonsillectomy. *Arch-Otolaryngol*. 1970;92:611-616.
- Roydhouse N. Letter: Secretory otitis media. *N Z Med J*. 1975;82:319.
- Roydhouse N. Adenoidectomy for otitis media with mucoid effusion. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1980;89:312-315.
- Roydhouse N. Bromhexine for otitis media with effusion. *N-Z-Med-J*. 1981;94:373-375.
- Roydhouse N. Medical treatment of otitis media with effusion. *Eur J Respir Dis*. 1983;62.
- Roydhouse N. Antibiotic treatment of otitis media with effusion. *N-Z-Med-J*. 1991;104:380-382.
- Roydhouse N. Otitis media with effusion [letter; comment] [see comments]. *N Z Med J*. 1996;109:263.
- Ruach C, Penha R, Schachern P, Paparella M. Tympanic membrane and otitis media. *Acta Otorhinolaryngol Belg*. 1995;49:173-180.
- Ruben RJ, Rozycki D. Diagnostic screening for the deaf child. *Arch Otolaryngol*. 1970;91:429-432.
- Ruben RJ, Rozycki DL. Clinical aspects of genetic deafness. *Ann Otol Rhinol Laryngol*. 1971;80:255-263.
- Ruben RJ, Math R. Serous otitis media associated with sensorineural hearing loss in children. *Laryngoscope*. 1978;88:1139-1154.
- Ruben RJ, Hanson DG. Summary of discussion and recommendations made during the workshop on otitis media and development. *Ann Otol Rhinol Laryngol Suppl*. 1979;88:107-111.
- Ruben RJ, Hanson DG. Introduction: Otitis media and child development. *Ann Otol Rhinol Laryngol*. 1979;88:1-2.
- Ruben RJ, Rapin I. Plasticity of the developing auditory system. *Ann Otol Rhinol Laryngol*. 1980;89:303-311.
- Ruben RJ. An inquiry into the minimal amount of auditory deprivation which results in a cognitive effect in man. *Acta Otolaryngol*. 1981;414:157-164.
- Ruben RJ. Otorhinolaryngologic disorders of adolescents: a review. *Int J Pediatr Otorhinolaryngol*. 1985;9:1-30.
- Ruben RJ. Sequelae of antibiotic therapy for acute otitis media and otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:369-373.
- Ruben RJ, Wallace IF, Gravel J. Long-term communication deficiencies in children with otitis media during their first year of life. *Acta Otolaryngol*. 1997;117:206-207.
- Ruben RJ, Haggard MP, Bagger-Sjoberg D, et al. Complications and sequelae. *Ann Otol Rhinol Laryngol*. 1998;107:81-94.
- Ruben RJ. Persistency of an effect: otitis media during the first year of life with nine years follow-up. *Int J Pediatr Otorhinolaryngol*. 1999;49:S115-S118.
- Rubin M. Hearing aids for infants and toddlers. In: M R, ed. *Hearing aids: current developments and concepts*. Baltimore: University Park Press; 1976:95-101.
- Rubin JS, Wei WI. Acute mastoiditis: a review of 34 patients. *Laryngoscope*. 1985;95:963-965.

- Ruckenstein MJ, Macdonald RE, Clarke JT, Forte V. The management of otolaryngological problems in the mucopolysaccharidoses: a retrospective review. *J Otolaryngol.* 1991;20:177-183.
- Ruckley RW, Blair RL. Thermal myringotomy (an alternative to grommet insertion in childhood secretory otitis media?). *J Laryngol Otol.* 1988;102:125-128.
- Rudin R, Holmquist J. Frequency of pathologic changes in the middle ear. *Ann Otol Rhinol Laryngol.* 1980;89.
- Ruggles RL, Abols I. Care of the ear canal and mastoid. *Ann Otol Rhinol Laryngol.* 1983;92:566-567.
- Ruohola A, Heikkinen T, Jero J, et al. Oral prednisolone is an effective adjuvant therapy for acute otitis media with discharge through tympanostomy tubes. *J Pediatr.* 1999;134:459-463.
- Ruokonen J, Holopainen E, Palva T, Backman A. Secretory otitis media and allergy. With special reference to the cytotoxic leucocyte test. *Allergy.* 1981;36:59-68.
- Ruokonen J, Paganus A, Lehti H. Elimination diets in the treatment of secretory otitis media. *Int J Pediatr Otorhinolaryngol.* 1982;4:39-46.
- Rushton HC, Tong MC, Yue V, Wormald PJ, van Hasselt CA. Prevalence of otitis media with effusion in multicultural schools in Hong Kong. *J Laryngol Otol.* 1997;111:804-806.
- Ruuskanen O, Heikkinen T. Otitis media: Etiology and diagnosis. *Pediatr Infect Dis J.* 1994;13:S23-S26.
- Ruuskanen O, Heikkinen T. Viral-bacterial interaction in acute otitis media. *Pediatr Infect Dis J.* 1994;13:1047-1049.
- Rvachew S, Slawinski EB, Williams M, Green CL. The impact of early onset otitis media on babbling and early language development. *J Acoust Soc Am.* 1999;105:467-475.
- Ryan RM, Brown PM, Cameron JM, Fowler SM, Grant HR, Topham JH. Royal College of Surgeons comparative ENT audit 1990. *Clin Otolaryngol Allied Sci.* 1993;18:541-546.
- Ryan AF, Baird A. Growth factors during proliferation of the middle ear mucosa. *Acta Otolaryngol.* 1993;113:68-74.
- Rybak LP. Treatable sensorineural hearing loss. *Am J Otol.* 1985;6:482-489.
- Ryczko B, Brodsky L, Stanievich JF, Pordell R. Spontaneous cerebrospinal fluid otorrhea in a deaf infant. *Int J Pediatr Otorhinolaryngol.* 1988;16:245-251.
- Ryding M, Konradsson K, Prellner K. Sequelae of recurrent acute otitis media. Ten-year follow-up of a prospectively studied cohort of children. *Acta Paediatr.* 1208;86:1208-1213.
- Ryding M, Konradsson K, Kalm O, Prellner K. Recurrent acute otitis media: clinical and audiologic follow-up to ten years of age. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:365-366.
- Ryding M, Konradsson K, Kalm O, Prellner K. Sequelae of recurrent acute otitis media. Ten-year follow-up of a prospectively studied cohort of children. *Acta Paediatr.* 1997;86:1208-1213.
- Rydzewski B, Skrobisz W, Miarzynska M. [Thrombosis of the sigmoid sinus and transverse sinus with an unusual course]. *Otolaryngol Pol.* 1995;49:71-74.
- Rydzewski B, Dutkiewicz W, Lukowiak G. [Meningiomas of the middle ear]. *Otolaryngol Pol.* 1996;50:329-334.
- Rynnel-Dagoo B, Ahlbom A, Schiratzki H. Effects of adenoidectomy: a controlled two-year follow-up. *Ann-Otol-Rhinol-Laryngol.* 1978;87:272-278.
- Rynnel-Dagoo B, Freijd A. Nasopharyngeal lymphoid tissue--a threat to the middle ear? *Acta Oto-Laryngologica - Supplement.* 1988;454:208-209.
- Rynnel-Dagoo B, Forsgren J, Samuelson A. Immunological and bacteriological studies on mucosa-associated lymphatic tissue in children with SOM. *Adv Otorhinolaryngol.* 1992;47:120-123.
- Rynnel-Dagoo B, Forsgren J, Freijd A, Lindberg K. Rationale for antibiotic therapy in pediatric ear, nose and throat infections: immunologic issues. *Pediatr Infect Dis J.* 1994;13:S15-S20; discussion S20-S22.

- Rynnel-Dagoo B. Are there microbiological markers to predict recurrent acute otitis media? *Acta Oto-Laryngologica - Supplement*. 1997;529:19-21.
- Rzymiski K, Kosowicz J. The skull in gonadal dysgenesis. A roentgenometric study. *Clin Radiol*. 1975;26:379-384.
- Sabater F, Maristany M, Mensa J, Villar E, Traserra J. [Prospective double-blind randomized study of the efficacy and tolerance of topical ciprofloxacin vs topical gentamicin in the treatment of simple chronic otitis media and diffuse external otitis]. *Acta-Otorrinolaringol-Esp*. 1996;47:217-220.
- Sabin SL, Lee D, Har-el G. Low velocity gunshot injuries to the temporal bone. *J Laryngol Otol*. 1998;112:929-933.
- Sabirova MM, Shametov I. [A case of tympanogenic labyrinthitis in acute otitis media]. *Vestn Otorinolaringol*. 1995:53-54.
- Sachdeva OP, Gulati SP, Kakar V, Sachdeva A. Tuberculosis of middle ear cleft. *Indian J Chest Dis Allied Sci*. 1993;35:137-139.
- Sacket DL. How to read clinical journals. V: To distinguish useful from useless or even harmful therapy. *Can Med Assoc J*. 1981;124:1156-1162.
- Sade J. The muco-ciliary system in relation to middle ear pathology and sensorineural hearing loss. In: Sensorineural hearing loss. *CIBA Found Symp*. 1970:79-99.
- Sade J, Konak S, Hinchcliffe R. Ethnic factors in the pathogenesis of chronic otitis media in Israel. A preliminary investigation. *J Laryngol Otol*. 1971;85:349-353.
- Sade J, Meyer FA, King M, Silberberg A. Clearance of middle ear effusions by the mucociliary system. *Acta Otolaryngol*. 1975;79:277-282.
- Sade J, Halevy A, Hadas E. Clearance of middle ear effusions and middle ear pressures. *Ann Otol Rhinol Laryngol*. 1976;85:58-62.
- Sade J, Weissman Z. Middle ear mucosa and secretory otitis media. *Arch Otorhinolaryngol*. 1977;215:195-205.
- Sade J. Inflammatory and non-inflammatory factors related to secretory otitis media. *Int J Pediatr Otorhinolaryngol*. 1979;1:41-59.
- Sade J, Hadas E. Prognostic evaluation of secretory otitis media as a function of mastoidal pneumatisation. *Arch Otorhinolaryngol*. 1979;225:39-44.
- Sade J, Weinberg J, Berco E, Brown M, Halevy A. The marsupialized (radical) mastoid. *J Laryngol Otol*. 1982;96:869-875.
- Sade J, Yaniv E, Gassner S, Levy M. Stapes-replacing prosthesis (S.R.P.). *J Laryngol Otol*. 1983;97:677-684.
- Sade J, Yaniv E, Avraham S, Fuchs C, Sacs B. Missing stapes and stapes-replacing prosthesis. *Am J Otol*. 1985;6:257-262.
- Sade J, Shatz A. Cholesteatoma in children. *J Laryngol Otol*. 1988;102:1003-1006.
- Sade J, Luntz M, Pitashny R. Diagnosis and treatment of secretory otitis media. *Otolaryngol Clin North Am*. 1989;22:1-14.
- Sade J, Fuchs C. A comparison of mastoid pneumatization in adults and children with cholesteatoma. *Eur Arch Otorhinolaryngol*. 1994;251:191-195.
- Sade J. The nasopharynx, eustachian tube and otitis media [see comments]. *J Laryngol Otol*. 1994;108:95-100.
- Sade J, Fuchs C. Secretory otitis media in adults: I. The role of mastoid pneumatization as a risk factor. *Ann Otol Rhinol Laryngol*. 1996;105:643-647.
- Sade J, Ar A. Middle ear and auditory tube: middle ear clearance, gas exchange, and pressure regulation. *Otolaryngol Head Neck Surg*. 1997;116:499-524.
- Sade J, Fuchs C. Secretory otitis media in adults: II. The role of mastoid pneumatization as a prognostic factor. *Ann Otol Rhinol Laryngol*. 1997;106:37-40.
- Saeed S, Ramsden R. Hearing loss. *Practitioner*. 1994;238:454-460.
- Saez-Llorens X. Pathogenesis of acute otitis media. *Pediatr Infect Dis J*. 1994;13:1035-1038.
- Saffer M, Lubianca Neto JF, Piltcher OB, Petrillo VF. Chronic secretory otitis media: negative bacteriology. *Acta Otolaryngol*. 1996;116:836-839.

- Sagnelli M, Marzullo C, Pollastrini L, Marullo MN. Secretory otitis media: Current concepts and prognostic influence of adenoidectomy. OTITE MEDIA SECRETORIA: ASPETTI ATTUALE E RUOLO TERAPEUTICO DELLA ADENOIDECTOMIA. *MED RIV ENCICL MED ITAL*. 1990;10:16-22.
- Sagnelli M, Marzullo C, Pollastrini L, Marullo MN. [Secretory otitis media: current aspects and therapeutic role of adenoidectomy]. *Medicina-Firenze*. 1990;10:16-22.
- Sagraves R, Maish W, Kameshka A. Update on otitis media. Part 2. Treatment. *Am Pharm*. 1993;NS33:29-35.
- Said H, Phang KS, Razi A, Khuzaiyah R, Patawari PH, Esa R. Rhabdomyosarcoma of the middle ear and mastoid in children. *J Laryngol Otol*. 1988;102:614-619.
- Saim A, Saim L, Saim S, Ruszymah BH, Sani A. Prevalence of otitis media with effusion amongst pre-school children in Malaysia. *Int J Pediatr Otorhinolaryngol*. 1997;41:21-28.
- Saito T, Iwaki E, Kohno Y, et al. Prevention of persistent ear drum perforation after long-term ventilation tube treatment for otitis media with effusion in children. *Int J Pediatr Otorhinolaryngol*. 1996;38:31-39.
- Sak RJ, Ruben RJ. Recurrent middle ear effusion in childhood: implications of temporary auditory deprivation for language and learning. *Ann Otol Rhinol Laryngol*. 1981;90:546-551.
- Sak RJ, Ruben RJ. Effects of recurrent middle ear effusion in preschool years on language and learning. *J Dev Behav Pediatr*. 1982;3:7-11.
- Sakagami M, Kitamura K, Doi K, Mishiro Y, Kubo T. [Tympanoplasty in cholesteatoma otitis media with normal hearing]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1994;97:1437-1442.
- Sakagami M, Ogasawara H, Node M, Seo T, Mishiro Y, Okumura S. [Tympanoplasty on only hearing ears]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:973-977.
- Sakaguchi M, Taguchi K, Ishiyama T, Netsu K, Katsuno S. Tympanometric changes following acute otitis media in Japanese children. *Eur Arch Otorhinolaryngol*. 1994;251:113-116.
- Sakai M, Miyake H, Shinkawa A, Mahapatra AK, Chien C. Assessment of postoperative hearing in 528 middle ear and mastoid surgery cases in Tokai University Hospital. *Tokai J Exp Clin Med*. 1982;7:251-264.
- Sakai M, Shinkawa A, Saito S, Miyake H. Late results of hearing in children treated with tympanostomy tube. *Auris Nasus Larynx*. 1985;12:S38-S39.
- Sakai M, Koga K, Kawashiro N, Araki A, Morikawa Y. Long Term Follow-up of Children with Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:39-41.
- Sakakihara J, Honjo I, Fujita A, Kurata K, Takahashi H. Eustachian tube compliance in sniff-induced otitis media with effusion. A preliminary study. *Acta Otolaryngol*. 1993;113:187-190.
- Sakikawa Y, Kobayashi H, Nomura Y. Changes in middle ear pressure in daily life. *Laryngoscope*. 1995;105:1353-1357.
- Sakoa B. [Suppurative otitis media, bacteriologic study and therapeutic management]. *Vestn Otorinolaringol*. 1995:12-14.
- Sakurai T, Rokugo M. Pathophysiology of otitis media with effusion: clinical evaluation through some qualitative methods. *Auris Nasus Larynx*. 1985;12:S111-S113.
- Sakurai T. CT scan findings in blue ear drum. *Acta Oto-Laryngologica - Supplement*. 1987;435:117-121.
- Sala O, Babighian G. Automatic versus standard audiometry. *Audiology*. 1973;12:21-27.
- Salam MA, Wengraf D. Glue under pressure: A bad prognostic sign for recurrence of otitis media with effusion. *J Laryngol Otol*. 1992;106:974-976.
- Salam MA, Cable HR. The use of antibiotic/steroid ear drops to reduce post-operative otorrhoea and blockage of ventilation tubes. A prospective study. *J Laryngol Otol*. 1993;107:188-189.
- Salami A, Dellepiane M, Tinelli E, Zavattini G. Ambroxol in the treatment of secretory otitis media. *Valsalva*. 1984;60:421-430.

- Salata JA, Derkay CS. Water precautions in children with tympanostomy tubes. *Arch Otolaryngol Head Neck Surg.* 1996;122:276-280.
- Salazar JC, Daly KA, Giebink GS, et al. Low cord blood pneumococcal immunoglobulin G (IgG) antibodies predict early onset acute otitis media in infancy. *Am J Epidemiol.* 1997;145:1048-1056.
- Salazar Cabrera AN, Berron Perez R, Ortega Martell JA, Onuma Takane E. [Asthma and cyclic neutropenia]. *Allergol Immunopathol.* 1996;24:25-28.
- Salonen EM, Vaheri A, Meri S, Lehtinen T, Palva T. Plasmin and fibronectin degradation in chronic secretory otitis media. *Arch Otolaryngol Head Neck Surg.* 1989;115:48-53.
- Salvo Gonzalo S, Grijalba Uche M, Mazon Ramos A, Vila Mendiburu I. [Acute otitis media caused by *Nocardia asteroides*]. *Acta Otorrinolaringol Esp.* 1996;47:314-316.
- Salzberg R. [Comparative clinical and bacteriological studies with Bactrim and ampicillin in the pediatrics]. *Schweiz-Rundsch-Med-Prax.* 1972;61:1051-1052.
- Samet JM, Lewit EM, Warner KE. Involuntary smoking and children's health. *Future Child.* 1994;4:94-114.
- Samuel D, Thomas DM, Tierney PA, Patel KS. Atlanto-axial subluxation (Grisel's syndrome) following otolaryngological diseases and procedures. *J Laryngol Otol.* 1995;109:1005-1009.
- Samuelson A, Freijd A, Jonasson J, Lindberg AA. Turnover of nonencapsulated *Haemophilus influenzae* in the nasopharynxes of otitis-prone children. *J Clin Microbiol.* 1995;33:2027-2031.
- Sanchez TG, Ognibene RZ, Gondin M, Bento RF. Audiometric findings after ear ventilation tubes extrusion. *Revista Brasileira de Otorrinolaringologia.* 1992;58:99-102.
- Sanders JW. Symposium on sensorineural hearing loss in children: early detection and intervention. Impedance measurement. *Otolaryngol Clin North Am.* 1975;8:109-124.
- Sandstad B. Re: "Validity of parental report of a child's medical history in otitis media research" [letter; comment]. *Am J Epidemiol.* 1995;142:100-101.
- Sanna M, Shea CM, Gamoletti R, Russo A. Surgery of the 'only hearing ear' with chronic ear disease. *J Laryngol Otol.* 1992;106:793-798.
- Sano S, Kamide Y, Schachern PA, Paparella MM. Micropathologic changes of pars tensa in children with otitis media with effusion. *Arch Otolaryngol Head Neck Surg.* 1994;120:815-819.
- Santoni P, Parisi G, Menegus T, Avesani L. Otitis media with effusion in children: Clinical-therapeutical evaluation using letosteine. *Otorinolaryngologia.* 1987;37:541-548.
- Sarkkinen H, Ruuskanen O, Meurman O, Puhakka H, Virolainen E, Eskola J. Identification of respiratory virus antigens in middle ear fluids of children with acute otitis media. *J Infect Dis.* 1985;151:444-448.
- Sassen ML, Brand R, Grote JJ. Breast-feeding and acute otitis media. *Am J Otolaryngol.* 1994;15:351-357.
- Sassen ML, van Aarem A, Grote JJ. Validity of tympanometry in the diagnosis of middle ear effusion. *Clin Otolaryngol Allied Sci.* 1994;19:185-189.
- Sassen ML, Veen S, Schreuder AM, et al. Otitis media, respiratory tract infections and hearing loss in pre-term and low birthweight infants. *Clin Otolaryngol Allied Sci.* 1994;19:179-184.
- Sassen ML, Brand H, Grote JJ. Risk factors for otitis media with effusion in children 0 to 2 years of age. *Am J Otolaryngol.* 1997;18:324-330.
- Sataloff RT, Colton CM. Otitis media: a common childhood infection. *Am J Nurs.* 1981;81:1480-1483.
- Sataloff RT, Hawkshaw M, Emerich KA. How I do it: myringotomy tubes for malformed ears. *Ear Nose Throat J.* 1994;73:337-338.
- Sato H. Treatment of otitis media with effusion with transtympanic iontophoresis. *Otolaryngology.* 1987;59:357-361.
- Sato H, Nakamura H, Honjo I, Fujita A, Takahashi H, Hayashi M. Clinical evaluation of Tsumura-Saireito in children with otitis media with effusion. A comparative randomized controlled study with Cepharanthin. *PRACT OTOL.* 1988;81:1383-1387.

- Sato H, Takahashi H, Honjo I. Transtympanic iontophoresis of dexamethasone and fosfomycin. *Arch Otolaryngol Head Neck Surg.* 1988;114:531-533.
- Sato I, Shimada K, Ezure H, Sato H, Kohno T, Sato T. Three-dimensional structure of the perimysium in sternocleidomastoid muscle. *Okajimas Folia Anat Jpn.* 1995;71:381-387.
- Sato K, Quartey MK, Liebler CL, Giebink GS. Timing of penicillin treatment influences the course of Streptococcus pneumoniae-induced middle ear inflammation. *Antimicrob Agents Chemother.* 1995;39:1896-1898.
- Sato K, Quartey MK, Liebler CL, Le CT, Giebink GS. Roles of autolysin and pneumolysin in middle ear inflammation caused by a type 3 Streptococcus pneumoniae strain in the chinchilla otitis media model. *Infect Immun.* 1996;64:1140-1145.
- Sato K, Kawana M, Yamamoto Y, Fujioka O, Nakano Y. Evaluation of mastoid air cell system by three-dimensional reconstruction using sagittal tomography of the temporal bone. *Auris Nasus Larynx.* 1997;24:47-51.
- Saunte C. Clinical trial with Lunerin mixture and Lunerin mite in children with secretory otitis media. *J Int Med Res.* 1978;6:50-55.
- Sauvage JP, Heurtebise F, Puyraud S. [Hammock myringoplasty (technique, results)]. *Rev Laryngol Otol Rhinol.* 1996;117:247-251.
- Savara BS, Takeuchi Y. Anatomical location of cephalometric landmarks on the sphenoid and temporal bones. *Angle Orthod.* 1979;49:141-149.
- Savic D, Jasovic A, Djeric D. The relations of the mastoid segment of the facial canal to surrounding structures in congenital middle ear malformations. *Int J Pediatr Otorhinolaryngol.* 1989;18:13-19.
- Sawaki S. [Clinical evaluation of cephalexin (Lilly) in oto-laryngological infections by a double blind method]. *Saishin-Igaku.* 1970;25:1556-1562.
- Sawaki S, Kitamura K, Sato Y, Takahashi M. [Double-blind studies of the effect of ampicillin-cloxacillin (Rectocillin) on acute otorhinolaryngological infections (author's transl)]. *Jpn-J-Antibiot.* 1976;29:340-343.
- Sawyer CE, Evans RL, Boline PD, Branson R, Spicer A. A feasibility study of chiropractic spinal manipulation versus sham spinal manipulation for chronic otitis media with effusion in children. *J Manipulative Physiol Ther.* 1999;22:292-298.
- Scadding GK, Martin JA, Alles R, Hawk L, Darby Y. Glue ear guidelines [letter; comment]. *Lancet.* 1993;341:57.
- Scadding GK, Hawk LJ, Martin JA, Darby Y, Alles RS. Persistent glue ear in children [letter; comment]. *Br Med J.* 1993;306:455.
- Scaglione F, Cogo R, Pintucci JP, et al. Brodimoprim concentrations in bronchial mucosa, bronchial secretions and middle ear effusions. *J Chemother.* 1993;5:490-493.
- Scaldwell WA. Effect of otitis media upon reading scores of Indian children in Ontario. *J Am Indian Educ.* 1989:32-39.
- Schaad UB, Farine JC, Fux TH, al. e. Prospective placebo-controlled double-blind evaluation of a bacterial lysate in respiratory and ear-nose-throat infections in childhood. PROSPEKTIVE PLACEBO-KONTROLLIERTE DOPPELBLINDSTUDIE MIT EINEM BAKTERIENLYSAT BEI INFEKTIONEN DER ATEMWEGE UND DES ORL-BEREICHES IM KINDESALTER. *HELV PAEDIATR ACTA.* 1986;41:7-17.
- Schaad UB. Multicentre evaluation of azithromycin in comparison with co-amoxiclav for the treatment of acute otitis media in children. *J-Antimicrob-Chemother.* 1993:81-88.
- Schappert SM. Office visits for otitis media: United States, 1975-90. Advance data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1992.
- Schappert SM. National ambulatory medical care survey: 1994 summary. Advance data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1996.
- Schappert SM. Ambulatory care visits to physician offices, hospital outpatient departments, and emergency departments: United States, 1995. . Hyattsville (MD): U.S. Department of Health and Human Services; 1997.

- Schechter NL. Common pain problems in the general pediatric setting [see comments]. *Pediatr Ann.* 1995;24:139, 143-146.
- Scheinflug L, Vorwerk U, Begall K. [Effect size on resonance of the outer ear canal by simulation of middle ear lesions using a temporal bone preparation]. *Laryngorhinootologie.* 1995;74:39-42.
- Schilder AG, Zielhuis GA, Straatman HS, van den Broek P. An epidemiological approach to the etiology of middle ear disease in The Netherlands. *Eur Arch Otorhinolaryngol.* 1992;249:370-373.
- Schilder AGM, Zielhuis GA, van den Broek P. Long-term effects of otitis media with effusion otologic findings. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:585-588.
- Schilder AG, Van Manen JG, Zielhuis GA, Grievink EH, Peters SA, Van Den Broek P. Long-term effects of otitis media with effusion on language, reading and spelling. *Clin Otolaryngol Allied Sci.* 1993;18:234-241.
- Schilder AG, Zielhuis GA, Van Den Broek P. The otological profile of a cohort of Dutch 7.5-8-year-olds. *Clin Otolaryngol Allied Sci.* 1993;18:48-54.
- Schilder AG, Snik AF, Straatman H, van den Broek P. The effect of otitis media with effusion at preschool age on some aspects of auditory perception at school age. *Ear Hear.* 1994;15:224-231.
- Schilder AG, Zielhuis GA, Haggard MP, van den Broek P. Long-term effects of otitis media with effusion: otomicroscopic findings. *Am J Otol.* 1995;16:365-372.
- Schilder AG, Hak E, Straatman H, Zielhuis GA, van Bon WH, van den Broek P. Long-term effects of ventilation tubes for persistent otitis media with effusion in children. *Clin Otolaryngol Allied Sci.* 1997;22:423-429.
- Schilder AGM. Assessment of complications of the condition and of the treatment of otitis media with effusion. *Int J Pediatr Otorhinolaryngol.* 1999;49:247-251.
- Schiller A. Reconstruction of the sound conducting mechanism by the malleomyringoplasty and prosthesis method. *S Afr Med J.* 1971;45:339-344.
- Schlieper A, Kisilevsky H, Mattingly S, Yorke L. Mild conductive hearing loss and language development: a one year follow-up study. *J Dev Behav Pediatr.* 1985;6:65-68.
- Schloss MD, Rishikof E, Sorger S, Dempsey EE, Grace M. A double-blind study comparing erythromycin-sulfisoxazole (Pediazole (R)) t.i.d. with placebo in chronic otitis media with effusion. *TODAY'S THER TRENDS.* 1988;5:43-56.
- Schloss MD, Dempsey EE, Rishikof E, Sorger S, Grace MGA. Double Blind Study Comparing Erythromycin-Sulfisoxazole (Pediazole) T.I.D. to Placebo in Chronic Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:261-263.
- Schloss MD, Terraza O. Cholesteatoma in children. *J Otolaryngol.* 1991;20:43-45.
- Schmidt SH, Hellstrom S. Phenol anesthesia of the tympanic membrane in purulent otitis media: a structural analysis in the rat. *Eur Arch Otorhinolaryngol.* 1993;249:470-472.
- Schmidt SH, Hellstrom S. Experimental cholesteatoma in the rat. *Acta Otolaryngol.* 1994;114:430-434.
- Schmuziger N, Hauser R, Probst R. Influence of eustachian tube dysfunction on transiently evoked and distortion-product otoacoustic emissions. *HNO.* 1996;44:319-323.
- Schmuziger N, Hauser R, Probst R. [Transitory evoked otoacoustic emissions and distortion product emissions in disorders of middle ear ventilation]. *HNO.* 1996;44:319-323.
- Schnore SK, Sangster JF, Gerace TM, Bass MJ. Are antihistamine-decongestants of value in the treatment of acute otitis media in children? *J-Fam-Pract.* 1986;22:39-43.
- Scholz H, Noack R. Multicenter, randomized, double-blind comparison of erythromycin estolate versus amoxicillin for the treatment of acute otitis media in children. AOM Study Group. *Eur J Clin Microbiol Infect Dis.* 1998;17:470-478.
- Schonweiler R, Schonweiler B, Schmelzeisen R. [Hearing capacity and speech production in 417 children with facial cleft abnormalities]. *HNO.* 1994;42:691-696.

- Schonweiler R. [Synopsis of results with 1,300 children with language developmental delay from the etiopathogenetic, audiologic and speech pathology viewpoint]. *Folia Phoniatr Logop.* 1994;46:18-26.
- Schriberg LD, Flipsen PJ, Thielke H, et al. Risk for speech disorder associated with early recurrent otitis media with effusion: two retrospective studies. *J Speech Lang Hear Res.* 2000;43:79-99.
- Schuknecht HF, Gacek RR. Surgery on only-hearing ears. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1973;77:ORL257-66.
- Schuknecht HF, Kirchner JC. Cochlear otosclerosis: fact or fantasy. *Laryngoscope.* 1974;84:766-782.
- Schuknecht HF, Zaytoun GM, Moon CN, Jr. Adult-onset fluid in the tympanomastoid compartment. Diagnosis and management. *Arch Otolaryngol.* 1982;108:759-765.
- Schuller DE. Prophylaxis of otitis media in asthmatic children. *Pediatr-Infect-Dis.* 1983;2:280-283.
- Schulte DL, Driscoll CL, McDonald TJ, Facer GW, Beatty CW. Irradiated rib cartilage graft for reconstruction of the tympanic membrane: preliminary results. *Am J Otol.* 1998;19:141-144.
- Schuring AG, Lippy WH. Validating the excision of cholesteatoma. *Otolaryngol Head Neck Surg.* 1985;93:288-292.
- Schuring AG, Lippy WH. The ossicle-cup prosthesis: five years later. *Otolaryngol Head Neck Surg.* 1986;95:219-221.
- Schuring AG. An otologic informed consent. *Am J Otol.* 1988;9:243-245.
- Schuring AG. Validating the excision of cholesteatoma. *Otolaryngol Clin North Am.* 1989;22:1041-1053.
- Schuring AG, Lippy WH, Rizer FM, Schuring LT. Staging for cholesteatoma in the child, adolescent, and adult. *Ann Otol Rhinol Laryngol.* 1990;99:256-260.
- Schuring AG. Cholesteatoma and imaging. *Am J Otol.* 1991;12:394-395.
- Schwager K, Carducci F. [Endocranial complications of acute and chronic otitis media in children and adolescents]. *Laryngorhinootologie.* 1997;76:335-340.
- Schwartz DM, Schwartz RH, Redfield NP. Treatment of negative middle ear pressure and serous otitis media with Politzer's technique. An old procedure revisited. *Arch Otolaryngol.* 1978;104:487-490.
- Schwartz RH. New concepts in otitis media. *Am Fam Physician.* 1979;19:91-98.
- Schwartz RH, Puglese J. Use of a short course of prednisone for treating middle-ear effusions: A double-blind crossover study. *J Allergy Clin Immunol.* 1979;63.
- Schwartz RH, Puglese J, Schwartz DM. Use of a short course of prednisone for treating middle ear effusion. A double-blind crossover study. *Ann-Otol-Rhinol-Laryngol-Suppl.* 1980;89:296-300.
- Schwartz DM, Schwartz RH. Tympanometric findings in young infants with middle ear effusion: some further observations. *Int J Pediatr Otorhinolaryngol.* 1980;2:67-72.
- Schwartz DM, Schwartz RH. Acoustic immittance findings in acute otitis media. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:211-213.
- Schwartz RH, Movassaghi N, Marion ED. Rhabdomyosarcoma of the middle ear: a wolf in sheep's clothing. *Pediatrics.* 1980;65:1131-1133.
- Schwartz RH, Puglese J, Schwartz DM. Use of a short course of prednisone for treating middle ear effusion: A double-blind crossover study. *Ann Otol Rhinol Laryngol.* 1980;89.
- Schwartz RH, Schwartz DM, Grundfast KM. Intranasal beclomethasone in the treatment of middle ear effusion: A pilot study. *Annals of Allergy.* 1980;45:284-287.
- Schwartz RH, Rodriguez WJ, Grundfast KM. Pharmacologic compliance with antibiotic therapy for acute otitis media: influence on subsequent middle ear effusion. *Pediatrics.* 1981;68:619-622.
- Schwartz RH, Stool SE, Rodriguez WJ, Grundfast KM. Acute otitis media: toward a more precise definition. *Clin Pediatr.* 1981;20:549-554.
- Schwartz RH, Rodriguez WJ, Schwartz DM. Office myringotomy for acute otitis media: its value in

- preventing middle ear effusion. *Laryngoscope*. 1981;91:616-619.
- Schwartz RH. Otitis media with effusion: Results of treatment with a short course of oral prednisone or intranasal beclomethasone aerosol. *Otolaryngology and Head and Neck Surgery*. 1981;89:386-391.
- Schwartz RH, Puglise J, Rodriguez WJ. Sulphamethoxazole prophylaxis in the otitis-prone child. *Arch-Dis-Child*. 1982;57:590-593.
- Schwartz RH, Rodriguez WJ. Trimethoprim-sulfamethoxazole treatment of persistent otitis media with effusion. *Pediatr-Infect-Dis*. 1982;1:333-335.
- Schwartz RH. Diagnosis of middle ear effusion in office practice. *Pediatr Infect Dis*. 1982;1.
- Schwartz RH, Rodriguez WJ, McAveney W, Grundfast KM. Cerumen removal. How necessary is it to diagnose acute otitis media? *Am J Dis Child*. 1983;137:1064-1065.
- Schwartz RH, Grundfast KM, Feldman B, Linde RE, Hermansen KL. Cholesteatoma medial to an intact tympanic membrane in 34 young children. *Pediatrics*. 1984;74:236-240.
- Schwartz RH, Rodriguez WJ, Grundfast KM. Duration of middle ear effusion after acute otitis media. *Pediatr Infect Dis*. 1984;3:204-207.
- Schwartz RH, Hayden GF, Rodriguez WJ, Sait T, Chhabra O, Golub J. Leukocyte counts in children with acute otitis media. *Pediatr Emerg Care*. 1986;2:10-14.
- Schwartz DM, Schwartz RH. Validity of acoustic reflectometry in detecting middle ear effusion. *Pediatrics*. 1987;79:739-742.
- Schwartz RH. Recalcitrant "acute" otitis media secondary to glue ear [letter]. *Pediatr Infect Dis J*. 1993;12:356.
- Schwartz B, Giebink GS, Henderson FW, Reichler MR, Jereb J, Collet JP. Respiratory infections in day care. *Pediatrics*. 1994;94:1018-1020.
- Schwartz RH, Rodriguez WJ. Criteria for studies of antibiotic therapy for acute otitis media [letter; comment]. *J Pediatr*. 1995;126:677-678.
- Schwartz RH, Freij BJ, Ziai M, Sheridan MJ. Antimicrobial prescribing for acute purulent rhinitis in children: a survey of pediatricians and family practitioners. *Pediatr Infect Dis J*. 1997;16:185-190.
- Schwartz HC, Sedhom A. Pneumarthrosis of the temporomandibular joint: report of case. *Journal of Oral and Maxillofacial Surgery*. 1997;55:287-289.
- Scimeca PG, James-Herry AG. Severe, acute thrombocytopenia complicating Mycoplasma infection [letter]. *Pediatr Hematol Oncol*. 1994;11:557-559.
- Scola E. Our experience with the tympanic isopressor (musco NT3) in the treatment of the pathology of the medium ear caused by a tubaric trouble. *Otorinolaringologia Pediatrica*. 1990;1:153-155.
- Scott TA, Jackler RK. Acute mastoiditis in infancy: a sequela of unrecognized acute otitis media. *Otolaryngol Head Neck Surg*. 1989;101:683-687.
- Scott BA, Strunk CL, Jr. Post-tympanostomy otorrhea: a randomized clinical trial of topical prophylaxis. *Otolaryngol-Head-Neck-Surg*. 1992;106:34-41.
- Scott BA, Strunk CL, Jr. Posttympanostomy otorrhea: the efficacy of canal preparation. *Laryngoscope*. 1992;102:1103-1107.
- Sculerati N, Ledesma-Medina J, Finegold DN, Stool SE. Otitis media and hearing loss in Turner syndrome. *Arch Otolaryngol Head Neck Surg*. 1990;116:704-707.
- Sculerati N, Oddoux C, Clayton CM, Lim JW, Oster H. Hearing loss in Turner syndrome. *Laryngoscope*. 1996;106:992-997.
- Sebring RH, Herrerias CT. The political anatomy of a guideline: a collaborative effort to develop the AHCPR-sponsored practice guideline on otitis media with effusion. *Jt Comm J Qual Improv*. 1996;22:403-411.
- Sebring RH. Quality improvement: an ACQIP exercise on the management of otitis media. *Pediatr Rev*. 1996;17:251-256.
- Secord GJ, Erickson MT, Bush JP. Neuropsychological sequelae of otitis media in children and adolescents with learning disabilities. *J Pediatr Psychol*. 1988;13:531-542.
- Sederberg-Olsen JF, Sederberg-Olsen AE, Jensen AM. Late Results of Treatment with Grommets for

- Middle Ear Condition. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:269-271.
- Sederberg-Olsen JF, Sederberg-Olsen AE, Jensen AM. Late results of treatment with ventilation tubes for secretory otitis media in ENT practice. *Acta Otolaryngol.* 1989;108:448-455.
- Sederberg-Olsen JF, Sederberg-Olsen AE. [Patient compliance in clinical research in the primary and secondary sectors.]. *Acta-Otolaryngol-Suppl-Stockh.* 1992:129-131.
- Sederberg-Olsen J. [Acute otitis media (letter)]. *Ugeskr Laeger.* 1994;156:4367-4368.
- Sederberg-Olsen J, Sederberg-Olsen N, Thomsen J, Balle V. Problems in recruiting patients to controlled trials on children with secretory otitis media: a demographic comparison of excluded versus included patients. *Int J Pediatr Otorhinolaryngol.* 1998;43:229-233.
- Seikel K, Shelton S, McCracken GH, Jr. Middle ear fluid concentrations of amoxicillin after large dosages in children with acute otitis media. *Pediatr Infect Dis J.* 1997;16:710-711.
- Sejrsen B, Jakobsen J, Skovgaard LT, Kjaer I. Growth in the external cranial base evaluated on human dry skulls, using nerve canal openings as references. *Acta Odontol Scand.* 1997;55:356-364.
- Selesnick SH, Patwardhan A. Acute facial paralysis: evaluation and early management. *Am J Otolaryngol.* 1994;15:387-408.
- Selesnick SH, Carew JF, DiBartolomeo JR. Herniation of the temporomandibular joint into the external auditory canal: a complication of otologic surgery. *Am J Otol.* 1995;16:751-757.
- Seleznev KG, Shchetinina EA, Trophimenko NP, Nikonov GI, Baskova IP. Use of the medicinal leech in the treatment of ear diseases. *ORL J Otorhinolaryngol Relat Spec.* 1992;54:1-4.
- Selikowitz M. Short-term efficacy of tympanostomy tubes for secretory otitis media in children with Down syndrome. *Dev Med Child Neurol.* 1993;35:511-515.
- Selkin SG. The nasopharynx and serous otitis. A new technique for examination and photodocumentation. *Int J Pediatr Otorhinolaryngol.* 1983;6:291-296.
- Sell SH, Wilson DA, Stamm JM, Chazen EM. Treatment of otitis media caused by *Hemophilus influenzae*: evaluation of three antimicrobial regimens. *South-Med-J.* 1978;71:1493-1497.
- Sellari-Franceschini S, Berrettini S, Bruschini P, Scazzari F, Nenci R, Ferrito G. Neuroma of the facial nerve masked by chronic otitis media. *Am J Otol.* 1994;15:441-444.
- Sellars SL. The closure of tympanic membrane perforations by cautery--a reappraisal. *J Laryngol Otol.* 1969;83:487-491.
- Sellars SL. The glue ear and rubella risk children. *Proceedings of the Royal Society of Medicine.* 1969;62:111-112.
- Sellars SL. The origins of mastoid surgery. *S Afr Med J.* 1974;48:234-242.
- Sellick RJ. A simple test of hearing. *Practitioner.* 1973;210:396-400.
- Semenov FV. [The use of a combined prosthesis for the auditory ossicle chain of the author's own design in tympanoplasty]. *Vestn Otorinolaringol.* 1996:44.
- Semenov FV, Gorbonosov IB, Evglevskii AA, Volik AK. [Use of benzofurocaine in stimulation of regenerative processes in the surgical treatment of patients with chronic suppurative otitis media]. *Vestn Otorinolaringol.* 1996:45-48.
- Semenov FV, Lazareva LA. [Use of YAG-ND laser in the treatment of not healing trepanation cavities after cleansing surgery of the middle ear]. *Vestn Otorinolaringol.* 1996:14-17.
- Semerak A, Praisler J. Audiometric findings in middle-ear secretory-catarrh. *Ceskoslovenska Otolaryngologie.* 1980;29:5-14.
- Semmler A, Rieger C, Lesinski R. [A case report of malignant hyperthermia in a 14-month-old boy]. *Anaesthesiol Reanim.* 1994;19:21-22.
- Semones E. Therapy for acute otitis media [letter; comment]. *Arch Pediatr Adolesc Med.* 1996;150:1315.
- Sen S, Guha S, Biswas A, Ghosh LM. A comparative study of methods of evaluating Eustachian tube function in chronic suppurative otitis media. *Indian J Otol.* 1999;5:67-70.

- Sener RN. Arachnoid cysts and pneumosinus dilatans. *Comput Med Imaging Graph.* 1997;21:125-129.
- Sennaroglu L, Kaya S, Gursel B, Saatci I. Role of MRI in the diagnosis of otitic hydrocephalus. *Am J Otol.* 1996;17:784-786.
- Sente M, Ivkic M, Rakic N, Berkes B. [Personal experience in the treatment of chronic secretory otitis in children]. *Med Pregl.* 1993;46:195-197.
- Sente M. [The effect of adenoidectomy on eustachian tube function]. *Med Pregl.* 1996;49:45-47.
- Senturia BH. Classification of middle ear effusions. *Ann Otol Rhinol Laryngol.* 1970;79:358-370.
- Sequi Canet JM, Tomas Vila M, Marco Algarra J, Paredes Cencillo C, Brines Solanes J. Diagnosis of middle ear effusion by means of acoustic reflectometry. *An Esp Pediatr.* 1996;45:483-486.
- Serra A, Cavallo G, Nicolosi VM, Sutura C, Nicoletti G. [Etiology and rational therapy of acute otitis media in adults]. *G Bacteriol Virol Immunol.* 1994;86:121-125.
- Serrarols Soldevila M, Anglada Arisa A, Ledesma Castellort A. [Old diseases and new antibiotics]. *Aten Primaria.* 1993;12:679-681.
- Sethi BR. Kartagener's syndrome and its otological manifestations. *J Laryngol Otol.* 1975;89:183-188.
- Severien C, Lehnert TH. Epidemiology of invasive Haemophilus influenzae disease in a German city. *Klinische Padiatrie.* 1994;206:108-111.
- Shaaban KM, Hamadnalla I. The effect of duration of breast feeding on the occurrence of acute otitis media in children under three years. *East Afr Med J.* 1993;70:632-634.
- Shaan M, Landolfi M, Taibah A, Russo A, Szymanski M, Sanna M. Modified Bondy technique. *Am J Otol.* 1995;16:695-697.
- Shaffer HL, Gates GA, Meyerhoff WL. Acute mastoiditis and cholesteatoma. *Otolaryngology.* 1978;86:ORL394-399.
- Shah N. Secretory otitis media. A clinical survey. *J Laryngol Otol.* 1968;82:739-744.
- Shah N. Glue ear: diagnosis and management. *Proceedings of the Royal Society of Medicine.* 1975;68:37-38.
- Shamboul KM. An unusual prevalence of complications of chronic suppurative otitis media in young adults. *J Laryngol Otol.* 1992;106:874-877.
- Shanks JE. Tympanometry. *Ear Hear.* 1984;5:268-280.
- Shapiro SL. Disarticulation of the incus. *Eye, Ear, Nose and Throat Monthly.* 1967;46:922-927.
- Shapiro GG, Bierman CW, Furukawa CT, et al. Treatment of persistent eustachian tube dysfunction in children with aerosolized nasal dexamethasone phosphate versus placebo. *Ann-Allergy.* 1982;49:81-85.
- Shapiro AM, Bluestone CD. Otitis media reassessed. Up-to-date answers to some basic questions. *Postgrad Med.* 1995;97:73-76, 79-82.
- Share DL, Chalmers D, Silva PA, Stewart IA. Reading disability and middle ear disease. *Arch Dis Child.* 1986;61:400-401.
- Sharpe WD. Chronic radium intoxication: clinical and autopsy findings in long-term New Jersey survivors. *Environ Res.* 1974;8:243-383.
- Shaw JO, Stark EW, Gannaway SD. The influence of nitrous oxide anaesthetic on middle-ear fluid. *J Laryngol Otol.* 1978;92:131-135.
- Shaw CB, Obermyer N, Wetmore SJ, Spirou GA, Farr RW. Incidence of adenovirus and respiratory syncytial virus in chronic otitis media with effusion using the polymerase chain reaction. *Otolaryngol Head Neck Surg.* 1995;113:234-241.
- Shea MC, Glasscock ME. Tragal cartilage as an ossicular substitute. *Arch Otolaryngol.* 1967;86:308-317.
- Shea MC, Jr., Gardner G, Jr. Mastoid obliteration using homograft bone. Preliminary report. *Arch Otolaryngol.* 1970;92:358-365.
- Shea JJ. Autoinflation treatment of serous otitis media in children. *J Laryngol Otol.* 1971;85:1254-1258.
- Shea MC. Stapes fixation in chronic middle ear disease. *Laryngoscope.* 1976;86:230-232.

- Sheard NF. Breast-feeding protects against otitis media. *Nutr Rev.* 1993;51:275-277.
- Sheehy JL, Patterson ME. Intact canal wall tympanoplasty with mastoidectomy. A review of eight years' experience. *Laryngoscope.* 1967;77:1502-1542.
- Sheehy JL, Crabtree JA. Tympanoplasty: staging the operation. *Laryngoscope.* 1973;83:1594-1621.
- Sheehy JL. Cholesteatoma surgery in children. *Acta Otorhinolaryngol Belg.* 1980;34:98-106.
- Sheehy JL. TORPs and PORPs: causes of failure--a report on 446 operations. *Otolaryngol Head Neck Surg.* 1984;92:583-587.
- Sheeran PW, Smith AL, Mendelman PL. The susceptibility of Haemophilus influenzae middle ear and sinus isolates to sulphisoxazole [letter]. *J Antimicrob Chemother.* 1994;33:360-363.
- Sheikha A, Kameswaran M, Okafor BC, al-Saigh AA. Otological manifestations of thalassaemia intermedia: evidence of temporal bone involvement and report of a unique cholesteatoma-like lesion. *J Laryngol Otol.* 1992;106:316-321.
- Sheldon T, Freemantle N. Persistent glue ear in children [letter; comment]. *Br Med J.* 1993;306:650-651.
- Shelton C, Sheehy JL. Tympanoplasty: review of 400 staged cases. *Laryngoscope.* 1990;100:679-681.
- Shenderey K, Marsh BT, Talbot DJ. A multi-centre general practice comparison of a fixed-dose combination of pivmecillinam plus pivampicillin with amoxicillin in respiratory tract infections. *Pharmatherapeutica.* 1985;4:300-305.
- Sheppard IJ, Moir AA, Thomas RS, Narula AA. Organization of day-case adenoidectomy in the management of chronic otitis media with effusion--preliminary results. *J R Soc Med.* 1993;86:76-78.
- Shigemi H, Kaneda N, Hori F, Watanabe N, Mogi G. Congenital middle ear cholesteatoma: report of 3 cases. *Auris Nasus Larynx.* 1991;18:291-296.
- Shilkin R. Maternal postnatal depression and infant gastroesophageal reflux [letter; comment]. *Journal of Paediatrics and Child Health.* 1994;30:287-288.
- Shimizu K. Clinical experience with gentamicin in Japan. *J Infect Dis.* 1969;119:448-452.
- Shinkawa H, Ishidoya M, Okitsu T. Changes in tympanograms after middle ear inflation. *Eur Arch Otorhinolaryngol.* 1990;247:125-128.
- Shinkawa A, Sakai M, Tamura Y, Takahashi H, Ishida K. Canal-down tympanoplasty; one-stage tympanoplasty with mastoid obliteration, for non-cholesteatomatous chronic otitis media associated with osteitis. *Tokai J Exp Clin Med.* 1998;23:19-23.
- Shinkwin CA, Murty GE, Simo R, Jones NS. Peri-operative antibiotic/steroid prophylaxis of tympanostomy tube otorrhea: chemical or mechanical effect? *J Laryngol Otol.* 1996;110:531-533.
- Shiwa M, Kojima H, Kamide Y, Moriyama H. Involvement of interleukin-1 in middle ear cholesteatoma. *Am J Otolaryngol.* 1995;16:319-324.
- Shojaku H, Watanabe Y, Mizukoshi K, et al. Epidemiological study of severe cases of Meniere's disease in Japan. *Acta Oto-Laryngologica - Supplement.* 1995;520:415-418.
- Shone GR, Griffith IP. Titanium grommets: a trial to assess function and extrusion rates. *J Laryngol Otol.* 1990;104:197-199.
- Shriberg LD, Smith AJ. Phonological correlates of middle-ear involvement in speech-delayed children: a methodological note. *J Speech Hear Res.* 1983;26:293-297.
- Shriberg LD, Friel-Patti S, Flipsen PJ, Brown RL. Otitis media, fluctuant hearing loss, and speech-language outcomes: a preliminary structural equation model. *J Speech Lang Hear Res.* 2000;43:100-120.
- Shubich I. Otitis media with effusion and allergy control in children: a prospective study. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:173-174.
- Shurin PA, Pelton SI, Klein JO. Otitis media in the newborn infant. . *The Annals of Otolaryngology, Rhinology and Laryngology;* 1976:216-222.
- Shurin PA. Antibacterial therapy and middle ear effusions. . *The Annals of Otolaryngology, Rhinology and Laryngology;* 1976:250-253.

- Shurin PA, Pelton SI, Finkelstein J. Tympanometry in the diagnosis of middle-ear effusion. *N Engl J Med.* 1977;296:412-417.
- Shurin PA, Pelton SI, Donner A, Klein JO. Persistence of middle-ear effusion after acute otitis media in children. *N Engl J Med.* 1979;300:1121-1123.
- Shurin PA, Pelton SI, Donner A, Finkelstein J, Klein JO. Trimethoprim-sulfamethoxazole compared with ampicillin in the treatment of acute otitis media. *J Pediatr.* 1980;96:1081-1087.
- Shurin PA, Marchant CD, Johnson CE, Morledge T, Wegman D, Fehribch J. Tympanometric determination of the outcome of acute otitis media. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion;* 1988:20-22.
- Shurin PA, Rehmus JM, Johnson CE, et al. Bacterial polysaccharide immune globulin for prophylaxis of acute otitis media in high-risk children [see comments]. *J Pediatr.* 1993;123:801-810.
- Shurin PA. Evaluation of antimicrobial drugs for acute otitis media [editorial]. *Int J Pediatr Otorhinolaryngol.* 1996;34:219-223.
- Shy C. Summary report of the panel. Panel of the Workshop on Public Health Response to Nasopharyngeal Radium Irradiation. *Otolaryngol Head Neck Surg.* 1996;115:442-446.
- Shyu WC, Haddad J, Reilly J, et al. Penetration of cefprozil into middle ear fluid of patients with otitis media. *Antimicrob-Agents-Chemother.* 1994;38:2210-2212.
- Siddiqui N, Toynton S, Mangat KS. Results of middle ear ventilation with 'Mangat' T-tubes. *Int J Pediatr Otorhinolaryngol.* 1997;40:91-96.
- Sie KCY. Cholesteatoma in children. *Pediatr Clin North Am.* 1245;43:1245-1252.
- Sih T, Moura R, Caldas SI. Profilaxia das otites m,dias de repetiç,õ: um perfil brasileiro / Prophylaxis of recurrent otitis media: a brazilian profile. *Rev.-bras.-otorrinolaringol.* 1990;56:145-146.
- Sih T, Moura R, Caldas S, Schwartz B. Prophylaxis for recurrent acute otitis media: a Brazilian study. *Int J Pediatr Otorhinolaryngol.* 1993;25:19-24.
- Siim C, Tos M. Partial and total reconstruction of old radical cavities. Long-term results. *Arch Otolaryngol Head Neck Surg.* 1987;113:635-643.
- Silman S, Silverman CA, Arick DS. Acoustic-immittance screening for detection of middle-ear effusion in children. *J Am Acad Audiol.* 1992;3:262-268.
- Silman S, Silverman CA, Arick DS. Pure-tone assessment and screening of children with middle-ear effusion. *J Am Acad Audiol.* 1994;5:173-182.
- Silva PA, Kirkland C, Simpson A, Stewart IA, Williams SM. Some developmental and behavioral problems associated with bilateral otitis media with effusion. *Journal of Learning Disabilities.* 1982;15:417-421.
- Silva PA, Chalmers D, Stewart I. Some audiological, psychological, educational and behavioral characteristics of children with bilateral otitis media with effusion: a longitudinal study. *Journal of Learning Disabilities.* 1986;19:165-169.
- Silva AB, Hotaling AJ. A protocol for otolaryngology-head and neck resident training in pneumatic otoscopy. *Int J Pediatr Otorhinolaryngol.* 1997;40:125-131.
- Silver AJ, Mawad ME, Hilal SK, Sane P, Ganti SR. Computed tomography of the nasopharynx and related spaces. Part II: Pathology. *Radiology.* 1983;147:733-738.
- Silver AJ, Sane P, Hilal SK. CT of the nasopharyngeal region. Normal and pathologic anatomy. *Radiol Clin North Am.* 1984;22:161-176.
- Silver FM, Orobello PW, Jr., Mangal A, Pensak ML. Asymptomatic osteomas of the middle ear. *Am J Otol.* 1993;14:189-190.
- Silverglade D. Dental pain without dental etiology: a manifestation of referred pain from otitis media. *ASDC J Dent Child.* 1980;47:358-359.
- Silverman CA, Silman S. Acoustic-immittance characteristics of children with middle-ear effusion: longitudinal investigation. *J Am Acad Audiol.* 1995;6:339-345.
- Silverstein H. Ossicular reconstruction. In chronic seromucinous otitis media. *Arch Otolaryngol.* 1971;93:42-45.

- Silverstein H, Fabian RL, Stoll SE, Hong SW. Penetrating wounds of the tympanic membrane and ossicular chain. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1973;77:ORL125-35.
- Silverstein H, McDaniel AB, Lichtenstein R. A comparison of PORP, TORP, and incus homograft for ossicular reconstruction in chronic ear surgery. *Laryngoscope*. 1986;96:159-165.
- Silverstein H, Kuhn J, Choo D, Krespi YP, Rosenberg SI, Rowan PT. Laser-assisted tympanostomy. *Laryngoscope*. 1996;106:1067-1074.
- Simmons FB. Patients with bilateral loss of caloric response. *Ann Otol Rhinol Laryngol*. 1973;82:175-178.
- Simoes EA, Groothuis JR, Tristram DA, et al. Respiratory syncytial virus-enriched globulin for the prevention of acute otitis media in high risk children [see comments]. *J Pediatr*. 1996;129:214-219.
- Simon MW. Children with unilateral acute otitis media may have a temperature differential when both ears are measured by an infrared ear thermometer [letter]. *Pediatr Emerg Care*. 1996;12:324.
- Simon MW. Five- vs 10-day treatment of acute otitis media with ceftibuten in infants and children. *Advances in Therapy*. 1997;14:312-317.
- Simon MW. Diagnostic and therapeutic tympanocentesis [letter]. *Clin Pediatr*. 1997;36:309.
- Simonet M, De Briel D, Boucot I, Minck R, Veron M. Coryneform bacteria isolated from middle ear fluid. *J Clin Microbiol*. 1993;31:1667-1668.
- Sinanan EG. Re: Article on granular myringitis: a review [letter; comment]. *J Otolaryngol*. 1993;22:207.
- Singh B. The management of lateral sinus thrombosis. *J Laryngol Otol*. 1993;107:803-808.
- Singh B, Maharaj TJ. Radical mastoidectomy: its place in otitic intracranial complications. *J Laryngol Otol*. 1993;107:1113-1118.
- Singhal S, Sharma SC, Singhal KC. Adverse reactions to gentamycin in patients with ear, nose or throat infections. *Indian J Physiol Pharmacol*. 1992;36:189-192.
- Sipila P, Ryhanen P, Karma P. T cells as marked with acid alpha-naphthyl acetate esterase staining in secretory otitis media. *Acta Oto-Laryngologica - Supplement*. 1979;360:216-220.
- Sipila P, Sutinen S, Sutinen SH, Karma P. Ultrastructural morphology of mucoid effusion in secretory otitis media. *Acta Oto Laryngologica*. 1980;90:342-352.
- Sirakova T, Kolattukudy PE, Murwin D, et al. Role of fimbriae expressed by nontypeable Haemophilus influenzae in pathogenesis of and protection against otitis media and relatedness of the fimbrin subunit to outer membrane protein A. *Infect Immun*. 1994;62:2002-2020.
- Siri Arce MT, Bercovich WM, Prado Jim, nez V, Barroihlet Amen bar G. Estudio prospectivo, comparativo de la eficacia de sulfametopirazina-trimetoprim (kelfiprim) en relación a ampicilina oral, en lactantes con otitis media aguda / Comparative and prospective study of sulfamethopyrazine efficacy (kelfiprim) in relation to oral ampicillin in infants with acute otitis media. *Rev.-chil.-infectologia*. 1984;1:70-76.
- Skarzynski H, Zawadowski J, Niemczyk K, Balcerzak J. [The external drainage in chronic exudative otitis media: distant results]. *Otolaryngol Pol*. 1993;47:525-528.
- Skinner DW, Lesser TH, Richards SH. A 15 year follow-up of a controlled trial of the use of grommets in glue ear. *Clin Otolaryngol Allied Sci*. 1988;13:341-346.
- Skoner DP, Doyle WJ, Fireman P. Eustachian tube obstruction (ETO) after histamine nasal provocation--a double-blind dose-response study. *J-Allergy-Clin-Immunol*. 1987;79:27-31.
- Skoner DP, Angelini BL, Jones A, Seroky J, Doyle WJ, Fireman P. Suppression of in vivo cell-mediated immunity during experimental influenza A virus infection of adults. *Int J Pediatr Otorhinolaryngol*. 1996;38:143-153.
- Skull SA, Morris PS, Yonovitz A, et al. Middle ear effusion: rate and risk factors in Australian children attending day care. *Epidemiol Infect*. 1999;123:57-64.
- Slaby D. Familial early profound deafness in an Athabaskan kindred. *Alaska Med*. 1982;24:18-19.

- Sleeckx JP, Shea JJ, Pitzer FJ. Epitympanic ossicular fixation. *Arch Otolaryngol*. 1967;85:619-631.
- Sleeman M. Conductive deafness in children. *N Z Med J*. 1966;65:118-119.
- Sloth H, Lildholdt T. Tests of eustachian tube function and ear surgery. *Clin Otolaryngol Allied Sci*. 1989;14:227-230.
- Sloyer JL, Jr., Ploussard JH, Karr LJ, Schiffman GD. Immunologic response to pneumococcal polysaccharide vaccine in infants. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1980;89:351-356.
- Sloyer JLJ, Ploussard JH, Howie VM. Efficacy of pneumococcal polysaccharide vaccine in preventing acute otitis media in infants in Huntsville, Alabama. *Rev-Infect-Dis*. 1981;S119-S123.
- Sluchanko AP, Sodnomzhamsuev DD. [Hemangioma of the tympanic cavity in a patient with chronic suppurative otitis media]. *Vestn Otorinolaringol*. 1996;45.
- Sly RM, Zambie MF, Fernandes DA, Frazer M. Tympanometry in kindergarten children. *Annals of Allergy*. 1980;44:1-7.
- Smeak DD, Crocker CB, Birchard SJ. Treatment of recurrent otitis media that developed after total ear canal ablation and lateral bulla osteotomy in dogs: nine cases (1986-1994). *J Am Vet Med Assoc*. 1996;209:937-942.
- Smith CR, Brown AK, Jr., Hartvigsen RE. Auditory and nonauditory bone-conduction responses. *Arch Otolaryngol*. 1967;85:617-618.
- Smith KR, Jr. Idiopathic bilateral sigmoid sinus occlusion in a child: case report. *J Neurosurg*. 1968;29:427-430.
- Smith MF. Composite reconstruction of the open mastoidectomy ear. *Transactions - American Academy of Ophthalmology and Otolaryngology*. 1970;74:1166-1182.
- Smith R, Moran WB. Tympanic membrane keratoma (cholesteatoma) in children with no prior otologic surgery. *Laryngoscope*. 1977;87:237-245.
- Smith MW, Herzon FS. Electroacoustic assessment of the semipermeable tympanic ventilating tube. A physical model. *Arch Otolaryngol*. 1980;106:350-351.
- Smith CG, Paradise JL, Young TI. Modified schema for classifying positive-pressure tympanograms. *Pediatrics*. 1982;69:351-354.
- Smith CW. Smith-McGuckin spot. *J R Soc Med*. 1985;78:18-26.
- Smith PG, Stroud MH, Goebel JA. Soft-wall reconstruction of the posterior external ear canal wall. *Otolaryngol Head Neck Surg*. 1986;94:355-359.
- Smith S, Anders B. Tuberculosis mastoiditis caused by *Mycobacterium bovis*. *Pediatr Infect Dis J*. 1994;13:538-539.
- Smith AW, Hatcher J, Mackenzie IJ, et al. Randomised controlled trial of treatment of chronic suppurative otitis media in Kenyan schoolchildren [see comments]. *Lancet*. 1996;348:1128-1133.
- Smith AW, Hatcher J, Mackenzie IJ, et al. Randomised controlled trial of treatment of chronic suppurative otitis media in Kenyan schoolchildren. *Lancet*. 1996;348:1128-1133.
- Smith DW, Olszyk VB. Auditory behavioral thresholds for Japanese macaques using insert earphones. *Am J Primatol*. 1997;41:323-329.
- Smith SC, Haggard MP, Bennett KE, et al. Communication tactics used by parents of children with OME (glue ear). *Psychol Health Med*. 1999;4:333-344.
- Smith-Vaughan HC, Leach AJ, Shelby-James TM, Kemp K, Kemp DJ, Mathews JD. Carriage of multiple ribotypes of non-encapsulated *Haemophilus influenzae* in aboriginal infants with otitis media. *Epidemiol Infect*. 1996;116:177-183.
- Smith-Vaughan HC, Sriprakash KS, Mathews JD, Kemp DJ. Nonencapsulated *Haemophilus influenzae* in Aboriginal infants with otitis media: prolonged carriage of P2 porin variants and evidence for horizontal P2 gene transfer. *Infect Immun*. 1997;65:1468-1174.
- Smyth GD, Kerr AG, Goodey RJ. Current thoughts on combined approach tympanoplasty. I. Indications and preoperative assessment. *J Laryngol Otol*. 1971;85:205-212.
- Smyth GD. The surgical treatment of chronic otitis media in children. *J Otolaryngol*. 1976;5:446-452.

- Smyth GD, Hassard TH. Tympanoplasty in children. *Am J Otol.* 1980;1:199-205.
- Smyth GD. TORPs--how have they fared after five years? *J Laryngol Otol.* 1983;97:991-993.
- Smyth GD. Etiologic aspects and pathogenesis of persistent middle ear effusion. *Am J Otol.* 1984;5:286-290.
- Smyth GD. Cholesteatoma surgery: the influence of the canal wall. *Laryngoscope.* 1985;95:92-96.
- Sneed WF. Lateral sinus thrombosis. *Am J Otol.* 1983;4:258-262.
- Snik AF, Mylanus EA, Cremers CW. Speech recognition with the bone-anchored hearing aid determined objectively and subjectively. *Ear Nose Throat J.* 1994;73:115-117.
- Snik AF, Mylanus EA, Cremers CW. Bone-anchored hearing aids in patients with sensorineural hearing loss and persistent otitis externa. *Clin Otolaryngol.* 1995;20:31-35.
- Snow JC, Kripke BJ, Strong MS. Management of general anesthesia for mastoid-tympanoplasty: anesthesia and surgical considerations. *Laryngoscope.* 1973;83:1786-1793.
- Snow JB, Jr., Naunton RF. Research in the auditory and vestibular systems. The recommendations of the National Institute on Deafness and Other Communication Disorders National Strategic Research Plan. *ORL J Otorhinolaryngol Relat Spec.* 1993;55:154-158.
- Snow JB, Jr. News from the National Institute on Deafness and Other Communication Disorders [news]. *Am J Otol.* 1994;15:132-136.
- Snow JB, Jr. News from the National Institute on Deafness and Other Communication Disorders. *Am J Otol.* 1997;18:285-287.
- Sobol SM, Reichert TJ, Faw KD, Stroud MH, Spector GJ, Ogura JH. Intramembranous and mesotympanic cholesteatomas associated with an intact tympanic membrane in children. *Ann Otol Rhinol Laryngol.* 1980;89:312-317.
- Soda Merhy A, Hernandez Goribar M. Treatment of otitis media with trimethoprim-sulfamethoxypirazine. *Investigacion Medica Internacional.* 1985;12:103-107.
- Sofianou D, Selviarides P, Sofianos E, Tsakris A, Foroglou G. Etiological agents and predisposing factors of intracranial abscesses in a Greek university hospital. *Infection.* 1996;24:144-146.
- Sokolovski A. Ossicular reconstruction in the absence of stapedial crura. *Clin Otolaryngol Allied Sci.* 1978;3:273-277.
- Solter M, Paljan D. Variations in shape and dimensions of sigmoid groove, venous portion of jugular foramen, jugular fossa, condylar and mastoid foramina classified by age, sex and body side. *Zeitschrift fur Anatomie und Entwicklungsgeschichte.* 1973;140:319-335.
- Somekawa Y, Kobayashi K, Yamaguchi T, et al. Long-term result of grommets in children with secretory otitis media. *Journal of Otolaryngology.* 1985;88:261-266.
- Somers T, Houben V, Goovaerts G, Govaerts PJ, Offeciers FE. Histology of the perforated tympanic membrane and its muco-epithelial junction. *Clin Otolaryngol.* 1997;22:162-166.
- Song C, Huang P, Li C. [Restoration of external auditory canal by filling mastoid cavity with carbon pellet]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology.* 1996;31:33-35.
- Sorensen CH, Holm-Jensen S, Tos M. The post-winter prevalence rate of middle ear effusion in four-year-old children, judged by tympanometry. *Int J Pediatr Otorhinolaryngol.* 1981;3:119-128.
- Sorensen CH, Holm-Jensen S. Middle ear effusion and risk factors. *J Otolaryngol.* 1982;11:46-51.
- Sorensen CH. Quantitative aspects of IgD and secretory immunoglobulins in middle ear effusions. *Int J Pediatr Otorhinolaryngol.* 1983;6:247-253.
- Sorensen CH, Andersen LP, Tos M, Thomsen J, Holm-Jensen S. Nasopharyngeal bacteriology and secretory otitis media in young children. *Acta Otolaryngol.* 1988;105:126-131.
- Sorensen CH, Sorensen UB, Henrichsen J. Local production of IgG to pneumococcal C-polysaccharide in upper airway secretions from children with recurrent acute otitis media. *Microb Pathog.* 1989;6:183-191.

- Sorrell MJ, Tribble J, Reinisch L, Werkhaven JA, Ossoff RH. Bacteria identification of otitis media with fluorescence spectroscopy. *Lasers Surg Med.* 1994;14:155-163.
- Sorri M, Sipila P, Palva A, Karma P. Can secretory otitis media be prevented by oral decongestants? *ACTA OTO-LARYNGOL.* 1982;94:115-116.
- Sorri M, Rantakallio P. Respiratory tract disease and hearing loss. *Scandinavian Audiology Supplementum.* 1986;26:85-87.
- Sorri M, Rantakallio P. Secretory otitis media and hearing loss. *Acta Oto Laryngologica Supplement.* 1989;107:94-99.
- Sorri M, Maki-Torkko E, Alho OP. Otitis media and long-term follow-up of hearing. *Acta-Otolaryngol-Stockh.* 1995;109:811-816.
- Sorri M, Alho OP, Oja H. Dynamic multivariate modelling: day care and consultation rate for acute otitis media. *Acta Otolaryngol.* 1996;116:299-301.
- Soteras Olle J, Palomar Garcia V. [The mucosal subepithelial space in the middle ear in prolonged tubal dysfunction]. *Acta Otorrinolaringol Esp.* 1995;46:405-408.
- Soucek S, Michaels L. The ear in the acquired immunodeficiency syndrome: II. Clinical and audiologic investigation. *Am J Otol.* 1996;17:35-39.
- Soushko YA, Borissenko ON, Yalovoi SF. [Application of osseous allografts in surgery of the middle ear. Authors' experience]. *Rev Laryngol Otol Rhinol.* 1993;114:129-133.
- Sox H, Stern S, Owens D, Abrams HL. Assessment of diagnostic technology in health care: Rationale, methods, problems, and directions. . Washington, D.C.: National Academy Press; 1989.
- Spauwen PHM, Ritsma RJ, Huffstadt BJC, Schutte HK, Brown IF. The inferiorly based pharyngoplasty: Effects on chronic otitis media with effusion. *Cleft Palate Journal.* 1988;25:26-32.
- Spauwen PH, Goorhuis-Brouwer SM, Schutte HK. Cleft palate repair: Furlow versus von Langenbeck. *J-Craniomaxillofac-Surg.* 1992;20:18-20.
- Spector GJ, Smith PG. Endolymphatic sac surgery for Meniere's disease. *Ann Otol Rhinol Laryngol.* 1983;92:113-118.
- Spector SL. Overview of comorbid associations of allergic rhinitis. *J Allergy Clin Immunol.* 1997;99:S773-S780.
- Spencer MG. Suction tube noise and myringotomy. *J Laryngol Otol.* 1980;94:383-386.
- Spencer MJ. Diagnosis of middle ear effusion and infection. *Am J Nurs.* 1981;81:1482.
- Sperati G. [Francesco II of Valois: a historical case of otogenic meningitis (corrected and republished in Acta Otorhinolaryngol Ital 1996 Feb;16(1):62-5)]. *Acta Otorhinolaryngol Ital.* 1995;15:317-319.
- Sperati G. [The historic corner. Francesco II of Valois: a historic case of otogenic meningitis (corrected and republished article originally printed in Acta Otorhinolaryngol Ital 1995 Aug;15(4):317-9)]. *Acta Otorhinolaryngol Ital.* 1996;16:62-65.
- Sperber SJ, Doyle WJ, McBride TP, Sorrentino JV, Riker DK, Hayden FG. Otologic effects of interferon beta serine in experimental rhinovirus colds. *Arch Otolaryngol Head Neck Surg.* 1992;118:933-936.
- Spiewak W. [A case of coexisting tuberculous otitis media and pulmonary tuberculosis]. *Pneumonol Alergol Pol.* 1995;63:436-439.
- Spigno G, Teatini GP. Assessment of the effectiveness of carbocysteine in the treatment of catarrhal otitis. *Otorinolaryngologia.* 1981;31:461-464.
- Spilman DA, O'Sullivan NL, Montgomery PC. A study of lymphocyte adherence to middle ear mucosal tissue. *Adv Exp Med Biol.* 1995;371B:745-748.
- Spilseth P. Appropriateness of tympanostomy tubes. *Family Practice Research Journal.* 1992;12:43-52.
- Spindler JJ, Marsh BT, Talbot DJ. Respiratory infections in general practice: A clinical comparison of Pivmecillinam-plus-pivampicillin (Miraxid) and Cephalexin (Ceporex). *CLIN. TRIALS J.* 1985;22:293-299.
- Spingarn AT, Isaacs RS, Levenson MJ. Complications of acute streptococcal otitis media: a resurgence. *Otolaryngol Head Neck Surg.* 1994;111:644-646.
- Spraggs PD, Robinson PJ, Ryan R, East CA, Graham JM. A prospective randomised trial of the use of

- sodium bicarbonate and hydrogen peroxide ear drops to clear a blocked tympanostomy tube. *Int J Pediatr Otorhinolaryngol.* 1995;31:207-214.
- Sprem N, Branica S. Effects of sulphur dioxide and smoke on the incidence of secretory otitis media [see comments]. *Arh Hig Rada Toksikol.* 1993;44:229-232.
- Sprem N, Branica S. Effect of climatic elements on the frequency of secretory otitis media. *Eur Arch Otorhinolaryngol.* 1993;250:286-288.
- St Geme JWd, Falkow S, Barenkamp SJ. High-molecular-weight proteins of nontypable Haemophilus influenzae mediate attachment to human epithelial cells. *Proc Natl Acad Sci USA.* 1993;90:2875-2879.
- St. Geme JWd. Nontypable Haemophilus influenzae disease: epidemiology, pathogenesis, and prospects for prevention. *Infect Agents Dis.* 1993;2:1-16.
- Stahl JP, Archimbaud A, Baud P, et al. Treatment of acute otitis media in children: Comparison of cefuroxime axetil and amoxicillin-clavulanate suspensions. *Medecine Et Maladies Infectieuses.* 1995;25:147-153.
- Stamm AC, Pinto JA, Coser PL, Marigo C. Nonspecific necrotizing petrositis: an unusual complication of otitis in children. *Laryngoscope.* 1984;94:1218-1222.
- Stange G. Delay in language development due to moist tubotympanic catarrh. *Sprache Stimme Gehor.* 1982;6:10-12.
- Stangerup SE, Tos M. The etiologic role of acute suppurative otitis media in chronic secretory otitis. *Am J Otol.* 1985;6:126-131.
- Stangerup SE, Sederberg-Olsen J, Balle VH. [Treatment with the Otovent device in tubal dysfunction and secretory otitis media in children]. *Ugeskr-Laeger.* 1991;153:3008-3009.
- Stangerup SE, Sederberg-Olsen J, Balle V. Autoinflation as a treatment of secretory otitis media. A randomized controlled study. *Arch Otolaryngol Head Neck Surg.* 1992;118:149-152.
- Stangerup SE, Sederberg-Olsen JF, Balle V. Autoinflation as the initial treatment of tubal dysfunction. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:267-269.
- Stangerup SE, Tos M, Arnesen R, Larsen P. A cohort study of point prevalence of eardrum pathology in children and teenagers from age 5 to age 16. *Eur Arch Otorhinolaryngol.* 1994;251:399-403.
- Stangerup SE, Schwer S, Pedersen K, Brofeldt S, Niebuhr M. Prevalence of eardrum pathology in a cohort born in 1955. *J Laryngol Otol.* 1995;109:281-285.
- Stangerup SE, Tjernstrom O, Harcourt J, Klokke M, Stokholm J. Barotitis in children after aviation; prevalence and treatment with Otovent. *J Laryngol Otol.* 1996;110:625-628.
- Stapells DR, Ruben RJ. Auditory brain stem responses to bone-conducted tones in infants. *Ann Otol Rhinol Laryngol.* 1989;98:941-949.
- Stark EW, Borton TE. Klippel-Feil syndrome and associated hearing loss. *Arch Otolaryngol.* 1973;97:415-419.
- Stasche N, Foth HJ, Hormann K. [Laser Doppler vibrometry of the tympanic membrane. Possibilities for objective middle ear diagnosis]. *HNO.* 1993;41:1-6.
- Stasche N, Foth HJ, Hormann K, Baker A, Huthoff C. Middle ear transmission disorders--tympanic membrane vibration analysis by laser-Doppler-vibrometry [see comments]. *Acta Otolaryngol.* 1994;114:59-63.
- StataCorp. Stata Statistical Software: Release 6.0. : College Station, TX: Stata Corporation; 1999.
- Stechenberger BW, Anderson D, Chang MJ, et al. Cephalixin compared to ampicillin treatment of otitis media. *Pediatrics.* 1976;58:532-536.
- Steele CH. An otolaryngologist views the tonsil and adenoid problem. *American Journal of Orthodontics.* 1968;54:485-491.
- Stenberg AE, Nysten O, Windh M, Hultcrantz M. Otolological problems in children with Turner's syndrome. *Hear Res.* 1998;124:85-90.
- Stenfelt SP, Hakansson BE. A miniaturized artificial mastoid using a skull simulator. *Scand Audiol.* 1998;27:67-76.

- Stenfors LE, Raisanen S. Quantitative analysis of the bacterial findings in otitis media. *J Laryngol Otol.* 1990;104:749-757.
- Stenfors LE, Raisanen S. Immunoglobulin-coated bacteria in effusions from secretory and chronic suppurative otitis media. *Am J Otolaryngol.* 1991;12:161-164.
- Stenfors LE, Raisanen S. Immunoglobulin- and complement-coated bacteria in middle ear effusions during the early course of acute otitis media. *Scand J Infect Dis.* 1992;24:759-763.
- Stenfors LE, Raisanen S. Opsonization and phagocytosis of bacteria during various middle ear infections. *Int J Pediatr Otorhinolaryngol.* 1993;27:137-145.
- Stenfors LE, Raisanen S. Secretory IgA-, IgG- and C3b-coated bacteria in the nasopharynx of otitis-prone and non-otitis-prone children. *Acta Otolaryngol.* 1993;113:191-195.
- Stenqvist M, Anniko M, Pettersson A. Effect of *Pseudomonas aeruginosa* exotoxin A on inner ear function. *Acta Otolaryngol.* 1997;117:73-79.
- Stenstrom C, Lundgren K, Ingvarsson L, Bertilson SO. Amoxicillin/clavulanate versus amoxicillin in recurrent otitis media and therapeutic failure in children. *Acta-Otolaryngol-Stockh.* 1991;111:120-129.
- Stenstrom C, Bylander-Groth A, Ingvarsson L. Eustachian tube function in otitis-prone and healthy children. *Int J Pediatr Otorhinolaryngol.* 1991;21:127-138.
- Stenstrom R, Bernard PA, Ben-Simhon H. Exposure to environmental tobacco smoke as a risk factor for recurrent acute otitis media in children under the age of five years. *Int J Pediatr Otorhinolaryngol.* 1993;27:127-136.
- Stenstrom C, Ingvarsson L. General illness and need of medical care in otitis prone children. *Int J Pediatr Otorhinolaryngol.* 1994;29:23-32.
- Stenstrom C, Ingvarsson L. Late effects on ear disease in otitis-prone children: a long-term follow-up study. *Acta Otolaryngol.* 1995;115:658-663.
- Stenstrom RJ, Bernard PAM, Feldman W, Durieux-Smith A, Pless IB, Beauregard Y. Long-term sequelae of ventilation tube insertion for the treatment of otitis media with effusion and recurrent acute otitis media. *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:373-375.
- Stenstrom C, Ingvarsson L. Otitis-prone children and controls: a study of possible predisposing factors. 2. Physical findings, frequency of illness, allergy, day care and parental smoking. *Acta Otolaryngol.* 1997;117:696-703.
- Stenstrom C, Ingvarsson L. Otitis-prone children and controls: a study of possible predisposing factors. 1. Heredity, family background and perinatal period. *Acta Otolaryngol.* 1997;117:87-93.
- Stephenson H, Haggard M, Zielhuis G, van den Broek P, Schilder A. Prevalence of tympanogram asymmetries and fluctuations in otitis media with effusion: implications for binaural hearing. *Audiology.* 1993;32:164-174.
- Stephenson H, Higson J, Haggard M. Binaural hearing in adults with histories of otitis media in childhood. *Audiology.* 1995;34:113-123.
- Stephenson H. Evaluation of self-report by adults of childhood otitis media histories. *Audiology.* 1995;34:124-134.
- Stephenson H, Higson JM, Haggard MP, Dutson M, Rogers M, Schilder AG. The acoustic reflex in adults with histories of otitis media in childhood. *Ear Hear.* 1997;18:62-72.
- Stern SJ, Fazekas-May M. Cholesteatoma in the pediatric population: prognostic indicators for surgical decision making. *Laryngoscope.* 1992;102:1349-52.
- Steuer MK, Hofstadter F, Probster L, Beuth J, Strutz J. Are ABH antigenic determinants on human outer ear canal epithelium responsible for *Pseudomonas aeruginosa* infections? *ORL J Otorhinolaryngol Relat Spec.* 1995;57:148-152.
- Stevens D. Ear, nose and throat problems in childhood. *Practitioner.* 1981;225:1593-1601.
- Stewart TJ, Belal A. Surgical anatomy and pathology of the round window. *Clin Otolaryngol Allied Sci.* 1981;6:45-62.
- Stewart IA, Jenkin L, Kirkland C, Silva PA, Simpson A. A preliminary evaluation of the use of an automatic impedance tympanometer in the diagnosis

of otitis media with effusion in children: a report from the Dunedin Multidisciplinary Health and Development Research Unit. *N Z Med J*. 1983;96:252-255.

Stewart I, Kirkland C, Simpson A, Silva P, Williams S. Some Developmental Characteristics Associated with Otitis Media with Effusion. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:329-332.

Stewart IA, Guy AM, Allison RS, Thomson NJ. Bromhexine in the treatment of otitis media with effusion. *Clin-Otolaryngol*. 1985;10:145-149.

Stewart IA, Jenkin L, Silva PA, Williams S. Controlled trial of tympanostomy tubes in otitis media with effusion: developmental and behavioral effects. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:557-560.

Stewart LA, Parmar MK. Meta-analysis of the literature or of individual patient data: is there a difference? *Lancet*. 1993;341:418-422.

Stewart MG, Troendle-Atkins J, Starke JR, Coker NJ. Nontuberculous mycobacterial mastoiditis. *Arch Otolaryngol Head Neck Surg*. 1995;121:225-228.

Stewart LA, Clarke MJ. Practical methodology of meta-analyses (overviews) using updated individual patient data. Cochrane Working Group. *Stat Med*. 1995;14:2057-2079.

Stewart MG, Ohlms LA, Friedman EM, et al. Is parental perception an accurate predictor of childhood hearing loss? A prospective study. *Otolaryngol Head Neck Surg*. 1999;120:340-344.

Stewart IA. Evaluation of factors affecting outcome of surgery for otitis media with effusion in clinical practice. *Int J Pediatr Otorhinolaryngol*. 1999;49:243-245.

Stickler GB, Rubenstein MM, McBean JB, Hedgecock LD, Hugstad JA, Griffing T. Treatment of acute otitis media in children. IV. A fourth clinical trial. *Am-J-Dis-Child*. 1967;114:123-130.

Stingle WH. Middle ear effusion. *Bull N Y Acad Med*. 1981;57:582-590.

Stocks RM, Wang WC, Thompson JW, Stocks MC, 2nd, Horwitz EM. Malignant infantile osteopetrosis: otolaryngological complications and management.

Arch Otolaryngol Head Neck Surg. 1998;124:689-694.

Stollman MH, Snik AF, Schilder AG, van den Broek P. Measures of binaural hearing in children with a history of asymmetric otitis media with effusion. *Audiol Neurootol*. 1996;1:175-185.

Stool SE, Belafsky ML. Pediatric otolaryngology. *Curr Probl Pediatr*. 1971;2:1-51.

Stool SE, Anticalgia J. Electric otoscopy-a basic pediatric skill. *Clin Pediatrics*. 1973;12:420-426.

Stool SE, Craig HB, Laird MA. Screening for middle ear disease in a school for the deaf. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:172-177.

Stool SE, Black FO, Craig H, Laird M. Otologic care in a school for the deaf. *Otolaryngol Head Neck Surg*. 1981;89:651-657.

Stool SE, Flaherty MR. Validation of diagnosis of otitis media with effusion. *Ann Otol Rhinol Laryngol*. 1983;96.

Stool SE. Medical relevancy of immittance measurements. *Ear Hear*. 1984;5:309-313.

Stool SE, Field MJ. The impact of otitis media. *Pediatr Infect Dis J*. 1989;8:S11-S14.

Stool SE, Berg AO, Berman S, al. e. Otitis media with effusion in young children. Clinical Practice Guideline, Number 12. . Rockville (MD): Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services; 1994a July.

Stool SE, Berg AO, Berman S, al. e. Managing otitis media with effusion in young children. Quick Reference Guide for Clinicians. . Rockville (MD): Agency for Health Care Policy and Research, Public Health Services, U.S. Department of Health and Human Services; 1994b July.

Stool S, Mount MR, Medellin G. Diagnosing otitis media: a workshop. *Compr Ther*. 1996;22:776-781.

Storgaard M, Larsen K, Blegvad S, et al. Interleukin-8 and chemotactic activity of middle ear effusions. *J Infect Dis*. 1997;175:474-477.

Storms WW, Southern DL, Feiss G, Simpson B, Furst JA, Smith JA. Efficacy of triamcinolone acetonide aerosol nasal inhaler in children with

- perennial allergic rhinitis. *Pediatric Asthma, Allergy and Immunology*. 1996;10:59-64.
- Stott NC, West RR. Randomised controlled trial of antibiotics in patients with cough and purulent sputum. *Br-Med-J*. 1976;2:556-559.
- Strachan DP, Jarvis MJ, Feyerabend C. Passive smoking, salivary cotinine concentrations, and middle ear effusion in 7 year old children [see comments]. *Br Med J*. 1989;298:1549-1552.
- Strachan DP. Impedance tympanometry and the home environment in seven-year-old children. *J Laryngol Otol*. 1990;104:4-8.
- Strachan D, Hope G, Hussain M. Long-term follow-up of children inserted with T-tubes as a primary procedure for otitis media with effusion. *Clin Otolaryngol Allied Sci*. 1996;21:537-541.
- Strachan D, McPherson B, Smyth V, Scott J. Hearing screening for children with otitis media with effusion using external ear resonance. *J Audiological Med*. 1996;5:73-82.
- Straka JA, Caparosa RJ. Eosinophilic granuloma of the temporal bone. *Laryngoscope*. 1972;82:41-44.
- Stratieva OV, Arefyeva NA, Smakaeva DF. On diagnosis of exudative otitis media. *Zhurnal Ushnykh, Nosovykh i Gorlovykh Bolezney Issue*. 1997;1:38-42.
- Stream RW, Stream KS, Walker JR, Breningstall G. Emerging characteristics of the acoustic reflex in infants. *Otolaryngology*. 1978;86:ORL-628-36.
- Stuart JE, Quayle CJ, Lewis AN. Follow-up studies of aboriginal children with ear disease and hearing loss at Cherbourg (Queensland). *Med J Aust*. 1975;1:Spec suppl 38-40.
- Stuart J. Guidelines on the management of paediatric middle ear disease [letter]. *Med J Aust*. 1994;160:451.
- Studebaker GA. The standardization of bone-conduction thresholds. *Laryngoscope*. 1967;77:823-835.
- Stutman HR, Arguedas AG. Comparison of cefprozil with other antibiotic regimens in the treatment of children with acute otitis media. *Clin-Infect-Dis*. 1992;S204-208; discussion.
- Stutman HR. Cefprozil. *Pediatr Ann*. 1993;22:167-168, 171-176.
- Su CY, Hsu SP, Chee CY. Electromyographic study of tensor and levator veli palatini muscles in patients with nasopharyngeal carcinoma. Implications for eustachian tube dysfunction. *Cancer*. 1993;71:1193-1200.
- Su CY, Hsu SP, Lui CC. Computed tomography, magnetic resonance imaging, and electromyographic studies of tensor veli palatini muscles in patients with nasopharyngeal carcinoma. *Laryngoscope*. 1993;103:673-678.
- Su CY. Valve section of the eustachian tube. *J Laryngol Otol*. 1995;109:486-490.
- Sugita R, Deguchi K, Kimura S, et al. [Efficacy of cefditoren pivoxil in the treatment of acute otitis media due to benzylpenicillin-insensitive *Streptococcus pneumoniae*]. *Jpn J Antibiot*. 1996;49:386-398.
- Sullivan TD, LaScolea LJ, Jr. Neisseria meningitidis bacteremia in children: quantitation of bacteremia and spontaneous clinical recovery without antibiotic therapy. *Pediatrics*. 1987;80.
- Sumerson JM. Auditory and vestibular findings in dyslexic children. *Transactions - Pennsylvania Academy of Ophthalmology and Otolaryngology*. 1985;37:196-200.
- Sumitsawan Y, Tharavichitkul P, Prawatmuang W, Ingsuwan B, Sriburi P. Ofloxacin otic solution as treatment of chronic suppurative otitis media and diffuse bacterial otitis externa. *J Med Assoc Thai*. 1995;78:455-459.
- Summerfield MJ. Deafness in adults. *N Z Med J*. 1978;87:440-442.
- Sundberg L, Cederberg A, Eden T, Ernstson S. The effect of erythromycin on the nasopharyngeal pathogens in children with secretory otitis media. *Acta-Otolaryngol-Stockh*. 1984;97:379-383.
- Sundberg L. Antibiotic treatment of secretory otitis media. *Acta Oto-Laryngologica - Supplement*. 1984;407:26-29.
- Sundberg L, Cederberg A. Penetration of clarithromycin and its 14-hydroxy metabolite into middle ear effusion in children with secretory otitis media. *J Antimicrob Chemother*. 1994;33:299-307.

- Sunderland R, McVey DL, Atkin KJ. Cefixime versus co-amoxiclav in the treatment of pediatric upper respiratory tract infections and otitis media. A multicenter clinical study of empirical treatment in general practice in the United Kingdom. *Curr Ther Res, Clin Exp.* 1994;55:22-29.
- Sung BS, Chonmaitree T, Broemeling LD, et al. Association of rhinovirus infection with poor bacteriologic outcome of bacterial-viral otitis media. *Clin-Infect-Dis.* 1993;17:38-42.
- Supance JS, Kaleida PH, Casselbrant ML, et al. Antibiotic or myringotomy, or both, for acute otitis media. *Ann Otol Rhinol Laryngol.* 1983;96.
- Supiyaphun P, Tonsakulrungruang K, Chochoipanichnon L, Chongtateong A, Samart Y. The treatment of chronic suppurative otitis media and otitis externa with 0.3 per cent ofloxacin otic solution: a clinico-microbiological study. *J Med Assoc Thai.* 1995;78:18-21.
- Surico G, Muggeo P, Muggeo V, et al. Ear involvement in childhood langerhans' cell histiocytosis. *Head Neck.* 2000;22:42-47.
- Surr RK, Schuchman GI. Measurement of the acoustic reflex without a pressure seal. *Arch Otolaryngol.* 1976;102:160-161.
- Sutbeyaz Y, Yakan B, Ozdemir H, Karasen M, Doner F, Kufrevioglu I. Effect of SC-41930, a potent selective leukotriene B4 receptor antagonist, in the guinea pig model of middle ear inflammation. *Ann Otol Rhinol Laryngol.* 1996;105:476-480.
- Sutton GJ, Gleadle P, Rowe SJ. Tympanometry and otoacoustic emissions in a cohort of special care neonates [published erratum appears in Br J Audiol 1996 Apr;30(2):152]. *Br J Audiol.* 1996;30:9-17.
- Suzuki M. A long-term follow-up of secretory otitis media in children. *Otolaryngology.* 1984;56:469-473.
- Suzuki T, Somekawa Y, Yamanaka N, Niida Y, Kataura A. Lactoferrin in middle ear effusion. *Auris Nasus Larynx.* 1985;12:S154-S155.
- Suzuki M, Kodera K. Long term follow-up of secretory otitis media in children: the effects of adenotonsillectomy with insertion of a ventilation tube. *Auris Nasus Larynx.* 1985;12:S237-S238.
- Suzuki K, Bakaletz LO. Synergistic effect of adenovirus type 1 and nontypeable Haemophilus influenzae in a chinchilla model of experimental otitis media. *Infect Immun.* 1994;62:1710-1718.
- Suzuki K, Baba S. Antimicrobial ear drop medication therapy. *Acta Oto-Laryngologica - Supplement.* 1996;525:68-72.
- Suzuki M, Arimura Y, Minoshima S, et al. [A case of myeloperoxidase-specific antineutrophil cytoplasmic antibody (MPO-ANCA)-related glomerulonephritis associated with Cogan's syndrome]. *Nippon Jinzo Gakkai Shi. Japanese Journal of Nephrology.* 1996;38:423-427.
- Suzuki C, Sando I, Fagan JJ, Kamerer DB, Knisely AS. Histopathological features of a cochlear implant and otogenic meningitis in Mondini dysplasia. *Arch Otolaryngol Head Neck Surg.* 1998;124:462-466.
- Suzuki M, Kawauchi H, Mogi G. Clinical efficacy of an antiallergic drug on otitis media with effusion in association with allergic rhinitis. *Auris Nasus Larynx.* 1999;26:123-129.
- Svinhufvud M, Hermansson A, Prellner K. Active immunisation and resistance to experimental acute pneumococcal otitis media. *Int J Pediatr Otorhinolaryngol.* 1993;25:91-103.
- Swanson JA, Hoecker JL. Concise review for primary-care physicians. *Mayo Clin Proc.* 1996;71:179-183.
- Swart SM, Lemmer R, Parbhoo JN, Prescott CA. A survey of ear and hearing disorders amongst a representative sample of grade 1 schoolchildren in Swaziland. *Int J Pediatr Otorhinolaryngol.* 1995;32:23-34.
- Swarts MC, Doyle WJ. Medicinal plants used for the treatment of otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:257-260.
- Swarts JD, Alper CM, Seroky JT, Chan KH, Doyle WJ. In vivo observation with magnetic resonance imaging of middle ear effusion in response to experimental underpressures. *Ann Otol Rhinol Laryngol.* 1995;104:522-528.
- Swartz JD, Goodman RS, Russell KB, Ladenheim SE, Wolfson RJ. High-resolution computed tomography of the middle ear and mastoid. Part III: Surgically altered anatomy and pathology. *Radiology.* 1983;148:461-464.

- Swartz JD, Goodman RS, Russell KB, Marlowe FI, Wolfson RJ. High-resolution computed tomography of the middle ear and mastoid. Part II: Tubotympanic disease. *Radiology*. 1983;148:455-459.
- Swartz JD. High-resolution computed tomography of the middle ear and mastoid. Part I: Normal radioanatomy including normal variations. *Radiology*. 1983;148:449-454.
- Swartz JD, Russell KB, Wolfson RJ, Marlowe FI. High resolution computed tomography in evaluation of the temporal bone. *Head and Neck Surgery*. 1984;6:921-931.
- Swartz JD, Swartz NG, Korsvik H, et al. Computerized tomographic evaluation of the middle ear and mastoid for posttraumatic hearing loss. *Ann Otol Rhinol Laryngol*. 1985;94:263-266.
- Swischuk LE. Diplopia after head injury. *Pediatr Emerg Care*. 1999;15:233-234.
- Syms MJ, Tsai PD, Holtel MR. Management of lateral sinus thrombosis. *Laryngoscope*. 1999;109:1616-1620.
- Syrogianopoulos GA, Goumas PD, Haliotis FA, Lygatsikas CG, Spyropoulos CD, Beratis NG. Cefuroxime axetil in the treatment in acute otitis media in children. *J Chemother*. 1992;4:221-224.
- Syrogianopoulos GA, Goumas PD, Haliotis FA, Lygatsikas CG, Spyropoulos CD, Beratis NG. Cefuroxime axetil in the treatment of acute otitis media in children. *J Chemother*. 1992;4:221-224.
- Szanton VL. Allergy and serous otitis media. *W V Med J*. 1967;63:108-110.
- Szmeja Z, Golusinski W, Mielcarek-Kuchta D, Laczowska-Przybylska J. [Use of mucolytic preparations (Mucosolvan) in selected diseases of the upper respiratory tract. Part II]. *Otolaryngol-Pol*. 1997;51:480-486.
- Szpunar J. Biological reconstruction of the ossicular chain. *Arch Otolaryngol*. 1967;86:303-307.
- Szpunar J, Miszke A. Fibrous ankylosis of the incudostapedial joint. *Arch Otolaryngol*. 1970;92:138-140.
- Szucs E, Diependaele R, Clement PA. The accuracy of tympanometry assessed by its sensitivity and specificity. *Acta Otorhinolaryngol Belg*. 1995;49:287-292.
- Szyfter W, Wierzbicka M. [Drug addiction complicating treatment of chronic otitis media]. *Otolaryngol Pol*. 1994;48:489-493.
- Tachibana F, Shimada T, Hori Y, Wada Y, Ishitani Y, Koike Y. Platelet-activating factor and leukotrienes in acute otitis media, secretory otitis media, and chronic otitis media on the acute exacerbation. *Auris Nasus Larynx*. 1996;23:20-25.
- Tajima T, Kobayashi M, Negishi S, et al. [Pharmacokinetic, bacteriological and clinical studies on cefditoren pivoxil in children]. *Jpn J Antibiot*. 1993;46:589-595.
- Tajima T, Kondo Y, Negishi S, et al. [Pharmacokinetic, bacteriological and clinical studies on cefozopran in children]. *Jpn-J-Antibiot*. 1994;47:1457-1463.
- Takada R, Harabuchi Y, Himi T, Kataura A. Antibodies specific to outer membrane antigens of *Moraxella catarrhalis* in sera and middle ear effusions from children with otitis media with effusion. *Int J Pediatr Otorhinolaryngol*. 1998;46:185-195.
- Takahashi H, Hayashi M, Honjo I. Direct measurement of middle ear pressure through the eustachian tube. *Arch Otorhinolaryngol*. 1987;243:378-381.
- Takahashi H, Fujita A, Honjo I. Effect of adenoidectomy on otitis media with effusion, tubal function, and sinusitis. *Am J Otolaryngol*. 1989;10:208-213.
- Takahashi H, Honjo I, Fujita A, Kurata K. Transtympanic endoscopic findings in patients with otitis media with effusion. *Arch Otolaryngol Head Neck Surg*. 1990;116:1186-1189.
- Takahashi H, Honjo I, Yagi N, Kurata K. Viscosity of effusion in the middle ear and eustachian tube in patients with otitis media with effusion. *Auris Nasus Larynx*. 1990;17:11-16.
- Takahashi H, Honjo I, Hayashi M, Fujita A, Kurata K. Middle ear pressures of children with otitis media with effusion. *Ann Otol Rhinol Laryngol*. 1991;100:469-471.
- Takahashi H, Sugimaru T, Honjo I, et al. Assessment of the gas exchange function of the middle ear using

- nitrous oxide. A preliminary study. *Acta Otolaryngol.* 1994;114:643-646.
- Takahashi H, Honjo I, Fujita A. Eustachian tube compliance in cleft palate--a preliminary study. *Laryngoscope.* 1994;104:83-86.
- Takahashi H, Honjo I, Fujita A. Endoscopic findings at the pharyngeal orifice of the eustachian tube in otitis media with effusion. *Eur Arch Otorhinolaryngol.* 1996;253:42-44.
- Takahashi H, Miura M, Honjo I, Fujita A. Cause of eustachian tube constriction during swallowing in patients with otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1996;105:724-728.
- Takahashi H, Honjo I, Fujita A, Kurata K. Effects of adenoidectomy on sinusitis. *Acta Otorhinolaryngol Belg.* 1997;51:85-87.
- Takahashi H, Honjo I, Naito Y, et al. Gas exchange function through the mastoid mucosa in ears after surgery. *Laryngoscope.* 1997;107:1117-1121.
- Takahashi H, Honjo I, Hasebe S, Sudo M, Tanabe M. The diagnostic and prognostic value of eardrum mobility in otitis media with effusion. *Eur Arch Otorhinolaryngol.* 1999;256:189-191.
- Takahashi H, Honjo I, Hasebe S, Sudo M, Tanabe M. Soft-wall reconstruction of posterior canal wall for surgery of noninflamed ears: a preliminary report. *Am J Otol.* 1999;20:31-35.
- Takala AK, Jero J, Kela E, Ronnberg PR, Koskenniemi E, Eskola J. Risk factors for primary invasive pneumococcal disease among children in Finland. *JAMA.* 1995;273:859-864.
- Takamatsu I, Ogahara N, Fujimoto M, Nagahara T, Tsukuda M. [Two pediatric cases of facial palsy caused by masked mastoiditis]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan].* 1996;99:985-990.
- Takasaka T, Hozawa K, Shoji F, et al. Tympanostomy tube treatment in recurrent otitis media with effusion. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:197-199.
- Takata GS, Chan LS, Shekelle P, Morton SC, Mason W, Marcy SM. Evidence assessment of management of acute otitis media: I. The role of antibiotics in treatment of uncomplicated acute otitis media. *Pediatrics.* (In Press).
- Takeshita K. Hearing impaired child as a developmental disability. *Equilibrium Research.* 1995;54:19-25.
- Takeuchi K, Majima Y, Hirata K, Morishita A, Hattori M, Sakakura Y. Prognosis of secretory otitis media in relation to viscoelasticity of effusions in children. *Ann Otol Rhinol Laryngol.* 1989;98:443-446.
- Takeuchi K, Saida S, Majima Y, Sakakura Y. The effect of middle ear effusions from children on in vitro ciliary activity. *Eur Arch Otorhinolaryngol.* 1990;247:323-325.
- Takeuchi K, Majima Y, Hirata K, Hattori M, Sakakura Y. Quantitation of tubotympanic mucociliary clearance in otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1990;99:211-214.
- Takeuchi K, Majima Y, Hirata K, Morishita A, Hattori M, Sakakura Y. Viscoelastic properties of middle ear effusions from pediatric otitis media with effusion and their relation to gross appearance. *Eur Arch Otorhinolaryngol.* 1990;247:60-62.
- Takeuchi K, Maesako K, Yuta A, Sakakura Y. Interleukin-8 gene expression in middle ear effusions. *Ann Otol Rhinol Laryngol.* 1994;103:404-407.
- Takeuchi K, Fujita Y, Tomemori T, Yuta A, Iriyoshi N, Sakakura Y. Analysis of T cell receptor beta chain repertoire in middle ear effusions. *Ann Otol Rhinol Laryngol.* 1996;105:213-217.
- Takoudes TG, Haddad J, Jr. Hydrogen peroxide in acute otitis media in guinea pigs. *Laryngoscope.* 1997;107:206-210.
- Talan DA, Moran GJ. Infectious diseases: antimicrobial therapy. *Acad Emerg Med.* 1994;1:180-182.
- Talan DA. Infectious disease issues in the emergency department. *Clin Infect Dis.* 1996;23:1-12, quiz 13-14.
- Talmi YP, Sadov R, Dulitzky F, Finkelstein Y, Zohar Y. Teratoma of the mastoid region in a newborn. *J Laryngol Otol.* 1988;102:1033-1035.
- Talmi YP, Mardinger O, Horowitz Z, et al. Incidence of secretory otitis media following maxillectomy.

Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics. 1998;86:524-528.

Talo H, Macknin ML, Medendorp SV. Tympanic membrane temperatures compared to rectal and oral temperatures. *Clin Pediatr*. 1991;30:30-33; discussion 34-35.

Tammisto T, Toikka O. Spontaneous EMG activity for detection of arousal during general anaesthesia--comparison between recordings from frontal and neck musculature. *Eur J Anaesthesiol*. 1991;8:109-114.

Tan Z, Lu Y, Huang Z, et al. Inflammatory lesions and hearing state of sound conducting apparatus of middle ear. *Bull Hunan Med Coll*. 1984;9:287-290.

Tan CT, Escoubet B, Van den Abbeele T, Friedlander G, Tran Ba Huy P, Herman P. Modulation of middle ear epithelial function by steroids: clinical relevance. *Acta Otolaryngol*. 1997;117:284-288.

Tanabe M, Takahashi H, Honjo I, Hasebe S, Sudo M. Factors affecting recovery of mastoid aeration after ear surgery. *Eur Arch Otorhinolaryngol*. 1999;256:220-223.

Tanaka K, Saito J, Ohashi M, Terayama Y, Maguchi S. Histopathology of otitis media with effusion: electron microscope study of human temporal bones. *Auris Nasus Larynx*. 1985;12:S177-S179.

Tanaka K, Saito J, Ohashi M, Terayama Y. Histopathology of otitis media with effusion. An electron microscopic study of human temporal bones. *Arch Otorhinolaryngol*. 1986;243:269-273.

Tanaka T, Kurono Y, Kawauchi H, Mogi G. Effect of oxatomide on otitis media with effusion--an experimental study. *Acta Otolaryngol*. 1995;115:532-538.

Tanimura F. Determination of lipid A in human middle ear effusions with the competitive ELISA technique. *Arch Otorhinolaryngol*. 1989;246:79-82.

Tankel JW, Cheesman AD. Symptom relief by adenoidectomy and relationship to adenoid and post-nasal airway size. *J Laryngol Otol*. 1986;100:637-640.

Tarabichi M, Schloss M. Actinomycosis otomastoiditis. *Arch Otolaryngol Head Neck Surg*. 1993;119:561-562.

Tarantino V, Stura M, Marengo G, Cremonesi G, Leproux GB. Therapeutic role of bromhexine in the treatment of child otitis media. Randomised double-blind study versus placebo. *OTORINOLARINGOLOGIA*. 1989;39:187-191.

Tarasov DI, Merkulova EP. [The role of paracentesis in treating acute otitis media in young children]. *Vestn Otorinolaringol*. 1994;39-41.

Tavin ME, Gordon M, Ruben RJ. Hearing results with the use of different tympanostomy tubes: a prospective study. *Int J Pediatr Otorhinolaryngol*. 1988;15:39-50.

Tay HL, Mills RP. Predictive factors for the resolution of childhood otitis media with effusion following initial surgical treatment. *Clin Otolaryngol Allied Sci*. 1994;19:385-387.

Tay HL, Mills RP. The assessment of hearing results following surgery for otitis media with effusion using the Glasgow Benefit Plot. *J Laryngol Otol*. 1994;108:733-735.

Tay HL, Mills RP. Tympanic membrane atelectasis in childhood otitis media with effusion. *J Laryngol Otol*. 1995;109:495-498.

Taylor RB, Pugliese WM, Wiersum J, Mesches DN, Henriquez C. A comparison of lincomycin with penicillin in acute otitis media in children. *Am-J-Dis-Child*. 1969;117:139-141.

Taylor L. The differential diagnosis of deafness. *Practitioner*. 1971;207:767-775.

Taylor PH, Dareshani N. s-Carboxy-methyl-cysteine syrup in secretory otitis media. *Br-J-Clin-Pract*. 1975;29:177-178, 180.

Taylor C, Onion DK. The first six months after otitis media. A preliminary report. *Journal of the Maine Medical Association*. 1975;66:280-281.

Te GO, Rizer FM, Schuring AG. Pediatric tympanoplasty of iatrogenic perforations from ventilation tube therapy. *Am J Otol*. 1998;19:301-305.

Teach SJ, Fleisher GR, Rosenberg N, et al. Efficacy of an observation scale in detecting bacteremia in febrile children three to thirty-six months of age, treated as outpatients. *J Pediatr*. 1995;126:877-881.

- Teach SJ, Fleisher GR. Efficacy of an observation scale in detecting bacteremia in febrile children three to thirty-six months of age, treated as outpatients. Occult Bacteremia Study Group [see comments]. *J Pediatr*. 1995;126:877-881.
- Teach SJ, Fleisher GR. Duration of fever and its relationship to bacteremia in febrile outpatients three to 36 months old. *Pediatr Emerg Care*. 1997;13:317-319.
- Teatini GP. Audiological evaluation of the efficacy of flurbiprofen in serous otitis media. *Drugs Exp Clin Res*. 1984;10:713-717.
- Teele DW, Klein JO, Rosner BA. Epidemiology of otitis media in children. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:5-6.
- Teele DW, Klein JO, Bratton L, et al. Use of pneumococcal vaccine for prevention of recurrent acute otitis media in infants in Boston. The Greater Boston Collaborative Otitis Media Study Group. *Rev Infect Dis*. 1981:S113-S118.
- Teele DW, Klein JO, Rosner BA. Otitis media with effusion during the first three years of life and development of speech and language. *Pediatrics*. 1984;74:282-287.
- Teele DW, Teele J. Detection of middle ear effusion by acoustic reflectometry. *J Pediatr*. 1984;104:832-838.
- Teele DW, Klein JO, Rosner B. Epidemiology of otitis media during the first seven years of life in children in greater Boston: a prospective, cohort study [see comments]. *J Infect Dis*. 1989;160:83-94.
- Teele DW, Klein JO, Rosner B. Epidemiology of otitis media during the first seven years of life in children in greater Boston: A prospective, cohort study. *J Infect Dis*. 1989;160:83-94.
- Teele DW, Stewart IA, Teele JH, Smith DK, Tregonning SJ. Acoustic reflectometry for assessment of hearing loss in children with middle ear effusion. *Pediatr Infect Dis J*. 1990;9:870-872.
- Teele DW, Klein JO, Chase C, Menyuk P, Rosner BA. Otitis media in infancy and intellectual ability, school achievement, speech, and language at age 7 years. Greater Boston Otitis Media Study Group. *J Infect Dis*. 1990;162:685-694.
- Teele DW, Greig MH. Antimicrobial therapy of acute otitis media [see comments] [published erratum appears in *N Z Med J* 1994 Sep 14;107(985):363]. *N Z Med J*. 1994;107:61-63.
- Teele DW, Greig MH. The management of acute otitis media [letter; comment]. *N Z Med J*. 1994;107:186.
- Teele DW. Long term sequelae of otitis media: Fact or fantasy? *Pediatr Infect Dis J*. 1994;13:1069-1073.
- Teichgraeber JF, Per-Lee JH, Turner JS, Jr. Lateral sinus thrombosis: a modern perspective. *Laryngoscope*. 1982;92:744-751.
- Tejani NR, Chonmaitree T, Rassin DK, Howie VM, Owen MJ, Goldman AS. Use of C-reactive protein in differentiation between acute bacterial and viral otitis media. *Pediatrics*. 1995;95:664-669.
- Telischi FF, Arnold DJ, Sittler S. Inflammatory neuroma of the facial nerve associated with chronic otomastoiditis. *Otolaryngol Head Neck Surg*. 1995;113:319-322.
- TerKonda RP, Levine SC, Duvall AJ, 3rd, Giebink GS. Atypical mycobacterial otomastoiditis. *Laryngoscope*. 1995;105:1275-1278.
- Terris MH, Magit AE, Davidson TM. Otitis media with effusion in infants and children. Primary care concerns addressed from an otolaryngologist's perspective. *Postgrad Med*. 1995;97:137-138, 143-144, 147 passim.
- Terzis TF, Robinson JM. Use of hearing aids by patients with closed mastoid cavity. *J Laryngol Otol*. 1991;105:174-177.
- Thelin JW, Thelin SJ, Keith RW, Novak KK, Keenan WJ. Effect of middle-ear dysfunction and disease on hearing and language in high-risks infants. *Int J Pediatr Otorhinolaryngol*. 1979;1:125-136.
- Theoharides TC, Manolidis SS, Vliagoftis H, Manolidis LS. Treatment of secretory otitis media with local instillation of hydroxyzine. *Int Arch Allergy-Immunol*. 1994;103:95-101.
- Therien F. Otitis and hearing loss among northern Quebec Inuit. *Arctic Med Res*. 1988;47:657-658.
- Thielke HM, Shriberg LD. Effects of recurrent otitis media on language, speech, and educational

- achievement in Menominee Indian children. *J Am Indian Education*. 1990;25:33.
- Thieme RE, Caldwell SA, Lum GM. Acute interstitial nephritis associated with loracarbef therapy. *J Pediatr*. 1995;127:997-1000.
- Thiringer K, Kankkunen A, Liden G, Niklasson A. Perinatal risk factors in the aetiology of hearing loss in preschool children. *Dev Med Child Neurol*. 1984;26:799-807.
- Thomas JR, Allard JB. Diagnosis and treatment of serous otitis media. *Mo Med*. 1979;76:479-481, 488.
- Thomas DM, Wright JL, Soucek S, Shalom AS. Ehlers-Danlos syndrome: aural manifestations and treatment. *Am J Otolaryngol*. 1996;17:432-433.
- Thompson J, Wright PF, Greene JW, et al. Natural History of Acute and Serous Otitis Media During the First Two Years of Life. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:324-326.
- Thompson JW. Transmastoid encephaloceles. A case report. *Int J Pediatr Otorhinolaryngol*. 1988;15:179-184.
- Thompson AC, Crowther JA. Effect of nasal packing on eustachian tube function. *J Laryngol Otol*. 1991;105:539-540.
- Thompson EM, Shaughnessy AF. Oral cephalosporins: newer agents and their place in therapy. *Am Fam Physician*. 1994;50:401-405.
- Thomsen J, Mygind N, Meistrup-Larsen KI, Sorensen H, Vesterhauge S. Oral decongestant in acute otitis media. Results of a double-blind trial. *Int J Pediatr Otorhinolaryngol*. 1979;1:103-108.
- Thomsen J, Meistrup-Larsen KI, Sorensen H, Larsen PK, Mygind N. Penicillin and acute otitis: short and long-term results. *Ann-Otol-Rhinol-Laryngol-Suppl*. 1980;89:271-274.
- Thomsen J, Tos M. Spontaneous improvement of secretory otitis. A long-term study. *Acta Otolaryngol*. 1981;92:493-499.
- Thomsen J, Meistrup-Larsen K, Mygind N, Sorensen H, Johnsen NJ, Sederberg-Olsen J. Penicillin treatment for acute otitis media in children: when, how much, how frequently, how long? . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:278-281.
- Thomsen J, Sederberg-Olsen J, Stangerup SE, Balle V, Vejlsgaard R. Long-term antibiotic treatment of children with secretory otitis media: a double-blind placebo-controlled study. *Acta-Otolaryngol-Suppl-Stockh*. 1988;142:883-889.
- Thomsen J, Sederberg-Olsen J, Stangerup SE, Balle V, Vejlsgaard R. Long-term antibiotic treatment of children with secretory otitis media: A double-blind placebo-controlled study. *Acta Oto Laryngologica Supplement*. 1988;106:49-50.
- Thomsen J, Sederberg-Olsen JF, Stangerup SE Balle V, Vejlsgaard R. Long Term Antibiotic Treatment of Children with Secretory Otitis Media: Double Blind, Placebo Controlled Study. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:244-247.
- Thomsen J, Sederberg-Olsen J, Balle V, Vejlsgaard R, Stangerup SE, Bondesson G. Antibiotic treatment of children with secretory otitis media. A randomized, double-blind, placebo-controlled study [see comments]. *Arch Otolaryngol Head Neck Surg*. 1989;115:447-451.
- Thomsen J, Sederberg-Olsen J, Balle V, Vejlsgaard R, Stangerup SE, Bondesson G. Antibiotic treatment of children with secretory otitis media. A randomized, double-blind, placebo-controlled study. *Arch Otolaryngol Head and Neck Surgery*. 1989;115:447-451.
- Thomsen J. Antibiotics for Secretory otitis media (I: Reply). *Arch Otolaryngol Head and Neck Surgery*. 1990;116:628-629.
- Thomsen J, Balle V, Sederberg-Olsen JF, Stangerup SE, ejlsgaard R. Antibiotic treatment of children with secretory otitis media. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:254-256.
- Thomsen J, Sederberg-Olsen J, Balle V, Hartzen S. Antibiotic treatment of children with secretory otitis media. Amoxicillin-clavulanate is superior to penicillin V in a double-blind randomized study. *Arch Otolaryngol Head Neck Surg*. 1997;123:695-699.
- Thomson IS. Exudative otitis media, grommets and cholesteatoma. *J Laryngol Otol*. 1974;88:947-953.

- Thomson M. Otitis media. How are First Nations children affected? *Can Fam Physician*. 1994;40:1943-1950.
- Thoroddsen E, Marr C, Efthymiopoulos C, Thorarinsson H. Concentration of cefuroxime in middle ear effusion of children with acute otitis media. *Pediatr Infect Dis J*. 1997;16:959-962.
- Thoroddsen E. Measuring antibiotic levels in otitis media. *Ear-Nose-Throat-J*. 1998;77:13-15.
- Tideholm B, Jonsson S, Carlborg B, Welinder R, Grenner J. Continuous 24-hour measurement of middle ear pressure. *Acta Otolaryngol*. 1996;116:581-588.
- Tierney P, Chan B, Samuel D, Thomas M, Patel K. Neutrophil elastase-alpha 1-antitrypsin in middle ear fluid in chronic otitis media with effusion. *Clin Otolaryngol Allied Sci*. 1995;20:230-233.
- Tierney PA, Pracy P, Blaney SP, Bowdler DA. An assessment of the value of the preoperative computed tomography scans prior to otoendoscopic 'second look' in intact canal wall mastoid surgery. *Clin Otolaryngol Allied Sci*. 1999;24:274-276.
- Tilanus SC, van Stenis D, Snik AF. Otoacoustic emission measurements in evaluation of the immediate effect of ventilation tube insertion in children. *Ann Otol Rhinol Laryngol*. 1995;104:297-300.
- Tilyard MW, Dovey SM, Walker SA. Otitis media treatment in New Zealand general practice. *N Z Med J*. 1997;110:143-145.
- Timms DJ. Effect of rapid maxillary expansion on hearing loss [letter]. *Angle Orthod*. 1997;67:244-246.
- Tiwari S, Singh SM, Jain S. Chronic bilateral suppurative otitis media caused by *Aspergillus terreus*. *Mycoses*. 1995;38:297-300.
- Tjellstrom A, Lindstrom J, Hallen O, Albrektsson T, Branemark PI. Direct bone anchorage of external hearing aids. *Journal of Biomedical Engineering*. 1983;5:59-63.
- Tjellstrom A, Granstrom G. One-stage procedure to establish osseointegration: a zero to five years follow-up report. *J Laryngol Otol*. 1995;109:593-598.
- To SS, Pahor AL, Robin PE. A prospective trial of unilateral grommets for bilateral secretory otitis media in children. *Clin-Otolaryngol*. 1984;9:115-117.
- Todd NW, Feldman CM. Allergic airway disease and otitis media in children. *Int J Pediatr Otorhinolaryngol*. 1985;10:27-35.
- Todd NW, Bowman CM. Otitis media at Canyon Day, Arizona: A 16 year follow-up in Apache Indians. *Arch Otolaryngol*. 1985;111:606-608.
- Todd NW. At-risk populations for hearing impairment in infants and young children. *Int J Pediatr Otorhinolaryngol*. 1994;29:11-21.
- Todd NW, Heindel NH, PerLee JH. Bony anatomy of the anterior epitympanic space. *ORL J Otorhinolaryngol Relat Spec*. 1994;56:146-153.
- Todd DH, Stool SE. Otitis media with effusion: a condensed review. *Ambulatory Child Health*. 1995;115:193-195.
- Todd JL, Todd NW. Conotruncal cardiac anomalies and otitis media [see comments]. *J Pediatr*. 1997;131:215-219.
- Tom LW, Tsao F, Marsh RR, Kessler A, Konkle DF. Effect of anesthetic gas on middle ear fluid. *Laryngoscope*. 1994;104:832-836.
- Tomiya M. [Clinical observation of acute otitis media in children]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1993;96:1133-1140.
- Tomiya M. [The effect of cefaclor and cefixime on nasopharyngeal pathogens in children]. *Nippon-Jibiinkoka-Gakkai-Kaiho*. 1995;98:659-668.
- Tomoda K, Yamashita T, Kumazawa T. Scanning electron microscopic study of human eustachian tube epithelium: aging and pathologic changes. *Auris Nasus Larynx*. 1985;12:S169-S172.
- Tomoda K, Machiki K, Yoshie N, Kubo N. Assessment of Histamine-Gamma Globulin Conjugate and Neurotrophin Combined Therapy for Otitis Media with Effusion. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:251-253.
- Tomonaga K, Kurono Y, Mogi G. The role of nasal allergy in otitis media with effusion. A clinical study.

- Acta Oto-Laryngologica - Supplement*. 1988;458:41-47.
- Tonder O, Gundersen T. Nature of the fluid in serous otitis media. *Arch Otolaryngol*. 1971;93:473-478.
- Toner JG, Kerr AG. Severe sensorineural hearing loss presenting as profound deafness. *J Laryngol Otol*. 1987;101:601-604.
- Toner JG, Smyth GD. Surgical treatment of cholesteatoma: a comparison of three techniques. *Am J Otol*. 1990;11:247-249.
- Toner JG, Mains B. Pneumatic otoscopy and tympanometry in the detection of middle ear effusion. *Clin Otolaryngol Allied Sci*. 1990;15:121-123.
- Toner JC, Smyth GD, Kerr AG. Realities in ossiculoplasty. *J Laryngol Otol*. 1991;105:529-533.
- Tong MC, Woo JK, van-Hasselt CA. A double-blind comparative study of ofloxacin otic drops versus neomycin-polymyxin B-hydrocortisone otic drops in the medical treatment of chronic suppurative otitis media. *J Laryngol Otol*. 1996;110:527-530.
- Tong MC, Woo JK, van Hasselt CA. A double-blind comparative study of ofloxacin otic drops versus neomycin-polymyxin B-hydrocortisone otic drops in the medical treatment of chronic suppurative otitis media. *J Laryngol Otol*. 1996;110:309-314.
- Toohill RJ. The psychosomatic aspects of children with vocal nodules. *Arch Otolaryngol*. 1975;101:591-595.
- Toral Martiñez R, Hernández Tepichin G, Rizo Garnica L. Diclofenaco potásico en el tratamiento de la otitis media aguda / Diclofenac potassium in the treatment of the acute otitis media. *Acta-pediatr.-Mex*. 1990;11:170-177.
- Tos M. Bony fixation of the malleus and incus. *Acta Otolaryngol*. 1970;70:95-104.
- Tos M. Results of tympanoplasty with modified radical mastoidectomy. *Acta Otolaryngol*. 1972;74:61-65.
- Tos M. Assessment of the results of tympanoplasty. *J Laryngol Otol*. 1972;86:487-500.
- Tos M. Tympanoplasty in chronic adhesive otitis media. *Acta Otolaryngol*. 1972;73:53-60.
- Tos M. Results of tympanoplasty. *Acta Otolaryngol*. 1973;75:286-287.
- Tos M, Bak-Pedersen K. New aspects in the pathogenesis of chronic secretory otitis media. *Acta Otolaryngol*. 1973;75:269-270.
- Tos M, Bak-Pedersen K. Density of mucous glands in a biopsy material of chronic secretory otitis media. *Acta Otolaryngol*. 1973;75:55-60.
- Tos M. Permanent middle-ear aeration in tympanoplasty. *ORL J Otorhinolaryngol Relat Spec*. 1974;36:170-178.
- Tos M, Bak-Pedersen K. Density of mucous glands in chronic otitis media. *Arch Otolaryngol*. 1974;99:180-184.
- Tos M. Tympanoplasty for bony ossicular fixation. *Arch Otolaryngol*. 1974;99:422-427.
- Tos M, Falbe Hansen J, Jr. Tympanoplasty on only hearing ears. *J Laryngol Otol*. 1975;89:1057-1064.
- Tos M. Treatment of labyrinthine fistulae by a closed technique. *ORL J Otorhinolaryngol Relat Spec*. 1975;37:41-47.
- Tos M, Bak-Pedersen K. Density of goblet cells in chronic secretory otitis media: findings in a biopsy material. *Laryngoscope*. 1975;85:377-383.
- Tos M, Poulsen G. Secretory otitis media. Late results of treatment with grommets. *Arch Otolaryngol*. 1976;102:672-675.
- Tos M, Poulsen G, Borch J. Tympanometry in 2-year-old children. *ORL J Otorhinolaryngol Relat Spec*. 1978;40:77-85.
- Tos M. Reconstruction of old radical cavities. *Clin Otolaryngol Allied Sci*. 1978;3:255-261.
- Tos M. Frequency of secretory otitis and histology of the normal middle ear mucosa. *Int J Pediatr Otorhinolaryngol*. 1979;1:241-248.
- Tos M, Poulsen G, Hancke AB. Screening tympanometry during the first year of life. *Acta Otolaryngol*. 1979;88:388-394.
- Tos M, Poulsen G, Borch J. Etiologic factors in secretory otitis. *Arch Otolaryngol*. 1979;105:582-588.

- Tos M, Poulsen G. Tympanometry in 2-year-old children. Seasonal influence on frequency of secretory otitis and tubal function. *ORL J Otorhinolaryngol Relat Spec.* 1979;41:1-10.
- Tos M. Middle ear pressure following tympanoplasty for various middle ear diseases. Pressure related to follow-up period and retractions. *Acta Oto-Laryngologica - Supplement.* 1979;360:148-151.
- Tos M, Poulsen G. Screening tympanometry in infants and two-year-old children. *Ann Otol Rhinol Laryngol Suppl.* 1980;89:217-222.
- Tos M, Poulsen G. Attic retractions following secretory otitis. *Acta Otolaryngol.* 1980;89:479-486.
- Tos M. Stability of myringoplasty based on late results. *ORL J Otorhinolaryngol Relat Spec.* 1980;42:171-181.
- Tos M. Spontaneous improvement of secretory otitis and impedance screening. *Arch Otolaryngol.* 1980;106:345-349.
- Tos M. Upon the relationship between secretory otitis in childhood and chronic otitis and its sequelae in adults. *J Laryngol Otol.* 1981;95:1011-1022.
- Tos M, Holm-Jensen S, Sorensen CH. Changes in prevalence of secretory otitis from summer to winter in four-year-old children. *Am J Otol.* 1981;2:324-327.
- Tos M, Holm-Jensen S, Sorensen CH, Mogensen C. Spontaneous course and frequency of secretory otitis in 4-year-old children. *Arch-Otolaryngol.* 1982;108:4-10.
- Tos M. Mastoid pneumatization. A critical analysis of the hereditary theory. *Acta Otolaryngol.* 1982;94:73-80.
- Tos M, Melchior H, Thomsen J, Plate S. Changes of the drum in untreated secretory otitis and chronic tubal dysfunction. *Acta Oto Laryngologica.* 1982;94.
- Tos M. Significance of pneumatization in sequelae of otitis. *Journal of Laryngology and Otology - Supplement.* 1983;8:49-52.
- Tos M. Epidemiology and spontaneous improvement of secretory otitis. *Acta Otorhinolaryngol Belg.* 1983;37:31-43.
- Tos M, Holm-Jensen S, Stangerup SE, Sorensen CH. Changes in point prevalence of secretory otitis in preschool children. *ORL J Otorhinolaryngol Relat Spec.* 1983;45:226-234.
- Tos M, Bonding P, Poulsen G. Tympanosclerosis of the drum in secretory otitis after insertion of grommets. A prospective, comparative study. *J Laryngol Otol.* 1983;97:489-496.
- Tos M. Epidemiology and natural history of secretory otitis. *Am J Otol.* 1984;5:459-462.
- Tos M, Lau T, Plate S. Sensorineural hearing loss following chronic ear surgery. *Ann Otol Rhinol Laryngol.* 1984;93:403-409.
- Tos M, Stangerup SE. Mastoid pneumatization in secretory otitis. Further support for the environmental theory. *Acta Otolaryngol.* 1984;98:110-118.
- Tos M, Stangerup SE, Hvid G. Mastoid pneumatization. Evidence of the environmental theory. *Arch Otolaryngol.* 1984;110:502-507.
- Tos M, Stangerup SE, Holm-Jensen S, Sorensen CH. Spontaneous course of secretory otitis and changes of the eardrum. *Arch Otolaryngol.* 1984;110:281-289.
- Tos M, Stangerup SE, Andreassen UK, Hvid G, Thomsen J, Holm-Jensen S. Natural History of Secretory Otitis Media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:36-40.
- Tos M, Stangerup SE. The causes of asymmetry of the mastoid air cell system. *Acta Otolaryngol.* 1985;99:564-570.
- Tos M, Stangerup SE, Andreassen UK. Size of the mastoid air cells and otitis media. *Ann Otol Rhinol Laryngol.* 1985;94:386-392.
- Tos M, Stangerup SE. Secretory otitis and pneumatization of the mastoid process: sexual differences in the size of mastoid cell system. *Am J Otolaryngol.* 1985;6:199-205.
- Tos M, Stangerup SE, Larsen P. Dynamics of eardrum changes following secretory otitis. A prospective study. *Arch Otolaryngol Head Neck Surg.* 1987;113:380-385.
- Tos M. Etiologic factors in secretory otitis. *Adv Otorhinolaryngol.* 1988;40:57-64.
- Tos M, Stangerup SE, Hvid SG, Andreassen UK. Epidemiology and Natural History of Secretory

- Otitis. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:29-34.
- Tos M, Stangerup SE. Hearing loss in tympanosclerosis caused by grommets. *Arch Otolaryngol Head Neck Surg*. 1989;115:931-935.
- Tos M, Lau T. Late results of surgery in different cholesteatoma types. *ORL J Otorhinolaryngol Relat Spec*. 1989;51:33-49.
- Tos M, Lau T. Stability of tympanoplasty in children. *Otolaryngol Clin North Am*. 1989;22:15-28.
- Tos M. Sensorineural hearing loss in acute and chronic middle ear diseases. *Acta Oto Laryngologica Supplement*. 1989;107:87-93.
- Tos M, Hvid G, Stangerup SE, Andreassen UK. Prevalence and progression of sequelae following secretory otitis. *Ann Otol Rhinol Laryngol*. 1990;99:36-38.
- Tos M, Stangerup SE, Hvid G, Andreassen UK. Point prevalence of secretory otitis at different ages. *Ann Otol Rhinol Laryngol*. 1990;99:14-16.
- Tos M, Stangerup SE, Larsen P. Incidence and progression of myringo-incudo-plexy after secretory otitis. *Acta Otolaryngol*. 1992;112:512-517.
- Tos M. Importance of eustachian tube function in middle ear surgery. *Ear Nose Throat J*. 1998;77:744-747.
- Toso C, Williams DM. Management of otitis media with effusion. *J Am Pharm Assoc*. 1996;NS36:591-592.
- Tota J, Sebok J. Histological findings in infantile otoantritis. *ORL J Otorhinolaryngol Relat Spec*. 1976;38:284-293.
- Tovi F, Gatot A, Lantsberg S. [Masked mastoiditis]. *Harefuah*. 1993;125:82-85, 127.
- Tovi F, Gatot A, Lantsberg S. [Latent, non-suppurative mastoiditis. Apropos of 62 cases]. *Ann Otolaryngol Chir Cervicofac*. 1995;112:275-258.
- Towsend EH. Otitis media in pediatric practice. *NY State J Med*. 1964;64:1591-1597.
- Toyonaga Y, Ishihara T, Tezuka T, Nakamura H. [Bacteriological, pharmacokinetic and clinical studies of SY5555 dry syrup in the pediatric field]. *Jpn-J-Antibiot*. 1995;48:71-91.
- Tracy JM, Demain JG, Hoffman KM, Goetz DW. Intranasal beclomethasone as an adjunct to treatment of chronic middle ear effusion. *Ann-Allergy-Asthma-Immunol*. 1998;80:198-206.
- Tranchino G, Castagna G. The tympanometry in the application of the transtympanic drainages. *Otorinolaringologia Pediatrica*. 1990;1:100-102.
- Trevor PB, Martin RA. Tympanic bulla osteotomy for treatment of middle-ear disease in cats: 19 cases (1984-1991). *J Am Vet Med Assoc*. 1993;202:123-128.
- Triglia JM. Otitis media with effusion in children: Diagnosis. *Medecine et Maladies Infectieuses*. 1996;26:40-48.
- Trout KS. How to read clinical journal: IV. To determine etiology or causation. *Can Med Assoc J*. 1981;124:985-990.
- Trujillo H, Callejas R, Mejia GI, Castrillon L. Bacteriology of middle ear fluid specimens obtained by tympanocentesis from 111 Colombian children with acute otitis media. *Pediatr Infect Dis J*. 1989;8:361-363.
- Trujillo L. Prevention of conductive hearing loss in cleft palate patients. *Folia Phoniater Logop*. 1994;46:123-126.
- Truy E, Disant F, Tiollier J, Froehlich P, Morgon A. A clinical study of human type IV collagen as tympanic membrane grafting material. Preliminary noncomparative study. *Arch Otolaryngol Head Neck Surg*. 1994;120:1329-1332.
- Truy E, Morgon A, Veuillet E, Floret D, Belay-Genesseeux D, Fabry J. Neglected secretory otitis media screening. Positive predictive value of various tests usable with 4-year-old children in a school context. *J Audiological Med*. 1995;4:161-172.
- Tsakris A, Psifidis A, Douboyas J. Complicated suppurative otitis media in a Greek diver due to a marine halophilic *Vibrio* sp. *J Laryngol Otol*. 1995;109:1082-1084.
- Tsirulnikov EM, Vartanyan IA, Gersuni GV, Rosenblyum AS, Pudov VI, Gavrilov LR. Use of amplitude-modulated focused ultrasound for

- diagnosis of hearing disorders. *Ultrasound Med Biol.* 1988;14:277-285.
- Tsumuraya E, Ishibashi Y, Suzuki N, et al. The problems of serous otitis media associated with sensorineural hearing loss in children. *Pract Otol.* 1981;74:2201-2208.
- Tsuruhara K, Moreano A, Juhn SK, Kumazawa T. The determination of phospholipids in middle ear effusion from experimental otitis media in the chinchilla. *Acta Oto-Laryngologica - Supplement.* 1993;500:84-87.
- Tsuruta Y, Hata F, Yane K, et al. Tissue transmigration of CZON (Cosmosin) to middle ear mucosa, maxillary sinus mucosa, and palatine tonsils. *Auris Nasus Larynx.* 1994;21:232-236.
- Tsushima T, Menyuk P, Teele DW. Effects of otitis media on syllable realization in the speech of children. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:573-575.
- Tsushima T, Menyuk P, Teele DW. Effects of otitis media on syllable realization in the speech of children. In: Lim DJ BC, Klein JO, Nelson JD, Ogra P, ed. *Recent Advances in Otitis Media: Proceedings of the Fifth International Symposium:* Decker Periodicals; 1993:573-575.
- Tu TY, Chen CS, Lien CF, Chang P. [Ventilation tube insertion for treating adult otitis media with effusion]. *Chung Hua i Hsueh Tsa Chih - Chinese Medical Journal.* 1993;51:276-280.
- Tu TY, Amiel C, Tran Ba Huy P, Herman P. Stimulation of sodium transport by oxidants in middle ear epithelium in primary culture. *Acta Otolaryngol.* 1995;115:291-295.
- Tucker WE. Otitis media with effusion [letter; comment]. *N Z Med J.* 1996;109:367.
- Tugwell P. How to read clinical journals: III. To learn the clinical course and prognosis of disease. *Can Med Assoc J.* 1981;124:869-872.
- Tully SB, Bar-Haim Y, Bradley RL. Abnormal tympanography after supine bottle feeding. *J Pediatr.* 1995;126:S105-S111.
- Tuohimaa P, Palva T. The effect of tonsillectomy and adenoidectomy on the intra-tympanic pressure. *J Laryngol Otol.* 1987;101:892-896.
- Turik MA, Johns D, Jr. Comparison of ceaclor and cefuroxime axetil in the treatment of acute otitis media with effusion in children who failed amoxicillin therapy. *J Chemother.* 1998;10:306-312.
- Turner JL. Hearing results in malleostapedioplasty. *Arch Otolaryngol.* 1969;89:499-503.
- Turner RB, Darden PM. Effect of topical adrenergic decongestants on middle ear pressure in infants with common colds. *Pediatr Infect Dis J.* 1996;15:621-624.
- Tusa RJ, Saada AA, Jr., Niparko JK. Dizziness in childhood. *J Child Neurol.* 1994;9:261-274.
- Tutkun A. Ciprofloxacin [letter; comment]. *Arch Otolaryngol Head Neck Surg.* 1994;120:886.
- Tutkun A, Ozagar A, Koc A, Batman C, Uneri C, Sehitoglu MA. Treatment of chronic ear disease. Topical ciprofloxacin vs topical gentamicin. *Arch Otolaryngol Head Neck Surg.* 1995;121:1414-1416.
- Tutuncuoglu S, Uran N, Kavas I, Ozgur T. Gradenigo syndrome: a case report. *Pediatr Radiol.* 1993;23:556.
- Tyberghein J. Hearing in children. *Acta Otorhinolaryngol Belg.* 1984;38:246-254.
- U.S. BOTC. Statistical abstract of the United States, 1998. . Springfield (VA): National Technical Information Services; 1996.
- U.S. BOTC. Statistical abstract of the United States, 1998. . Springfield (VA): National Technical Information Services; 1998.
- Udaipurwala IH, Iqbal K, Saqulain G, Jalisi M. Pathological profile in chronic suppurative otitis media--the regional experience. *JPMA - Journal of the Pakistan Medical Association.* 1994;44:235-237.
- Ueyama T, Kurono Y, Shirabe K, Takeshita M, Mogi G. High incidence of Haemophilus influenzae in nasopharyngeal secretions and middle ear effusions as detected by PCR. *J-Clin-Microbiol.* 1995;33:1835-1838.
- Uhari M, Hietala J, Tuokko H. Risk of acute otitis media in relation to the viral etiology of infections in children. *Clin Infect Dis.* 1995;20:521-524.

- Uhari M, Niemela M, Hietala J. Prediction of acute otitis media with symptoms and signs. *Acta Paediatr.* 1995;84:90-92.
- Uhari M, Kontiokari T, Koskela M, Niemela M. Xylitol chewing gum in prevention of acute otitis media: double blind randomised trial. *Br Med J.* 1996;313:1180-1184.
- Uhari M, Mantysaari K, Niemela M. A meta-analytic review of the risk factors for acute otitis media [see comments]. *Clin Infect Dis.* 1996;22:1079-1083.
- Uhari M, Kontiokari T, Niemela M. A novel use of xylitol sugar in preventing acute otitis media [see comments]. *Pediatrics.* 1998;102:879-884.
- Ulualp SO, Sahin D, Yilmaz N, Anadol V, Peker O, Gursan O. Increased adenoid mast cells in patients with otitis media with effusion. *Int J Pediatr Otorhinolaryngol.* 1999;49:107-114.
- Ulug T, Sahinoglu K, Ozturk A, Ari Z. Surgical landmarks during mastoidal and petrosal operations. *Okajimas Folia Anat Jpn.* 1998;75:163-166.
- Umetani Y, Minatogawa T, Kumoi T. The use of allograft stapes. *Auris Nasus Larynx.* 1985;12:67-72.
- Ungureanu V, Nistor I, Gheorghe M. [Streptococcus pneumoniae strains isolated in acute otitis media in children]. *Bacteriol Virusol Parazitol Epidemiol.* 1996;41:51-55.
- Uno Y, Saito R. Bone resorption in human cholesteatoma: morphological study with scanning electron microscopy. *Ann Otol Rhinol Laryngol.* 1995;104:463-468.
- Urdike C, Thornburg JD. Reading skills and auditory processing ability in children with chronic otitis media in early childhood. *Ann Otol Rhinol Laryngol.* 1992;101:530-537.
- Urano M. Efficacy of acoustic otoscope in screening for children with otitis media with effusion. *Jibi Inkoka Tokeibu Geka.* 1990;62:583-586.
- Urano M. [Surgical evaluation and clinical features of cholesteatoma in children]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1994;97:1250-1259.
- Urquhart AC, McIntosh WA, Bodenstein NP. Drill-generated sensorineural hearing loss following mastoid surgery [see comments]. *Laryngoscope.* 1992;102:689-692.
- Urwin G, Krohn JA, Deaver-Robinson K, Wenger JD, Farley MM. Invasive disease due to Haemophilus influenzae serotype f: clinical and epidemiologic characteristics in the H. influenzae serotype b vaccine era. The Haemophilus influenzae Study Group [see comments]. *Clin Infect Dis.* 1996;22:1069-1076.
- Utrata J. Xanthogranuloma of the mastoid leading to a diagnosis of Hand-Schuller-Christian disease. *Int Surg.* 1972;57:511-513.
- Utrata J. Gradenigo's syndrome--bilateral occurrence. *Eye, Ear, Nose and Throat Monthly.* 1973;52:142-144.
- Valavanis A, Kubik S, Oguz M. Exploration of the facial nerve canal by high-resolution computed tomography: anatomy and pathology. *Neuroradiology.* 1983;24:139-147.
- Vallejo Valdezate LA, Herrero Laso JL, Acuna Garcia MA, Duran Diez CD. [Middle ear pressure changes following adenoidectomy. Contribution to the etiopathogenic study of serous otitis media]. *An Otorrinolaringol Ibero Am.* 1995;22:249-279.
- Valles Fontanet J, Oliva Izquierdo T. [Bacteriological study of serous otitis]. *Acta Otorrinolaringol Esp.* 1995;46:91-92.
- Vallino-Napoli LD. Audiologic and otologic characteristics of Pfeiffer syndrome. *Cleft Palate Craniofac J.* 1996;33:524-529.
- Valtonen M, Piippo T, Pitkajarvi T, Pyykonen ML. Comparison of amoxicillin given two and three times a day in acute respiratory tract infections in children. *Scand J Prim Health Care.* 1986;4:201-204.
- Van BFL, Dunk JHM, Van HMA. Acute otitis media: Paracentesis, antibiotics or neither? *Ned Tijdschr Geneesk.* 1982;126:462-467.
- van Alphen L, Caugant DA, Duim B, O'Rourke M, Bowler LD. Differences in genetic diversity of nonencapsulated Haemophilus influenzae from various diseases. *Microbiology.* 1997;143:1423-1431.
- Van Baarle PW, Huygen PL, Brinkman WF. Findings in surgery for chronic otitis media. A retrospective data-analysis of 2225 cases followed for 2 years. *Clin Otolaryngol Allied Sci.* 1983;8:151-158.

- van Balen FA, de Melker RA. Validation of a portable tympanometer for use in primary care. *Int J Pediatr Otorhinolaryngol.* 1994;29:219-225.
- van Balen FA, de Melker RA, Touw-Otten FW. Double-blind randomised trial of co-amoxiclav versus placebo for persistent otitis media with effusion in general practice [see comments]. *Lancet.* 1996;348:713-716.
- van Balen FA. [Antibiotics in otitis media with effusion (letter; comment)]. *Ned Tijdschr Geneesk.* 1997;141:401-402.
- Van Balen FA, Aarts AM, De Melker RA. Tympanometry by general practitioners: reliable? *Int J Pediatr Otorhinolaryngol.* 1999;48:117-123.
- Van Borsel J, Curfs LM, Fryns JP. Hyperacusis in Williams syndrome: a sample survey study. *Genet Couns.* 1997;8:121-126.
- Van Boven B, Feenstra L. Value of acoustic otoscopy as recent technic in tracing secretal otitis media. *Belgisch-Tijdschrift-voor-Geneeskunde.* 1993;49:1401-1404.
- Van Boven B, Feenstra L. Waarde van de akoestische otoscopie als recente techniek bij de opsporing van secetoire otitis media. *Belgisch-Tijdschrift-voor-Geneeskunde.* 1993;49:1401-1404.
- van Buchem FL, Dunk JH, van't-Hof MA. Therapy of acute otitis media: myringotomy, antibiotics, or neither? A double-blind study in children. *Lancet.* 1981;2:883-887.
- van Buchem FL, Peeters MF, van-'t-Hof MA. Acute otitis media: a new treatment strategy. *Br Med J Clin Res Ed.* 1985;290:1033-1037.
- van Buchem FL, Knottnerus JA, Peeters MF. Otitis media in children [letter]. *N Engl J Med.* 1995;333:1151; discussion 1152.
- Van Buchem FL, Peeters MF. [Neuro-otological complications of middle ear infection; the importance of early recognition (letter; comment)]. *Ned Tijdschr Geneesk.* 1996;140:2009.
- Van Camp KJ, Shanks JE, Margolis RH. Simulation of pathological high impedance tympanograms. *J Speech Hear Res.* 1986;29:505-514.
- Van Cauwenberge P, Cauwe F, Kluyskens P. The long-term results of the treatment with transtympanic ventilation tubes in children with chronic secretory otitis media. *Int J Pediatr Otorhinolaryngol.* 1979;1:109-116.
- Van Cauwenberge P, Derycke A. The relationship between nasal and middle ear pathology. *Acta Otorhinolaryngol Belg.* 1983;37:830-841.
- Van Cauwenberge P, Van Cauwenberge K, Kluyskens P. The influence of otitis media with effusion on speech and language development and psycho-intellectual behaviour of the preschool child-- results of a cross-sectional study in 1,512 children. *Auris Nasus Larynx.* 1985;12:S228-S230.
- Van Cauwenberge P, Rysselaere M, Kluyskens P. New perspectives in the direct microscopic examination of middle ear effusions. *Am J Otolaryngol.* 1985;6:191-195.
- van Cauwenberge PB, Vander Mijnsbrugge AM, Ingels KJ. The microbiology of acute and chronic sinusitis and otitis media: a review. *Eur Arch Otorhinolaryngol.* 1993;250:S3-S6.
- van Cauwenberge PB, Bellussi L, Maw AR, Paradise JL, Solow B. The adenoid as a key factor in upper airway infections. *Int J Pediatr Otorhinolaryngol.* 1995;32:S71-S80.
- Van Cauwenberge PB, Vinck B, De Vel E, Dhooge I. Tympanometry and click-evoked otoacoustic emissions in secretory otitis media: are C-EOAEs really consistently absent in type B tympanograms? . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion;* 1996:139-141.
- Van Cauwenberge PB, Dhooge I, Downs MP, et al. Diagnosis and screening. *Ann Otol Rhinol Laryngol.* 1998;107:60-66.
- Van Cauwenberge P, Watelet JB, Dhooge I. Uncommon and unusual complications of otitis media with effusion. *Int J Pediatr Otorhinolaryngol.* 1999;49:119-125.
- Van de Calseyde P, Blaton V, Ampe W, Goethals H, Peeters H. The protein pattern of middle ear effusion in serous otitis media behind an intact drum. *Acta Otolaryngol.* 1971;71:153-158.
- Van den Borne B, Mens LH, Snik AF, Spies TH, Van den Broek P. Stapedius reflex and EABR thresholds in experienced users of the Nucleus cochlear implant. *Acta Otolaryngol.* 1994;114:141-143.

- Van Den Broek P, Rach GH, Zielhuis GA. Does otitis media with effusion impair language acquisition in young children? *Ned Tijdschr Geneeskd.* 1885;132:1885-1888.
- van den Broek P, Zielhuis GA, Van der Wilt GJ. Treatment of persistent otitis media [letter; comment]. *Lancet.* 1996;348:1517-1518.
- van der Baan S, Seldenrijk CA, Henzen-Logmans SC, Drexhage HA. Serous otitis media and immunological reactions in the middle ear mucosa. *Acta Otolaryngol.* 1988;106:428-434.
- van der Meer JW, van de Lisdonk EH. Treatment of otitis media [letter; comment]. *Clin Infect Dis.* 1995;21:1069.
- van der Merwe J, Wagenfeld DJ. The negative effects of mucolytics in otitis media with effusion. *S-Afr-Med-J.* 1987;72:625-626.
- Van Der Vyver M, Van Der Merwe A, Tesner HEC. The effects of otitis media on articulation in children with cerebral palsy. *Int J Rehabil Res.* 1988;11:386-389.
- van Dyk JC, Terespolsky SA, Meyer CS, van Niekerk CH, Klugman KP. Penetration of cefpodoxime into middle ear fluid in pediatric patients with acute otitis media. *Pediatr Infect Dis J.* 1997;16:79-81.
- Van Dyke DC, Yeager DJ, McInerney JF, Schellinger D, Fox AA. Speech and language disorders in children. *Am Fam Physician.* 1984;29:257-268.
- Van Ginkel CJ, Bruintjes TD, Huizing EH. Allergy due to topical medications in chronic otitis externa and chronic otitis media. *Clin Otolaryngol.* 1995;20:326-328.
- Van Hare GF, Shurin PA, Marchant CD, et al. Acute otitis media caused by *Branhamella catarrhalis*: biology and therapy. *Rev-Infect-Dis.* 1987;9:16-27.
- van Nieuwkerk EB, van der Baan S, Richters CD, Kamperdijk EW. Isolation and characterization of dendritic cells from adenoids of children with otitis media with effusion. *Clin Exp Immunol.* 1992;88:345-349.
- van Nieuwkerk EB, van der Baan S, Hoefsmit EC, Kamperdijk EW. Localization and morphology of antigen-presenting cells in the adenoid of children with otitis media with effusion. *Clin Immunol Immunopathol.* 1995;74:59-69.
- van Rooy CH, Swart JG, Op't Hof J, Vlantis AC, Ahmed MR, Venter PH. Diagnosis and treatment of ear disease among children in the Ellisras district. An outreach programme. *S Afr Med J.* 1995;85:675-677.
- Vanclooster C, Debruyne F, Vantrappen G, Desloovere C, Feenstra L. Labyrinthine fistulae: a retrospective analysis. *Acta Otorhinolaryngol Belg.* 1997;51:119-121.
- Vanderschueren-Lodeweyckx M, Debruyne F, Dooms L, Eggermont E, Eeckels R. Sensorineural hearing loss in sporadic congenital hypothyroidism. *Arch Dis Child.* 1983;58:419-422.
- Varga A, Picano E, Sicari R, Gliozheni E, Palmieri C, Marzilli M. Relative role of coronary stenosis severity and morphology in determining pharmacologic stress echo positivity. *Am J Cardiol.* 1998;82:166-171.
- Varsano I, Volovitz B, Mimouni F. Sulfisoxazole prophylaxis of middle ear effusion and recurrent acute otitis media. *Am-J-Dis-Child.* 1985;139:632-635.
- Varsano I, Frydman M, Amir J, Alpert G. Single intramuscular dose of ceftriaxone as compared to 7-day amoxicillin therapy for acute otitis media in children. A double-blind clinical trial. *Chemotherapy.* 1988:39-46.
- Varsano IB, Volovitz BM, Grossman JE. Effect of naproxen, a prostaglandin inhibitor, on acute otitis media and persistence of middle ear effusion in children. *Ann-Otol-Rhinol-Laryngol.* 1989;98:389-392.
- Varsano I, Volovitz B, Horev Z, et al. Intramuscular ceftriaxone compared with oral amoxicillin-clavulanate for treatment of acute otitis media in children. *Eur J Pediatr.* 1997;156:858-863.
- Vartanyan IA, Tsurul'nikov EM. Auditory perception of focused ultrasound (anatomical, physiological, electrophysiological, psychophysical, and clinical physiological aspects). *Human Physiology.* 1985;11:170-177.
- Vartiainen E, Karjalainen S. Autologous ossicle and cortical bone in ossicular reconstruction. *Clin Otolaryngol Allied Sci.* 1985;10:307-310.

- Vartiainen E, Harma R, Karjalainen S. Surgery of chronic adhesive otitis media. *Clin Otolaryngol Allied Sci.* 1985;10:163-164.
- Vartiainen E, Karja J, Harma R. Re-operation after failure of surgery for chronic ears. *J Laryngol Otol.* 1986;100:1027-1030.
- Vartiainen E, Karja J. Bilateral chronic otitis media. *Arch Otorhinolaryngol.* 1986;243:190-193.
- Vartiainen E, Karja J, Karjalainen S. Surgery of chronic otitis media in young patients. *J Laryngol Otol.* 1986;100:515-519.
- Vartiainen E, Karjalainen S, Karja J. Postoperative evaluation of chronic otitis media caused by pseudomonas aeruginosa. *J Laryngol Otol.* 1986;100:141-144.
- Vartiainen E, Karjalainen S. Factors influencing sensorineural hearing loss in chronic otitis media. *Am J Otolaryngol.* 1987;8:13-15.
- Vartiainen E, Nuutinen J. Long-term hearing results of one-stage tympanoplasty for chronic otitis media. *Eur Arch Otorhinolaryngol.* 1992;249:329-331.
- Vartiainen E. Results of surgical treatment for chronic noncholesteatomatous otitis media in the pediatric population. *Int J Pediatr Otorhinolaryngol.* 1992;24:209-216.
- Vartiainen E, Kansanen M. Tympanomastoidectomy for chronic otitis media without cholesteatoma. *Otolaryngol Head Neck Surg.* 1992;106:230-234.
- Vartiainen E, Nuutinen J. Long-term results of surgical treatment in different cholesteatoma types. *Am J Otol.* 1993;14:507-511.
- Vartiainen E. Fate of patients with bilateral cholesteatoma. *Am J Otolaryngol.* 1993;14:49-52.
- Vartiainen E. Findings in revision myringoplasty. *Ear Nose Throat J.* 1993;72:201-204.
- Vartiainen E, Virtaniemi J. Findings in revision operations for failures after cholesteatoma surgery. *Am J Otol.* 1994;15:229-232.
- Vartiainen E, Vartiainen J. Age and hearing function in patients with chronic otitis media. *J Otolaryngol.* 1995;24:336-339.
- Vartiainen E, Virtaniemi J, Vartiainen J. Long-term post-operative follow-up of patients with chronic otitis media. Does it make sense? *Clin Otolaryngol Allied Sci.* 1995;20:352-354.
- Vartiainen E, Vartiainen J. Hearing results of surgery for chronic otitis media without cholesteatoma. *Ear Nose Throat J.* 1995;74:165-166, 169.
- Vartiainen E, Vartiainen J. Hearing results of surgery for acquired cholesteatoma. *Ear Nose Throat J.* 1995;74:160-162, 164.
- Vartiainen E. Factors associated with recurrence of cholesteatoma. *J Laryngol Otol.* 1995;109:590-592.
- Vartiainen E, Vartiainen J. Hearing levels of young patients 10 years after mastoidectomy. *Int J Pediatr Otorhinolaryngol.* 1996;37:9-15.
- Vartiainen E, Vartiainen J. Effect of aerobic bacteriology on the clinical presentation and treatment results of chronic suppurative otitis media. *J Laryngol Otol.* 1996;110:315-318.
- Vartiainen E, Kansanen M, Vartiainen J. The contralateral ear in patients with chronic otitis media. *Am J Otol.* 1996;17:190-192.
- Vartiainen E, Seppä J. Results of bone conduction following surgery for chronic ear disease. *Eur Arch Otorhinolaryngol.* 1997;254:384-386.
- Vartiainen E. Changes in the clinical presentation of chronic otitis media from the 1970s to the 1990s. *J Laryngol Otol.* 1998;112:1034-1037.
- Vartiainen E, Karjalainen S. Prevalence and etiology of unilateral sensorineural hearing impairment in a Finnish childhood population. *Int J Pediatr Otorhinolaryngol.* 1998;43:253-259.
- Vasiliu DI. Contributions to the morphophysiological study of the auditory apparatus. When does the pneumatization of cephalic cavities appear? When does hearing appear in humans? *Revue Roumaine de Physiologie.* 1969;6:159-167.
- Vaughan-Jones R, Mills RP. The Welch Allyn Audioscope and Microtym: their accuracy and that of pneumatic otoscopy, tympanometry and pure tone audiometry as predictors of otitis media with effusion. *J Laryngol Otol.* 1992;106:600-602.
- Veldman JE, Braunius WW. Revision surgery for chronic otitis media: a learning experience. Report on

- 389 cases with a long-term follow-up. *Ann Otol Rhinol Laryngol*. 1998;107:486-491.
- Venker J. The restoration of the ossicular-chain by means of cartilage. *Practica Oto-Rhino-Laryngologica*. 1968;30:29-34.
- Venker J. The missing incus. *ORL J Otorhinolaryngol Relat Spec*. 1973;35:237-240.
- Ventry IM. Effects of conductive hearing loss: fact or fiction. *J Speech Hear Disord*. 1980;45:143-156.
- Vermeersch H, Kluyskens P, Vanderstock L. The temporal bone as route of infection in recurrent meningitis. *J Otolaryngol*. 1980;9:199-201.
- Vernon-Feagans L, Manlove EE, Volling BL. Otitis media and the social behavior of day-care-attending children. *Child Dev*. 1996;67:1528-1539.
- Vernon-Feagans L, Emanuel D, Blood I. Otitis media and day care: factors that affect children's language. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:331-334.
- Vernon-Feagans L, Emanuel DC, Blood I. The effect of otitis media and quality of daycare on children's language development. *J Appl Devel Psychol*. 1997;18:395-409.
- Vernon-Feagans L. Impact of Otitis Media on Speech, Language, Cognition, and Behavior. In: Rosenfeld RM, Bluestone CD, eds. *Evidence-Based Otitis Media*. Saint Louis: B.C. Decker Inc.; 1999:353-373.
- Verse T, Pirsig W, Heymer B. [A case of sarcoidosis of the mastoid]. *Laryngorhinootologie*. 1997;76:312-314.
- Vincent R, Gratacap B, Causse JB, Gherini S. Argon laser and Gherini-Causse Endo-Otoprobe in otologic surgery. *Ear Nose Throat J*. 1996;75:770, 773-778, 780.
- Vinther B, Elbrond O, Pedersen CB. A population study of otitis media in childhood. *Acta Oto-Laryngologica - Supplement*. 1979;360:135-137.
- Vinther B, Brahe Pedersen C, Elbrond O. Otitis media in childhood. Sociomedical aspects with special reference to day-care conditions. *Clin Otolaryngol Allied Sci*. 1984;9:3-8.
- Virapongse C, Sarwar M, Kier EL, Sasaki C, Pillsbury H. Temporal bone disease: a comparison between high resolution computed tomography and pluridirectional tomography. *Radiology*. 1983;147:743-748.
- Virapongse C, Sarwar M, Bhimani S, Sasaki C, Shapiro R. Computed tomography of temporal bone pneumatization: 2. Petrosquamosal suture and septum. *Ajnr: American Journal of Neuroradiology*. 1985;6:561-568.
- Virolainen E, Puhakka H, Aantaa E, Tuohimaa P, Ruuskanen O, Meurman OH. Prevalence of secretory otitis media in seven to eight year old school children. *Ann Otol Rhinol Laryngol Suppl*. 1980;89:7-10.
- Virolainen A, Salo P, Jero J, Karma P, Eskola J, Leinonen M. Comparison of PCR assay with bacterial culture for detecting *Streptococcus pneumoniae* in middle ear fluid of children with acute otitis media. *J Clin Microbiol*. 1994;32:2667-2670.
- Virolainen A, Jero J, Kayhty H, Karma P, Leinonen M, Eskola J. Antibodies to pneumolysin and pneumococcal capsular polysaccharides in middle ear fluid of children with acute otitis media. *Acta Otolaryngol*. 1995;115:796-803.
- Virolainen A, Jero J, Kayhty H, Karma P, Eskola J, Leinonen M. Nasopharyngeal antibodies to pneumococcal pneumolysin in children with acute otitis media. *Clin Diagn Lab Immunol*. 1995;2:704-707.
- Virolainen A, Vero J, Kayhty H, Karma P, Leinonen M, Eskola J. Nasopharyngeal antibodies to pneumococcal capsular polysaccharides in children with acute otitis media. *J Infect Dis*. 1995;172:1115-1118.
- Virolainen A, Jero J, Chattopadhyay P, Karma P, Eskola J, Leinonen M. Comparison of serum antibodies to pneumolysin with those to pneumococcal capsular polysaccharides in children with acute otitis media. *Pediatr Infect Dis J*. 1996;15:128-133.
- Virtanen H, Palva T, Jauhiainen T. The prognostic value of Eustachian tube function measurements in tympanoplastic surgery. *Acta Otolaryngol*. 1980;90:317-323.

- Vishniakov VV. [Bioceramic prosthesis of the ear ossicles in tympanoplasty]. *Vestn Otorinolaringol.* 1993;49:49-51.
- Visness CM, Kennedy KI, Labbok M. Day care, infant feeding, and ear infections [letter; comment]. *Am J Public Health.* 1995;85:267-268.
- Vivian R. [Recurrent secretory otitis media and adenoidism. A retrospective study of the results observed with the medical and surgical therapy of 1250 children]. *Recenti Prog Med.* 1994;85:481-484.
- Vlachou S, Ferekidis E, Tsakanikos M, Apostolopoulos N, Adamopoulos G. Prognostic value of multiple-frequency tympanometry in acute otitis media. *ORL J Otorhinolaryngol Relat Spec.* 1999;61:195-200.
- Vlahos L, Yiotakis J, Gouliamos A, Kotoulas G, Adamopoulos G. Localized mastoiditis simulating a facial nerve schwannoma on MRI. *J Laryngol Otol.* 1994;108:1008-1009.
- Vogelgesang MW BH. Ventilation tubes in the pediatric population. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:306-308.
- Volkova MO, Kostiukova NN, Kvetnaia AS. [The role of hyaluronidase in the occurrence of a generalized pneumococcal infection]. *Zh Mikrobiol Epidemiol Immunobiol.* 1994;Suppl:118-122.
- Von T, Deitz JC, McLaughlin J, DeButts S, Richardson M. The effects of chronic otitis media on motor performance in 5- and 6-year-old children. *Am J Occup Ther.* 1988;42:421-426.
- von Scheel J. [Prevention of adhesions in the middle ear]. *Laryngorhinootologie.* 1996;75:254.
- von Schoenberg M, Wengraf CL, Gleeson M. Results of middle ear ventilation with Goode's tubes. *Clin Otolaryngol Allied Sci.* 1989;14:503-508.
- von Unge M, Bagger-Sjoberg D. Tympanic membrane changes in experimental otitis media with effusion. *Am J Otol.* 1994;15:663-669.
- von Unge M, Decraemer WF, Dirckx JJ, Bagger-Sjoberg D. Shape and displacement patterns of the gerbil tympanic membrane in experimental otitis media with effusion. *Hear Res.* 1995;82:184-196.
- von Unge M, Decraemer WF, Bagger-Sjoberg D, Van den Berghe D. Tympanic membrane changes in experimental purulent otitis media. *Hear Res.* 1997;106:123-136.
- Voronkin VF, Efimtsev Iu P. [The use of computed tomography of the temporal bone for the early diagnosis and prognosis of otogenic intracranial complications]. *Vestn Otorinolaringol.* 1994:22-24.
- Vorwerk U, Penk S, Brosz M, Begall K. [Evaluation of deprivation manifestations of the auditory system in patients with unilateral middle ear deafness before and after surgical therapy]. *Laryngorhinootologie.* 1996;75:195-198.
- Vrabec JT. Delayed facial palsy after tympanomastoid surgery. *Am J Otol.* 1999;20:26-30.
- Vrionis FD, Foley KT, Robertson JH, Shea JJ, 3rd. Use of cranial surface anatomic fiducials for interactive image-guided navigation in the temporal bone: a cadaveric study. *Neurosurgery.* 1997;40:755-763; discussion 763-764.
- Wachtendorf CA, Lopez LL, Cooper JC, Hearne EM, Gates GA. The efficacy of school screening for otitis media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion;* 1984:242.
- Wacker DF, Howe ML. Middle ear cilia activity as a determinant of tympanostomy tube placement. *Otolaryngol Head Neck Surg.* 1986;95:434-437.
- Wada H, Koike T, Kobayashi T. Clinical applicability of the sweep frequency measuring apparatus for diagnosis of middle ear diseases. *Ear Hear.* 1998;19:240-249.
- Wadman B. [The Riskronden answers (letter)]. *Lakartidningen.* 1996;93:2924.
- Wake M, Robinson JM, Witcombe JB, Bazerbachi S, Stansbie JM, Phelps PD. Detection of recurrent cholesteatoma by computerized tomography after 'closed cavity' mastoid surgery. *J Laryngol Otol.* 1992;106:393-395.
- Wake M, Smallman LA. Ciliary beat frequency of nasal and middle ear mucosa in children with otitis media with effusion. *Clin Otolaryngol Allied Sci.* 1992;17:155-157.
- Wakefield AJ, Murch SH, Anthony A, et al. Ileal-lymphoid-nodular hyperplasia, non-specific colitis,

- and pervasive developmental disorder in children [see comments]. *Lancet*. 1998;351:637-641.
- Walby AP, Barrera A, Schuknecht HF. Cochlear pathology in chronic suppurative otitis media. *Ann Otol Rhinol Laryngol Suppl*. 1983;103:1-19.
- Wald ER. Changing trends in the microbiology of otitis media with effusion. *Pediatr Infect Dis*. 1984;3:380-383.
- Wald ER. Resistance to penicillin in *Streptococcus pneumoniae* [letter; comment]. *J Pediatr*. 1996;129:178.
- Wald ER. Conjunctivitis in infants and children. *Pediatr Infect Dis J*. 1997;16:S17-S20.
- Walker A, Chernoff R, Joffe A, Wilson ME. Child abuse, sudden infant death syndrome, infectious disease, and vaccinations. *Curr Opin Pediatr*. 1994;6:225-231.
- Walker JB, Hussey EK, Treanor JJ, Montalvo A, Jr., Hayden FG. Effects of the neuraminidase inhibitor zanamivir on otologic manifestations of experimental human influenza. *J Infect Dis*. 1997;176:1471-1472.
- Walker P. Ventilation tube duration versus site of placement. *Aust-N-Z-J-Surg*. 1997;67:571-572.
- Wall LG, Shuster LI, Buhner K, Lutes RA. Reliability and performance of the acoustic reflectometer. *J Fam Pract*. 1986;23:443-447.
- Wallace RB, Marsh BT, Talbot DJ. A multi-centre general practice clinical evaluation of pivmecillinam plus pivampicillin ('Miraxid') and co-trimoxazole ('Septrin') in respiratory tract infections. *Curr-Med-Res-Opin*. 1985;9:659-665.
- Wallace IF, Gravel JS, McCarton CM, Ruben RJ. Otitis media and language development at 1 year of age. *J Speech Hear Disord*. 1988;53:245-251.
- Wallace IF, Gravel JS, McCarton CM, Stapells DR, Bernstein RS, Ruben RJ. Otitis media, auditory sensitivity, and language outcomes at one year. *Laryngoscope*. 1988;98:64-70.
- Wallace IF, Gravel JS, McCarton CM, Stapells DR, Bernstein RS, Ruben RJ. Otitis Media and Its Effect on Language in Infancy. . *Proceedings of the Fourth International Symposium: Recent Advances in Otitis Media with Effusion*; 1988:388-391.
- Wallace SP, Prutting CA, Gerber SE. Degeneration of speech, language, and hearing in a patient with mucopolysaccharidosis VII. *Int J Pediatr Otorhinolaryngol*. 1990;19:97-107.
- Wallace IF, Gravel JS, Ganon EC, Ruben RJ. Two-year language outcomes as a function of otitis media and parental linguistic styles. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:527-530.
- Wallace IF, Gravel JS, Schwartz RG, Ruben RJ. Otitis media, communication style of primary caregivers, and language skills of 2 year olds: a preliminary report. *J Dev Behav Pediatr*. 1996;17:27-35.
- Wallenborn PA, Jr. What's new in otology? *Medical Times*. 1970;98:147-157.
- Walsh RM, Davies MM, McGlashan JA, Bowdler DA. The role of the Davis graft technique in the treatment of chronic post-mastoidectomy otorrhoea. *Clin Otolaryngol*. 1996;21:162-167.
- Walsh FP, Cox LC, MacDonald CB. Historic perspective of the acoustic otoscope. *J Am Acad Audiol*. 1998;9:35-40.
- Walz PH, Mullaney TP, Render JA, Walker RD, Mosser T, Baker JC. Otitis media in preweaned Holstein dairy calves in Michigan due to *Mycoplasma bovis*. *J Vet Diagn Invest*. 1997;9:250-254.
- Wanamaker HH, Arandia HY. Epinephrine hypersensitivity-induced cardiovascular crisis in otologic surgery. *Otolaryngol Head Neck Surg*. 1994;111:841-844.
- Wandstrat TL, Kaplan B. Pharmacoeconomic impact of factors affecting compliance with antibiotic regimens in the treatment of acute otitis media. *Pediatr Infect Dis J*. 1997;16:S27-S29.
- Wang J, Liu S. [Causes of erroneous diagnosis in SOM]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1994;29:201-203.
- Wang DY, Bernheim N, Kaufman L, Clement P. Assessment of adenoid size in children by fiberoptic examination. *Clin Otolaryngol Allied Sci*. 1997;22:172-177.

- Ward NO, Berry DW. Is there a role for primary care in the specialist's office? *Arch Otolaryngol Head Neck Surg.* 1993;119:721-722.
- Wardrop PA, Pillsbury HCd. Mycobacterium avium acute mastoiditis. *Arch Otolaryngol.* 1984;110:686-687.
- Warnaar A, Snoep G, Stals FS. A swollen cheek, an unusual course of acute mastoiditis. *Int J Pediatr Otorhinolaryngol.* 1989;17:179-183.
- Warner-Smith B. Otitis media in general practice [letter; comment] [see comments]. *Med J Aust.* 1993;159:70.
- Watanabe H, Shin T, Fukaura J, Nakaaki K, Tsuda K. Measurement of young children's total actual speaking time by a newly devised accumulator as an assessment of otitis media with effusion. *Auris Nasus Larynx.* 1985;12:S239-S240.
- Watanabe H, Shin T, Fukaura J, Nakaaki K, Tsuda K. Total actual speaking time in infants and children with otitis media with effusion. *Int J Pediatr Otorhinolaryngol.* 1985;10:171-180.
- Watanabe T, Fujiyoshi T, Tomonaga K, Mogi G. Adenoids and otitis media with effusion in children. *Adv Otorhinolaryngol.* 1992;47:290-296.
- Watanabe N, Bondo J, Mogi G. Three-dimensional investigation of the postoperative condition after ossiculoplasty with hydroxylapatite corp. (Running title; 3-D investigation of Corp). *Rev Laryngol Otol Rhinol.* 1995;116:23-26.
- Watkin PM. Otolological disease in Turner's syndrome. *J Laryngol Otol.* 1989;103:731-738.
- Watkin PM, Baldwin M, Laoide S. Parental suspicion and identification of hearing impairment. *Arch Dis Child.* 1990;65:846-850.
- Watson TJ. Identification and follow up of children with exudative otitis media. *Proceedings of the Royal Society of Medicine.* 1969;62:455-456.
- Watson C, Mangat KS. A comparison of audiometric performance and complications of T tubes and Shepard grommets. *J Laryngol Otol.* 1988;102:677-679.
- Watson DS, Clapin M. Ear health of aboriginal primary school children in the Eastern Goldfields Region of Western Australia. *Aust J Public Health.* 1992;16:26-30.
- Watson C. Persistent glue ear in children [letter; comment] [see comments]. *Br Med J.* 1993;306:454.
- Watson RM, Coward TJ, Forman GH. Results of treatment of 20 patients with implant-retained auricular prostheses. *Int J Oral Maxillofac Implants.* 1995;10:445-449.
- Watson P, Voss L, Barber C, Aickin R, Bremner D, Lennon D. The microbiology of chronic otitis media with effusion in a group of Auckland children [see comments]. *N Z Med J.* 1996;109:182-184.
- Watters GW, Jones JE, Freeland AP. The predictive value of tympanometry in the diagnosis of middle ear effusion. *Clin Otolaryngol Allied Sci.* 1997;22:343-345.
- Weatherston MA, Ferguson AG. A comparison of individual units of an artificial mastoid. *J Speech Hear Res.* 1974;17:165-168.
- Webb RL, Clark GM, Shepherd RK, Franz BK, Pyman BC. The biologic safety of the Cochlear Corporation multiple-electrode intracochlear implant. *Am J Otol.* 1988;9:8-13.
- Weber PC, Rosner D. An unusual cause of eustachian tube dysfunction. *Otolaryngol Head Neck Surg.* 1997;117:S142-S144.
- Webster DB, Webster AB. Effects of neonatal conductive hearing loss on brainstem auditory nuclei. *Ann Otol.* 1979;88:684-688.
- Webster A, Bamford JM, Thyer NJ, Ayles R. The psychological, educational and auditory sequelae of early, persistent secretory otitis media. *J Child Psychol Psychiatry.* 1989;30:529-546.
- Wehrs RE. Three years' experience with the homograft tympanic membrane. *Transactions - American Academy of Ophthalmology and Otolaryngology.* 1972;76:142-146.
- Wehrs RE. Results of reconstructive mastoidectomy with homograft knee cartilage. *Laryngoscope.* 1978;88:1912-1917.
- Wehrs RE. Hearing results in tympanoplasty. *Laryngoscope.* 1985;95:1301-1306.

- Weigel MT, Parker MY, Goldsmith MM, Postma DS, Pillsbury HC. A prospective randomized study of four commonly used tympanostomy tubes. *Laryngoscope*. 1989;99:252-256.
- Weiglein AH, Anderhuber W, Jakse R, Einspieler R. Imaging of the facial canal by means of multiplanar angulated 2-D-high-resolution CT-reconstruction. *Surg Radiol Anat*. 1994;16:423-427.
- Weiglein AH. Postnatal development of the facial canal. An investigation based on cadaver dissections and computed tomography. *Surg Radiol Anat*. 1996;18:115-123.
- Weiner GM, Williams B. Prevention of intracranial problems in ear and sinus surgery: a possible role for cefotaxime. *J Laryngol Otol*. 1993;107:1005-1007.
- Weiner GM, O'Connell JE, Pahor AL. The role of surgery in tuberculous mastoiditis: appropriate chemotherapy is not always enough. *J Laryngol Otol*. 1997;111:752-753.
- Weippl G, Michos N, Stocker H. Clinical experience and results of treatment with suprofen in pediatrics. 4th communication: Assessment of pain in babies and infants/Analgesic effect of suprofen syrup in otitis media. *Arzneimittelforschung*. 1985;35:1732-1734.
- Weir MR, Lampe RM. Assessing middle ear disease: beyond visual otoscopy. *Am Fam Physician*. 1984;30:201-210.
- Weiss MH, Liberatore LA, Kraus DH, Budnick AS. Otitis media with effusion in head and neck cancer patients. *Laryngoscope*. 1994;104:5-7.
- Weiss JC, Yates GR, Quinn LD. Acute otitis media: making an accurate diagnosis [see comments]. *Am Fam Physician*. 1996;53:1200-1206.
- Welling DB, Hinojosa R, Gantz BJ, Lee JT. Insertional trauma of multichannel cochlear implants. *Laryngoscope*. 1993;103:995-1001.
- Welling DB, Forrest LA, Goll F, 3rd. Safety of ototopical antibiotics [see comments]. *Laryngoscope*. 1995;105:472-474.
- Wells N, King J, Hedstrom C, Youngkins J. Does tympanic temperature measure up? *MCN Am J Matern Child Nurs*. 1995;20:95-100.
- Welsh LW, Welsh JJ, Healy MP. Effect of sound deprivation on central hearing. *Laryngoscope*. 1983;93:1569-1575.
- Welsh LW, Welsh JJ, Healy MP. Early sound deprivation and long-term hearing. *Ann Otol Rhinol Laryngol*. 1996;105:877-881.
- Welty T, Hawk R, Rogers K. A program for correction of ear perforations in Navajo Indian children. *Public Health Rep*. 1977;92:167-170.
- Wendler-Shaw PD, Menyuk P, Teele DW. Effects of otitis media in the first year of life on language production in the second year of life. In: Lim DJ BC, Klein JO, Nelson JK, Ogra P, ed. *Recent Advances in Otitis Media: Proceedings of the Fifth International Symposium*. Hamilton, Ontario: Decker Periodicals; 1993:534-536.
- Wendt LK, Jonsell R. Illness and use of medicines in relation to caries development and to immigrant status in infants and toddlers living in Sweden. *Swed Dent J*. 1996;20:151-159.
- Wenig BM. Schneiderian-type mucosal papillomas of the middle ear and mastoid. *Ann Otol Rhinol Laryngol*. 1996;105:226-233.
- Wennmo C, Petersen H, Flisberg K. Cholesteatoma surgery with the canal-wall-down technique. *ORL J Otorhinolaryngol Relat Spec*. 1996;58:39-41.
- Werkhaven JA, Reinisch L, Sorrell M, Tribble J, Ossoff RH. Noninvasive optical diagnosis of bacteria causing otitis media. *Laryngoscope*. 1994;104:264-268.
- Westover DE, Daly KA, Margolis RH, et al. Chronic otitis media with effusion morbidity in a prospective cohort: study design implications and a preliminary report of long-term outcomes in children treated with tympanostomy tubes. *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion*; 1992:11-14.
- Wetmore SJ, Abramson M. Bullous myringitis with sensorineural hearing loss. *Otolaryngology and Head and Neck Surgery*. 1979;87:66-70.
- Wetmore RF, Henry WJ, Konkle DF. Acoustical factors of noise created by suctioning middle ear fluid. *Arch Otolaryngol Head Neck Surg*. 1993;119:762-766.

- Weymuller EA, Reed DG. Otological problems of the Alaskan native population. *Laryngoscope*. 1972;82:1793-1798.
- Wheeler MT. Tympanometry in children with treated acute otitis media. *Lancet*. 1986;1:529-532.
- White B, Golden WL, Casselbrant ML, Steele MW. Otitis media study of infant twins. *Ann Otol Rhinol Laryngol*. 1983;96.
- White DW. Recurrent alternating facial palsy in a child [letter]. *Am J Otol*. 1993;14:97-98.
- White LL, Holimon TD, Tepedino JT, Portner TS, Wan JY, Thompson JW. Antimicrobials prescribed for otitis media in a pediatric Medicaid population. *Am J Health Syst Pharm*. 1996;53:2963-2969.
- Whitehurst LR. Common problems in the medical care of pilots. *Am Fam Physician*. 1979;20:133-138.
- Whittemore KR, Jr., Merchant SN, Rosowski JJ. Acoustic mechanisms: canal wall-up versus canal wall-down mastoidectomy. *Otolaryngol Head Neck Surg*. 1998;118:751-761.
- Whittet HB, Marks N, Heyworth T, Parker R. Persistent glue ear in children [letter; comment]. *Br Med J*. 1993;306:454.
- Wickham MH, Marven SS, Narula AA. Three 'silent' mastoid abscesses. *Br J Clin Pract*. 1990;44:242-243.
- Widemar L, Svensson C, Rynnel-Dagoo B, Schiratzki H. The effect of adenoidectomy on secretory otitis media: a 2-year controlled prospective study. *Clin Otolaryngol Allied Sci*. 1985;10:345-350.
- Wielinga EW, Smyth GD. Comparison of the Goode T-tube with the Armstrong tube in children with chronic otitis media with effusion. *J Laryngol Otol*. 1990;83:1174-1177.
- Wiet RJ, DeBlanc GB, Stewart J, Weider DJ. Natural History of Otitis Media in the American Native. . *Proceedings of the Second International Symposium: Recent Advances in Otitis Media with Effusion*; 1980:14-19.
- Wiet RJ, Monsell EM, Hotaling AJ. Hearing and balance disorders. How to recognize, when to refer. *Postgrad Med*. 1985;77:119-127, 130.
- Wilairatana P, Looareesuwan S. Melioidotic otitis media. *Southeast Asian J Trop Med Public Health*. 1994;25:776-777.
- Wilber LA, Goodhill V. Real ear versus artificial mastoid methods of calibration of bone-conduction vibrators. *J Speech Hear Res*. 1967;10:405-416.
- Wilber LA. Comparability of two commercially available artificial mastoids. *J Acoust Soc Am*. 1972;52:1265-1266.
- Wilde AD, England J, Jones AS. An alternative to regular dressings for otitis externa and chronic suppurative otitis media? *J Laryngol Otol*. 1995;109:101-103.
- Wiley TL, Smith PSU. Acoustic-immittance measures and middle-ear screening. *Semin Hear*. 1995;16:60-79.
- Willett DN, Rezaee RP, Billy JM, Tighe MB, DeMaria TF. Relationship of endotoxin to tumor necrosis factor-alpha and interleukin-1 beta in children with otitis media with effusion. *Ann Otol Rhinol Laryngol*. 1998;107:28-33.
- Williams DM, Thomas RS. Fibrous dysplasia. *J Laryngol Otol*. 1975;89:359-374.
- Williams RG, Haughton PM. Tympanometric diagnosis of middle ear effusions. *J Laryngol Otol*. 1977;91:959-962.
- Williams SR, Robinson PJ, Brightwell AP. Management of the inflammatory aural polyp. *J Laryngol Otol*. 1989;103:1040-1042.
- Williams MJ. Blunt trauma leading to facial nerve paralysis. *J Emerg Med*. 1991;9:27-28.
- Williams RL, Chalmers TC, Stange KC, Chalmers FT, Bowlin SJ. Use of antibiotics in preventing recurrent acute otitis media and in treating otitis media with effusion. A meta-analytic attempt to resolve the brouhaha [published erratum appears in JAMA 1994 Feb 9;271(6):430] [see comments]. *JAMA*. 1993;270:1344-1351.
- Williams M, Purdy S, Barber C. High frequency probe tone tympanometry in infants with middle ear effusion. *Australian Journal of Otolaryngology*. 1995;2:169-173.
- Williams KR, Blayney AW, Lesser TH. Mode shapes of a damaged and repaired tympanic membrane as

- analysed by the finite element method. *Clin Otolaryngol*. 1997;22:126-131.
- Williamson Ad, Amedee RG, Klimek L. The management of otitis media with effusion. *J La State Med Soc*. 1991;143:7-9.
- Williamson IG, Dunleavy J, Robinson D. Risk factors in otitis media with effusion. A 1 year case control study in 5-7 year old children. *Fam Pract*. 1994;11:271-274.
- Williamson IG, Dunleavy J, Bain J, Robinson D. The natural history of otitis media with effusion--a three-year study of the incidence and prevalence of abnormal tympanograms in four South West Hampshire infant and first schools. *J Laryngol Otol*. 1994;108:930-934.
- Williamson I, Sheridan C. The development of a test of speech reception disability for use in 5- to 8-year-old children with otitis media with effusion. *Eur J Disord Commun*. 1994;29:27-37.
- Williamson I, Sheridan C, Galker E, Lous J. A video-based performance in noise test for measuring audio-visual disability in young school children: test development, with validation by trained teachers, parents and audiometry as relative standards for disability. *Int J Pediatr Otorhinolaryngol*. 1999;49:127-133.
- Willis R. Stapedectomy complications. *J Laryngol Otol*. 1976;90:31-40.
- Wilmot JF, Cable HR. Persistent effusion following acute otitis media: tympanometry and pneumatic otoscopy in diagnosis. *J R Coll Genl Practitioners*. 1988;38:149-152.
- Wilson TG. The otolaryngological hazards of the perinatal period. *Proceedings of the Royal Society of Medicine*. 1967;60:407-414.
- Wilson J. Deafness in developing countries. Approaches to a global program of prevention. *Arch Otolaryngol*. 1985;111:2-9.
- Wilson J. Hearing impairment in developing countries. *J Otolaryngol*. 1990;19:368-371.
- Wind J. Tympanic effusions. A retrospective and prospective investigation into their aetiology and treatment. *Acta Otorhinolaryngol Belg*. 1984;38:610-618.
- Windle-Taylor PC, Bailey CM. Tuberculous otitis media: a series of 22 patients. *Laryngoscope*. 1980;90:1039-1044.
- Winter GB. Commentary: what about the ethics? *Br Med J*. 1996;313:1183-1184.
- Wintermeyer SM, Nahata MC. Chronic suppurative otitis media. *Ann Pharmacother*. 1994;28:1089-1099.
- Wintermeyer SM, Nahata MC. Alcaligenes xylosoxidans subsp xylosoxidans in children with chronic otorrhea. *Otolaryngol Head Neck Surg*. 1996;114:332-334.
- Wintermeyer SM, Hart MC, Nahata MC. Efficacy of ototopical ciprofloxacin in pediatric patients with otorrhea. *Otolaryngol Head Neck Surg*. 1997;116:450-453.
- Wischnack LL, Jacobson RM, Poland GA, Jacobsen SJ, Harrison JM, Murtaugh PA. The surprisingly high acceptability of low-efficacy vaccines for otitis media: a survey of parents using hypothetical scenarios. *Pediatrics*. 1995;95:350-354.
- Wiseman LR, Benfield P. Cefprozil. A review of its antibacterial activity, pharmacokinetic properties, and therapeutic potential. *Drugs*. 1993;45:295-317.
- Wiseman JB, Arriaga MA, Houston GD, Boyd EM. Facial paralysis and inflammatory pseudotumor of the facial nerve in a child. *Otolaryngol Head Neck Surg*. 1995;113:826-828.
- Witsell DL, Garrett CG, Yarbrough WG, Dorrestein SP, Drake AF, Weissler MC. Effect of Lactobacillus acidophilus on antibiotic-associated gastrointestinal morbidity: a prospective randomized trial. *J Otolaryngol*. 1995;24:230-233.
- Witt L. The appropriateness of tympanostomy tubes for children [letter; comment]. *JAMA*. 1995;273:700; discussion 700-701.
- Woldag K, Kosling S. [Therapy refractory inflammation of the ENT area. Wegener's granulomatosis]. *HNO*. 1997;45:40-41.
- Wolfaardt JF, Wilkes GH, Parel SM, Tjellstrom A. Craniofacial osseointegration: the Canadian experience. *Int J Oral Maxillofac Implants*. 1993;8:197-204.
- Wolfowitz BL. Tuberculous mastoiditis. *Arch Otolaryngol*. 1972;95:109-113.

- Wolfowitz B. Spontaneous CSF otorrhea simulating serous otitis. *Arch Otolaryngol*. 1979;105:496-499.
- Wolthers OD. Tympanometric screening in children on admission to a paediatric ward: a preliminary study. *Int J Pediatr Otorhinolaryngol*. 1990;19:251-257.
- Wong J, Hawke M. The cytopathology of middle ear effusions (a new technique). *J Otolaryngol*. 1983;12:356-360.
- Wong BJ, Lee J, Hashisaki GT, Berns MW, Neev J. Thermal imaging of the temporal bone in CO2 laser surgery: an experimental model. *Otolaryngol Head Neck Surg*. 1997;117:610-615.
- Wong DL, Rutka JA. Do aminoglycoside otic preparations cause ototoxicity in the presence of tympanic membrane perforations? *Otolaryngol Head Neck Surg*. 1997;116:404-410.
- Woodhead JC, Milavetz G. Prednisone treatment of otitis media with effusion. *AJDC*. 1986;140:318.
- Woodrow PK, Gajarawala J, Yaghoobian J, Pinck RL. CT detection of subarachnoid pneumocephalus secondary to mastoid fracture. *Journal of Computed Tomography*. 1981;5:199-201.
- Woods CR, Smith AL, Wasilaukas BL, Campos J, Givner LB. Invasive disease caused by *Neisseria meningitidis* relatively resistant to penicillin in North Carolina. *J Infect Dis*. 1994;170:453-456.
- Woodwell DA, Schappert SM. National ambulatory medical care survey: 1993 summary. Advance data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1995.
- Woodwell DA. National ambulatory medical care survey: 1995 summary. Advance data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1997a.
- Woodwell DA. National ambulatory medical care survey. Advance data from vital and health statistics. . Hyattsville (MD): National Center for Health Statistics; 1997b.
- Woolford TJ, Morris DP, Saeed SR, Rothera MP. The implant-site split-skin graft technique for the bone-anchored hearing aid. *Clin Otolaryngol Allied Sci*. 1999;24:177-180.
- Woolley AL, Oser AB, Lusk RP, Bahadori RS. Preoperative temporal bone computed tomography scan and its use in evaluating the pediatric cochlear implant candidate. *Laryngoscope*. 1997;107:1100-1106.
- Woollons AC, Morton RP. When does middle ear effusion signify nasopharyngeal cancer? *N Z Med J*. 1994;107:507-509.
- Wormald PJ, Browning GG, Robinson K. Is otoscopy reliable? A structured teaching method to improve otoscopic accuracy in trainees. *Clin Otolaryngol Allied Sci*. 1995;20:63-67.
- Wortzman G, Conrad K, Farkashidy J. Temporal bone: a tomographic anatomic study. *Journal of the Canadian Association of Radiologists*. 1977;28:95-105.
- Woznicki GW, Grzegorowski M, Woznicka D. Tympanometric evaluation of otitis media in children with insulin-dependent diabetes mellitus. . *Proceedings of the Sixth International Symposium: Recent Advances in Otitis Media with Effusion*; 1996:146-147.
- Wright HN, Cannella F. Differential effect of conductive hearing loss on the threshold-duration function. *J Speech Hear Res*. 1969;12:607-615.
- Wright JL. Acute leukaemia presenting as acute mastoiditis. *J Laryngol Otol*. 1971;85:1087-1091.
- Wright JL, Schuknecht HF. Atrophy of the spiral ligament. *Arch Otolaryngol*. 1972;96:16-21.
- Wright JL, Grimaldi PM. Otogenic intracranial complications. *J Laryngol Otol*. 1973;87:1085-1096.
- Wright JL, Etholm B. Anomalies of the middle-ear muscles. *J Laryngol Otol*. 1973;87:281-288.
- Wright PF, Bryant JD, Karzon DT. Comparison of influenza B/Hong Kong virus infections among infants, children, and young adults. *J Infect Dis*. 1980;141:430-435.
- Wright P, Thompson J, McConnell KB, Sitton AB, Bess FH. Audiologic and Speech Evaluation of a Prospectively Followed Cohort of Normal Children: The Impact of Otitis Media. . *Proceedings of the Third International Symposium: Recent Advances in Otitis Media with Effusion*; 1984:338-341.

- Wright PF, McConnell KB, Thompson JM, Vaughn WK, Sell SH. A longitudinal study of the detection of otitis media in the first two years of life. *Int J Pediatr Otorhinolaryngol.* 1985;10:245-252.
- Wright PF, Sell SH, McConnell KB, et al. Impact of recurrent otitis media on middle ear function, hearing, and language. *J Pediatr.* 1988;113:581-587.
- Wright CG, Meyerhoff WL. Pathology of otitis media. *Ann Otol Rhinol Laryngol Suppl.* 1994;163:24-26.
- Wright TW, Linscheid RL, O'Duffy JD. Acute flexor tenosynovitis in association with *Clostridium difficile* infection: a case report. *Journal of Hand Surgery - American Volume.* 1996;21:304-306.
- Wu CH, Hsu CJ, Hsieh FJ. Preliminary use of endoluminal ultrasonography in assessment of middle ear with effusion. *J Ultrasound Med.* 1998;17:427-430.
- Wuillemin WA, Vischer MW, Tobler A, Fey MF. Relapse of acute myeloblastic leukaemia presenting as temporal bone chloroma with facial nerve paralysis [letter]. *Ann Oncol.* 1993;4:339-340.
- Wullstein SR. Osteoplastic epitympanotomy. *Ann Otol Rhinol Laryngol.* 1974;83:663-669.
- Wuolijoki E, Flygare U, Hilden M, et al. Treatment of respiratory tract infections with erythromycin acistrate and two formulations of erythromycin base. *J-Antimicrob-Chemother.* 1988;107-112.
- Xue M, Liu Y, Li L. [Measuring of immune complexes and antinuclear antibodies in effusion of secretory otitis media]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology.* 1994;29:228-230.
- Yagi N, Nakatani H. Stapedial muscle electromyography in various diseases. *Arch Otolaryngol Head and Neck Surgery.* 1987;113:392-396.
- Yagi N, Nakatani H. Stapedial electromyograms recorded by electrocochleography. *Ann Otol Rhinol Laryngol.* 1988;97:87-91.
- Yagi H, el Bahari S, Mohamed HA, et al. The Marrara syndrome: a hypersensitivity reaction of the upper respiratory tract and buccopharyngeal mucosa to nymphs of *Linguatula serrata*. *Acta Trop.* 1996;62:127-134.
- Yaginuma Y, Kobayashi T, Sai Y, Takasaka T. [Predictive value of electrogustometry in the preoperative diagnosis of severity of middle ear pathology]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan].* 1996;99:1635-1640.
- Yaginuma Y, Kobayashi T, Takasaka T. The habit of sniffing in nasal diseases as a cause of secretory otitis media. *Am J Otol.* 1996;17:108-110.
- Yamada O, Yamane H, Kodera K. Simultaneous recordings of the brain stem response and the frequency-following response to low-frequency tone. *Electroencephalogr Clin Neurophysiol.* 1977;43:362-370.
- Yamada O, Gonnella JS, Suzuki JI, Potsic WP. An organic and functional staging classification. A measurement of disability in otolaryngology. *Arch Otolaryngol.* 1981;107:617-619.
- Yamada K, Kaga K, Suzuki J. Temporal bone pathology in patients without caloric response. *Acta Otolaryngol.* 1994;114:586-594.
- Yamaguchi T, Urasawa T, Kataura A. Secretory immunoglobulin A antibodies to respiratory viruses in middle ear effusion of chronic otitis media with effusion. *Ann Otol Rhinol Laryngol.* 1984;93:73-75.
- Yamamoto E, Mizukami C. Development of the vestibular aqueduct in Meniere's disease. *Acta Oto-Laryngologica - Supplement.* 1993;504:46-50.
- Yamamoto E, Tasaka Y, Mizukami C, Ogata T, Okumura T, Tanabe M. Tympanoplasty on the only hearing ear with chronic otitis media. *Adv Otorhinolaryngol.* 1997;51:35-40.
- Yamanaka N, Somekawa Y, Suzuki T, Kataura A. Immunologic and cytologic studies in otitis media with effusion. *Acta Otolaryngol.* 1987;104:481-486.
- Yamanaka N, Faden H. Local antibody response to P6 of nontypable *Haemophilus influenzae* in otitis-prone and normal children. *Acta Otolaryngol.* 1993;113:524-529.
- Yamanaka N, Faden H. Antibody response to outer membrane protein of nontypeable *Haemophilus influenzae* in otitis-prone children. *J Pediatr.* 1993;122:212-218.
- Yamashita T, Schuknecht HF. Apical endolymphatic hydrops. *Arch Otolaryngol.* 1982;108:463-466.

- Yamashita K. Pneumatic endoscopy of the Eustachian tube. *Endoscopy*. 1983;15:257-259.
- Yamashita K, Miyazaki T. Diagnostic significance of endoscopy of the eustachian tube. *Auris Nasus Larynx*. 1985;12:S55-S57.
- Yanagihara N, Yagi T. Limitation of long term ventilation tube: in view of complications and hearing restoration. *Auris Nasus Larynx*. 1985;12:S244-S246.
- Yanagisawa E, Carlson RD. Telescopic video-otoscopy using a compact home video color camera. *Laryngoscope*. 1987;97:1350-1355.
- Yang W, Wang R, Sun J. [Ultracytochemical observation of secretory cells and surfactant-like lamellar bodies in mucosa of eustachian tube]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology*. 1995;30:224-226.
- Yaniv E, Traub P, Conradie R. Middle ear tuberculosis--a series of 24 patients. *Int J Pediatr Otorhinolaryngol*. 1986;12:59-63.
- Yaniv E. Tuberculous otitis: an underdiagnosed disease. *Am J Otolaryngol*. 1987;8:356-360.
- Yaniv E. Tuberculous otitis media: a clinical record. *Laryngoscope*. 1987;97:1303-1306.
- Yankelowitz S, Gravel J, Wallace I, Karma P. A clinical research form for use in the documentation of middle ear effusion. *Ear Hear*. 1991;12:296-298.
- Yanta MJ, Brown OE, Fancher JR. Bilateral ear canal stenosis from retained Goode T-tubes. *Int J Pediatr Otorhinolaryngol*. 1996;37:173-178.
- Yates PD, Upile T, Axon PR, de Carpentier J. Aspergillus mastoiditis in a patient with acquired immunodeficiency syndrome. *J Laryngol Otol*. 1997;111:560-561.
- Yawn BP, Yawn RA, Lydick E. The relative community burden of otitis media and varicella. *Clin Ther*. 1996;18:877-886; discussion 876.
- Yazawa Y, Kitahara M. Computerized tomography of the petrous bone in Meniere's disease. *Acta Otolaryngologica - Supplement*. 1994;510:67-72.
- Yazawa Y, Kitano H, Suzuki M, Kodama A, Kitajima K. [Long-term results of Feldmann's osteoplastic approach for chronic middle ear disease]. *Nippon Jibiinkoka Gakkai Kaiho [Journal of the Oto-Rhino-Laryngological Society of Japan]*. 1996;99:1746-1750.
- Yellon RF, Leonard G, Marucha P, et al. Demonstration of interleukin 6 in middle ear effusions. *Arch Otolaryngol Head Neck Surg*. 1992;118:745-748.
- Yellon RF, Rose E, Kenna MA, et al. Sensorineural hearing loss from quinolinic acid: a neurotoxin in middle ear effusions. *Laryngoscope*. 1994;104:176-181.
- Yellon RF, Doyle WJ, Whiteside TL, Diven WF, March AR, Fireman P. Cytokines, immunoglobulins, and bacterial pathogens in middle ear effusions [published erratum appears in Arch Otolaryngol Head Neck Surg 1995 Dec;121(12):1402]. *Arch Otolaryngol Head Neck Surg*. 1995;121:865-869.
- Yoffe N, Ostfeld E. [Disturbances in eustachian tube function--role of experimental studies]. *Harefuah*. 1993;125:376-378.
- Young RF, Frazee J. Gas within intracranial abscess cavities: an indication for surgical excision. *Ann Neurol*. 1984;16:35-39.
- Young YH, Lin KL, Ko JY. Otitis media with effusion in patients with nasopharyngeal carcinoma, postirradiation. *Arch Otolaryngol Head Neck Surg*. 1995;121:765-768.
- Young YH, Cheng PW, Ko JY. A 10-year longitudinal study of tubal function in patients with nasopharyngeal carcinoma after irradiation. *Arch Otolaryngol Head Neck Surg*. 1997;123:945-948.
- Youngs RP, Gatland DJ. Is aspiration of middle ear effusions prior to ventilation tube insertion really necessary? *J-Otolaryngol*. 1988;142:773-779.
- Youngs R. Temporal bone histopathology of open mastoidectomy cavities. *J Laryngol Otol*. 1993;107:569-573.
- Youssef TF, Poe DS. Endoscope-assisted second-stage tympanomastoidectomy. *Laryngoscope*. 1997;107:1341-1344.
- Yu WK, Shimo G. Otitic hydrocephalus. *Canadian Journal of Otolaryngology*. 1975;4:712-719.
- Yuan Z, Russlie HQ, Canafax DM. Sensitive assay for measuring amoxicillin in human plasma and

- middle ear fluid using solid-phase extraction and reversed-phase high-performance liquid chromatography. *Journal of Chromatography B: Biomedical Applications*. 1995;674:93-99.
- Yuen PW, Lau SK, Chau PY, et al. Ofloxacin eardrop treatment for active chronic suppurative otitis media: prospective randomized study. *Am J Otol*. 1994;15:670-673.
- Yuen PW, Wei WI. Tympanomastoidectomy for chronic suppurative otitis media of irradiated ears of nasopharyngeal carcinoma patients. *J Otolaryngol*. 1994;23:302-304.
- Yuen AP, Chau PY, Wei WI. Bacteriology of chronic suppurative otitis media: ofloxacin susceptibility. *J Otolaryngol*. 1995;24:206-208.
- Yune HY, Hall JR, Hutton CE, Klatter EC. Roentgenologic diagnosis in chronic temporomandibular joint dysfunction syndrome. *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*. 1973;118:401-414.
- Yung MW, Morris TM. Tuning-fork tests in diagnosis of serous otitis media. *Br Med J Clin Res Ed*. 1981;283:1576.
- Yung MM. The use of rigid endoscopes in cholesteatoma surgery. *J Laryngol Otol*. 1994;108:307-309.
- Yung MW. Small cavity mastoidectomy--5 year review. *Clin Otolaryngol Allied Sci*. 1996;21:24-29.
- Yung MM, Karia KR. Mastoid obliteration with hydroxyapatite--the value of high resolution CT scanning in detecting recurrent cholesteatoma. *Clin Otolaryngol Allied Sci*. 1997;22:553-557.
- Yung MW. Type IV tympanoplasty revisited. *Am J Otol*. 1998;19:700-703.
- Yung MW. The effect of nasal continuous positive airway pressure on normal ears and on ears with atelectasis. *Am J Otol*. 1999;20:568-572.
- Yung MM. The Yung percutaneous mastoid vent: a medium-term follow-up study. *Arch Otolaryngol Head Neck Surg*. 1999;125:964-968.
- Zachau-Christiansen B, Pedersen CB. Chronic middle ear inflammation and its sequelae in the population of Greenland. *Arctic Med Res*. 1988;47:666-668.
- Zahraa J, Johnson D, Lim-Dunham JE, Herold BC. Unusual features of osteoarticular tuberculosis in children. *J Pediatr*. 1996;129:597-602.
- Zakzouk SM. Deaf children in Saudi Arabia. *Saudi Medical Journal*. 1982;3:185-190.
- Zakzouk SM, al-Muhaimeed HS. Hearing impairment among "at risk" children [published erratum appears in *Int J Pediatr Otorhinolaryngol* 1997 Apr 11;39(3):255]. *Int J Pediatr Otorhinolaryngol*. 1996;34:75-85.
- Zanetti D, Antonelli AR. Treatment of the draining mastoid cavity. *Adv Otorhinolaryngol*. 1997;51:41-45.
- Zangemeister WH, Bock O. The influence of pneumatization of mastoid bone on caloric nystagmus response. A clinical study and a mathematical model. *Acta Otolaryngol*. 1979;88:105-109.
- Zappia JJ, Bunge FA, Koopmann CF, Jr., McClatchey KD. Facial nerve palsy as the presenting symptom of leukemia. *Int J Pediatr Otorhinolaryngol*. 1990;19:259-264.
- Zargi M, Boltezar IH. Effects of recurrent otitis media in infancy on auditory perception and speech. *Am J Otolaryngol*. 1992;13:366-372.
- Zbaren P, Pradervand M. Randomized double-blind study between co-tetoxacine and amoxicilline in common ENT-infections. *SCHWEIZ-RUNDSCH-MED-PRAX*. 1983;72:1491-1493.
- Zechner G, Tarkkanen J, Holopainen E. Histomorphological and histochemical studies of chronically infected middle ear mucous membrane. *Ann Otol Rhinol Laryngol*. 1968;77:54-65.
- Zechner G. Secretory otitis media. *Acta Otorhinolaryngol Belg*. 1983;37:138-141.
- Zeisel SA, Roberts JE, Gunn EB, et al. Prospective surveillance for otitis media with effusion among black infants in group child care. *J Pediatr*. 1995;127:875-880.
- Zeisel SA, Roberts JE, Neebe EC, Riggins R, Jr., Henderson FW. A longitudinal study of otitis media with effusion among 2- to 5-year-old African-American children in child care. *Pediatrics*. 1999;103:15-19.

- Zemskov AM, Poliakova SD. [Dependence of immunological reactivity on blood groups and microflora in patients with chronic purulent otitis media]. *Vestn Otorinolaringol.* 1996;39-42.
- Zemskov AM, Zemskov VM, Poliakova SD, Bzhovoskii E. [Methods for assessing the efficacy of immunocorrection]. *Zh Mikrobiol Epidemiol Immunobiol.* 1997;51-53.
- Zenni MK, Cheatham SH, Thompson JM, et al. Streptococcus pneumoniae colonization in the young child: association with otitis media and resistance to penicillin [see comments]. *J Pediatr.* 1995;127:533-537.
- Zenone T, Souquet PJ, Bohas C, Vital Durand D, Bernard JP. Unusual manifestations of giant cell arteritis: pulmonary nodules, cough, conjunctivitis and otitis with deafness. *Eur Respir J.* 1994;7:2252-2254.
- Zhang X, Huang X. [Study on mechanism of eustachian tube active opening ventilation and pump-like function]. *Chung Hua Erh Pi Yen Hou Ko Tsa Chih - Chinese Journal of Otorhinolaryngology.* 1994;29:166-169.
- Zhang Q, Jessurun J, Schachern PA, Paparella MM, Fulton S. Outgrowing schwannomas arising from tympanic segments of the facial nerve. *Am J Otolaryngol.* 1996;17:311-315.
- Zheng C, Guyot JP, Montandon P. Ossiculoplasty by interposition of a minor columella between the tympanic membrane and stapes head. *Am J Otol.* 1996;17:200-202.
- Zielhuis GA, Rach GH, van den Broek P. Predisposing factors for otitis media with effusion in young children. *Adv Otorhinolaryngol.* 1988;40:65-69.
- Zielhuis GA, Rach GH, van den Broek P. Screening for otitis media with effusion in preschool children. *Lancet.* 1989;1:311-314.
- Zielhuis GA, Heuvelmans-Heinen EW, Rach GH, van den Broek P. Environmental risk factors for otitis media with effusion in preschool children. *Scand J Prim Health Care.* 1989;7:33-38.
- Zielhuis GA, Straatman H, Rach GH, van den Broek P. Analysis and presentation of data on the natural course of otitis media with effusion in children. *Int J Epidemiol.* 1990;19:1037-1044.
- Zielhuis GA, Rach GH, van den Broek P. The natural course of otitis media with effusion in preschool children. *Eur Arch Otorhinolaryngol.* 1990;247:215-221.
- Zielhuis GA, Rach GH, Van den Broek P. The occurrence of otitis media with effusion in Dutch preschool children. *Clin Otolaryngol Allied Sci.* 1990;15:147-153.
- Zielhuis GA, Straatman H, van 't Hof-Grootenboer AE, van Lier HJ, Rach GH, van den Broek P. The choice of a balanced allocation method for a clinical trial in otitis media with effusion. *Stat Med.* 1990;9:237-246.
- Zielhuis GA, Rach GH, Schilder AGM, Van Den Broek P. Screening for otitis media with effusion in preschool children. . *Proceedings of the Fifth International Symposium: Recent Advances in Otitis Media with Effusion;* 1992:53.
- Zielhuis GA, Gerritsen AA, Gorissen WH, et al. Hearing deficits at school age; the predictive value of otitis media in infants. *Int J Pediatr Otorhinolaryngol.* 1998;44:227-234.
- Zielnik B. [Otitis media with effusion in children]. *Otolaryngol Pol.* 1995;49:214-219.
- Zieno SA. CHAMPUS recapture in the treatment of ear infections. *Mil Med.* 1993;158:273-274.
- Zimmerman RA, Bilaniuk LT, Hackney DB, Goldberg HI, Grossman RI. Magnetic resonance imaging of traumatic sinus and mastoid bleeding. *Acta Radiologica - Supplementum.* 1986;369:367-369.
- Zimmerman WD, Ganzel TM, Windmill IM, Nazar GB, Phillips M. Peripheral hearing loss following head trauma in children. *Laryngoscope.* 1993;103:87-91.
- Zini C, Sanna M, Bacciu S, Delogu P, Gamoletti R, Scandellari R. Molded tympanic heterograft. An eight-year experience. *Am J Otol.* 1985;6:253-256.
- Zini C, Sanna M, Jemmi G, Gandolfi A. Transmastoid extralabyrinthine approach in traumatic facial palsy. *Am J Otol.* 1985;6:216-221.
- Zinkus PW, Gottlieb MI, Schapiro M. Developmental and psychoeducational sequelae of chronic otitis media. *Am J Dis Child.* 1978;132:1100-1104.

Zinkus PW, Gottlieb MI. Patterns of perceptual and academic deficits related to early chronic otitis media. *Pediatrics*. 1980;66:246-253.

Zlomaniec J, Bryc S, Czerwonka R. Recurrent otitis media in children and obstructed nasal patency in endoscopic-radiographic examination. *Annales Universitatis Mariae Curie-Sklodowska - Sectio d - Medicina*. 1994;49:67-70.

Zocconi E. Antibiotics and oral steroids in the treatment of otitis media with effusion. *Pediatr Med Chir*. 1994;16:273-275.

Zocconi E. [Antibiotics and cortisone in the treatment of otitis media with effusion]. *Pediatr Med Chir*. 1994;16:273-275.

Zora JA, Silk HJ, Tinkelman DG. Evaluation of postimmunization pneumococcal titers in children with recurrent infections and normal levels of immunoglobulin [see comments]. *Annals of Allergy*. 1993;70:283-288.

Appendix A. The 20 Suggested Questions on Diagnosis and Treatment of Otitis Media with Effusion (OME)

Suggested Question 1:

What is the relative risk of developing otitis media with effusion (OME) in the child with food or inhalant allergies compared to the child without food or inhalant allergies?

Suggested Question 2:

What is the natural history (spontaneous resolution rate over time without treatment) for:

- OME persisting after a discrete episode of acute otitis media
- newly diagnosed OME of unknown duration (unilateral or bilateral)
- established OME persisting for weeks or months (unilateral or bilateral)
- bilateral OME lasting 3 months or longer (also called “surgical” OME)

Suggested Question 3:

What is the long-term level of speech and language development (receptive and expressive) in infants and preschool children with untreated OME?¹

Do children with untreated OME with certain risk factor(s)² have worse long-term speech and language development (receptive and expressive) than those without those risk factor(s) or with other risk factor(s)?

Suggested Question 4:

What are the sensitivity, specificity, and predictive values for alternative methods of diagnosing OME compared to the gold standard?³ These methods include, but are not limited to:

- patient or parent reported symptoms
- non-pneumatic otoscopy
- pneumatic otoscopy
- handheld (portable) tympanometers
- tabletop (professional) tympanometers
- acoustic reflectometry with spectral gradient
- otoacoustic emissions
- pure-tone audiometry

¹ The project staff has assumed that Dr. Rosenfeld was referring to untreated OME.

² The risk factors for investigation and their stratification need to be delineated by the TEP.

³ The TEP will need to delineate the gold standard or comparators for these questions. A possible gold standard would be tympanocentesis and assessment of signs and symptoms.

Appendix A (Continued)

Suggested Question 5:

In the presence of selected indicator(s) of failure⁴ in the child treated conservatively (nonsurgically) for OME, what are the comparative relative risks of the child who remains on conservative treatment compared to the child who undergoes surgical intervention(s)⁵ in terms of poor outcome:⁶

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement

Suggested Question 6:

What is the effectiveness of alternative methods

- pneumatic otoscopy
- tympanometry
- acoustic reflectometry with spectral gradient
- otoacoustic emissions

compared to the gold standard, to each other, or to other comparator(s)⁷ as indicators in deciding on intervention(s)⁹ for OME in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects

Suggested Question 7:

What is the effectiveness of unilateral hearing decrease compared to bilateral hearing decrease as indicators in deciding on intervention(s)⁹ for OME in terms of long-term level of hearing decrease.

⁴ The TEP will need to delineate failure indicators and stratification levels for investigation.

⁵ The TEP will need to delineate the interventions. During the Conference Call 1, 11/16/99, the TEP indicated that adenoidectomy might be one of the interventions to investigate in the context of AHCPR#3.

⁶ During Conference Call 1, 11/16/99, the TEP discussed the issue of outcomes. First, the TEP decided that short-term outcomes occurred within the first 8 weeks after diagnosis of OME and that long-term outcomes occurred 1 year or longer after diagnosis of OME. Short-term outcomes were partial (at least one affected ear) OME resolution or complete (both ears) OME resolution. The TEP decided that the analysis should note how each study diagnosed OME resolution since different methods have different sensitivities and specificities. Long-term outcomes were percent or absolute time with OME, incidence or absolute number of episodes of acute otitis media (AOM), hearing levels, speech, language, behavior, cognition, and academic achievement. The TEP was asked if there was a more “scientific” manner to select these outcomes, and the TEP decided that there was not and that expert opinion was the “state of the art” at this time. If expert opinion is “state of the art” in selecting outcomes for OME, then questions AHCPR#4 and AHCPR#5 are not amenable to evidence-based analysis.

Appendix A (Continued)

Suggested Question 8:

What is the effectiveness of certain hearing level(s)⁷ compared to other hearing level(s) as indicators in deciding on intervention(s)⁹ for OME in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects

Suggested Question 9:

Are antibiotics⁸ more effective than placebo⁹ in treating OME¹⁰ in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: diarrhea, rash, anaphylaxis, hematologic, cardiovascular, central nervous system, endocrine, renal, hepatic, and respiratory effects, bacterial resistance¹¹

When antibiotics are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹² in terms of the above outcomes?

When antibiotics are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

Suggested Question 10:

Are steroids more effective than placebo¹³ in treating OME¹⁴ in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution

⁷ During Conference Call 1, 11/16/99, the TEP indicated that one of the hearing levels of interest was 20 decibels. The TEP will need to delineate other hearing levels of interest.

⁸ The TEP will need to delineate how antibiotics are to be categorized, if at all, e.g. standard spectrum versus broad spectrum.

⁹ The project staff has assumed that the effectiveness of antibiotics and steroids is being compared against placebo.

¹⁰ The project staff has assumed that antibiotics, steroids, antibiotics and steroids, interventions for allergies, and antihistamines and/or decongestants are considered possible interventions in the treatment of all types of OME regardless of duration as noted in the Overview of OME (p.7).

¹¹ The project staff assumed that the adverse effects of antibiotics, steroids, and antihistamines and decongestants were those noted in the Overview of OME (p.11).

¹² During Conference Call 1, 11/16/99, the TEP mentioned the potential influence of age and previous history of OME on outcomes related to OME treated with adenoidectomy. The project staff has expanded the original AHCP and RR questions related to interventions to include questions on these two influencing factors. The TEP will need to delineate if these two or other influencing factors will be investigated for each intervention.

Appendix A (Continued)

- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: agitation, behavioral changes, sleeplessness, increase in appetite, weight gain, gastrointestinal disorders, angina, Cushing's disease, disseminated varicella¹⁵

When steroids are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When steroids are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

Suggested Question 11:

Do **antibiotics**¹² **add an incremental benefit to steroids** in treating OME¹⁴ in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: (antibiotics) diarrhea, rash, anaphylaxis, hematologic, cardiovascular, central nervous system, endocrine, renal, hepatic, and respiratory effects, and bacterial resistance; (steroids) agitation, behavioral changes, sleeplessness, increase in appetite, weight gain, gastrointestinal disorders, angina, Cushing's disease, disseminated varicella¹⁵

Do antibiotics add a greater incremental benefit to steroids in treating OME in terms of the above outcomes in children younger than 3 years old than children 3 years or older?¹⁶

Do antibiotics add a greater incremental benefit to steroids in treating OME in terms of the above outcomes in children without previous history of OME than children with previous history of OME?¹⁶

Suggested Question 12:

Are **interventions for allergies** (food or inhalant) more effective than placebo¹³ in treating OME¹⁴ in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects

Appendix A (Continued)

When interventions for allergies (food or inhalant) are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When interventions for allergies (food or inhalant) are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

Suggested Question 13:

Are **antihistamines and/or decongestants** more effective than placebo¹³ in treating OME¹⁴ in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: insomnia, drowsiness, behavior changes, changes in blood pressure, seizures¹⁵

When antihistamines and/or decongestants are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When antihistamines and/or decongestants are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

Suggested Question 14:

Are **tympanostomy tubes** more effective than other intervention(s)¹³ in treating OME of greater-than 3 months duration¹⁴ in terms of the following outcomes:¹⁰

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: tympanosclerosis, atrophic scars, atelectasis, retraction pockets, obstruction of tube lumen, persistent TM perforation, otorrhea, secondary infection with otorrhea through tube, premature extrusion, dislocation of tube into middle ear cavity, hearing loss, hyperacusis, nuisance factors such as inability to swim or shampoo,¹⁵ risk of anesthesia

When tympanostomy tubes are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

¹³ The TEP will need to delineate the comparator interventions. The comparator intervention may be placebo.

¹⁴ The project staff has assumed that tympanostomy tubes, adenoidectomy, tonsillectomy, myringotomy, alternative or complementary therapies, and prophylactic antibiotics are interventions for OME of greater-than 3 months duration as noted in the Overview of OME (p. 8).

¹⁵ The project staff has assumed that the complications and sequelae of tubes referred to in RR#5 were those noted in the Overview of OME (p. 11).

Appendix A (Continued)

When tympanostomy tubes are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

(AHCPR#8 and RR#5 modified)

Suggested Question 15:

Is **adenoidectomy** more effective than other intervention(s)¹⁷ in treating OME of greater-than 3 months duration¹⁸ in terms of the following outcomes:¹⁰

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: risk of general anesthesia, postoperative bleeding¹⁶

When adenoidectomy is used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When adenoidectomy is used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

(TEP)

Suggested Question 16:

Is **tonsillectomy** more effective than other intervention(s)¹⁷ in treating OME of greater-than 3 months duration¹⁸ in terms of the following outcomes:¹⁰

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: risk of general anesthesia, postoperative bleeding

When tonsillectomy is used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When tonsillectomy is used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

(TEP)

Suggested Question 17:

Is **myringotomy** more effective than other intervention(s)¹⁷ in treating OME of greater-than 3 months duration¹⁸ in terms of the following outcomes:¹⁰

¹⁶ The risks of adenoidectomy are taken from the OME Guidelines (Stool, Berg, Berman et al., 1994).

Appendix A (Continued)

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: risk of general anesthesia

When myringotomy is used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When myringotomy is used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes? (TEP)

Suggested Question 18:

Are **alternative or complementary therapies** more effective than other intervention(s)¹⁷ in treating OME of greater-than 3 months duration¹⁸ in terms of the following outcomes:¹⁰

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: risk of general anesthesia

When alternative or complementary therapies are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

When alternative or complementary therapies are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes? (TEP)

Suggested Question 19:

Are **prophylactic antibiotics** more effective than intervention(s)¹⁷ in treating OME of greater-than 3 months duration¹⁸ in terms of the following outcomes:¹⁰

- long term: percent or absolute time with OME (e.g. days of middle-ear effusion per year); incidence or absolute number of episodes of acute otitis media (AOM) (e.g. AOM episodes per child-year); hearing levels; speech; language; behavior; cognition; academic achievement
- adverse effects: diarrhea, rash, anaphylaxis, hematologic, cardiovascular, central nervous system, endocrine, renal, hepatic, and respiratory effects, bacterial resistance¹⁵

When prophylactic antibiotics are used in treating OME, do children younger than 3 years old have better outcome than children 3 years or older¹⁶ in terms of the above outcomes?

Appendix A (Continued)

When prophylactic antibiotics are used in treating OME, do children without previous history of OME have better outcome than children with previous history of OME¹⁶ in terms of the above outcomes?

Suggested Question 20:

What is the effectiveness of alternative methods

- pneumatic otoscopy
- tympanometry
- acoustic reflectometry with spectral gradient
- otoacoustic emissions

of monitoring as indicators of need for intervention(s)⁹ for OME in terms of the following outcomes:¹⁰

- short term: partial OME resolution; complete OME resolution
- long term: percent or absolute time with OME; incidence or absolute number of episodes of acute otitis media (AOM); hearing levels; speech; language; behavior; cognition; academic achievement.

Appendix B. Scope for Key Questions and Voting Options for Technical Experts

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Disease Entity	<p>Type of OME (self-identified but note diagnostic method)</p> <ul style="list-style-type: none"> • OME after AOM • newly diagnosed OME, unknown duration • established OME, duration weeks or months • bilateral OME, duration 3 months or longer <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>All types of OME and unspecified OM as long as MEE is present</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>All type of OME and unspecified OM as long as MEE is present</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>
Patient Population	<p>Age at diagnosis: 0-3 years old Age at followup: through 12 years</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>Age at diagnosis: 0-3 years old Age at followup: through 8 years</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>Age: 0-3 years</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Setting	Provider type: all Time period: 1966 forward Practice setting: all Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	Provider type: all Time period: 1966 forward Practice setting: all Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	Provider type: all Time period: 1966 forward Practice setting: all Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:
Exclusion factors	None Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	None Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	None Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:
Intervention	<ul style="list-style-type: none"> • Natural history • No treatment/no intervention/placebo Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	<ul style="list-style-type: none"> • Treated versus not treated • With or without antibiotics • With or without tympanostomy tubes • With or without adenoidectomy • With or without tonsillectomy • With or without myringotomy Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	Not applicable

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Diagnostic Methods	Not applicable	Not applicable	<ul style="list-style-type: none"> • Signs/symptoms • Non-pneumatic otoscopy • Pneumatic otoscopy • Binocular micro-tympanoscopy • Portable tympanometer • Professional tympanometer • Quantitative tympanometry • Acoustic reflectometry • Otoacoustic emissions • Audiometry <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>
Gold Standard	Not applicable	Not applicable	<ul style="list-style-type: none"> • Tympanocentesis only • MRI only • Tympanocentesis or MRI <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
<p>Non-treatment factors Influencing outcomes for Key Questions 1, 2, and 3</p> <p>OR</p> <p>Non-condition factors Influencing diagnostic performance for Key Question 4</p>	<p>Demographic</p> <ul style="list-style-type: none"> • age of child • ethnicity/Race, Eskimo or Native American • socioeconomic status <p>Environmental</p> <ul style="list-style-type: none"> • attendance at day care center • tobacco smoke exposure • season of the year <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral • hearing level <p>Other clinical factors</p> <ul style="list-style-type: none"> • duration of OME prior to intervention • otitis prone¹ • previous OME • early onset of previous OME • craniofacial anomaly • immunodeficiency • genetic syndrome <p>Parent/caretaker</p> <ul style="list-style-type: none"> • parent/caretaker availability • parent/caretaker preference • parent/caretaker education <p>Examiner</p> <ul style="list-style-type: none"> • Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.) • Skill to diagnose (validated examiner/observer) • Setting (Public, private, PPO, HMO, etc) <p>(continued on next page)</p>	<p>Demographic</p> <ul style="list-style-type: none"> • age of child • ethnicity/Race, Eskimo or Native American • socioeconomic status <p>Environmental</p> <ul style="list-style-type: none"> • attendance at day care center • tobacco smoke exposure • season of the year <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral • hearing level <p>Other clinical factors</p> <ul style="list-style-type: none"> • duration of OME prior to intervention • otitis prone¹ • previous OME • early onset of previous OME • craniofacial anomaly • immunodeficiency • genetic syndrome <p>Parent/caretaker</p> <ul style="list-style-type: none"> • parent/caretaker availability • parent/caretaker preference • parent/caretaker education <p>Examiner</p> <ul style="list-style-type: none"> • Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.) • Skill to diagnose (validated examiner/observer) • Setting (Public, private, PPO, HMO, etc) <p>(continued on next page)</p>	<p>Demographic</p> <ul style="list-style-type: none"> • age of child • ethnicity/Race, Eskimo or Native American • socioeconomic status <p>Environmental</p> <ul style="list-style-type: none"> • attendance at day care center • tobacco smoke exposure • not breast fed <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral • hearing level <p>Other clinical factors</p> <ul style="list-style-type: none"> • allergies • inhalational general anesthetic • duration of OME prior to intervention • otitis prone¹ • previous OME • early onset of previous OME • craniofacial anomaly • immunodeficiency • genetic syndrome • adenoid hyperplasia <p>Examiner</p> <ul style="list-style-type: none"> • Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.) • Skill to diagnose (validated examiner/observer) • Setting (Public, private, PPO, HMO, etc) <p>(continued on next page)</p>

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
<p>Non-treatment factors Influencing outcomes for Key Questions 1, 2, and 3</p> <p>OR</p> <p>Non-condition factors Influencing diagnostic performance for Key Question 4 (cont.)</p>	<p>(continued from previous page)</p> <p>Monitoring during episode or course of therapy</p> <ul style="list-style-type: none"> • When • Frequency • Primary person (parent or provider) • Type (tympanometry, acoustic reflectometry, pneumatic otoscopy) <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>(continued from previous page)</p> <p>Monitoring during episode or course of therapy</p> <ul style="list-style-type: none"> • When • Frequency • Primary person (parent or provider) • Type (tympanometry, acoustic reflectometry, pneumatic otoscopy) <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<p>(continued from previous page)</p> <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>
<p>Outcome Measures</p>	<ul style="list-style-type: none"> • Partial OME resolution • Complete OME resolution • Relapse • Recurrence <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • Hearing levels • Speech • Language <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • Sensitivity • Specificity • Positive predictive value • Negative predictive value <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Literature Source	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • References from reference lists • References from Technical Expert Panel and Peer Reviewers <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • References from reference lists • References from Technical Expert Panel and Peer Reviewers <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • References from reference lists • References from Technical Expert Panel and Peer Reviewers <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>
Language	<ul style="list-style-type: none"> • English language exclusively <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • English language exclusively <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • English language exclusively <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>
Study Design	<ul style="list-style-type: none"> • Randomized Controlled Trials, blinded and unblinded • Non-randomized Controlled Trials, blinded and unblinded • Prospective Cohort Studies • Retrospective Cohort Studies <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • Randomized Controlled Trials, blinded and unblinded • Non-randomized Controlled Trials, blinded and unblinded • Prospective Cohort Studies • Retrospective Cohort Studies • Case-Control Studies <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>	<ul style="list-style-type: none"> • Diagnostic Studies <p>Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:</p>

Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Wording of Key Questions (see Causal Pathways)	Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:	Accept as written? <input type="checkbox"/> abstain <input type="checkbox"/> yes <input type="checkbox"/> no, revise as follows:
Key words for literature search			
Other items for consideration/ Specific references/studies			

Appendix C. Technical Expert Panel Comments on Scope

Key Question 1: Natural History

Domain	a/	b/	c/	d/	e/	f/	g/	h/	i/	j/	k/	l/	Total Accept	Total Revise	Total Abstain
1/Disease Entity	1	1	1	1	1	1	1	0 ^{1,h}	0 ^{1,i}	1	1	1	10	2	0
2/Patient Population	1	0 ^{2,b}	1	1	0 ^{2,e}	1	1	0 ^{2,h}	1	1	0 ^{2,k}	0 ^{2,l}	7	5	0
3/Setting	1	0 ^{3,b}	1	1	1	1	1	0 ^{3,h}	1	0 ^{3,j}	1	1	9	3	0
4/Exclusion Factors	1	0 ^{4,b}	1	1	1	1	1	1	0 ^{4,i}	9	1	0 ^{4,l}	8	3	1
5/Intervention	1	1	1	1	1	1	1	1	0 ^{5,i}	1	1	1	11	1	0
6/Diagnostic Methods															
7/Gold Standard															
8/Non-treatment Factors Influencing Outcomes	0 ^{8,a}	0 ^{8,b}	1	0 ^{8,d}	9	1	1	1	0 ^{8,i}	0 ^{8,j}	1	0 ^{8,l}	5	6	1
9/Outcome Measures	0 ^{9,a}	0 ^{9,b}	1	0 ^{9,d}	1	1	1	1	0 ^{9,i}	1	1	1 ^{9,l}	8	4	0
10/Literature Source	1	1	1	1	9	1	1	1	1	1	0 ^{10,k}	1	10	1	1
11/Language	1	1	1	1	9	1	1	1	1	0 ^{10,j}	1	0 ^{11,l}	9	2	1
12/Study Design	0 ^{12,a}	0 ^{12,b}	1	1	9	1	0 ^{12,g}	1	1	1	0 ^{12,k}	1	7	4	1
13/Wording of Key Question	1	1	1	1	1	1	1	1	0 ^{13,i}	1	9	0 ^{13,l}	9	2	1
14/Key Words for Literature Search	1 ^{14,a}	9	9	9	9	9	9	9	9	9	9	1 ^{14,l}			
15/Other/References/Studies	9	9	9	9	9	9	9	9	9	9	9	9			

9-abstain, 1-accept, 0-revise

1/

^h delete bullet 3;

^l replace with "unilateral and bilateral OME, duration >= 3 months"

2/

^b Do we need to specify: community-based, primary care, specialty care

^e change to 6 month to 3 year old

^h lower upper age of follow-up (probably 8 years)

^k change age at diagnosis to 0-12 years

^l through 8 years

3/

^b Need to look at evidence that primary and secondary care groups are homogeneous

^h more recent is better (unknown year)

^j Why only beyond 1996?

4/

^b exclude structural defects (cleft palate, etc)

ⁱ exclude children with cleft palate, Down syndrome, other craniofacial anomalies

^l exclude craniofacial syndrome patients (e.g. cleft palate, ear atresia), primary mucosal disorders (e.g. immotile cilia, cystic fibrosis)

5/

^l add with antimicrobial treatment

6/

7/

Appendix C. Technical Expert Panel Comments on Scope (Continued)

8/

^a add number of hours per week to attendance at day care center, add not breast-fed, add conductive vs. sensorineural loss to hearing level, consider age of onset of previous OME, add allergies, add MRI to type of monitoring

^b add number of sibs, breastfed, prior tube, prior adenoidectomy

^d inclusion of acoustic reflectometry assumes that it has been validated, and I don't believe it has been adequately validated for monitoring

ⁱ add gender, number of children in household, duration of OME prior to intervention ≥ 3 months only, delete otitis prone, previous OME, early onset of previous OME, craniofacial anomaly, immunodeficiency, genetic syndrome, parent/caretaker factors, type of examiner, setting, and parent from monitoring section

^j replace "Eskimo or Native American" with race, add "family history", change "day care center" to "child care center", add "developmental delay

^l change "previous OME" to "previous OMEs", add age first OM and delete otitis prone, early onset of previous OME, craniofacial anomaly, immunodeficiency, genetic syndrome, "Otitis prone" has so many different definitions that the term is near-useless."

9/

^a not sure about difference between relapse and recurrence

^b Include AOM

^d define difference between relapse and recurrence

ⁱ delete partial OME resolution;

^l comment: "Definitions here are difficult and critical."

10/

^k include proceedings of the International OM Symposia

11/

^j I would search initially all languages. However, if you have to know the search words in all language that could be a problem. Also if interpreters are not available that would also present a problem.

^l add non-English sources identified in Medline, Embase, and Cochrane Library

12/

^a add case-control studies

^b add natural history studies

^g observational studies included

^k exclude retrospective studies

13/

ⁱ change as per footnote 1,i

^l add "Barotrauma Challenge(s)" to non-treatment factors influencing outcome

14/

^a resolution and OM, duration of effusion;

^l otitis media with effusion, mastoid

15/

Appendix C. Technical Expert Panel Comments on Scope (Continued)

Key Questions 2 and 3: Speech/Language/Hearing As of 01/06/00

Domain	a/	b/	c/	d/	e/	f/	g/	h/	i/	j/	k/	l/	Total Accept	Total Revise	Total Abstain
1/Disease Entity	0 ^{1,a}	1	1	1	0 ^{1,e}	1	1	1	0 ^{1,i}	0 ^{1,j}	1	1	8	4	0
2/Patient Population	1	0 ^{2,b}	1	1	0 ^{2,e}	1	1	1	0 ^{2,i}	1	1	1	9	3	0
3/Setting	1	0 ^{3,b}	1	1	1	1	1	0 ^{3,h}	1	0 ^{3,j}	1	1	9	3	0
4/Exclusion Factors	1	0 ^{4,b}	1	1	1	1	1	1	0 ^{4,i}	9	1	1	9	2	1
5/Intervention	0 ^{5,a}	1	1	0 ^{5,d}	1	1	1	0 ^{5,h}	0 ^{5,i}	1	1	0 ^{5,l}	7	5	0
6/Diagnostic Methods															
7/Gold Standard															
8/Non-treatment Factors Influencing Outcomes	0 ^{8,a}	1	1	0 ^{8,d}	9	1	1	1	0 ^{8,i}	0 ^{8,j}	1	0 ^{8,l}	6	5	1
9/Outcome Measures	0 ^{9,a}	1	1	0 ^{9,d}	1	1	0 ^{9,g}	1	1	1	1	1	9	3	0
10/Literature Source	1	1	1	1	9	1	1	1	1	1	0 ^{10,k}	1	9	1	1
11/Language	1	1	1	1	9	1	1	1	1	0 ^{10,j}	1	0 ^{11,l}	9	2	1
12/Study Design	1	1	1	1	9	1	1	1	0 ^{12,i}	1	0 ^{12,k}	1	9	2	1
13/Wording of Key Question	0 ^{13,a}	1	1	1	0 ^{13,e}	1	1	1	0 ^{13,i}	0 ^{13,j}	0 ^{13,k}	1	7	5	0
14/Key Words for Literature Search	9	9	9	9	9	9	9	9	9	9	9	14 ^l			
15/Other/References/Studies	9	9	9	9	9	9	9	9	15 ^l	9	9	9			

9-abstain, 1-accept, 0-revise

1/

^a Add to treatment factors with or without steroids; add to non-treatment factors: allergies; monitoring methods should include type of equipment and times of recheck" (These comments will be entered in appropriate domains)

^e address duration of MEE

ⁱ change to "all types of OM that involve the presence of MEE"

^j delete "as long as MEE is present", may not know MEE is present, but assume if AOM or OME are present

2/

^b Do we need to specify: community-based, primary care, specialty care

^e change to 6 month to 3 year old

ⁱ follow-up through 9 years

3/

^b Need to look at evidence that primary and secondary care groups are homogeneous

^h more recent is better (unknown year)

^j Why only beyond 1996?

4/

^b Exclude structural defects (cleft palate, etc)

ⁱ exclude children with known risk factors--e.g. prematurity, congenital anomalies, birth injury, syndromes, etc."

5/

^a add with or without steroids

^d allow combination therapies, I.e. tubes and adenoidectomy, or simplify into three categories: no intervention, medical intervention, surgical intervention. I rec. the simplified approach, because there are very few speech/language studies with any kind of intervention. Most are purely descriptive."

^h don't think tonsillectomy needs to be there"

ⁱ keep "with or without tympanostomy tubes", delete others, add "tubes with or without antibiotics" and "no tubes with or without antibiotics"

^l add with or without systemic steroids, decongestant, antihistamine

Appendix C. Technical Expert Panel Comments on Scope (Continued)

6/

7/

8/

^a add number of hours per week to attendance at day care center, add not breast-fed, change to early onset of OME, add allergies, add MRI to type of monitoring, add equipment type and recheck times to monitoring methods

^d add audiometry and auditory brainstem responses/brainstem auditory evoked responses

ⁱ add gender and number of children in household and delete age, ethnicity, tobacco smoke exposure, season, otitis prone, previous OME, early onset of previous OME, craniofacial anomaly, immunodeficiency, genetic syndromre, parent/caretaker availability, parent/caretaker preference, type of examiner, and parent from monitoring section

^j replace "Eskimo or Native American" with race, add "family history", change "day care center" to "child care center", add "developmental delay"

^l change "previous OME" to "previous OMEs, add age first OM and delete early onset of previous OME, craniofacial anomaly, immunodeficiency, genetic syndrome

9/

^a add expressive and receptive to speech, add expressive and receptive to language

^d add speech perception and production, and expressive/receptive language

^e add cognition, measures of intelligence

10/

^k include proceedings of the International OM Symposia

11/

^l I would search initially all languages. However, if you have to know the search words in all language that could be a problem. Also if interpreters are not available that would also present a problem.

^l add non-English sources identified in Medline, Embase, and Cochrane Library

12/

ⁱ delete case-control studies since "inherently susceptible to selection bias"

^k exclude retrospective studies

13/

^a change to "What is the level of speech/language development.....in children with OME by the age of 6 years (or older-whatever the panel determines)

^e Q2--should the duration of MEE as a parameter be stated" and "Q3--At what point is hearing tested and how long does MEE need to be present before testing?

ⁱ Too diffuse. 2. What are relationships, if any, between persistent early life OME and later speech and language development? 3. Is OME-associated conductive hearing loss in the first 3 years of life a risk factor for fixed hearing loss later in life?

^j Reword Key Question 2 to read: "Do infant and preschool children with OME have delays in the speech and language development (receptive and expressive)? Do children with OME with certain risk factor(s) have greater delays in their long-term speech and language development (receptive and expressive) than those without those risk factor(s) or with other risk factor(s)? For Key Question 3 change the term "hearing decrease" to "hearing loss or increase in hearing level."

^k As worded the question refers to outcomes in children with OM; the real issue is outcomes in OM "positive" and OM "negative" controls

14/

^l otitis media with effusion, mastoid

15/

^l All of my publications on the subject--see my CV

Appendix C. Technical Expert Panel Comments on Scope (Continued)

Key Question 4: Diagnostic Methods As of 01/06/00

<u>Domain</u>	a/	b/	c/	d/	e/	f/	g/	h/	i/	j/	k/	l/	Total Accept	Total Revise	Total Abstain
1/Disease Entity	1	0 ^{1,b}	1	1	1	1	1	1	0 ^{1,i}	1	1	1	10	2	0
2/Patient Population	0 ^{2,a}	0 ^{2,b}	1	1	0 ^{2,e}	1 ^{2,f}	0 ^{2,g}	1	0 ^{2,i}	0 ^{2,j}	0 ^{2,k}	1	5	7	0
3/Setting	0 ^{3,a}	0 ^{3,b}	1	1	1	1	1	0 ^{3,h}	1	0 ^{3,j}	1	1	8	4	0
4/Exclusion Factors	1	0 ^{4,b}	1	1	1	1	1	1	0 ^{4,i}	9	0 ^{4,k}	1	8	3	1
5/Intervention															
6/Diagnostic Methods	1 ^{6,a}	1	9	1	0 ^{6,e}	1	1	1	0 ^{6,i}	1	1	0 ^{6,l}	8	3	1
7/Gold Standard	1	1	9	0 ^{7,d}	9	9 ^{7,f}	0 ^{7,g}	9 ^{7,h}	0 ^{7,i}	1	1	0 ^{7,l}	4	4	4
8/Non-condition Factors Influencing Diagnostic Performance	0 ^{8,a}	1	1	9	9	1	1	1	0 ^{8,i}	0 ^{8,j}	1	0 ^{8,l}	6	4	2
9/Outcome Measures	1	0 ^{9,b}	1	1	1	1	1	1	1	1	1	1	11	1	0
10/Literature Source	1	1	1	1	9	1	1	1	1	1	0 ^{10,k}	1	10	1	1
11/Language	1	1	1	1	9	1	1	1	1	0 ^{10,j}	1	0 ^{11,l}	9	2	1
12/Study Design	0 ^{12,a}	1	1	1	9	1	1	1	1	1	1	1	10	1	1
13/Wording of Key Question	1	1	1	1	9	1	0 ^{13,g}	1	0 ^{13,i}	1	1	0 ^{13,l}	9	2	1
14/Key Words for Literature Search	^{14,a}	9	9	9	9	9	9	9	9	9	9	^{14,l}			
15/Other/References/Studies	^{15,a}	9	9	9	9	9	9	9	9	9	9				

9-abstain, 1-accept, 0-revise

1/
^b narrow to OME;
ⁱ change to MEE

2/
^a could be extended throughout childhood. Much of the available data is on children over the age of 3 years. Also, the tympanometer that most primary care practitioners have in their offices is not reliable in children under 6 months;
^b Do we need to specify: community-based, primary care, specialty care Note: may need to accept varying age ranges for different methods. Would consider 0-6, 6-36, and >36
^c change to 6 month to 3 year old
^f Actually this could be for most any age
^g would extend to 5 years of age
ⁱ change to 0-6 years

^j could you go higher to 8 years or 5 years
^k change to 0-12 years

3/
^a You may want to search back farther--there is not a lot of data on diagnosis
^b Need to look at evidence that primary and secondary care groups are homogeneous
^h more recent is better (unknown year)
^j Why only beyond 1996?

4/
^b exclude structural defects (cleft palate, etc)
ⁱ exclude children with cleft palate, Down syndrome, other craniofacial anomalies

Appendix C. Technical Expert Panel Comments on Scope (Continued)

^k exclude studies of AOM

5/

6/

^a Acoustic reflectometry...was redesigned in 97 or 98...data from the redesigned instrument should be used

^e Subdivide Pneumatic otoscopy into validated and un-validated examiners

ⁱ delete signs/symptoms, non-pneumatic otoscopy, and audiometry

^l add air and bone conduction thresholds

7/

^d change to tympanocentesis and MRI, "I rec. allowing myringotomy and tubes, because it has been the accepted gold standard for so long, that almost no studies will be available otherwise. Could establish hierarchy of gold standards: 1. tympanocentesis (non-sedated), 2. MRI, 3. myringotomy (sedated),4. validated pneumatic otoscopy

^f Neither are practical for the practicing physician

^g may have studies with CT Scan

^h will eliminate many patients and studies since these are not routinely done

ⁱ add validated otoscopist, tympanocentesis or MRI, not practicable in normative population

^l delete tympanocentesis only and MRI only

8/

^a add number of hours per week to attendance at daycare center, "Diagnosis should not be affected by environmental factors or by clinical factors. Diagnosis is seeing or determining what is there and describing it."

ⁱ delete all demographic factors except age, all symptoms/signs, all other clinical factors, and all examiner factors except type of examiner, "Diagnostic skill is what is being tested."

^j replace "Eskimo or Native American" with race, add "family history", change "day care center" to "child care center", add "developmental delay

^l change "previous OME" to "previous OMEs, add age first OM and delete hearing level, early onset of previous OME, craniofacial anomaly, immunodeficiency, genetic syndrome, adenoid hyperplasia

9/

^b positive and negative predictive values are prevalence specific. So, should include prevalence rate when studying positive and negative predictive values

10/

^k include proceedings of the International OM Symposia

11/

^j I would search initially all languages. However, if you have to know the search words in all language that could be a problem. Also if interpreters are not available that would also present a problem.

^l add non-English sources identified in Medline, Embase, and Cochrane Library

12/

^a Add list of other studies, info may be found here as well

13/

^g would consider eliminating MRI; may need to eliminate direct comparison to "gold" standard as many studies will not have direct comparison

ⁱ change as per footnote 6.i

^l simplify non-condition factors influencing diagnostic performance to OME laterality and anesthetic

14/

^a otoscopy, pneumatic otoscopy, tympanometry, otoacoustic emissions

^l otitis media with effusion, mastoid

15/

^a Book chapter on Diagnosis in Rosenfeld & Bluestone: Evidence-based Otitis Media. I also have sensitivity & specificity results from a training tape used during our workshop (Diagnostic Accuracy) presented at SENTAC 12/99.

Appendix D. Final Version of Scope

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Disease Entity	Type of OME (self-identified but note diagnostic method) <ul style="list-style-type: none"> • OME persisting after a discrete episode of AOM • Newly diagnosed OME of unknown duration • established OME persisting for weeks or months • unilateral OME lasting 3 months or longer • bilateral OME lasting 3 months or longer 	All types of OME and unspecified OM that involve the presence of MEE. (At point of analysis, will stratify studies into those known for studying OME only, those unknown for studying OME or AOM, and those known for studying AOM specifically. The latter group will not be in the scope of this project.)	All types of OME (At the point of analysis, we will stratify studies that examine only diagnosis of MEE versus those that examine diagnosis of OME, i.e. MEE with absence of signs and symptoms).
Patient Population	Age at diagnosis: 0-12 years Age at followup: 0-12 years	Age at diagnosis: 0-3 years Age at followup: 0-9 years	Age: 0-12 years (In analysis, will stratify by age groups: 0-6, 6-36, and >36 months.)
Setting	Provider type: all Time period: 1966 forward Practice setting: all (Will stratify analysis by setting and time period, if possible.)	Provider type: all Time period: 1966 forward Practice setting: all (Will stratify analysis by setting and time period, if possible.)	Provider type: all Time period: 1966 forward Practice setting: all (Will stratify analysis by setting and time period, if possible.)
Exclusion factors	<ul style="list-style-type: none"> • Craniofacial defects such as cleft palate or aural atresia • Primary mucosal disorders such as immotile cilia syndromes or cystic fibrosis • Immunodeficiencies • Down syndrome or other genetically related syndrome • AOM Studies exclusively on children with the above conditions, either alone or combined, will not be included in the analysis. Studies that include children with and without the above conditions will	<ul style="list-style-type: none"> • Craniofacial defects such as cleft palate or aural atresia • Primary mucosal disorders such as immotile cilia syndromes or cystic fibrosis • Immunodeficiencies • Down syndrome or other genetically related syndrome • AOM Studies exclusively on children with the above conditions, either alone or combined, will not be included in the analysis. Studies that include children with and without the above conditions will	<ul style="list-style-type: none"> • Craniofacial defects such as cleft palate or aural atresia • Primary mucosal disorders such as immotile cilia syndromes or cystic fibrosis • Immunodeficiencies • Down syndrome or other genetically related syndrome • AOM Studies exclusively on children with the above conditions, either alone or combined, will not be included in the analysis. Studies that include children with and without the above conditions will

Appendix D (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
	be included if the data can be stratified by condition. If a study does not specify whether the above conditions are exclusion factors, it will be included in the analysis; and, a sensitivity analysis will be conducted on this study characteristic if possible.	be included if the data can be stratified by condition. If a study does not specify whether the above conditions are exclusion factors, it will be included in the analysis; and, a sensitivity analysis will be conducted on this study characteristic if possible.	be included if the data can be stratified by condition. If a study does not specify whether the above conditions are exclusion factors, it will be included in the analysis; and, a sensitivity analysis will be conducted on this study characteristic if possible.
Intervention	<ul style="list-style-type: none"> • Natural history • No treatment/no intervention/placebo 	Any combination of the following: <ul style="list-style-type: none"> • No treatment • Tympanostomy tubes • Adenoidectomy • Myringotomy • Antibiotics • Systemic steroids • Decongestant • Antihistamine • Unknown (Will analyze by subgroups defined by multiple factors).	Not applicable
Diagnostic Methods	Not applicable	Not applicable	<ul style="list-style-type: none"> • Signs/symptoms • Non-pneumatic otoscopy • Pneumatic otoscopy, validated or un-validated examiner • Binocular micro-tympanoscopy • Portable tympanometer • Professional tympanometer • Quantitative tympanometry • Acoustic reflectometry (specify model and year) • Otoacoustic emissions • Audiometry, air or. bone conduction thresholds The above diagnostic methods may be in isolation or in combination with each other.

Appendix D (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Gold Standard	Not applicable	Not applicable	One of the following: <ul style="list-style-type: none"> • Tympanocentesis, sedated or non-sedated • MRI • Myringotomy, sedated or non-sedated • Validated Pneumatic otoscopy • CT Scan
<p>Non-treatment factors Influencing outcomes for Key Questions 1, 2, and 3</p> <p>OR</p> <p>Non-condition factors Influencing diagnostic performance for Key Question 4 (cont.)</p>	<p>Demographic</p> <ul style="list-style-type: none"> • age of child • gender • ethnicity/Race • socioeconomic status <p>Environmental</p> <ul style="list-style-type: none"> • number of hours attending child care center • tobacco smoke exposure • season of the year • number of children in household • not breast-fed • barotrauma challenges <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral • hearing level, conductive or sensorineural <p>Other clinical factors</p> <ul style="list-style-type: none"> • total duration of OME (>=3 months) • age at first OM • age of onset of previous OME • number of previous OMEs • family history of OME • otitis prone (AOM) • allergies • prior tubes 	<p>Demographic</p> <ul style="list-style-type: none"> • age at first OM • gender • ethnicity/race • socioeconomic status <p>Environmental</p> <ul style="list-style-type: none"> • number of hours attending child care center • quality of child care • tobacco smoke exposure • number of children in household • not breast-fed <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral • hearing level, conductive or sensorineural <p>Other clinical factors</p> <ul style="list-style-type: none"> • total duration of OME (>=3 months) • number of previous OMEs • duration of MEE • repeated or persistent or infrequent early life OME • allergies • developmental delay <p>Parent/caretaker</p> <ul style="list-style-type: none"> • parent/caregiver education 	<p>Demographic</p> <ul style="list-style-type: none"> • age of child <p>Symptoms/Signs</p> <ul style="list-style-type: none"> • laterality, unilateral versus bilateral <p>Other clinical factors</p> <ul style="list-style-type: none"> • age at first OM • anesthetic • developmental delay <p>Examiner</p> <ul style="list-style-type: none"> • Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.)

Appendix D (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
	<ul style="list-style-type: none"> • prior adenoidectomy • developmental delay Parent/caretaker <ul style="list-style-type: none"> • parent/caregiver preference for treatment • parent/caregiver education Examiner <ul style="list-style-type: none"> • Skill to diagnose (validated examiner/observer) • Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.) • Setting (Public, private, PPO, HMO, etc) Monitoring during episode or course of therapy <ul style="list-style-type: none"> • Monitoring time • Monitoring frequency • Monitoring personnel Type of monitoring method <ul style="list-style-type: none"> • tympanometry • acoustic reflectometry • otoscopy • pneumatic otoscopy • MRI 	<ul style="list-style-type: none"> • quality of parent-child interaction Examiner <ul style="list-style-type: none"> • Skill to diagnose (validated examiner/observer) • Type of examiner (physician assistant, etc.) • Setting (Public, private, PPO, HMO, etc) Monitoring <ul style="list-style-type: none"> • Age at recheck • Frequency of recheck • Primary provider Equipment type <ul style="list-style-type: none"> • tympanometry • acoustic reflectometry • pneumatic otoscopy • MRI • equipment to measure auditory brainstem responses/brainstem auditory evoked responses • audiometry	
Outcome Measures	<ul style="list-style-type: none"> • Partial OME resolution (for bilateral OME only) • Complete OME resolution • AOM (The time or age at which each outcome was measured will be recorded)	<ul style="list-style-type: none"> • Long term hearing levels • Speech , expressive and receptive • Language, expressive and receptive • Cognition, measures of intelligence (verbal part of IQ test) (The time or age at which each outcome was measured will be recorded)	<ul style="list-style-type: none"> • Sensitivity • Specificity • Positive predictive value, and Prevalence rate • Negative predictive value, and Prevalence rate • Likelihood ratio

Appendix D (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
Literature Source	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • Proceedings of International OM Symposia • References from reference lists • References from Technical Expert Panel and Peer Reviewers and their publications 	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • Proceedings of International OM Symposia • References from reference lists • References from Technical Expert Panel and Peer Reviewers and their publications 	<ul style="list-style-type: none"> • MEDLINE • EMBASE • Cochrane Library • Proceedings of International OM Symposia • References from reference lists • References from Technical Expert Panel and Peer Reviewers and their publications
Language	English language exclusively. [Would attempt to review non-English literature if time permits].	English language exclusively. [Would attempt to review non-English literature if time permits].	English language exclusively. [Would attempt to review non-English literature if time permits].
Study Design	<ul style="list-style-type: none"> • natural history (observational) studies • Randomized Controlled Trials, blinded and unblinded • Non-randomized Controlled Trials, blinded and unblinded • Prospective/observational cohort studies 	<ul style="list-style-type: none"> • Randomized Controlled Trials, blinded and unblinded • Non-randomized Controlled Trials, blinded and unblinded • Prospective cohort studies • Retrospective cohort studies 	<ul style="list-style-type: none"> • Diagnostic studies/Cross-sectional studies
Wording of Key Questions	<p>What is the natural history (spontaneous resolution rate over time without treatment) for:</p> <ol style="list-style-type: none"> a) OME persisting after a discrete episode of acute otitis media b) Newly diagnosed OME of unknown duration (unilateral or bilateral) c) Established OME persisting for weeks or months (unilateral or bilateral) d) Unilateral OME lasting 3 months or longer e) Bilateral OME lasting 3 	<p><u>Key Question 2:</u> Do children with OME with certain risk factor(s) have greater delays in their speech and language development (receptive or expressive) than those without those risk factor(s) or with other risk factor(s)?</p> <p>Specifically, the following subquestion will be investigated:</p> <ol style="list-style-type: none"> a) Do infants and preschool children with repeated or persistent early life OME as compared to those with infrequent OME have greater 	<p>What are the sensitivity, specificity, and predictive values for the following alternative methods of diagnosing OME compared to one of the four gold standards?</p> <p>Alternative methods include:</p> <ul style="list-style-type: none"> • Signs/symptoms • Non-pneumatic otoscopy • Pneumatic otoscopy, validated or un-validated examiner • Binocular micro-tympanoscopy • Portable tympanometer • Professional tympanometer • Quantitative tympanometry

Appendix D (Continued)

Domain	Key Question 1: Natural History	Key Questions 2 and 3: Speech/Language/Hearing	Key Question 4: Diagnostic Methods
	<p>months or longer.</p>	<p>delays in the speech and language development (receptive or expressive) later in life? One specific formulation of this subquestion is: Is OME-associated conductive hearing loss in the first 3 years of life a risk factor for speech and language developmental delays?</p> <p><u>Key Question 3:</u> Do children with OME with certain risk factor(s) have increased hearing loss (unilateral or bilateral) than those without those risk factor(s) or with other risk factor(s)?</p> <p>Specifically, the following subquestion will be investigated:</p> <p>a) Is OME-associated conductive hearing loss in the first 3 years of life a risk factor for permanent (or sensorineural) hearing loss later in life?</p>	<ul style="list-style-type: none"> • Acoustic reflectometry (specify model and year) • Otoacoustic emissions • Audiometry, air or. bone conduction thresholds <p>Gold standards include:</p> <ul style="list-style-type: none"> • Tympanocentesis (sedated versus non-sedated) • MRI • Myringotomy (sedated versus non-sedated) • Validated pneumatic otoscopy • CT Scan
<p>Key words for literature search</p>	<p>Two suggestions:</p> <p>a) Resolution and OM Duration of effusion</p> <p>b) Otitis media with effusion Mastoid</p>	<p>One suggestion:</p> <p>a) Otitis media with effusion Mastoid</p>	<p>Two suggestions:</p> <p>a) Otoscopy Pneumatic otoscopy Tympanometry Otoacoustic emissions</p> <p>b) Otitis media with effusion Mastoid</p>

Appendix E. Questionnaire for Polling Experts' Opinion on Influence of Non-Condition Factors on Outcomes

Key Question 1: Natural History of OME

Non-treatment factors Influencing outcomes for Key Questions 1	Does this factor influence the natural history of OME?			Basis of the opinion		
	Yes	No	Don't Know	Judgment/ Experience Literature	Theoretical Construct	
Demographic						
• age of child	___	___	___			
• gender	___	___	___	___	___	___
• ethnicity/Race	___	___	___	___	___	___
• socioeconomic status	___	___	___	___	___	___
Environmental				___	___	___
• # hours attending child care center	___	___	___	___	___	___
• tobacco smoke exposure	___	___	___	___	___	___
• season of the year	___	___	___	___	___	___
• number of children in household	___	___	___	___	___	___
• not breast-fed	___	___	___	___	___	___
• Barotrauma challenges	___	___	___	___	___	___
Symptoms/Signs						
• laterality, unilateral versus bilateral	___	___	___	___	___	___
• hearing level, conductive vs sensorineural	___	___	___	___	___	___
Other clinical factors						
• total duration of OME (>=3 mos)	___	___	___	___	___	___
• age at first OM	___	___	___	___	___	___
• age of onset of previous OME	___	___	___	___	___	___
• number of previous OMEs	___	___	___	___	___	___
• family history of OME	___	___	___	___	___	___
• otitis prone (AOM)	___	___	___	___	___	___
• allergies	___	___	___	___	___	___
• prior tubes	___	___	___	___	___	___
• prior adenoidectomy	___	___	___	___	___	___
• developmental delay	___	___	___	___	___	___
Parent/caretaker				___	___	___
• parent/caregiver preference for tx	___	___	___	___	___	___
• parent/caregiver education	___	___	___	___	___	___
Examiner				___	___	___
• Skill to diagnose (validated)	___	___	___	___	___	___
• Type of examiner	___	___	___	___	___	___
• Setting (Public,private,PPO,HMO)	___	___	___	___	___	___
Monitoring during course of illness				___	___	___
• When	___	___	___	___	___	___
• Frequency	___	___	___	___	___	___
• Primary provider	___	___	___	___	___	___
Type of monitoring method				___	___	___
• tympanometry	___	___	___	___	___	___
• acoustic reflectometry	___	___	___	___	___	___
• otoscopy	___	___	___	___	___	___
• pneumatic otoscopy	___	___	___	___	___	___
• MRI	___	___	___	___	___	___

Appendix E. (Continued)

Key Question 2: Speech & Language Development

Non-treatment or non-condition factors Influencing outcomes for Key Question 2	Does this factor have an independent effect on speech and language development separate from its effects on OME or unspecified OM?			Basis of the opinion		
	Yes	No	Don't Know	Judgment/ Experience Literature	Theoretical Construct	
Demographic						
• age at first OM	___	___	___	___	___	___
• gender	___	___	___	___	___	___
• ethnicity/race	___	___	___	___	___	___
• socioeconomic status	___	___	___	___	___	___
Environmental						
• # hours attending child care center	___	___	___	___	___	___
• quality of child care	___	___	___	___	___	___
• early intervention program	___	___	___	___	___	___
• tobacco smoke exposure	___	___	___	___	___	___
• number of children in household	___	___	___	___	___	___
• not breast-fed	___	___	___	___	___	___
Symptoms/Signs						
• laterality, unilateral vs bilateral	___	___	___	___	___	___
• hearing level, conductive vs sensorineural	___	___	___	___	___	___
Other clinical factors						
• total duration of OME (>=3 mos)	___	___	___	___	___	___
• number of previous OMEs	___	___	___	___	___	___
• duration of MEE	___	___	___	___	___	___
• allergies	___	___	___	___	___	___
• developmental delay	___	___	___	___	___	___
• OM complications, eg. perforated TM, cholesteatoma	___	___	___	___	___	___
• chronic illness of any type	___	___	___	___	___	___
Parent/caretaker						
• parent/caregiver education	___	___	___	___	___	___
• quality of parent-child interaction	___	___	___	___	___	___
Examiner						
• Skill to diagnose (validated)	___	___	___	___	___	___
• Type of examiner	___	___	___	___	___	___
• Setting (Public,private,PPO,HMO)	___	___	___	___	___	___
Monitoring						
• Recheck times	___	___	___	___	___	___
• Frequency of recheck	___	___	___	___	___	___
• Primary provider	___	___	___	___	___	___
Monitoring method						
• tympanometry	___	___	___	___	___	___
• acoustic reflectometry	___	___	___	___	___	___
• pneumatic otoscopy	___	___	___	___	___	___
• MRI	___	___	___	___	___	___
• equipment to measure auditory brainstem responses/brainstem auditory evoked responses	___	___	___	___	___	___
• audiometry)	___	___	___	___	___	___

Appendix E. (Continued)

Key Question 3: Long-term Hearing Loss

Non-treatment or non-condition factors Influencing outcomes for Key Question 3	Does this factor have an independent effect on long-term hearing separate from its effects on OME or unspecified OM?			Basis of the opinion		
	Yes	No	Don't Know	Judgment/ Experience Literature	Theoretical Construct	
Demographic						
• age at first OM	___	___	___			
• gender	___	___	___	___	___	___
• ethnicity/race	___	___	___	___	___	___
• socioeconomic status	___	___	___	___	___	___
Environmental						
• # hours attending child care center	___	___	___	___	___	___
• quality of child care	___	___	___	___	___	___
• early intervention program	___	___	___	___	___	___
• tobacco smoke exposure	___	___	___	___	___	___
• number of children in household	___	___	___	___	___	___
• not breast-fed	___	___	___	___	___	___
Symptoms/Signs						
• laterality, unilateral vs bilateral	___	___	___	___	___	___
• hearing level, conductive vs sensorineural	___	___	___	___	___	___
Other clinical factors						
• total duration of OME (>=3 mos)	___	___	___	___	___	___
• number of previous OMEs	___	___	___	___	___	___
• duration of MEE	___	___	___	___	___	___
• allergies	___	___	___	___	___	___
• developmental delay	___	___	___	___	___	___
• OM complications, eg. perforated TM, cholesteatoma	___	___	___	___	___	___
• chronic illness of any type	___	___	___	___	___	___
Parent/caretaker						
• parent/caregiver education	___	___	___	___	___	___
• quality of parent-child interaction	___	___	___	___	___	___
Examiner						
• Skill to diagnose (validated)	___	___	___	___	___	___
• Type of examiner	___	___	___	___	___	___
• Setting (Public,private,PPO,HMO)	___	___	___	___	___	___
Monitoring						
• Recheck times	___	___	___	___	___	___
• Frequency of recheck	___	___	___	___	___	___
• Primary provider	___	___	___	___	___	___
Monitoring method						
• tympanometry	___	___	___	___	___	___
• acoustic reflectometry	___	___	___	___	___	___
• pneumatic otoscopy	___	___	___	___	___	___
• MRI	___	___	___	___	___	___
• equipment to measure auditory brainstem responses/brainstem auditory evoked responses	___	___	___	___	___	___
• audiometry)	___	___	___	___	___	___

Appendix E. (Continued)

Key Question 4: Accuracy of Diagnostic Methods

Non-treatment or non-condition factors Influencing outcomes for Key Question 4	Does this factor have an independent effect on the accuracy of a diagnostic method separate from its effects on OME or unspecified OM?			Basis of the opinion		
	Yes	No	Don't Know	Judgment/ Experience Literature	Theoretical Construct	
Demographic	---	---	---	---	---	---
• age of child	---	---	---	---	---	---
Symptoms/Signs	---	---	---	---	---	---
• laterality, unilateral versus bilateral	---	---	---	---	---	---
Other clinical factors	---	---	---	---	---	---
• age at first OM	---	---	---	---	---	---
• anesthetic	---	---	---	---	---	---
• developmental delay	---	---	---	---	---	---
Type of examiner	---	---	---	---	---	---
• family physician	---	---	---	---	---	---
• otolaryngologist	---	---	---	---	---	---
• pediatrician	---	---	---	---	---	---
• nurse practitioner	---	---	---	---	---	---
• physician assistant	---	---	---	---	---	---
• others	---	---	---	---	---	---

Appendix F. Experts' Opinion on Influence of Non-Condition Factors on Outcomes

Key Question 1: Natural History of OME

Non-treatment factors Influencing outcomes for Key Question 1	Does this factor influence the natural history of OME? 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Expert number (randomly assigned)*																								
Demographic																								
age of child	1	1	1	1	1	1	9	9	1	1	9	1	5	2	7	3	2	7	-9	-9	3	4	-9	3
gender	1	0	0	0	0	9	0	9	1	1 ^h	9	1	3	1	-9	3	2	1	-9	-9	3	4	-9	3
ethnicity/Race	9	1	9	1	1	0	1	9	1	1	9	1	3 ^a	2	-9	3	3	7	-9	-9	3	7	-9	3
socioeconomic status	1	0	1	9	9	1	0	9	1	1	9	0	5	1	6	-9	-9	7	-9	-9	3	7	-9	2
Environmental																								
# hours attending child care center	1	1	1	1	1	1	0	-9	1 ^d	1	1	1	3	3	3	3	3	7	-9	-9	3	7	1	3
tobacco smoke exposure	9	1	1	1	1	1	1	1	9	1	1	1	3 ^b	3	3	3	2	7	-9	2	3	7	3	3
season of the year	1	1	1	1	9	1	1	1	1	0	1	1	5	2	3	3	-9	7	-9	2	3	5	2	3
number of children in household	1	0	1	1	1	0	0	9	1	1	1	1	3	1	2	3	3	1	-9	-9	3	-9	2	2
not breast-fed	1	1	1	1	1	1	0	9	1	1	1	1	3	2	3	3	2	7	-9	-9	3	-9	2	3
barotrauma challenges	9	1	1	1	1	1	9	9	9	9	1	0	9 ^c	2	2	3	2	1	-9	-9	-9	-9	1	2
Symptoms/Signs																								
laterality, unilateral versus bilateral	1	0	0	1	9	1	0	9	1	0	9	9	5	1	2	3	1	7	-9	-9	3	-9	-9	-9
hearing level, conductive vs sensorineural	0	0	0	0	0	0	0	9	1	0	9	9	2	2	2	2	2	1	-9	-9	3	-9	-9	-9
Other clinical factors																								
total duration of OME (>=3 mos)	1	1	1	1	1	1	1	9	1	1	1	1	2	3	7	3	3	7	-9	-9	3	5	3	3
age at first OM	1	1	1	1	1	1	1	9	1	1	9	1	3	2	5	3	3	7	-9	-9	3	5	-9	3
age of onset of previous OME	9	1	0	9	9	9	1	9	1	9	9	1	9	2	5	-9	-9	1	-9	-9	3	-9	-9	3
number of previous OMEs	1	1	1	1	9	1	1	9	1	1	1	1	2	2	4	1	-9	7	-9	-9	3	5	2	3
family history of OME	1	1	0	1	1	1	0	9	1	1	9	1	5	2	2	3	2	7	-9	-9	3	3	-9	3
otitis prone (AOM)	1	1	1	1	1	1	0	9	1	1	1	1	2	4	4	3	2	7	-9	-9	3	-9	1	3
allergies	1	1	1	9	1	1	1	9	9	1	1	1	1	4	7	-9	2	7	-9	-9	3	3	2	3
prior tubes	9	1	1	1	1	0	1	9	9	1	1	1	9	4	4	1	2	1	-9	-9	3	5	1	3
prior adenoidectomy	1	1	1	0	9	1	1	9	9	9	9	1	3	3	4	1	-9	5	-9	-9	3	-9	-9	3
developmental delay	0	0	9	0	9	0	0	0	9 ^e	0	9	0	2	4	-9	2	-9	1	-9	2	-9	4	-9	2
Parent/caretaker																								
parent/caregiver preference for tx	0	9	9	0	9	0	0	0	9	1	9	0	2	-9	2	2	-9	1	-9	3	1	4	-9	2
parent/caregiver education	0	9	0	0	9	0	0	9	9	9	1	0	2	-9	2	2	-9	1	-9	-9	1	-9	2	2
Examiner																								
Skill to diagnose (validated)	0	1	9	0	0	1	1	0	9	9	9	1	2	4	2	2	2	2	-9	2	1	-9	-9	3
Type of examiner	0	1	0	0	0	1	0	0	9	9	9	9	2	1	2	2	2	2	-9	4	1	-9	-9	-9
Setting (Public,private,PPO,HMO)	0	1	0	0	0	0	0	0	9	9	0	9	2	1	2	2	2	1	-9	2	1	-9	2	-9

Appendix F. (Continued)

Non-treatment factors Influencing outcomes for Key Question 1	Does this factor influence the natural history of OME? 1=yes, 0=no, 9=don't know											Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank												
Monitoring during course of illness	0	1	-9	0	9	0	0	0	9 ^f	9	1	1	2	5	-9	2	-9	1	-9	2	-9	-9	2	3
When	0	1	-9	0	9	0	0	0	9 ^f	9	1	0	2	4	-9	2	-9	1	-9	2	-9	-9	2	2
Frequency	0	9	0	0	9	0	0	0	9 ^f	9	1	1	2	-9	2	2	-9	1	-9	2	-9	-9	2	2
Primary provider																								
Type of monitoring method																								
tympanometry	0	0	0	0	1	0	1	0	9 ^f	9	1	1	2	2	2	2	2	1	-9	2	-9	-9	1	3
acoustic reflectometry	0	0	0	0	9	0	9	0	9 ^f	9	1	1	2	2	2	2	-9	1	-9	2	-9	-9	2	3
otoscopy	0	0	0	0	9	0	0	0	9 ^f	9	1	0	2	2	2	2	-9	1	-9	2	-9	-9	1	3
pneumatic otoscopy	0	0	0	0	9	0	0	0	9 ^f	9	1	1	2	2	2	2	-9	1	-9	2	-9	-9	1	3
MRI	0	0	0	0	9	0	1	0	9 ^f	9	1	9	2	2	2	2	-9	1	-9	2	-9	-9	3	-9

* Experts 1-11 are members of the technical expert panel; Expert 12 is an internal expert.

^a may be higher in Inuit, Native American; may be SES ^b fellow traveler with low SES ^c not important

^d size of child care center? ^e If head/neck syndrome, then yes ^f don't understand how these relate to natural history

^h variable

Appendix F. (Continued)

Key Questions 2: Speech and Language Development

Non-treatment or non-condition factors Influencing outcomes for Key Questions 2	Does this factor have an independent effect on speech and language development separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Expert number (randomly assigned)																								
Demographic																								
age at first OM	0	0	0	0	0	1	0	9	9	9	9	9	2	2	2	1	2	1	-9	-9	3	-9	-9	1
gender	1	1	0	1	0	1	0	9	9	1	9	1	3	3	2	2	2	1	-9	-9	3	6	-9	1
ethnicity/race	0	9	0	1	0	0	1	9	9	1	9	9	2	1	2	2	2	1	-9	-9	3	6	-9	1
socioeconomic status	1	9	0	0	1	1	1	1	1	1	9	1	3	2	2	3	3	1	-9	2	3	7	-9	1
Environmental																								
# hours attending child care center	9	1	0	0	9	1	1	9	9	1	9	1	-9	2	2	2	-9	1	-9	-9	3	6	-9	1
quality of child care	1	1	0	1	1	1	1	1	1	1	9	1	2	2	2	3	1	1	-9	3	3	6	-9	1
early intervention program	9	1	0	1	1	1	1	9	1	1	9	0	-9	2	2	2	1	2	-9	-9	1	6	-9	1
tobacco smoke exposure	0	0	0	0	0	1	0	9	0	0	1	1	2	2	2	1	3	2	-9	-9	2	-9	1	1
number of children in household	0	1	0	0	1	1	1	9	9	0	1	1	2	1	2	1	3	1	-9	-9	3	-9	1	1
not breast-fed	0	0	0	0	0	1	0	9	9	0	9	9	2	2	2	1	2	1	-9	-9	3	-9	-9	1
Symptoms/Signs																								
laterality, unilateral vs bilateral	9 ^a	0	1	1	1	1	1	1	9	-9	1	1	-9	2	7	3	2	2	-9	3	3	-9	1	1
hearing level, conductive vs sensorineural	1	1	1	1	1	1	1	9	1	1	9	1	3	3	7	3	2	5	-9	-9	3	6	-9	1
Other clinical factors																								
total duration of OME (>=3 mos)	9	0	0	0	1	1	1	9	1	1	1	1	-9	2	2	-9	2	1	-9	-9	3	2	1	1
number of previous OMEs	9	0	0	0	0	1	1	9	9	1	9	1	-9	2	2	-9	2	1	-9	-9	3	2	-9	1
duration of MEE	9	0	0	0	1	1	1	9	1	1	1	9	-9	2	2	-9	2	1	-9	-9	3	3	1	1
allergies	0	0	0	0	0	0	9	9	9	0	1	1	-9	2	2	-9	1	1	-9	-9	3	6	1	1
developmental delay	1	1	1	1	1	1	1	1	1	1	9	1	-	3	7	1	3	1	-9	3	3	7	-9	1
OM complications	9 ^b	1	0	0	1	9	0	1	9	0	9	9	9 ^e	2	2	2	3	1	-9	3	3	-9	-9	1
chronic illness of any type	9 ^c	1	1	9	1	1	1	1	9	0	9	-9	-9	2	4	2	1	1	-9	3	3	-9	-9	1
Parent/caretaker																								
parent/caregiver education	1	1	0	1	1	1	1	1	1	1	9	1	3	2	2	3	3	1	-9	3	3	3	-9	1
quality of parent-child interaction	1	1	0	1	1	1	1	1	1	1	9	1	2	2	2	3	3	1	-9	3	3	3	-9	1

Appendix F. (Continued)

Non-treatment or non-condition factors Influencing outcomes for Key Questions 2	Does this factor have an independent effect on speech and language development separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know											Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank																					
Examiner																																	
skill to diagnose (validated)	0	0	0	0	0	0	0	0	0	0	9	1	2	2	2	1	1	1	-9	2	2	1	-9	1									
type of examiner	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	1	1	-9	2	2	1	-9	1									
setting (Public,private,PPO,HMO)	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	1	1	-9	2	2	1	-9	1									
Monitoring																																	
recheck times	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
frequency of recheck	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
primary provider	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
ambient noise	0	0	0	0	1	0	9	0	0	9	1	2	2	2	1	2	1	-9	-9	2	1	-9	1										
child temperament	0	0	0	0	1	0	1	9	9	9	1	2	2	2	1	2	1	-9	1	1	1	-9	1										
presence of active ear disease	1	0	0	0	1	1	0	9	9	0	9	1	1 ^f	2	2	1	1	2	-9	-9	1	1	-9	1									
Monitoring method																																	
tympanometry	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
acoustic reflectometry	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
pneumatic otoscopy	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
MRI	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
equipment to measure auditory brainstem responses/brainstem	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									
auditory evoked responses audiometry)	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1									

^a question too vague, how long? ^b depends on hearing; ^c too vague-what kind of illness at what age?

^d if hearing deficit severe or prolonged; ^e by definition; ^f would depend on duration and age

Appendix F. (Continued)

Key Questions 3: Long-term Hearing Loss

Non-treatment or non-condition factors Influencing outcomes for Key Questions 3	Does this factor have an independent effect on long-term hearing separate from its effects on OME or unspecified OM? ^k 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Expert number (randomly assigned)																								
Demographic																								
age at first OM	0	0	0	0	0	1	0	0	9	0	9	0	2	2	4	1	4	1	-9	-9	1	1	-9	1
gender	0	0	0	0	0	0	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	3	-9	1
ethnicity/race	0	0	0	0	0	1	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	3	-9	1
socioeconomic status	0	0	0	0	1	0	0	0	9	0	9	9	2	2	2	1	3	1	-9	2	1	3	-9	1
Environmental																								
# hours attending child care center	0	0	0	0	0	0	0	9	9	0	9	0	2	2	2	1	4	1	-9	-9	1	2	-9	1
quality of child care	0	0	0	0	0	0	0	9	9	0	9	1	2	2	2	1	4	1	-9	2	1	2	-9	1
early intervention program	0	9	0	0	0	0	0	9	9	9	1	9	2	1	2	1	4	1	-9	-9	1	1	1	1
tobacco smoke exposure	0	0	0	0	0	0	0	9	9	0	1	0	2	2	2	1	4	1	-9	-9	1	1	1	1
number of children in household	0	0	0	0	0	0	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	1	-9	1
not breast-fed																								
Symptoms/Signs																								
laterality, unilateral vs bilateral	-	0	1	0	0	0	1	1	1	1	1	1	-9	2	2	1	2	1	-9	3	3	3	1	1
hearing level, conductive vs sensorineural	9 ^a	1	1	0	0	0	1	1	1	1	9	1	-9	2	6	1	2	1	-9	3	3	3	-9	1
	-																							
	9 ^a																							
Other clinical factors																								
total duration of OME (>=3 mos)	9	0	0	0	0	0	0	9	1	1	1	1	-9	2	2	1	2	1	-9	-9	3	1	1	1
number of previous OMEs	9	0	0	0	0	0	0	9	1	1	9	1	-9	2	2	1	2	1	-9	-9	3	1	-9	1
duration of MEE	9	0	0	0	0	0	0	9	1	1	9	1	-9	2	2	1	2	1	-9	-9	3	1	-9	1
allergies	0	0	1	0	0	0	9	9	9	0	1	0	2	2	4	1	2	1	-9	-9	3	-9	1	1
developmental delay	-9	1	1	9	0	0	1	1	1	0	9	1	-9	2	7	1	2	1	-9	3	3	3	-9	1
OM complications	1	1	1	1	1	0	1	1	1	1	9	1	3	2	7	3	4	1	-9	3	3	3	-9	1
chronic illness of any type	0	0	1	9	0	0	1	9	1	0	9	9	2	2	4	1	2	1	-9	-9	3	1	-9	1
Parent/caretaker																								
parent/caregiver education	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
quality of parent-child interaction	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1

Appendix F. (Continued)

Non-treatment or non-condition factors Influencing outcomes for Key Questions 3	Does this factor have an independent effect on long-term hearing separate from its effects on OME or unspecified OM? ^k 1=yes, 0=no, 9=don't know											Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank												
Examiner																								
skill to diagnose (validated)	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
type of examiner	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
setting (Public,private,PPO,HMO)	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
Monitoring																								
recheck times	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
frequency of recheck	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
primary provider	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
ambient noise	0	1	1	0	0	1	0	9	0	0	9	9	2	3	7	1	2	1	-9	-9	2	1	-9	1
child temperament	0	0	0	0	0	0	0	0	0	0	1	0	2	2	4	1	2	1	-9	2	2	1	1	1
presence of active ear disease	9 ^b	0	1	0	1	0	0	1	1	1	9	1	-9	2	2	1	3	1	-9	3	1	3	-9	1
Monitoring method																								
tympanometry	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
acoustic reflectometry	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
pneumatic otoscopy	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
MRI	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
equipment to measure auditory brainstem responses/brainstem	0	0	0	0	0	0	0	0	0	1	9	0	2	2	2	1	2	1	-9	3	1	3	-9	1
auditory evoked responses audiometry)	0	0	0	0	0	0	0	0	0	1	9	0	2	2	2	1	2	1	-9	3	1	3	-9	1

^a questions need to be rephrased; ^b question illogical.

Appendix F. (Continued)

Key Question 4: Accuracy of Diagnostic Methods

Non-treatment or non-condition factors Influencing outcomes for Key Question 4	Does this factor have an independent effect on the accuracy of a diagnostic method separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know, -9=blank												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Expert number (randomly assigned)*																								
Demographic																								
age of child	1	1	1	1	1	1	1	1	1	1	1	1	1	7	4	3	2	4	-9	1	4	1	2	2
Symptoms/Signs																								
laterality, unilateral versus bilateral	0	1	1	0	1	1	0	0	0	9	1	0	2	4	4	2	2	4	-9	3	2	-9	1	2
Other clinical factors																								
age at first OM	0	1	1	0	0	1	0	1	1	0	9	1	2	4	4	2	2	1	-9	1	4	-9	-9	3
anesthetic	0	1	9	1	1	1	0	1	9	0	9	1	2	4	-9	1	2	1	-9	3	-9	-9	-9	3
developmental delay	0	1	1	1 ^m	9	0	0	0	9	1	9	9	2	4	4	1	-9	4	-9	1	-9	1	-9	-9
Type of examiner																								
family physician	-9 ^l	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
otolaryngologist	-9 ^l	1	0	1	0	1	1	1	1	9	9	9	-9	4	2	1	2	1	-9	3	4	-9	-9	-9
pediatrician	-9 ^l	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
nurse practitioner	-9 ^l	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
physician assistant	-9 ^l	1	0	1	0	1	0	9	1	9	9	9	-9	1	2	1	2	1	-9	-9	1	-9	-9	-9
others	-9 ^l	1	0	1	0	-9	0	9	1 ⁿ	9	9	9	-9	1	2	1	2	-9	-9	-9	1	-9	-9	-9

* Experts 1-11 are members of the technical expert panel; Expert 12 is an internal expert.

^l Wrong question – ability of each of these may vary depending on training, skill, and experience. Eg. some nurse practitioners are better at diagnosis than some otolaryngologists-but one would not generalize from this.

^m real issue is 'child cooperation or anxiety'

ⁿ audiologist

Appendix G. Literature Search Strategy

Search Strategy

Database: Medline <1966 to January 2000>

1	[OMEMastoidOM]	0
2	[OME module]	0
3	otitis media with effusion/	2834
4	otitis media with effusion.mp.	3056
5	(allergic otitis media or fluid ear or glue ear or middle ear effusion or mucoid otitis media or nonsuppurative otitis media or secretory otitis media or serous otitis media or tubotympanitis or tympanic hydrophs).mp.	1774
6	((catarrh\$ adj otitis) or (exudative adj catarrh\$) or hydrotubotympan\$ or (tubotympanic adj catarrh\$)).mp.	19
7	hydrotubotympan\$.mp.	0
8	tympanic hydrophs.mp.	0
9	(tympanic and hydrophs).mp. [mp=title, abstract, registry number word, mesh subject heading]	26
10	3 or 4 or 5 or 6 or 7 or 8 or 9	3793
11	[Mastoid]	0
12	mastoid/ or mastoid.ti.	2502
13	[OME or Mastoid]	0
14	10 or 12	6190
15	[explode OM]	0
16	exp otitis media/	11895
17	[OME or Mastoid or explode OM]	0
18	10 or 12 or 16	13982
19	[Natural History]	0
20	((cure\$ or clear\$ or disappear\$ or heal\$ or improve\$ or recover\$ or resolve\$) adj spontaneous\$.mp.	3563
21	(natural course or natural history or placebo\$ or resolution or self limit\$ or untreated).mp. or placebos/	208132
22	(duration adj5 effusion).mp.	83
23	[The system is UNABLE to search the following terms: "NO", "WITHOUT"]	0
24	20 or 21 or 22	211317
25	[(OME or Mastoid) AND Natural History]	0
26	14 and 24	344
27	[excl-editorial]	0
28	(comment or editorial or letter or practice guideline or review).pt.	1212431
29	26 not 28	313
30	[excl-animal]	0
31	animal/	2955143
32	human/	6660577

Appendix G (Continued)

33	[substitute final set NOT animal]	0
34	[substitute final set AND human]	0
35	[OR above two sets]	0
36	29 not 31	285
37	29 and 32	290
38	36 or 37	290
39	[Excl-ageover12]	0
40	adolescence/ or adult/ or middle age/ or aged/	2984241
41	infant, newborn/ or infant/ or child, preschool/ or child/	1108287
42	[substitute final set NOT > 12 years]	0
43	[substitute final set AND 12 years or less]	0
44	[OR above two sets]	0
45	38 not 40	199
46	38 and 41	224
47	45 or 46	253
48	[excl-cleft]	0
49	aural atresia.ti. or cleft palate/ or cystic fibrosis/ or Down syndrome/ or exp Hiv infections/ or immunodeficien\$.ti. or immotile cilia syndrome\$.ti.	136770
50	47 not 49	247
51	limit 50 to english language	231
52	[Speech and Language]	0
53	American speech-language-hearing association/ or exp audiometry, speech/ or exp child language/ or exp communication/ or communication disorders/	128500
54	exp language/ or language development/ or exp language disorders/ or language tests/ or language therapy/ or exp "rehabilitation of speech and language disorders"/	80623
55	exp speech/ or exp speech disorders/ or speech-language pathology/ or speech perception/ or exp speech production measurement/ or exp voice/ or exp voice disorders/	34953
56	(speech or language).mp,hw.	58421
57	53 or 54 or 55 or 56	164960
58	[(OME or Mastoid or explode OM) AND Speech and Language]	0
59	18 and 57	479
60	[excl-editorial]	0
61	(comment or editorial or letter or practice guideline or review).pt.	1212431
62	59 not 61	389
63	[excl-animal]	0
64	animal/	2955143
65	human/	6660577
66	[substitute final set NOT animal]	0
67	[substitute final set AND human]	0
68	[OR above two sets]	0
69	62 not 64	383

Appendix G (Continued)

70	62 and 65	388
71	69 or 70	389
72	[Excl-ageover12]	0
73	adolescence/ or adult/ or middle age/ or aged/	2984241
74	infant, newborn/ or infant/ or child, preschool/ or child/	1108287
75	[substitute final set NOT > 12 years]	0
76	[substitute final set AND 12 years or less]	0
77	[OR above two sets]	0
78	71 not 73	265
79	71 and 74	303
80	78 or 79	345
81	[excl-cleft]	0
82	aural atresia.ti. or cleft palate/ or cystic fibrosis/ or Down syndrome/ or exp Hiv infections/ or immunodeficien\$.ti. or immotile cilia syndrome\$.ti.	136770
83	80 not 82	299
84	limit 83 to english language	263
85	[Hearing]	0
86	exp hearing/ or exp hearing aids/ or exp hearing disorders/ or exp hearing impaired persons/ or exp hearing tests/ or exp rehabilitation of hearing impaired/	64186
87	hearing.mp,hw.	40614
88	86 or 87	69788
89	[(OME or Mastoid or explode OM) and Hearing]	0
90	18 and 88	3208
91	[excl-editorial]	0
92	(comment or editorial or letter or practice guideline or review).pt.	1212431
93	90 not 92	2938
94	[excl-animal]	0
95	animal/	2955143
96	human/	6660577
97	[substitute final set NOT animal]	0
98	[substitute final set AND human]	0
99	[OR above two sets]	0
100	93 not 95	2794
101	93 and 96	2840
102	100 or 101	2847
103	[Excl-ageover12]	0
104	adolescence/ or adult/ or middle age/ or aged/	2984241
105	infant, newborn/ or infant/ or child, preschool/ or child/	1108287
106	[substitute final set NOT > 12 years]	0
107	[substitute final set AND 12 years or less]	0
108	[OR above two sets]	0
109	102 not 104	1438
110	102 and 105	1689

Appendix G (Continued)

111	109 or 110	2223
112	[excl-cleft]	0
113	aural atresia.ti. or cleft palate/ or cystic fibrosis/ or Down syndrome/ or exp Hiv infections/ or immunodeficien\$.ti. or immotile cilia syndrome\$.ti.	136770
114	111 not 113	2115
115	limit 114 to english language	1638
116	[Diagnosis]	0
117	exp acoustics/du or diagnosis/ or exp diagnosis, computer-assisted/ or diagnosis, differential/ or exp diagnostic errors/ or exp "diagnostic techniques and procedures"/ or exp "laboratory techniques and procedures"/ or nursing diagnosis/	2375966
118	(acoustic reflectomet\$ or audiomet\$ or diagnosis or diagnostic or otoacoustic emission\$ or otoscop\$ or tympanomet\$ or tympanoscop\$).mp.	548679
119	117 or 118	2611782
120	[*Also search Otitis media with effusion/di]	0
121	[(OME or Mastoid) and Diagnosis]	0
122	14 and 119	2324
123	[OME with suheading diagnosis]	0
124	[diagnosis-ome]	0
125	Otitis media with effusion/di [Diagnosis]	454
126	[(OME or Mastoid) and Diagnosis OR OME with subheading diagnosis]	0
127	122 or 125	2445
128	[excl-editorial]	0
129	(comment or editorial or letter or practice guideline or review).pt.	1212431
130	127 not 129	2238
131	[excl-animal]	0
132	animal/	2955143
133	human/	6660577
134	[substitute final set NOT animal]	0
135	[substitute final set AND human]	0
136	[OR above two sets]	0
137	130 not 132	2087
138	130 and 133	2114
139	137 or 138	2119
140	[Excl-ageover12]	0
141	adolescence/ or adult/ or middle age/ or aged/	2984241
142	infant, newborn/ or infant/ or child, preschool/ or child/	1108287
143	[substitute final set NOT > 12 years]	0
144	[substitute final set AND 12 years or less]	0
145	[OR above two sets]	0
146	139 not 141	1072

Appendix G (Continued)

147	139 and 142	1323
148	146 or 147	1601
149	[excl-cleft]	0
150	aural atresia\$.ti. or cleft palate/ or cystic fibrosis/ or Down syndrome/ or exp Hiv infections/ or immunodeficien\$.ti. or immotile cilia syndrome\$.ti.	136770
151	148 not 150	1542
152	limit 151 to english language	1272
153	[Q1 or Q2 or Q3 or Q4]	0
154	51 or 84 or 115 or 152	2379

Appendix H. OME Screening Form Instructions

Software Requirements

The screening form for OME has been created using ACCESS 97. If a more recent release of ACCESS is being used for data entry the information needs to be saved as a version 97 file.

Getting Started

1. In ACCESS, 'open an existing database' directly or click on the 'file' menu option then choose 'open database' – select the appropriate file from the appropriate directory (the first file to be screened is titled 'Screening Forms Cochrane - <Ints.>').
2. A database screen will appear with six menu options: Tables, Queries, Forms, Reports, Macros, and Modules. 'Forms' is the only option to be utilized for entering screening data. Click on the 'Forms' option and select the only form listed (e.g. 'Cochrane form (1-200)'). Click on 'open' to continue to step 3.
3. The form where data is to be entered should now be displayed on the screen. Before starting please note that under the menu option 'view' there is an option titled 'design view'. This option should not be selected as it enables the user to change parameters within the form and this could effect the ability to merge this file with the master file. If by chance this option is selected simply click on the 'view' menu option again and select 'form view' to return to the data entry window.

Form Layout & Functions

The screening form contains 16 fields. A description of each field is provided in the next section.

Fields 1-5 which correspond to reviewer and article identification have been imported. Please begin data entry under the section titled 'Rejection Criteria'. If the study is not rejected two sections follow as well as a question regarding whether the study condition is AOM (two sections: Questions addressed, and study design).

The tab or enter key can be used to move to a subsequent field. Once the last item has been entered these keys can then be used to move to the next record (abstract). Data entry for a specific abstract may not include all fields, either due to rejection criteria or specific question(s) not addressed. If this occurs either tab through the fields or click on the arrow to the right of the white box next to 'Record' located at the bottom of the form window to continue to the next entry (abstract).

ACCESS assigns record numbers based on the order of entry. This number may be different from the field 'Record#', which is determined by ENDNOTE. To toggle between ACCESS records use arrows located next to the word 'Record' at the bottom of the form (mentioned

Appendix H. (Continued)

above). This area also displays total number of abstracts screened and current entry (record) number.

Fields (Screening Form Items)

Reviewer - Identifier that indicates who derived the information from screening the abstract.

Response Options: 1. Glenn Takata
 2. Rita Mangione-Smith

Record# - Assigned by ENDNOTE (listed on the abstract form).

Response Options: (1 – total number of abstracts identified through literature search)

Unique Identifier – Assigned by either the database used to perform the literature search or Tricia Morphew (listed on the abstract form).

Author – Lists up to three authors followed by et al. if there are more than three.

Year of Publication – self-explanatory

Fields (Screening Form Items)

QUESTION ADDRESSED (Question1...Question4): CHECK BOXES PROVIDED

Response options: 1. Yes
 2. No
 9. Unsure

Question 1 addressed? – Q1: Natural History

Question 2 addressed? – Q2: Speech and Language

Question 3 addressed? – Q3: Hearing

Question 4 addressed? – Q4: Diagnostic Method

(If all NO's, REJECT, STOP)

STUDY DESIGN: CHECK BOXES PROVIDED – SELECT ONE

Study Design

Appendix H. (Continued)

- Response options:
1. Randomized controlled trial
 2. Non-randomized controlled trial
 3. Prospective comparative cohorts
 4. Retrospective comparative cohorts
 5. Case control
 6. Natural history/observational single cohort
 9. Unsure

STUDY CONDITION IS AOM? (CHECK BOXES PROVIDED)

- Response options:
1. Yes
 2. No
 9. Unsure

Screening Form Instructions, Addendum 1/19/2000

Question 6a:

We are only including clinical studies. If the article reports findings of an evidence-based analysis, the study will be rejected for the purposes of our evidence-based analysis of the four key questions; however, please note the article as a possible source of citations and as a reference for our evidence report introduction or conclusions.

Question 6c:

At this stage, we are including any study focussing on otitis media. If the study only includes otitis media as an outcome without otitis media as the main focus of the investigation, that study is not eligible for our evidence-based analysis of the four key questions.

OM refers to the general term otitis media. Otitis media includes otitis media with effusion, acute otitis media, and unspecified otitis media.

Synonyms for otitis media with effusion:

serous otitis media	mucoid otitis media	tympanic hydrops
secretory otitis media	secondary otitis media	glue ear
allergic otitis media	hydrotubotympanum	fluid ear
catarrhal otitis media	exudative catarrh	middle ear effusion
nonsuppurative otitis media	tubotympanitis	tubotympanic catarrh
serotympanum	acute serous otitis media	chronic serous otitis media
catarrh		

Synonyms for acute otitis media:

acute suppurative otitis media
acute purulent otitis media
bacterial otitis media

Synonyms for chronic or persistent forms of otitis media:

chronic otitis media
chronic tubotympanic suppurative otitis media
chronic atticofacial suppurative otitis media
chronic suppurative otitis media
chronic purulent otitis media
persistent otitis media

Question 6d:

Only reject studies that are exclusively on patients older-than 12 years of age. If a study includes patients younger-than and older-than 12 years of age, the study is included at this stage; and, we will determine at the review stage if the data on patients younger-than 12 years of age can be extracted.

Appendix H. (Continued)

Question 6e:

Only reject studies that are exclusively on patients with craniofacial defects, primary mucosal disorders, immunodeficiencies, or Down Syndrome. If the study includes children with and without these medical conditions, the study is included at this stage; and, we will determine at the review stage if the data on children without these medical conditions can be extracted.

Questions 7a-7d:

Please refer to the Causal Pathways and Scope to determine if the study addresses any of the four key questions.

Question 8:

The study types are standard terms.

Question 9:

See synonyms for acute otitis media above under Question 6c.

REJECTION CRITERIA (R1...R5): CHECK BOXES PROVIDED

Response options: 1. Yes
 2. No
 9. Unsure

**R1: Case report/ editorial/ letter/
clinical practice/ overview/ practice
guidelines, consensus statements**

R2: Non-human subjects

R3: Study condition is not OM

R4: Age of study population >12 ...

**R5: Study population includes patients with
any one of the following: Craniofacial defects,
primary mucosal disorders, immunodeficiencies,
or Down syndrome**

(If one or more of R1 through R5, REJECT, STOP)

Appendix I. Peer Review Comments and Responses [Editorial comments were excluded]

Area Addressed	Comment	EPC Response
Title	<ul style="list-style-type: none"> Although entitled "Diagnosis and Treatment of OME" the report <i>does not</i> deal with treatment. Some other word would be more accurate, perhaps "management." 	<ul style="list-style-type: none"> Title has been changed to "Diagnosis, natural history, and late effects of OME".
Abstract	<ul style="list-style-type: none"> page v – the objective statement makes no mention of treatment for OME; further the search strategy does not include a "treatment" module. If treatment is not addressed then the title of the report should be modified. On page "v", I suggest that the first sentence of Objectives would read more smoothly as: "the impact of otitis media on hearing and on long-term speech and language development, and the operating characteristics...." page "v", the first sentence of Search Strategy should read consistent with page 2; for page "v", I suggest "including otitis media, otitis media with effusion, non-suppurative otitis media, fluid ear...." The refinement of the purpose of the guideline on page V in the objectives section states the purpose of the guideline more clearly in comparison from report I reviewed in August of 1999. Move (Results: line 1, page vi) of the results to the conclusions. The remainder of the results are clear within the structured abstract. Page vi - the ages of the patients are unclear. Outcomes were followed in children up to 22 years of age. A general statement regarding the ages of patients in the studies would be helpful. Page "vi", the last sentence of Data Collection and Analysis would, I think, be better by omitting "in" at "non-English language", and omitting the comma after "craniofacial deficiencies" [I prefer the word anomaly rather than deficiency]. In last sentence, add "<u>reports in non-English language</u>" page "vi", in the first sentence of Main Results, the phrase "of ears" disturbs me. I'd prefer "patients" or "children" -- as pages 9 (lines 4-7 from the top of the page) and 154 (lines 1-5 from the top) state. However, I do realize that the data depicted in Tables 21 and 22 do not allow such a change in words on page "vi". Page vi - what is meant by early life otitis media - does that include 	<ul style="list-style-type: none"> The title was changed to read "Diagnosis, Natural History and Late Effects of OME". Sentence revised. Revised. Noted. Revised. Revised Revised Added Data was reported as ears for these particular estimates Revised Added: 'defined as greater or equal to 20

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>AOM and OME.</p> <ul style="list-style-type: none"> • Page vi - hearing loss should be qualified - mild, moderate, severe, profound. • page vi – bottom paragraph, how is “hearing loss” defined – qualitatively or quantitatively? Is this any detectable hearing loss or significant hearing loss; are the percentages for resolution of OME cumulative or simply point estimates at the stated time periods? • Page vi, 3rd paragraph and elsewhere. It is not clear whether the resolution rates are cumulative or represent the total resolved to that point in time. This is particularly true because the numbers are so similar. Some comment is needed about why it might seem that no one recovers between 6 weeks and 3 months. Obviously, it is because the results come from different studies, but this is not mentioned anywhere in the document. It might be helpful to select the studies that measure at multiple time points and show the progression over time (or use the formulas that some studies have to show what the progression appears to be). • Page vi, 3rd paragraph. Your statement about hearing loss in children in later life needs to be clarified as to whether this is with or without treatment of the effusion (or some hint that we don’t know about treatment effect on this outcome). • I read the report in sequence, from the abstract to the summary to the text. In the abstract and summary, it would have been helpful to include very early in these sections, more context about: <ul style="list-style-type: none"> • What is OME? • Why is there concern about OME? • What are the possible interventions for OME? Without knowing this information, the summary of evidence seemed a 	<p>dB threshold at any frequency with or without treatment.”</p> <ul style="list-style-type: none"> • Added definition of hearing as above. We deleted all meta-analyses in Table 23 and only presented the third and fourth meta-analyses of point estimates in Table 24 and the third and fourth meta-analyses of cumulative estimates in Table 25 and made appropriate changes in the summary, results, and conclusions. We commented on this issue in the results and conclusions. • This issue has been discussed in Conclusion and Future Research sections. Also, see immediately above. • Definition of hearing loss included a phrase on treatment. A discussion of treatment was added in Results. • We added definition of OME early in Abstract and Summary.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>little abstract and dry. If you need to reduce the length of other parts of the abstract or summary, I think most readers will be less interested in the detail given about the methods than in the contextual questions above.</p> <ul style="list-style-type: none"> • p. vii and other places: You refer to the need for a “coordinated uniform approach using a rational conceptual framework.” This is a little abstract. It would be good to show or talk a little about the examples, or to try to put what this means in plainer English for clinician-readers. • page vi-vii – no mention of treatment in “Main Results” section. • page vii – conclusions – what percentage of OME persists after 3 months?; it would be helpful to define what is meant by “early life otitis media.” • (Conclusions: page Vii, line 1). I recommend simplifying line 1 of the conclusions in the structured abstract so that it presents more generalization from the results and not just a restatement of the results. • Bias: It may be helpful to add a section on the Biases associated with the types of studies selected, i.e. case control, cohort, and randomized controlled trial. 	<ul style="list-style-type: none"> • Sentence revised and concept clarified. • Title changed. Treatment will not be addressed in this Report. • 59-78% persist after 3 months. Results revised. Definition of “early life otitis media” added in appropriate places in Abstract, Summary and Results chapters. • Revised. • A discussion of study design has been included in the Limitation section.
Summary	<ul style="list-style-type: none"> • The review process and scope is clearly defined (page 1) and in more detail (page 34) of the report. Some bias exists in the composition of the panel as there is heavy representation toward specialty composition which may influenced selection of diagnosis and long term outcomes as key questions developed for this evidence report. The authors did review previously developed guidelines from 1994 but chose a different area of focus based on the rankings from the panel. The information presented is most useful for beginning to structure uniformity in randomized clinical trials and prospective studies. Primary care practitioners and consumers may be more interested in treatments as the immediate results are observed in primary care. This may be a reasonable focus for building on future evidence based studies if the interest was to focus on the consumer perspective. 	<ul style="list-style-type: none"> • Comments noted. • Added definition of OME at the end of

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Page 2 - the definition of AOM should be provided. • I miss the four research questions. They are only mentioned in the section reporting the evidence. • page 2: The search strategy is not very clear described. The reader can not know yet what the different concepts or modules are. You use the words <i>concept</i> (the otitis media with effusion concept) , <i>component</i> (the speech and language component...) and <i>module</i> (the natural history module) not every time in the same way. I was confused by reading this section the first time. • In discussing pneumatic otoscopy here and later in the report, it would be helpful to note whether the report conclusions should be limited to examiners trained in the technique, or can be generalized to untrained examiners. (see Comment, pg 88.) • Page 3 - the degree of OM was graded in some ways - is this AOM or OME? • page 3 – was age limit “up to 22 years” (abstract) or “under 23 years”? Is age limit 22 years or 21 years? • Page 3 last paragraph: Effect of OME in first three years of life on later language limits the question. • Page 3 and 4: Diagnostic method. Algorithms are generally accepted in the diagnosis of OME because the accuracy of most diagnostic methods is disappointing. Excluding the literature using algorithms to diagnose OME limits this evidence assessment. • Page 4 - generally, researchers refer to adherence rather than compliance. • Page 6 - hearing loss should be qualified - mild, moderate, severe, profound. • Page 6 last sentence. This sentence is ambiguous. Better might be to 	<p>Reporting of Evidence</p> <ul style="list-style-type: none"> • Sentence revised mentioning the 4 key questions. • The search strategy was re-written. • Included the following statement in the conclusions: “The important question may be what degree of training will be needed for the clinician to be as effective with pneumatic otoscopy as in the studies reviewed in this report.” • OM is considered as a general term including all types. • Age limits were clarified both in Abstract and in Summary. • Comment noted. • This point was included as a limitation to this assessment. • Changed. • Added: ‘defined as greater or equal to 20 dB threshold at any frequency.’ • Changed • Corrected. • Only rate difference was reported.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>say something like “Neither the studies pooled for the rate difference nor the studies pooled for the risk ratio were statistically heterogeneous.”</p> <ul style="list-style-type: none"> • Pg. 6, line 3: “synthesize” was misspelled as “synthesis” • p. 6, last para: Various measures of risk and rates and ratios are given. Can you please help the reader decipher which of these is most relevant to interpret? • P. 6, Line 6: Unsure what you mean by “underlying concepts measured in each group were of questionable similarity.” • P.6, Line 13: Hearing loss, could you be more specific such as degree degree of loss? • Page 7 - the skill of the performer of pneumatic otoscopy is critical. This is a recurring theme in the report. Either clarification is needed, or some statement that who performed otoscopy was not examined in the analyses. • page 7 – is there data on variation in diagnosis of OME using pneumatic otoscopy by specialist (e.g., pediatrician, family physician, otolaryngologist)? • The report defines the positive and negative predictive values for the pooled at the pooled prevalence rate of the studies involved (63%). It might be useful to also calculate what the +PPV and –PPV would be at an estimate of outcome (e.g., 3 months) prevalence rate to give the reader an appreciation of the impact of prevalence on test performance. • page 8, "Diagnostic Method fo OME", I would like for there to be elaboration as to why more comparisons could not be made. This 9-page summary will likely be the most-read portion of the report, and must be most communicative. • Page 9, last sentence. This isn't clear. I would doubt that most algorithms are so complex that computer programs are used in practice. The actual instructions for applying the algorithm are probably what is needed. If a program is used, then, of course, it should be supplied. 	<ul style="list-style-type: none"> • Paragraph rewritten. • Definition of hearing loss had been added in various places in the document. • Addressed in Results and commented in Summary. • Addressed in Results and commented in Summary. • We revised our Results according to the recommendation. Figure 7 which plots PPV and NPV by prevalence rate was added. • We limited the minimum number of studies to be analyzed by meta-analysis to 3 because lower than this it would not be statistically sound. • Sentenced changed.
Introduction	<ul style="list-style-type: none"> • p. 11: Did you have an operating definition of OME for this review? I 	<ul style="list-style-type: none"> • Yes, the project definition of OME has

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>realize you didn't get consensus on a single definition, but even the simple definition given in the conclusions section would be helpful.</p> <ul style="list-style-type: none"> • Pages 12-16. The discussion contains no reference to the data in our epidemiological report (Paradise et al 1997) although the report is included in the reference list. In particular, no mention is made in the discussion of low socioeconomic status as a major risk factor, and the issue of daycare attendance is dealt with in isolation rather than as one type of exposure to large numbers of other children. Specifically, being a member of a large family of other children is also a risk factor. That report also provided detailed data on the prevalence of OME. • Page 12 - the final two sentences seem to be at odds with one another. • Page 13 - some discussion of diagnostic coding of otitis media would be helpful. It is not clear how these data sets distinguish AOM from OME. • Page 13, first paragraph. This sentence is a bit unclear, because it isn't clear what the denominator is (it can be dug out, but it isn't clear). I think it would be better to use a small inset table that shows the breakdown by age since reading requires one to build one to see what's going on anyway. • Page 13 3rd parag. 2nd sentence. This is so obvious as to not need stating since pediatricians only see kids while the others have larger patient bases. Sentence deleted. The next sentences are also not clear because the denominator isn't well stated. Is it per unit of population or per member of the physicians group? • Page 14, second full parag. It would be interesting to also have earlier numbers for myringotomy with tubes to see if there was an impact from the earlier guideline. • p. 15 last sentence. Since there are many articles indicating increased risk of acute otitis media and number or procedures for placement of tympanostomy tubes in children who attend day care contrasted with children who are in home or family care, there must be more OME in children in day care. I don't know why the guideline panel was limited in their statement but you should not repeat the mistake. • Page 16 table (and many other tables). Something is wrong with the table settings because the tops of the characters intersect the table 	<p>been added to the introduction and methods.</p> <ul style="list-style-type: none"> • The purpose of this section on prevalence is to establish the importance of OME. The section which previously dealt with risk factors has been deleted, and risk factors are mentioned • The two sentences are consistent, one addressing aom and the other addressing ome. • Defined at appropriate places. • The Introduction Chapter has been revised. • Paragraph revised. • Comment noted. • We did not change this statement because there was not sufficient evidence to support such a change.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>lines. This is annoying, particularly in the evidence tables and can probably be fixed with a global change in your style or somewhere.</p> <ul style="list-style-type: none"> • The scope of work reviews previous literature that analyzes the natural history (page 16) and common outcomes (page 24). The information is comprehensive, however there may be biases² in this information which is not described in detail in this report such as how some of the cohort studies are different from the general population, lost to follow up and whether there was any confounding. Given the heterogeneity noted in studies done previously, it is not clear if all outcomes are included or are the subjects representative of the sample. There is no mention of potential gaps in practice or newer outcomes, such as health status and satisfaction with treatment which would be a subject of future research³ (Page 10-29). <p>2 Calogne, N. <i>Examining the evidence</i>. Evidence-Based Medicine Briefing. US. Capitol Building Washington, D.C. Kaiser Permanente. January 28, 2000.</p> <p>3 Stuart, M. <i>The evidence-based medicine process</i>. Evidence-Based Medicine Briefing. US. Capitol Building Washington, D.C. Kaiser Permanente. January 28, 2000.</p> <ul style="list-style-type: none"> • Page 17 last parag. I would avoid the use of phrases like “Interestingly”. This implies a judgment by the writers that is probably inappropriate in this type of document. • Page 18, line 8 - is should be are. • The remark about assessing middle ear function, at the bottom of p. 18 reads oddly. Is that not what the entire topic is about? Or is the point being made that clinical assessment relies too much on otoscopy (structure) and insufficiently on tympanometry (function)? If so, say so. • pag 19 Rosenfeld is cited that OME should be managed by a multidisciplinary team. In the Netherlands we wait and see, and most children did not even see their GP. Why should you manage a disease that isn’t a disease at all and even when it is, it will be self limiting in most cases. • Page 20, section e. The word “as” is omitted. • Page 21 Middle of page. The term subacute OME is not defined anywhere in this document that I’ve noticed. It should probably be 	<ul style="list-style-type: none"> • Tables deleted. Introduction greatly revised. • We mentioned that “potential gaps in practice or new outcomes, such as health status and satisfaction with treatment which would be a subject of future research” in Future Research chapter. • Paragraph deleted. • Corrected. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>omitted or else defined.</p> <ul style="list-style-type: none"> • Page 21, point 1c: Should this be broken into two points, one for “general hygiene maintenance” and a second for smoke avoidance? (At least restate the stem so these two do not run together. • p.21: Point 2(c): It is undesirable to perpetuate in the literature, without questioning or reservations, the unfortunate wording about giving adenoidectomy for extruded tubes, for 3 reasons. Firstly re-insertion of tubes should depend on recurrence of fluid and hearing loss confirmed over time, with regard for time elapsed, rather than the mere fact of extrusion, which depends on the individual, on the tube, and possibly on infection, and extrusion as a dominant criterion may lead to over-treatment. Likewise where adenoidectomy is going to help in a child that meets a clear overall criterion for initial surgery plus specific indicators including age, adenoidectomy need not await the 2nd set of tubes. The Report should avoid lending its authority by uncritical repetition of this simplistic rule. • Page 22 - actors should be factors, unilater - should be unilateral. • Page 22, para 1: Is “Certain actors” meant to be “Certain factors”? • page 22, I suspect a misprint of "actors" instead of "factors"; "actors" gets the message across, but may be considered slang. In that same paragraph, "dysarticulation problems" seems redundant; is the term not "articulation problems". • Page 22, first full paragraph. The word “actors” should probably be “factors”. However the entire paragraph smacks of being a recommendation and is not really appropriate for this document, particularly since treatment is not covered in this review. • Page 22, last paragraph: Item 1, Hearing loss” suggests that the average hearing loss is 27db. This is potentially an important point, given that decisions regarding intervention, as discussed by the early 90s OME Panel, might depend on the hearing level. I looked at the literature some years ago, and found a number of studies that provided enlightening data. These references, and any other studies known to the team, should be discussed in an additional paragraph at some point in the Introduction. There is a suggestion in the literature I reviewed that the average hearing loss might trend upwards as one moves from 	<ul style="list-style-type: none"> • Paragraph deleted. • Paragraph deleted. • Corrected • Corrected • Paragraph deleted. • Paragraph deleted. • Introduction greatly revised.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>community, to primary care, and to specialty based studies. (Culpepper L, Froom J: Otitis media with effusion in young children: treatment in search of a problem? J Amer Board Fam Pract 1995;8:305-16.)</p> <ul style="list-style-type: none"> • p. 23 nos. 3,4, and 6. Since OME is not suppurative it could not be responsible for the supparuative complications of AOM such as mastoidits, petrositis or labyrinthitis. • Page 13, page: Mastoiditis, petrositis, suppurative labyrinthitis, and facial paralysis all should be moved to the list of potential complications more relevant to AOM, with this latter list expanded by dropping the word “intracranial”. The concept of infectious extension of AOM beyond the middle ear seems to be what is most important, not the intra or extracranial site of extension. • p. 24: This section doesn’t seem to differentiate between antibiotics for prophylaxis, vs. antibiotics for treatment. • Page 24. The statement, “Paradise (1995) also listed susceptibility to middle ear infection and impairment of psychosocial development as additional OME complications” requires qualification. The text in that report made it clear that any possible developmental effects were uncertain. • pages 22-24, Outcomes – what is incidence of complications that are described? Some figure should be included since these are outcomes that generally we would want to avoid. • Page 25 - why not put the OME guideline findings (numbered 1-4) on the graph above, it would make for easier comparison. • Page 26, bottom of the page. You might want to recheck the studies you cited on adenoidectomy. I seem to recall that they dealt primarily with older children. You might mention this in regard to the recommendations quoted. • p.26: Whatever other authors may have said, it is irresponsible to give consideration to systemic steroids as a main line of treatment without similar cautions, and reviewing them is totally unnecessary when servicing the 4 key non-treatment questions addressed. • page 27, in the paragraph in the middle of the page, "inconsequential hearing affected less than 0.5 dB" should be re-written. Depending on the size and mass of the tympanostomy-tube, and the location in which 	<ul style="list-style-type: none"> • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Corrected. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted. • Paragraph deleted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>the tube is placed in the tympanic membrane, the ear may have a low frequency conductive hearing loss of 20 dB.</p> <ul style="list-style-type: none"> • Page 27 middle of page. "Interestingly" pops up again. I believe that when looked at swimming before we also found that it had no impact on otorrhea. You might be surprised, but I think this has been known for a while. • Page 27, bottom. You mention three meta-analyses but then list two outcomes. This may be confusing. One of our meta-analyses was tubes vs. myringotomy so I'm not surprised you omitted it, but mentioning three and then listing two is confusing. • p.27: Swimming. There are many studies of this, mostly showing no difference. The point is that they are mostly underpowered. • Page 28 middle. "Billion" should be "billion." • Page 29, 1st paragraph: Just as an expansion on the note above on hearing loss levels, as I indicated in my JABFP critique of the earlier Panel report, the rate of intervention is highly dependent on the threshold hearing level adopted, and that panel adopted the 20 dB level with almost no discussion in its rush to finish discussion on the last day of its last meeting. A different level might cut costs dramatically. • Two generally important issues are not clear from the introduction: (a) why this major effort was undertaken now, and (b) who is considered to be the main audience? On point (a), reasons might be emergence of new results, pressures of economics e.g. via HMOs, public opinion, a federal review of medical training etc. On many of the questions there have been recent (attempts at) meta-analyses. Although this does not pre-empt the issue, it does limit the scope for radically new conclusions. The funding agency or SCEBPC must have considered this as a global issue at some stage. • Many of the summary statements in the introduction are not from primary sources but are convenience citations. These can be so summary that they could be misleading if quoted out of the context of the original studies which they summarize. An example occurs on p 17: "Rosenfeld (1994)... duration of 6 years." The point about both the cited studies lies in the particular selectivity of entry that leads to the estimate. The citation of these estimates is of little value out of that 	<ul style="list-style-type: none"> • Paragraph deleted. • Paragraph deleted. • Corrected. • A statement was added in the Summary and Conclusion chapters to alert caution. • Introduction has been greatly revised. • The Introduction has been greatly revised. • The Introduction has been greatly revised. • The Introduction has been greatly revised.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>context.</p> <ul style="list-style-type: none"> If the Report is to be widely distributed as such (rather than being a source for 4 review articles on the KQs) then the introductory chapter needs further work, preferably to cluster it better around the four questions actually addressed. I found the introduction a little disconcerting in that selected reviews were cited with tables of conclusions by the review authors. It was unclear to me (again because I did not analyze the bibliography in detail), if these were the only reviews available or how these articles were chosen for detailed citation in the introduction. In the evidence report itself, as opposed to summary articles, I would suggest adding sentences such as "There were XX reviews of the subject by...." Then summarize each published review. If not all available reviews are summarized, state what criteria are used for choosing what to cite. This would be more consistent with the exhaustive nature of the evidence report and what follows after the introduction. Introduction – the inclusion of an introductory section describing the results of several review articles seems contradictory for an evidence-based report. Regardless of the intended justification, strong consideration for removing this section is recommended. It was surprising to note the footnote explaining the introduction section (page 10) as an “overview on otitis media.” The inclusion of a traditional literature review within the body of an evidence report he introduction section seems contradictory, especially since selected members of the expert panel produced a significant amount of the cited literature. These persons are cleared well qualified but it might suggest a possible bias in terms of key questions and findings to others who are less familiar with their work. How did other reviewers reaction to the inclusion of this section? 	<ul style="list-style-type: none"> Recommendation taken. New Introduction was written. Noted. New Introduction was written.
Methods	<ul style="list-style-type: none"> p.30: "Variation in practice". Good to introduce this issue, as a main objective of doing reviews and disseminating them is to reduce such variation . However more emphasis is needed on the findings about variation in OME, and why it is important. Clinicians' understanding of variation and its implications is poor. Page 31 middle. Format the list of criteria in an outline form with 	<ul style="list-style-type: none"> Noted. Done

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>indents. As it stands the criteria with subparts are very hard to decipher.</p> <ul style="list-style-type: none"> • p.32 and 35: There is some inconsistency of terminology over "interaction". Popular use of the term is incorrect, as it is used to mean co-action including additivity or some other unspecified form of co-action. I think that the meaning intended here is the same and therefore also incorrect. Correct statistical usage means <u>non</u>-additivity when there is a significant interaction, i.e. sub-additivity, supra-additivity, or more exceptionally a cross-over. p.32 needs to be reworded, because it is clear from p.35 (KQ2) that separate main effects (co-action <u>not</u> interactions) for the dependent variable is what is intended there. Synergistic (supra-additive) interactions are indeed likely in OM, e.g. language effects and behaviour effects "more worse" in low socioeconomic groups, but unfortunately direct evidence for them is slender so far, due to conceptual failure of investigators and underpowered studies. A report having a statistician as author should take the opportunity for some terminological hygiene here and correct the incorrect popular use, not perpetuate it. • Page 33 middle (and elsewhere). The listing of gold standards uses the terms "vs" which implies that there is some comparison of the two items. Propose using the term "or" rather than "vs". Further, it seems that looking at the meta-analyses done that only myringotomy was actually used as a gold standard. If this is the case, it should probably be mentioned here and elsewhere in the text. If not, then the meta-analysis results should be modified to indicate what was used. • Page 34 - don=t refer to the definition of AOM in a reference, just put it in this report. • Page 36-7. The description of the nature of Cochrane, Medline, and EMBASE is unnecessary in this type of document. Anyone who could possibly understand this document should be familiar with those sources or be able to find out. Also, EndNote is no longer from Niles Software, but from ISI Researchsoft. • Medline search (pag 37) Is "controlled vocabulary" the same as MESH terms? Could you describe the different concepts and modules a little bit clearer. I'm not a native speaker but I think that the word 'cluster' is more appropriate for all the different terms. 	<ul style="list-style-type: none"> • P.32 lists the wording of the exact wording of the questions and was left as such. However, the correct wordings are noted and used wherever appropriate. • Agreed and changed. • Paragraph revised. • Left in for completeness. The EndNote version we used was from Niles Software. • The search strategy has been rewritten. • Even though the search used the word "placebo", we did not use randomized controlled trials in the natural history

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Is it justified to search for 'placebo' when looking at a natural course of a disease? Placebos can influence the natural course in the same way interventions do. How many studies are describing placebo cohorts and does this influence the outcome of the evidence? (I have not looked for this my self due to lack of time) • Page 39 You mention interrater reliability statistics. Do you supply those anywhere in this document? • Page 41, question 1, #2. I don't understand this as a criterion. Does the other ear have to be the control or not be the control and why is this relevant for the natural history study? I would think you would be most interested in bilateral disease, but can't tell from this. • Page 41, questions 2&3. I don't understand why you excluded studies that were reanalyses of prospective studies. This review is essentially a reanalysis of prospective studies so I see no reason to exclude such studies, but don't really understand what types of studies you are referring to here. • Page 41, second paragraph: Criterium 3: degree of OME graded in some way. Specification of what is meant by degree -lenght of time, persistence, recurrence- would be helpful. • Page 41, question 4. I don't understand why algorithms were excluded. • Page 41. Question 4. You excluded algorithms as diagnostic test. But in real life physicians use algorithms all the time. Diagnostic research is extremely difficult because of the correlation between all small steps in the diagnostic procedure. A better way to investigate these problems is looking at different diagnostic common pathways. (But I guess that non of the retrieved studies has done this kind of analysis). • Page 42 2nd to last paragraph, #5. What were they blinded to since there was no treatment involved in the natural history? How was this assessed and why is it relevant in this case? • Page 42, last paragraph #5. What hospital stay? Everything here is outpatient, even tube insertion. I suspect you modified these criteria for your use and would suggest you include the modified criteria. 	<p>assessment.</p> <ul style="list-style-type: none"> • This was done but not reported. • This criterion applies to RCT only as indicated. • The evidence report focuses on original data, which we then analyzed. Therefore, we did not need to include re-analyses of original studies, as the data were already included, and to do so may have led to double counting. • Examples added. • Technical experts are more are interested in the effects of individual tests and thus algorithms were not included. Also, algorithms would take more time to evaluate. • Same comment as above. • We are referring to blinding of the previous condition, not treatment, as stated in the Methods. • Changed to 'illness'. • "hospital stay" was corrected to illness.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Page 42: The 8 components of cohort studies under 2). What did you do with studies in general practice, where there is no uniform point in hospital stay ? The problem of making a consistent cohort is the fact that parents don't come to the surgery with exact data or complaints. Often a teacher or a school physician sends the children to a GP, who looks in the ears and "Ah, I see a little bit of fluid, ...will you participate in a nice study" . Even in studies were a whole age cohort is followed, the exact time of duration can not be determined. • Pg. 42, 2nd line from the bottom: "were" was misspelled as "was" • Page 43, 1st full parag., #4. I'm not sure I would exclude or down grade a study that dealt with only one level of severity. I might analyze it separately, but wouldn't consider it low quality. • Page 43, 2nd full par. This paragraph is misleading in that implies that articles were excluded for quality reasons. I am under the impression from later that was not so. If there were exclusions, then the criteria for exclusion should be given. • Page 43 last par., Does partial resolution mean resolution in one ear or does it mean reduction in fluid levels (improvement in tympanogram, etc.)? • At page 43 you describe six components of a diagnostic research. May be you can discuss the problem of correlation between observations in the discussion section. • Page 43 - more clarity is needed around the quality reviews. Was each quality indicator simply assigned a value of 1 and the numbers added up. This implies that all quality indicators are created equal (not true). This is a potential limitation and should be stated as such (see below). As a consistent theme, I could not find analyses based upon high quality reports - this is critical. • Page 44 - funnel plots check for publication bias and other biases (BMJ, Egger). However, these funnel plots have very few points and are probably not reliable • Page 44, middle of page, last sent. in par. I'd be interested in knowing 	<p>Concern was dealt with in Conclusions.</p> <ul style="list-style-type: none"> • Corrected • We did not exclude any studies based on study quality. We agreed that sensitivity analysis should be done, if adequate number of articles is available. • Paragraph revised. • Revised the phrase. • The six components referred to quality of diagnostic studies. Discussions on study quality and outcomes were added in the Results chapter and Limitations section. • The following was added in the Methods section: 'Each component of the quality was assigned a score 1 if present and 0 if absent. The total score was the sum of the components.' The study quality issue was addressed in Results and Limitations sections. • Agree. A caution of interpreting the funnel plot results with small number of articles was provided in the Results section. • Comment noted. • We checked 100% and corrected all

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>whether your manual scan found anything and how many.</p> <ul style="list-style-type: none"> • Page 45, top. How big a random sample did you cross check and what was the error rate detected? I'd be interested in your results using highly trained reviewers. • Page 46 top, barotrauma shouldn't be capitalized. • Page 46 middle. Why didn't you go ahead and combine when you only had two studies? At a minimum, reporting a weighted mean would be helpful. Remember guidelines still have to be built. Also this paragraph suggests that you are pooling effect sizes, but later it looks like you use rates (a good choice) rather than effect size. • States on p. 46, para 2: "Furthermore, the type of study is an important consideration for the assessment of natural history. The stratified random sample of a broad well-defined population forms the best evidence whereas a single arm of a clinical trial represents worst evidence. For this evidence assessment we used only prospective cohort studies." <p>There are several problems with the above statement. First, most prospective cohort studies use unselected or population-based samples with OME detected by screening. This group of children often has transient and asymptomatic OME that would never have reached the healthcare system in the absence of a systematic detection program. The result is to have "rosy" estimates of natural history (up to 44% at 1 month!) compared with the more meaningful group of children with OME sufficient to warrant seeking medical attention. The control groups in clinical trials of medical or surgical therapy better represent this latter group.</p> <p>Second, I don't see how you can condemn clinical trial control groups as the "worst evidence." Usually these groups have much better methods of detecting OME and documenting duration and resolution compared with simple cohort studies. They also tend to use pneumatic otoscopy (often as part of an algorithm), instead of tympanometry alone which is the typical measure in nearly all cohort studies. Your own analysis shows that pneumatic otoscopy is superior later in the report. Further, the huge variability in resolution rates based on choice of</p>	<p>discrepancies. However, we did not keep track of the error rates.</p> <ul style="list-style-type: none"> • Changed • In the random effects model, we need to estimate the between-study variation. Estimating variance is a difficult problem under any circumstances and a sample size of at least three is required. Also, changed effect size to rate in paragraph. • We revised the statements and added a section to the Conclusion which includes some of these comments as appropriate.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>tympanometric criteria (B->A vs. B/C2->A) creates additional problems in interpretation. There is certainly some bias introduced by the restrictive selection criteria in most RCTs, but I do not believe this makes them useless raw material for determination of natural history. By restricting to the natural history analysis to cohorts only, you immediately eliminated the ability to assess most of the OME “types” deemed important by the expert panel: a) OME after discrete AOM episode (very important to clinicians!), b) OME for weeks or months (typically represented by control groups in RCTs of medical therapy), and c) OME 3 months or longer (typically represented by control groups in RCTs of surgical therapy). Basically, all studies in which duration of OME was prospectively documented (eg, RCTs) were excluded!</p> <ul style="list-style-type: none"> • pag 46: ‘The first step of the analysis was to obtain a distribution of studies by the 5....’ Which 5? • I missed the ranking of the distribution of non-treatment factors (the next sentence) in the description. Please make it a little bit clearer here. • The whole section on supplemental analysis need subheadings to make it more clear to read. • p47 (bottom): These seem to be the risk factors for OM and not necessarily co-factors for the ultimate outcome. Only a few of them e.g. socioeconomic status would be expected also to be strong co-factors for the dependent variables of interest, (here speech and language), in the way that the wording implies, working other than through OM. It surely does not matter what combination of all the RFs the child has, although it would be interesting and methodologically sophisticated to quantify composite risk as well as superficial severity of disease as independent variables. Confounding only comes into the issue when badly controlled group designs fail to equate groups for co-factors. An 	<ul style="list-style-type: none"> • The 5 diagnostic groups of the natural history question: (a) OME persisting after a discrete episode of acute otitis media, (b) newly diagnosed OME of unknown duration (unilateral or bilateral), (c) OME persisting for weeks or months (unilateral or bilateral), (d) unilateral OME lasting 3 months or longer, (e) bilateral OME lasting 3 months or longer. This has been added for clarification. • Statement taken out. • Subheadings added. • Noted. The use of words was corrected and a statement has been added to clarify the concept.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed

Comment

EPC Response

	<p>OM risk factor can also be a confounder, but only if there is reason (e.g. 1 published article of high quality) suggesting a separate causal path from the risk factor to the dependent variable that does <u>not</u> act chiefly through otitis media, or an article in another area where there may be a causal path (e.g. breast feeding and language or intelligence) but where the authors of the article were ignorant of a likely role for OM as the mediator, so it was not controlled for. All this needs to be made clearer.</p> <ul style="list-style-type: none"> • Page 48 2nd full paragraph. As I read this I wondered how you dealt with the different test involved. Later I found out you didn't do meta-analysis for that reason. I'd mention it here. • Page 48 3rd full par. It isn't clear what is meant by the second part of the question. If one looks at the question on page 46-7, it appears you are referring to the third question (or the second part of the specific formulation.) I'd restate exactly what you mean here without assuming the reader remembers the exact question structure from two pages away. Further when the questions appear in the text, I'd consider using boldface font to make them stand out. They get lost in the current formatting and are hard to find. • Page 48: Why do you describe plans to do a meta-regression, while you don't do it. Leave this information out, it only confuse readers. (Put it in your letter to your funding organisation) • Page 49 first full parag after question 4. As worded, "gold standard" should be "gold standards". In the current wording one could assume that all tests in combination were used. • Page 49 last full par. There is a strange tense shift in this sentence. • Page 49, bottom. You should probably indicate what the outcomes are that you are analyzing. • p. 51 – should say nurse practitioners instead of nursing. I think that there were only NPs serving as the technical panel expert and the reviewer. • Page 53 it is Family Voices, not Family Voice. • p.55 : The column head should be Rank Total, not total rank (which could only have 20 ranks) • Table 5. This table refers to key questions. However, in the text the term applies to the four questions selected, not the larger number in 	<ul style="list-style-type: none"> • Meta-analysis was performed and results presented in Results section. • Second part of question repeated in paragraph. • Plan left in but stated reason why not done. Two other reviewers found this informative. • Changed. "Gold" standards has been changed to "Referenced" standards. • Corrected. • Added. • Changed. • Corrected. • Changed • Kq was changed to pq in Table 5. • Noted.
--	--	---

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>table. This should be cleared up (maybe called potential key questions or something.)</p> <ul style="list-style-type: none"> • Tables 6-8. The items at the bottom such as examiner type, monitoring time, monitoring personnel don't influence outcomes although they may influence the reports of outcomes. • table 7 and 8: The box with all non-treatment factors is well filled, but not very clear. May be you can refer to table 10 for a full list of potential factors and give only a few examples here? • Table 9, page 63: In the Non-Condition Factors box, what is the rationale for including "Age at first OM"? This does not seem to pertain to this point in the pathway. • p.68: I do not think that the 170 publications not in English can be ignored without some survey of the possibility that some of them might be valuable. When I did a comprehensive review 10 years ago with one part-time assistant, I accessed English translations of the major available abstracts of work in the Finno-Ugric, Oriental and Slavonic languages (which I cannot read) as evidence, before concluding that I had probably not missed much of importance, but I included those in the Germanic and Romance languages in the evaluation and summarised them according to quality. A large explicitly funded project should attempt to do similarly, especially as much good work on OM is done in Netherlands and Scandinavia . • page 68, table 11 – does "age<12" need to be changed to "age <22", or does this reflect the change in criteria described on page 41? • Table 15: Does this list includes all of the measures reviewed or just ones accepted? A. Numbers 5, 6, 8, and 9 would not consider language tests but assess other several developmental domains. Could you check the test manuals or test measurement book to see how they describe the test? (Let me know if you want me to do it.) Safer to say "developmental test." B. #45: I believe this is a subscale of an IQ test (DROP) since at other times you did not mention the subscale, only the test. 	<ul style="list-style-type: none"> • Noted. • The technical experts decided this was an important non-condition factor. • We added the rationale of why we restricted to the English literature in Methodology and discussed the issue of non-inclusion of non-English language in a new section entitled "Limitations of Evidence Report" at the end of the Conclusions chapter. • The initial scope for age was age<12. It was later relaxed to 22 for Q2 and Q3 only. Q1 and Q4 had age<12 as the limit. This was clarified in text. • How the list was compiled was added in the Methods. Table 15 was revised based on input from technical expert. • How the list was compiled was added in the Methods. Table 15 was revised based

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>C. #46 & 47: Are these actual tests or names of an informal method? D. #48 & 49: Not language tests -- perceptual motor DROP. E. #50 & 51: Not tests, but I think a variable studied. (Consider dropping because other times you did not use this.)</p> <ul style="list-style-type: none"> Table 15 (page 72), the definition and method of assigning to a "Grouping Category" is not apparent to me. Instructions (Table 17): I believe that the final paragraph should refer to otitis media with effusion rather than acute otitis media. 	<p>on input from technical expert.</p> <ul style="list-style-type: none"> Corrected.
Results	<ul style="list-style-type: none"> Page 77 - again, are all quality scores given equal weight? P. 77, Line 15: What are the quantifiers for quality scores of 1 to 6? P. 78, Table 19: Zeisel (1999) was not included, perhaps it was too recent. Zeisel, S. A., Roberts, J. E., Neebe, E. C., Riggins, R., & Henderson, F. W. (1999). A longitudinal study of otitis media with effusion among 2- to 5-year-old African American children in child care. <u>Pediatrics</u>, 103(1), 15-19. Table 19: Should Zeisel (1995) be excluded (see last paragraph of study results) Zeisel, S. A., Roberts, J. E., Gunn, E. B., Riggins, R., Evans, G. A., Roush, J., & Henderson, F., W. (1995). Prospective surveillance for otitis media with effusion among African-American infants in group child care. <u>Journal of Pediatrics</u>, 127, 875-880. Page 79 middle. What about children less than three? Were there any results? Why are all meta-analyses restricted to children <i>greater than age 3</i> years? This is NOT the primary population at risk for OME, and not the population likely to have morbidity from prolonged disease. Unless <i>something</i> is said about younger children you are providing a very incomplete picture. 	<ul style="list-style-type: none"> Yes, as mentioned in the Methods section. The "quantifiers" for the quality score components were described in the Methods. This article was excluded because it included cases of AOM, and the findings were not stratified by OME and AOM. The reasons for exclusion were given in Table 19. We re-examined the studies in light of this reviewer's concern, but reached the same conclusion that the studies should be excluded for the reason listed. There were only two articles for the <6month and for 6month-<3years each. A statement has been added to indicate this. We appreciate this reviewer's desire for additional information about children younger than 3 years of age. In our literature search, however, we did not find much evidence-only 2 studies. This information has been included in this report, but we could not say anything more due to a lack of evidence.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Page 79 middle. There is something strange going on here. The text mentions statistically significant heterogeneity but the table lists $p=.19$ and $p=.14$ or not statistically significant. Also I wonder about the heterogeneity numbers they are similar but the first set of studies seems much more homogeneous. I'd recommend rechecking this. • Pg. 79: Doesn't restricting the samples to children not receiving any intervention bias the natural history samples to children with less OM (or milder OM) to start with? • page 79 "Heterogeneity, however was evident statistically in the first synthesis and clinically might not be unexpected?" There something wrong in the formulation of the second part of this sentence. • Could you refer more to the tables in this part of the results? You only do this at the start of the analysis. The reader has to look for the specific table himself. There is sometimes a difference in the figures in the running text and the corresponding table (43,1% in the text on page 80 , 3th line versus 41.3% in table 24; and 24,3% in tympanogram B to A transition in the text (mid page) and 22.4 % in table 25) • Page 80 middle. I'd reference the specific table rather than just saying the "next set of meta-analyses". The numbers in this paragraph don't match the numbers in table 25) so I'm lost. The paragraph mentions that Holm-Jenson et al. was older, but the table looks like the citation should be Holmquist 1987. Same comment about the end of the paragraph perhaps. Also you need to use article ids to keep the Fiellau-Nikolajsen 1979 articles straight. • Page 81. In the final paragraph, the meaning of the statement "speech or language outcome was measured for under 22 years of age" is unclear. This must be a typo. • Page 82, 1st paragraph: The statement that the Rach study (and follow-up) was excluded because it was not a prospective cohort study and OM was not measured before age 3 years puzzles me. In this study OM was measured serially from ages 2 to 4 (See page 228). Language was 	<ul style="list-style-type: none"> • Statements were corrected accordingly. • By definition, natural history is the course of OME without intervention. We do include groups of children who may have had OME for weeks-months or three months or greater, so we do not necessarily exclude children with "less OME". • Statement reworded. • Numbers corrected and more reference to Tables made. • Numbers were revised and corrected accordingly. Holm-Jenson et al. was corrected to Holmquist. Table numbers were added in text. • The sentence has been revised to read "speech or language outcome between 4 to 22 years of age was measured" • Although the Rach study measured OM severity at 2-4 years of age, it still violated the criterion that OM severity is measured under 3 years of age. We could not separate the children whose severity were

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>evaluated prospectively with an interval of 6 months at the age of 3 years and again at age 7 years (Peters et al., J Learn Disabil 1994; Grievink et al. J Speech Hear Res 1993). On what basis have this and perhaps other studies been excluded? Inclusion of these studies, however, would probably not have affected the results and conclusions.</p> <ul style="list-style-type: none"> • Pg. 82, line 14: “reject” is misspelled as “rejected”. • Page 82. In the final paragraph, “Dollaghan” is misspelled. With respect to that report, I do not understand the rationale for excluding the report “because it did not report on speech and language and development outcomes beyond three years of age.” The report dealt with outcomes at three years of age, which issue seems to me to be within the parameters listed for key questions 2 on page 32 of the Draft Evidence Report. Similarly, our report (Paradise et al 1999--included in the bibliography but not in the reference list) dealt with parent-child stress and behavior at age three years and, it seems to me, might also have been appropriately referred to in the Draft Evidence Report. • P. 82, Line 1 & Table 29: I question using studies where OM data were collected retrospectively and outcomes were prospective. There is a problem with OME data collected by parent’s report, which has many methodological problems. I would not include the Freeark (1992) and Paul (1993) study. • P. 82 & Table 29: I would delete the Klein (1988) study. First, it was published as an article in 1990 (same data, I believe), and there are other references from the Recent Advances in OME that I believe were not included. • P. 82 & questions: I would have considered 3 years of age also as an outcome and not only studies beyond 3 years. • Roberts is not included in review, maybe too current: Roberts, J. E., Burchinal, M. R., Jackson, S. C., Hooper, S. R., Roush, J., Mundy, M., Neebe, E. C., & Zeisel, S. A. (2000). Otitis media in early childhood in relation to preschool language and school readiness skills among African American children. <u>Pediatrics</u> 106:4, pp. 1-11. • (Table 27) I think that Teele (1984) was done at 3 years, and this was 	<p>measured before 3 and after 3 years of age.</p> <ul style="list-style-type: none"> • Corrected • “Collaghan” was corrected to “Dollaghan”. The assessment was on long-term effects and it was decided that beyond three years of age would not include outcomes measured up through 3 years of age. • We share the concern of the reviewers. However, we decided that as long as we identified these studies as retrospective-prospective, readers would be aware if and could do sensitivity analysis, when possible. • It appeared that the Klein (1988 article) published results on the same cohort as article by Teele (1990). The results in Klein was not contained in Teele. Thus did not exclude. • Comment noted. • Yes, it was too current. • Teele (1990) was included (Table 26) because it had outcomes beyond 3 years

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>included.</p> <ul style="list-style-type: none"> • P. 83 & Table 27: Should be considered in review and then dropped: Roberts, J. E., Burchinal, M. R., Zeisel, S. A., Neebe, E. C., Hooper, S. R., Roush, J., Bryant, D., Mundy, M., & Henderson, F. W. (1998). Otitis media, the caregiving environment, and language and cognitive outcomes at two years. <i>Pediatrics</i>, 102(2), 346-352. • Page 84 - particularly for the relationship between OME and speech and language outcome, the quality of report is critical - but I can find no analyses based upon quality. • P. 84, Line 7: McCarthy & Binet do not measure expressive language. • Page 85 last paragraph, 2nd sentence. I had to read this three times to interpret it. I'd reword it. The sentence on heterogeneity reads somewhat awkwardly as well. • Page 85 - contains specific findings, while in the previous section you allude to findings and refer readers to the tables - more consistency from section to section would be helpful. • P. 85 & Tables 35&36: I did not go back to review these studies, but hope that an audiologist has reviewed them for their methodology and quality. What is percent hearing loss? What is considered a hearing loss? Were all assessments only finding conductive losses? How was the hearing loss measured? • Page 85: I miss discussion of the degree and nature of hearing loss. Is a loss of 20-25 dB due to persistence of OME, is it conductive hearing loss due to ossicular chain dysfunction or tympanosclerosis, is there a sensorineural component? How should we interpret a RD of hearing loss of 11% without at least some of that information? • Page 87 bottom. This is not clear. You should indicate that table 49 has the complete set of articles while table 50 deletes the duplicate articles for the same study. I would, however, recommend that you contact the 	<p>of age. Teele (1984) was NOT included (Table 27) because it did not report outcomes beyond 3 years of age.</p> <ul style="list-style-type: none"> • This is article #2264. It was on the Table 27 list because it did not report outcomes beyond 3 years of age. • The issue on study quality was discussed in the Findings of each question. There is not enough studies in these two questions to do sensitivity analysis. • We meant 'cognitive verbal intelligence' in the sentence. Error corrected. • Both sentences revised. • Additional analysis and findings had been added to section on speech and language. • Definition of hearing loss had been added throughout the Report. • We clarified the 20-25 dB was air-conduction threshold in the Results. • We could not contact the authors due to time limitations. Thus the Tables were left as is. We shared the concern of the reviewer

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>authors of the studies to find out if the articles really do have duplicate patients/cases. If they do, then delete as appropriate. If not, then include both. It seems to me reasonable to reduce this to one correct table rather than two of unknown validity. It is particularly puzzling that the including the possibly duplicated data would increase heterogeneity. This would be the opposite of what would be expected and should be looked into.</p> <ul style="list-style-type: none"> • p. 88 – shouldn't this say professional tympanometry instead of tympanometer? • Page 88 1st full par., 1st sent. It should be made clear that we are now talking about the results including all studies as opposed to the results with possible duplicates deleted. All other statements in this paragraph should be similarly tagged so the reader knows which group of studies is being discussed. Further an in-text table would be more readable than the strings of numbers. • Page 88 - the diagnostic methods section - I could find no analyses based upon who performed the test. Its accuracy will vary depending upon its use by a general practitioner or a trained researcher. • Page 88, 1st paragraph: In discussing pneumatic otoscopy, it would be useful to clarify how many of the studies involved trained and untrained examiners, and the qualifications of the examiners. This would help the user understand the generalizability of the pneumatic otoscopy data. • Page 88, 2nd paragraph: Adequate performance of professional tympanometry does not receive much credit. In many countries outside the USA doctors are not trained to use pneumatic otoscopy, so it might be worthwhile to include performance of the second best diagnostic method –professional tympanometry- in the abstract, summary and conclusions. • Your statement about hearing loss in children in later life needs to be clarified as to whether this is with or without treatment of the effusion (or some hint that we don't know about treatment effect on this outcome). • Table 22 Probably shouldn't underline the superscripts in the footnotes. • Table 26. There is a missing space between villages and in under ID 1623 	<ul style="list-style-type: none"> • Term changed. • Tables numbers attached to statements. • An analysis of the examiners who performed the diagnostic tests has been added Table 51 and a discussion of study quality and quality of documentation of test performer was added. • See above. • Already in Conclusions. Added comment on tympanometry to Abstract and Summary. • Definition including with or without treatment was added throughout the document. • Corrected. • Corrected. • We included publications from the Proceedings but we were aware of the duplicated findings.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Table 28: Why is Roberts' speech study (1988) listed under two numbers--3118 and 4806? Use only article. • Table 28: Ruben (1997) is only a 2-page extended abstract of data reported elsewhere. Would not include it. • Table 28: WRAML assesses narratives, not overall expressive language. Not sure that Verbal Scale Index is expressive language. Several of the measures (e.g., MLU) focus on grammar, one aspect of expressive language and are not overall expressive language measures, while others such as the SICD are more overall measures. • Table 28: Harsten (1993)--Not sure phonology or receptive language is correct here, need to check article. • Table 28: Roberts 88 use Goldman-Fristoe as a test; not phonology. • page 105-6, Table 28 has at least a couple of duplicate row entries: Fischler and Gravel • Table 34: Would not have considered Roberts don't think there was audiology data (1988). Would have considered Roberts (1995) and (1998) and, if you went through 2000, Roberts (2000). • Table 36. There is something wrong here. First the confidence interval for the risk ratio for Fischler seems way to big. I recomputed it using other software and got a much smaller interval. I'd recheck it. Second, it is odd that the heterogeneity for rate difference is much greater than for risk ratio. I'd recheck the numbers but suspect much of the problem comes from the wide variance in OME- percent hearing loss. The 20% number for the Sorri study is very hard to believe. I'd try to find out if that was an error or if there was something special about that population or way of measuring loss. I might exclude it if it seems to have some special properties that make it non-comparable. • Tables 40-50 and figures 5-6. You title these tables (or rows within tables 49-50) as tool "and" myringotomy. Sometimes you use "with". Either of these terms seems to me to imply use of two tests rather than comparison between the two. Here I would use the term "vs." rather than "and" or "with" to make clear what is going on. In figures 5 and 6, I think I would put the fact that myringotomy is the gold standard in the 	<ul style="list-style-type: none"> • We included publications from the Proceedings. • Comments added to the explanation of the Table. • It was linguistic analysis. • It was phonologic analysis. • Table 28 listed studies by outcomes. Thus, duplicates are expected because of multiple tests in one study. • These articles were not included because they did not report outcomes after 3 years of age. • The 95% CI of risk ratio for Fischler was corrected. The EpilInfo program was used to calculate it based on 9/96 and 1/70. We added another meta-analysis in Table 36 taking out the Sorri articles and the heterogeneity was greatly reduced. The results were discussed. • Changed made as suggested.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>title or someplace general rather than repeating it for each line in the legend.</p> <ul style="list-style-type: none"> • Table 44 Heading has a typo (+A24) stuck in the middle of myringotomy. • Tabl4 44, page 123: Typo in last word “M+A24yngotomy” • Table 49 The “Number of Articles” is not wide enough, cutting off the column heading. • Figures 5-6. The figure uses asterisks to note the points with duplicates while the legend and footnotes use a and b. This leaves the asterisks undefined. You should be consistent here. 	<ul style="list-style-type: none"> • Corrected • Corrected • Corrected • Corrected
Conclusion	<ul style="list-style-type: none"> • Page 144 1st sent. This could be worded better. I suggest something like “We were able to conduct sets of meta-analyses of OME resolution at 3 follow-up intervals. These sets were stratified, when possible, by unit of analysis, age group, OME type, and diagnostic method. • Page 144 2nd sentence. You again need to make clear whether these numbers are cumulative or not and indicate what the problems are that lead to these strange results. • Page 144 2nd par. I’d put the word “section” after “Results” in the first line. Also the first sentence implies there is more about these studies within this review than actually exists. I’d just say something like “we looked at the isolated studies of ...” • Page 145 1st full par. I’d indicate the number of studies or percent of studies rather than just saying the “majority”. Also might change “control of” to “control for” in the 1st sentence. • p. 144 – is this correct? Is this the same 41? That may resolve by 1 month or an additional amount? This seems fairly low; especially the previous report states that 13-44% resolve at 1-month follow-up. How could the 3-month resolution rate be less? • P. 147: Other NIH supported prospective cohort studies that have published OME and speech/language data with similar methodological rigor (but no randomization) are also ongoing. Studies in North Carolina (Roberts et al., 1995; 1998; 2000 should be cited. There are other ongoing prospective cohort studies, but they have not yet published their data. 	<ul style="list-style-type: none"> • Done • Done • Done • Done • Done as above • Roberts, Burchinal, Zeisel et al., 1998; Roberts, Burchinal, Jackson et al., 2000 were added as ongoing prospective cohort studies.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • Page 148, 2nd paragraph and page 149, 1st paragraph: See comment on page 85. Is the long term effect on hearing due to persistence of OME and expected to resolve? Is it a conductive hearing loss with an aerated middle ear, is it a sensorineural hearing loss? I believe some information on this subject can be found in the studies and should be included in the abstract and summary as well. • Page 149 2nd full par. Another point is that we don't know if treatment is effective in changing the long-term hearing outcome. This is perhaps the most important point. • Page 149 bottom. It is a little difficult to make a judgment that pneumatic otoscopy is "best." Best depends on the relative values of missing true positives or true negatives. A more sensitive, but less specific test may be better if the treatment alleviates much suffering. The reverse is true if there are significant harms to false positives. I'd stay away from such value judgments in this evidence report. I'd also change the words "The pooled" to "Its pooled" at the very bottom of the page for clarity. • Page 150 1st full par. Last sentence. Actually we did, but as noted earlier elected not to publish them. It might be better to say that the OME Guidelines did not include quantitative syntheses of the evidence. • Page 151, top. I'd mention again why you didn't look at combination methods. • Page 151 7th line from the bottom. Either put commas around "over time" or move it to after "improved". • Page 151 3rd line from the bottom. "thdiagnosis" should be "the diagnosis" • Page 150-151: Adequate performance of professional tympanometry does not receive much credit. In many countries outside the USA doctors are not trained to use pneumatic otoscopy, so it might be worthwhile to include performance of the second best diagnostic method –professional tympanometry- in the abstract, summary and conclusions. • There are several places in the conclusion section, however, I would make greater efforts to summarize as recommendations. Pages 146, 148, 149, and 152 should each have as last sentences. Therefore..... 	<ul style="list-style-type: none"> • It is conductive hearing loss. This term was added to appropriate places in the abstract and summary. • Sentence added. • Revisions made. • Done • Reason added. • Done • Corrected • Already in the Conclusions and added to the Abstract and Summary • We sympathize with the reviewer's desire for recommendations, but developing recommendations are the function of a guideline panel and outside the scope of Evidence Based Practice Center Evidence Reports.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>I know to some this might make it too simplistic but if we want to change behaviors BEFORE we have the definitive study, we need to provide some real guidance to the reader and practitioners. You have nicely done that for the researcher; the practitioner or provider needs some of the same structure.</p>	
Future Research	<ul style="list-style-type: none"> • Page 9, last sentence. This isn't clear. I would doubt that most algorithms are so complex that computer programs are used in practice. The actual instructions for applying the algorithm are probably what is needed. If a program is used, then, of course, it should be supplied. • Page 153: The Future Research chapter would benefit from adding a general introductory section, and moving comments/recommendation that pertain to the broad scope of OM research to this new section. These include the discussion (now in the diagnostic methods section) of the need for clear definition of OME, the need for agreement on standard research follow-up intervals, the use of the child or episode rather than or in addition to ear as the unit of analysis, clarity on treatment received by cohorts, inclusion of univariate as well as multivariate analyses, cost-effectiveness, etc. • p.153: Moller and Tos. This relates to the point about persistence versus diagnosis in my pre-amble. I do not see the Moller-Tos findings as undermining the position I state in my 4th introductory paragraph above. If I really have missed something, then the facts and the authors' interpretation need to be made more clear. • In the sections on future research, you emphasize the need for consistency in definitions and diagnostic procedures. Beyond this, however, it was not clear to me whether you were advocating any randomized controlled trials of interventions, or whether you advocated only meta-analyses of multiple cohorts. One concern is that even these meta-analyses will not be able to rule out the uncontrollable confounding that plagues any observational cohort study. Are you certain that you believe that RCTs are not achievable? I thought I heard that Jack Paradise conducted one of tympanostomy tube placement whose results are imminent. • Page 154: Section title – would add “<u>Effects of Early Life OM . . .</u>” • Page 154 top. Perhaps as important, we need to know if resolution of 	<ul style="list-style-type: none"> • Statement changed. • Added a general issues section. • We further expanded the comment stating that “The issue of assessment of OME duration or recurrence is as important as the issue of diagnosis of OME at a single point in time.” • Agreed with comment on randomized controlled trials is confusing. Comment deleted. The important issue was that of assessing the role of influencing factors and interventions. Reference to ongoing studies added as well as the uncertainty with regard to areas for further prospective studies which will be dependent on the results of these ongoing studies. • Added to all subtitles in the Report. • Comment added

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>the effusion has an effect on the outcomes.</p> <ul style="list-style-type: none"> • p.154: "Research on influencing factors" recommended... What precisely is being said here? More studies of simple risk factors? Possibly there are too many, especially small bad ones! What specific gaps are there? Or are synergistic (comorbidity) conditioning factors what is intended here? Surely the problem is to get clinicians to use a risk-based approach with information already existing! When we've shown that they are prepared to heed evidence of this type that is neglected in ORL although common in cardiology, we can then worry about improving the evidence. Politicians sometimes fund research rather than facing up to lobbies, a process which degrades us all. Unless something more specific is said, this recommendation also will appear to be ducking the issues. • P. 154: Other OME developmental conceptual frameworks are also cited in the literature including support for a transactional model (Roberts & Wallace, 1997). Roberts JE, Wallace IF. Language and otitis media with effusion. In: Roberts JE, Wallace IF, Henderson F, eds. <i>Otitis Media in Young Children</i>. Baltimore, MD: Paul H. Brookes Publishing Co, 1997. • P. 155, Line 3: Paradise is a randomized controlled study. • P. 155: NIH is currently supporting a study that does include children followed prospectively from both NC and NY. • p.155: "Randomised trial of the effect of early OM". This phrase is nonsense, as well as the sentence being far too long. Perhaps there has been a word-processing error. The only meaningful type of RCT has treatment as independent main effect. If that is what is meant here, say it more clearly. You can't give children OM experimentally. A trial could have OM disease markers, or speech and language, or both as outcome (dependent variable) and many do. An argument often put by Jack Paradise is that the best-controlled answer on developmental sequelae questions is obtained by doing a treatment RCT. I do have some sympathy with the logic of his argument but would call the application of it only "one useful source of evidence". The view is overstated, and does not lead to a sufficiently powerful design within the US system, where only 6 months withholding is permitted by parental 	<ul style="list-style-type: none"> • Revised. • Done. • Reference to RCT deleted. • Noted • Reference to RCT deleted. • Reference to RCT deleted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>and clinical pressures. It leads to underpowered and expensive research. If this is what is intended, simply mentioning the idea without listing the difficulties is a little irresponsible.</p> <ul style="list-style-type: none"> • Page 155, paragraph 2. I take exception to the statement “it is likely that a randomized controlled trial of the effect of early otitis media on speech and language development is not ethically possible at the present time. . . .” We have been conducting just such a trial over the course of the past ten years, as described in my 1998 report referenced on page 167. (Incidentally, initial results of that clinical trial will be published in <i>The New England Journal of Medicine</i> later this month) It is likely that no associational study such as discussed on pages 155-156 can definitively answer the question of causality because of the multiplicity of known, and particularly, unknown developmental risk factors. • Page 155, 2nd paragraph: In this very important, methodologically correct evidence report it is concluded that no conclusive evidence can be provided for the effect of early life otitis media and long term speech and language development. In the ongoing Pittsburgh study only weak to moderate correlations between early life OME and later language were found, and OME explained only 1.2-2.9% of the variance in the language scores. Also, you have shown that the natural course of OME is favourable. Then why do you ‘close the road’ for randomized controlled trials on this subject by suggesting that this is not ethically possible? RCT’s assessing the efficacy of ventilation tubes in children with OME have been performed in Europe in recent years (Maw in Bristol, Rovers in Nijmegen, TARGET study in Nottingham) and their results have proven that these RCT’s were ethically correct. It is quite unlikely that results would have been different if these studies were carried out in the USA. • Page 155, 3rd paragraph, Page 156, 3rd paragraph: ‘Individual-level-data-meta-analyses’ on several aspects of OME will indeed give valuable information. Such analyses are currently being carried out by Maroeska Rovers at the Nijmegen University, The Netherlands (e-mail m.rovers@mie.kun.nl) in collaboration with Mark Haggard (Nottingham, UK) and Richard Maw (Bristol, UK). So far, the investigators only had 	<ul style="list-style-type: none"> • Reference to RCT deleted. • Noted. • Comment added • Comment added

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>access to the raw data of the European studies, but Dr Paradise and Dr Gates have been approached by Maroeska Rovers and Mark Haggard with a request to co-operate. It would be very valuable for European and American researchers to collaborate in projects such as these.</p> <ul style="list-style-type: none"> • Page 156, bottom. Similarly, treatment effect on long-term outcomes is still the main issue. • p. 156: In the sections on early life OM on long term hearing, I found myself wondering what the potential gains from improved diagnosis and effective treatment really would be. A decision analysis/cost-effectiveness analysis would be useful here. You suggest a CEA on p. 158, for diagnostic methods, but I think such a model would ideally be expanded to include treatment and long-term outcomes as well as short-term diagnostic outcomes. • p.157: Agreement on borderline between AOM and OME. Likewise this statement makes the report seem insufficiently joined-up. Earlier in the Report, many authorities were rightly quoted on the difficulty of this distinction. It is pointless to subscribe to the view that improving diagnosis of OME is a main important question, and that a main route is tidying up this diagnostic boundary, if the authorities considered that to be impossible in the first place! The answer is to educate the professions into acknowledging the more important questions. Deciding whether 2, 4 or 8 weeks of effusion after AOM should now be called OME, one version of the compulsion for a single diagnosis, will certainly not be helped by a new gizmo, and possibly not even by an algorithm, because the question of a single categorical diagnosis itself is fundamentally misposed and is of limited clinical usefulness. • Page 157 1st par. Last sentence. The first guideline panel spent hours on this with no resolution either. Very frustrating. • Page 157. The statement “whether diagnosis of middle-ear effusion in the context of OME was different than in the context of acute otitis media” is not clear to me. • Page 157, second paragraph: I agree that the diagnosis of middle-ear effusion is different in the context of OME than in the context of AOM. • Page 157, second paragraph: What is meant by “different”? The allusion to a difference in diagnosis of effusion in the context of OME 	<ul style="list-style-type: none"> • Comment noted • Comment noted • Comment noted • Comment noted • Comment noted • Comment noted • Comment incorporated.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>and AOM without clarification of the way in which it is different is confusing.</p> <ul style="list-style-type: none"> page 157 first paragraph. Here is the opportunity to bury the OME concept. Why more agreement about what OME really is? Is it really important to diagnose OME in an exact way, when it is self limiting? Ok, I understand that this is not the place and moment to discuss these problems. But they are interesting and should be discussed by guideline developers who will use your evidence report. Page 158. The discussion of cost effectiveness analysis seems to me impractical. It is clear that, of readily available methods, pneumatic otoscopy is potentially the most accurate, but it is also clear that its accuracy depends on the skill of the examiner. 	
Evidence Tables	<p><u>Evidence Table 1.</u></p> <ul style="list-style-type: none"> I am concerned that the table doesn't record losses to follow-up. This could be a very significant issue, particularly for a guideline panel trying to make sense of the data. Page 178. How do we have an N of 103 with #at risk of 137? I suspect that N is children and # at risk is episodes, but the section under gender confuses this so I'm not sure what's going on. Page 190. The extra underscores are decrease readability. Also I cannot figure out what the column headings mean for the table on the left (e.g. Mean duration (1-r)/r means nothing to me. I think I know what mean duration is and 1-r/r looks kind of like an odds number, but I'm not sure how odds work with duration.) Page 201 Formatting badly messed up. Page 225 N=433, but number at risk is 443. Is there a typo somewhere? Page 227. Why is this N1 rather than N and why is the number at risk so much smaller? Evidence Tables 1-3 addressed questions relevant to understanding the natural history and short and long term outcomes. The evidence tables contain very comprehensive information but there is a great deal of variability in the populations studied regarding geography and ethnic background which may account for the variation seen in the outcomes. 	<ul style="list-style-type: none"> Both total number of cases and number of cases used are reported. There are 103 children and 137 episodes. Units were added. Evidence Table 1 has been reformatted and indicated changes made. Redone. Corrected The use of N's and N1's had been changed throughout the Evidence Table. One study which we abstracted addressed the issue of season and that information is noted in the evidence table and the Results.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>There is no mention here of a seasonal prevalence of variation seen during the winter months which also may be more useful to answering questions of persistence or recurrence seen in the natural history.</p> <p><u>Evidence Table 2</u></p> <ul style="list-style-type: none"> • Page 230 GCI and PPVT-R are not McCarthy scales. The table should be reworked. • Page 232 Here “Grp1” is in a different font. This recurs intermittently throughout these tables. Sometimes the group definition is also in this roman font. This also happens in Evidence table 3 • Page 239 I have no idea what TOJxxx means. Perhaps someone in the field would, but it’s Greek to me. <p><u>Evidence Table 3</u></p> <ul style="list-style-type: none"> • No comments other than the one for page 232 above. <p><u>Evidence Table 4</u></p> <ul style="list-style-type: none"> • I don’t think it is necessary to list N and N1 if there is only one group and the numbers are the same. • Page 261. I don’t understand this group 1(a) vs. group 1. What does the “(a)” mean? • Page 262 and later. Here again we have a 1(a), 1, and 1(b) and I don’t know what they mean. • Page 278-9. Here we have groups 1,2,3 and 9? What about 4-8? Why is there no N for group 9? Why are groups 1,2,3 mentioned if there are no data for them? • Page 282 and later. Here again we have group 9 with no N and group 1 with no data. This pattern occurs later in the evidence table (sometimes with a size for group 9, sometimes not). These need to be found and fixed (or at least explained.) Also the font size is wrong for “outcome” under “findings” for comparison 1. This also occurs throughout the remaining tables sporadically for different comparisons. • Evidence Table 4 contains information of the accuracy of the diagnostic test in a quantifiable form which is useful information for translation of evidence into practice and research. 	<ul style="list-style-type: none"> • Clarified. • The fonts have been made consistent throughout the Table. • Explanation of abbreviation added. • The fonts have been made consistent throughout the Table. • The use of N’s and N1’s had been changed throughout the Evidence Table. • Clarified and reformatted. • Clarified and reformatted. • Clarified and redone. • Clarified and redone. • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
Bibliography	<ul style="list-style-type: none"> page 623 Rovers MM, Zielhuis Head & Neck Surgery 1999 (and not 1203) 	<ul style="list-style-type: none"> Corrected.
Appendices	<p><u>Appendix D</u></p> <ul style="list-style-type: none"> Page 729 Again, I'd change "vs." to "or". Also all the non-treatment factors listed here seem to be basically ignored in the main document. I realize it is probably impossible to do, but that fact should probably appear in the summaries and conclusions. (Maybe it does and I missed it.) <p><u>Appendix F</u></p> <ul style="list-style-type: none"> Some type of total column would be nice. 	<ul style="list-style-type: none"> Changed. Totals are presented in Table 10 of the text.
Thematic Issues	<ul style="list-style-type: none"> A limitation section should be added Clarification around hearing loss is necessary Presenting information based upon quality of data would be helpful Analyzing the diagnostic accuracy by performer of pneumatic otoscopy would be helpful Some experts believe that the relationship between OME and speech and language outcome is impacted upon by social class - did I miss any discussion or analysis of this issue? 	<ul style="list-style-type: none"> A limitation section has been created in the Conclusions Chapter Definition of hearing loss has been added in Abstract, Summary, and Results sections. The issue of study quality has been addressed in the Results and Conclusions sections. Analysis by performer has been added, Table 51. We were not able to synthesize the findings because of inadequate number of articles addressing social class. Added as a limitation. Added to the Abstract, Summary, Results, Conclusions, Limitations, and Future Research sections.
Overall Evaluation	<ul style="list-style-type: none"> Overall it is a superb report. Obviously, it represents an exhaustive review and analysis of the literature. It is somewhat dismaying that we cannot answer the basic question - does otitis media impact on 	<ul style="list-style-type: none"> Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>cognitive development? If it does not, then all of the other issues in the report are far less important.</p> <ul style="list-style-type: none"> • Overall evaluation- an extraordinary compendium of information. It is clear what was done and how it was done what was done and how it was done. • Although the criteria for inclusion were clearly stated it would appear that rules were not followed as noted on pages 147 - 148 in the conclusion section that mentions an ongoing study which, to some, has serious methodological problems. This is also inconsistent with your statement on p 82 where it was stated that this same study was not included because it did not include results > 3 year. The inclusion of this work in progress by a member of the panel suggests that your process is less than objective. There are other completed works that could have been used such as those from the United Kingdom under the direction of M. Haggard PhD which were not mentioned. The inclusion of the preliminary reports by a panel member seriously compromises the objectivity and validity of this report. • Additionally, the second part of the language study was not performed (pp48) but it should have been done. Thus the conclusions concerning language have to be modified, and it should be noted in the final report that there are data that have not been examined. The meta regression analysis of this data may have provided some of the most useful information as to who is susceptible and who is not susceptible. • This is a topic for which I have both affection and aversion...I was disappointed that despite the report's volume (several times the AHRQ report), the scope is narrower and less useful. The title is entirely inaccurate and misleading, because the review does not touch treatment. I find this personally amazing and disappointing, because it seems to me that the major issues out there on OME are precisely the ones that the review omits: the efficacy and effectiveness of treatment. The panel clearly came up with the "right" questions (appendix A). In my view the fact that the scope of work ended up excluding most of them represents an astonishing failure of the process. • There are certainly no problems with clarity. • The generally negative findings of this literature review reflect the well 	<ul style="list-style-type: none"> • Noted • All criteria were established a priori and applied equally to all studies. Several studies by Haggard were reviewed but did not fulfill the inclusion criteria. • Meta-regression analysis would be desirable but could not be done within this time frame. • The title of the Report has been changed. The issue on selecting key questions for Evidence Reports has been brought to the attention of appropriate parties. The importance of treatment and other aspects of OME was included in the Limitations of the Evidence Assessment. • Noted • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>namely “ ... we... view these estimates of OME resolution with great caution...” is appropriate and unlikely to change with further study. Simply put, the natural history is variable and has been so since medical records have been kept. It is highly unlikely that funding for natural history studies can be obtained and even more unlikely that subjects could be found to participate in such a study. Indeed, a current funded randomized clinical trial of surgical treatment is seriously undersubscribed because of the changing referral patterns of contemporary medical practice.</p> <ul style="list-style-type: none"> • Given the variable natural history, it is also a fact of life that the impact of otitis media on child development is also variable. That severely affected children have moderate delays is well known. Documenting such delays in a controlled study is and has been extremely difficult. I agree with the conclusions of the review that the evidence is sketchy. I do not agree that the ongoing Paradise study (anonymously cited in the conclusions) will shed much light on this issue because surgery (tube insertion) is being used much earlier in that study than in normal practice and the interval between early or late surgery is only 6 months. Thus, it is unlikely that much useful information will accrue from that report. • My overall evaluation of the report is that it was a very clearly written document. I found the findings and conclusions to substantiate the previous guideline, and I was interested in the fact that the literature to support hearing loss and speech delay was once again not clearly documented. Thus it supports the guideline results in '94. • What an impressive piece of work. • The description of the approach to the Evidence Report is clear. The questions (scope of the report) and the methods used to determine the questions were clearly presented. I had no difficulty in following the chronology of the development of the Evidence Report. • It is entirely clear what was done, and much of it is obviously of value. • Although the document is well written and easy to understand, the problem is that it could be so much more if the authors had some additional time and resources. It is inexcusable that an agency whose last name is Quality provides inadequate funding and time to create the 	<ul style="list-style-type: none"> • Noted • Noted • Noted • Noted • Noted • Noted • Noted. • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>quality document needed. Specifically, the report does an excellent job of obtaining and evaluating the evidence, but the time constraints do not leave sufficient time for the proper synthesis of this evidence. This same problem has occurred with several other evidence-based reports.</p> <ul style="list-style-type: none"> • The methods used to determine the primary questions to be answered, determine causal pathways, search for articles from multiple databases, and abstract articles was clear and understandable. The report is comprehensive and provides sufficient details to be able to understand the process and methods used. • The descriptions of the process, search criteria, article selection and review criteria were exceptional. It will take a careful reader significant time reviewing the evidence tables to understand each of the analyses and conclusions. Since I did not spend that time, I found the text somewhat dense, especially as the conclusion often was that the literature quality was poor and few definitive conclusions could be reached. As I am sure that there will be summary articles written, I trust that they will distill the information into more readable form. The research is complete and exhaustive. • The report is well-organized and its methods are clear. • The methods used to create the evidence report are clearly described in the report. • The methodology used in this report is clearly described and can be followed without difficulty. • My over-riding comment is that it seems sad that the report is limited to the natural history of otitis media with effusion, the impact of otitis media on long-term speech and language development, the impact of otitis media on long-term hearing and the operating characteristics of the various diagnostic methods. <p>This seems to negate the title, which refers to treatment. Indeed, treatment is a very important part of management. Whilst the text does review medical management in relation to the natural history of otitis media, much of this work has previously been carefully reported by Rosenfeld, to whom you variously refer. However, you do not seem to take precise evidence from surgical trials in the manner that you have</p>	<ul style="list-style-type: none"> • Noted • Noted • Noted • Using a standard consensus method, the technical expert panel chose the four key questions to be addressed by this study. Questions on treatment were not included among those four questions. We agreed that treatment is not addressed in this evidence report, and the title has been changed to "Diagnosis, natural history and late effects of OME". For the natural history question, we decided that cohort studies would give the best estimate of OME resolution rates. We agreed that the placebo or no intervention arm of a clinical trial may provide information on OME resolution in groups of children with OME who, for whatever reason, receive close follow-up and refer to this in the revised Conclusions. We appreciated the references would be useful when treatment is studied.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>evaluated medical trials. There is of course information about the natural history of OME from surgical trials, though the entry criteria of these trials are often quite different. If the review is to cover treatment, then I think you should evaluate all aspects of treatment. Much of the cost and morbidity and possibly mortality is related to surgical treatment of this condition and I would recommend that the report be extended to cover this aspect.</p> <p>May I refer you to three recent papers from our department, which look at the prevalence of otitis media and its effect and the effect of surgery on behavioural problems.</p> <p><u>References:</u></p> <ol style="list-style-type: none"> 1. <i>The frequency of otitis media with effusion in British pre-school children: a guide for treatment.</i> Midgley EJ, Dewey C, Pryce K, Maw AR, and ALSPAC Study Team. <i>Clin Otol</i> 2000, 25:485-491 2. <i>The relationship between otitis media with effusion and contact with other children in a British cohort studied from 8 months to 3½ years.</i> Dewey C, Midgeley E, Maw R, The ALSPAC Study Team. <i>International Journal of Pediatric Otorhinolaryngology</i> 55 (2000) 33-45 3. <i>Randomised controlled trial of early surgery versus watchful waiting for glue ear: the effect on behavioural problems in pre-school children.</i> Wilks J, Maw R, Peters TJ, Harvey I, Golding J. <i>Clin Otolaryngol</i> 2000, 25:209-214 <ul style="list-style-type: none"> • what was done to produce the report seems clear and the methodology seemed generally appropriate. As noted above, I thought that certain information was omitted or overlooked. The information contained in the report would clearly be useful to anyone developing clinical practice guidelines or medical review criteria for diagnosis and treatment of OME. • I found the report very clear and easy to follow. I have focused my comments mainly on the speech/language question as listed below. I did not check to make sure that every article in the table matched the data in the article. I have some concerns about the classification of the 	<ul style="list-style-type: none"> • Noted • Comment noted. • Noted • Noted • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>measures mentioned and why some articles were excluded and others included. I also think that 3 years should have been included as an outcome for speech and language and not just articles above 3 years. I did not evaluate the studies included in the audiology question with the same scrutiny as the results in the area of speech and language.</p> <ul style="list-style-type: none"> • As usual with your group, the clarity and thoroughness are exceptional. The meticulously prepared evidence tables do a terrific job of summarizing the existing raw material in the field, as well as highlighting the inconsistencies and deficiencies. On a purely technical level, I think you did a marvelous job. • It is very clear what the reviewers have done. • The report is the most systematic and comprehensive approach to these important questions that exists to date. The expert panel contain superb and respected individuals who have long been investigators in this field and whose opinion is valued by the greater medical community. It is quite clear what was done and the outcomes of this process are also well presented. I do believe that the answers to the questions are substantiated by the systematic review of the literature and by the experience and opinions of the expert panel. It is also important to frame the conclusions from examining the four questions in similar terms that the guidance for future research has been done quite carefully. Obviously, the greater public will need to have greater synthesis of the tabular/figure supporting data but that will be the challenge of the team responsible for crafting a final report that will be effectively disseminated. • You and your colleagues have produced a very comprehensive document,.... I will not comment on the methodology or review of the literature which is very extensive. I do feel that this is a valuable document for organizations who wish to write guidelines as it saves them the effort of reviewing the literature again. Unfortunately there has been very little new in good studies since the 1994 guideline and this may emphasize the importance of providing more funding for research in this frequent occurring disease which still has many variations in treatment and which constitutes an expense both direct and indirect. • Very good. 	<ul style="list-style-type: none"> • Noted. • Noted • Noted. Discussion included in Future Research. • Comment noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • The evidence report is again a thorough and useful product of evidence based medicine. The methods are very explicit and almost every step in the process can be reproduced. The answer on your question “is it clear what we did” is a loud and admiring “yes, you do”. Searching, judging and compiling evidence of such a large amount of literature is almost Sisyphus labour. Too much labour for a disease that doesn’t exist, as one of my colleagues told me, when we spoke about your 3,5 kg weighting report. Your panel could only described OME according the OME guidelines as “OME is fluid in the middle ear without signs or symptoms of ear infection.” Why should we bother? Has anyone studied the natural course of a little bit of fluid in the knee in patients without complaints? A little discussion about the relevance of this whole concept of disease (other than costs and financial interests of ear throat nose surgeons) could make the report more attractive to readers and guideline developers in other countries. • Overall the revised draft and tables included in the appendix is more concise and clear in the writing style. The key questions and results present outcomes that are more important for further research questions particularly in defining studies more clearly in order to study risk factors, interventions and outcome measures in a uniform fashion. Consumers and primary care practitioners may be more interested in some additional information regarding immediate outcome in addition to duration of natural history, persistence, and recurrence.¹ 1 Geyman JP. Evidence-based medicine in primary care: an overview. Journal of the American Board of Family Practice. URL. Http://www.medscape.com/ABFP/JABFP 1-18; January 31, 2000 • Yes, I do find the description of what was done clear and understandable. This report could be used to reproduce a similar investigation. • It is clear what you did. I think the detail will please the academics. The average doctor out there will not be interested in all the details and would prefer to read the executive summary. I think the findings and conclusions are what I would conclude them to be. I was a bit pleased and surprised that pneumatic otoscopy is still the preferred and simplest way to diagnose OME. I learned more about the methodology from the 	<ul style="list-style-type: none"> • Noted. • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	draft than from the teleconferences.	
Methodology	<ul style="list-style-type: none"> • Methodology was appropriate • Your methods were well thought out and well applied to the available literature. I agree the areas narrowed down for study (page 10) were appropriate. • The methodology was appropriate in identifying the key questions of interest to the panel of technical experts. The literature review and the methods used to obtain and extrapolate the literature were very clearly delineated. The body of literature out there on OME is enormous, but the value of much of the literature is still of little value. It never ceases to amaze me that when a study is written that many professionals use such small numbers to extrapolate their information. • In my opinion, the methods used in deriving the four key questions of interest from the panel of technical experts were appropriate as was the searching and reviewing of the identified literature. The synthesis of the literature was appropriate. Evidence tables were supportive; inclusion and exclusion criteria for studies were specified. • I have no criticisms of the reviewing methodology or coverage. • However, as with many of the Cochrane reviews that I have to scrutinise, I have some doubts about the depth of analysis of issues and the degree of familiarity with the clinical and biological interpretations of the literature that lie behind the interpretation of the review findings and particularly the introduction, and I am not sure that the procedure for identifying key questions has produced sensible answers. • An outstanding job. I doubt that anyone could find fault. (See #4 below, however, for some comments on how key questions are chosen). • The methods are appropriate. I liked your conservative approach to using meta-analysis – ie, you seemed to avoid it when studies were very heterogeneous. • The methods used to derive the key questions from the panel are described in detail and accurately reflect the process the panel used to limit the scope of the guideline. The process of the literature review and the search terms are outlined. Synthesizing the literature is obviously 	<ul style="list-style-type: none"> • Noted • Noted • Noted • Noted. • Noted • Introduction greatly revised. • Noted. • Noted • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>extremely difficult and will require a detailed interpretation for the process to be accepted by clinicians. The meta-analyses are detailed and the process used to exclude specific studies are specifically described.</p> <ul style="list-style-type: none"> • I was pleased to note that definitions used in the recent AOM guideline and 1994 definition for OME were both endorsed without changes or additions. • There is some question in my mind about the age cut-offs. One section state up to 22 years, other sections note up to 12 years. Was there a typo or was age restriction changed? • The methodologic limitations of published studies on this topic seem to be adequately described. The issue of multiple publications resulting from a finite number of study cohorts is complex and likely results in some degree of bias (albeit unmeasurable). There might be some consideration for adding further emphasis on this point. • The methodology seemed appropriate for identifying key questions of interest, reviewing the literature, and synthesizing the literature. • The methodology for selecting the questions was a combined Delphi approach with a nominal group process. Both of these are designed to maximize input and develop priorities. This was done quite successfully. My only regret was the subject of comparing intervention, especially surgical vs medical, was not selected well. The literature review addressed this issue frequently and it seems to me that the team could have developed answers to that question as well. The literature search and synthesis thereof was complete and scientifically performed. • seems appropriate to me. • The chosen quality scales are adequate and well described, even so the data abstraction and procedures to reduce bias. • The methods for identifying the key questions were certainly democratic. The method seems counter intuitive and awkward in going through the process. The most awkward part of the process was the personal evaluation and shooting from the hip on speech and language and other aspects of the questions. In looking at the tables generated, we seemed pretty close in agreement on most of it. I think the literature part of the process was well done. There was a lot out there to consider 	<ul style="list-style-type: none"> • Noted • The age issue has been clarified. • Agree. As long as in one single meta-analysis we did not include multiple studies, that meta-analysis would be fine. However, when outcomes are aggregated, then bias would exist. Discussion of this issue included. • Noted • Comment noted and addressed in Limitations • Noted • Noted • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>and the meta analysis was used appropriately. You were explicit about why articles were excluded and included in the evaluation.</p> <p>Selecting key questions</p> <ul style="list-style-type: none"> • Personally, I am disappointed that none of the selected topics deal with updating the treatment portion of the guideline. The results of this evidence report will make updating the guideline difficult because of that lack. • I suspect that more topics could have been covered had this been treated as an update process without spending time going back over the same articles that the original guideline panel had dealt with. I believe the EPCs and AHRQ need to think about what are appropriate activities in an update evidence report. • It was not possible to review the details of the evidence tables due to time constraints and the fact that I don't have the articles to double check the data in the tables. However, I did scan the tables and noted a few difficulties, mostly in formatting. I would recommend having an editor go through the tables to improve readability. In particular there are some strange uses of fonts (e.g. group names and definitions), inconsistent table formats (e.g. Evidence Table 1), inconsistent definitions counts of groups and uses (e.g. Evidence Table 4). • At the level of choice of the 4 key questions (KQs), it seems that the nominated experts were asked to rate importance of questions. But the equally important matters of the degree of current uncertainty about them, the prospects of a review reducing that uncertainty, or the prospects for influencing practice as a consequence, all of which should be criteria, do not seem to have come through. The impact of this omission is seen in the audience issue (b). For example, I would not have thought that a review was needed to endorse the evidence of general nullity (except in clearly defined extreme or co-morbid cases) of effects on formal speech and language performance (when the question is, rightly, put for outcomes beyond age 3). The issue of subtler cognitive effects after the age when language effects are measurable is subject to more uncertainty and could merit review, but was overlooked. 	<ul style="list-style-type: none"> • Treatment was not one of the top four questions according to our methodology • Noted. • changed • We sympathize with the desires of the reviewer to have different questions assessed, however we had an explicit process for prioritizing the questions to be assessed given the time and resources available, and this was how the aggregate results turned out. No doubt some individual expert panelists, as some individual reviewers, would have preferred a different rank order or a different set of questions, but its a group process with representation from many of the interested parties, and the rank order that we obtained was how we proceeded.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>The problem is that practitioners ignore the nullity of the evidence except in clearly defined extreme cases, particularly because of vested interests in the speech/language pathology profession, and hence they continue to focus on the wrong aspect of the problem.</p> <ul style="list-style-type: none"> Is the report chiefly a means of directly accessing audiences without access to the specialised literature, e.g. parents, family practitioners, or speech language pathologists? Is the authority of the panel peer process, combined with recency of this review, a necessity to preceed an anticipated surge of practice-changing guidelines? Perhaps this is so, but it would have been useful to have the strategic appraisal that it was so. This prioritisation of questions looks more like a lament that the evidence is still not getting through to belief and practice, rather than an informed judgement that a review will be productive now. Thus the methodology is appropriate, but has not been appropriately deployed, and the implementation issue has been addressed only indirectly. It's like building a bigger bomb rather than aiming a small one accurately. I do not consider the issue of diagnosis as important as the panel did, as it misses out the main point about OM (recurrence or persistence over time), which single diagnostic measurements do not adequately address. Nevertheless, I do not think that there is elsewhere as comprehensive a synthesis of the data sources of this question nor so clear a conclusion elsewhere. Just to show how unbiased I am (!) I am prepared to acknowledge that the value actually added by the reviews in this section is, paradoxically, rather high. Perhaps it is easier to make progress on what is a conventional elementary issue than on what is truly important; because the data are not so difficult to get, they happen to exist. However the published article must still emphasise that this question only addresses single frames in the "movie" that we need of OM histories. It is very reasonable to select four questions agreed as important for the concentration of evidence reviewed. However the Kendall's W for the prioritisation is only modest, and a treatment issue comes in a close 5th at rank total. The stopping at question 4 makes the Report's title, which refers to 'treatment' inappropriate. None of the top four questions is about treatment, which thus becomes only strictly relevant as the side-issue of treatment-free 	<ul style="list-style-type: none"> Again, we sympathize with the desires of the reviewer to have different questions assessed, however we had an explicit process for prioritizing the questions to be assessed given the time and resources available, and this was how the aggregate results turned out. No doubt some individual expert panelists, as some individual reviewers, would have preferred a different rank order or a different set of questions, but its a group process with representation from many of the interested parties, and the rank order we saw was how we proceeded. The title of the Report has been changed. Introduction has been revised.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>groups in natural history. This selection also makes some aspects of the general background introduction stick out as of less relevance. It is clearly stated that the introductory chapter is intended to be general background and not an overview of evidence. Yet certain aspects of it may be counter-productive. There is little appeal to understanding of process or therapeutic hypotheses, that would inform the critical interpretation of results.</p> <ul style="list-style-type: none"> • for identifying the key questions of interest from the panel of technical experts: Yes, the ranking system used was a good method to get the technical panel to consider the rank-ordered importance of the questions, and the final ranking reflects questions that were not only important to answer, but also quantifiable. • the approach using technical experts to focus in on key questions seems reasonable (and is consistent with that used for the AOM report. • There is no better way to do this, only different ways. How did you get to the originally 20 questions? You only described this topic a little bit on page 31. But why did the original task order and letters from the nominating agencies propose only these questions? Based on difficulties in formulating guidelines? On questions of patients or problems of practising physicians? <p>Experts (and other people) find it often difficult to arrange topics in order of importance. In my comment on the OMA report two years ago I made the same comment. However, in this former case experts had only to arrange 5 questions instead of the 20 now. The framing of the questions and the original order on the form can influence the final outcome. Probably other experts will have asked other questions. The technical experts are all Americans (seems logical), but the four key questions are therefore also culturally determined. The question of tympanostomy tubes is not investigated while this topic scored almost as high as the question on diagnostic methods. (51 vs 57). This problem is in my opinion more important in daily care of family physicians than the debate whether I should use a tympanometer or pneumatic otoscopy.</p> <ul style="list-style-type: none"> • The key questions (page 31) were developed in a systematic way and the evidence report documents this process clearly. • The causal pathway for each key question is more clear in this draft 	<ul style="list-style-type: none"> • Noted. • Noted • Noted. • Noted. • Noted. • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>than from August 1999. The causal pathway (beginning on page 59, Table 5) should be developed more fully with each diagnosis having specific outcomes as outlined by Sackett’s clinical decision making for each key question.⁴ For example, Table 6 lists 5 diagnosis for otitis media with 4 outcomes and it is unlikely that all five diagnosis would yield all five outcomes? If there is a causal link, probability or prevalence data that support the likelihood of the diagnosis with the outcome, this information would be useful for standardizing future research and dissemination of the standard.</p> <p>4 Sackett, DL, RB Hayes, GH Guyatt, P Tugwell. <i>Clinical epidemiology a basic science for clinical medicine</i>. 1991. Little, Brown and Company: Boston/Toronto/London</p> <p>Searching, Reviewing, and Identifying the Literature</p> <ul style="list-style-type: none"> • The literature in other languages should have been considered. • Consideration should have been given to those contributions that were not prospective as there is valuable information. This is especially important in the large population studies in the UK and Finland where small differences become significant because of the power of the sample size. • All that is not prospective is not bad and all that is prospective is not good! • The exclusion of language data from prospective studies which were for children < 3 years of age eliminates consideration of the problems which these children may or may not have, In the consideration of the development of language, deviations and/or deficiencies at < 3 years can and do have effects later in life that manifest themselves in other areas and also may be found in more sophisticated measures of receptive language. The exclusion of this data from the report is a very serious flaw. • A number of the studies for question 2 – language- on the surface appear to have poor quantification of the duration of Otitis – most particular are #'s and these are 3/20 or 15% of the data 	<ul style="list-style-type: none"> • Although non-English articles were not included, studies from other countries were included. Large studies from UK and The Netherlands are included. • True but prospective is a better design than case-control or retrospective studies. • Noted. • Comment noted. • We shared the concern. However as can be observed from Table 28 that there was insufficient data for this age group. • The analysis was conducted by cohort and the evidence tables indicated when multiple articles are from the same cohort. • Comments added to the Abstract, Summary, Results, and Conclusions.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ol style="list-style-type: none"> 1. 1277 – Freeark 2. 1623 – Kaplan 3. 2135 – Paul <ul style="list-style-type: none"> • Of the 20 studies for question 2, 6/20 (30%) are from one of the panelists’ research efforts and 4/20(20%) from another research group. Thus at least 50% of the reports really represent two populations of patients reported at different times. This should be noted in the discussion and in the conclusion for it does limit the generalizations that can be made. • In table 26 and evidence table 2 there are of the 20 citations really at best 11 different populations. Of these, a possible 6 are from special groups, Native American, lower SES etc. Any conclusions from these data need to modify to indicate the lack of generalization to typical populations. • satisfactory for what was reviewed • Where studies were excluded because of flaws was any attempt made to get the needed data from the authors so the study could be used? • Yes, the various databases used and the search terms used were appropriate, with the exception that the term “mastoid” seemed an odd term, as it is a specific portion of the middle ear. The general term “middle ear” would have seemed more appropriate. • The categorization of Speech-Language Tests was missing several tests, such as: Test of Language Competence, Woodcock-Johnson tests of Cognition, Kaufman Assessment Battery for Children, Wechsler Intelligence Scale-Revised, Stanford-Binet. Clinical Evaluation of 	<ul style="list-style-type: none"> • Noted. • Requesting additional data from original authors is, like searching for non-English language literature, one of those decisions where a balance must be struck between time and resources. Our EPC has not been particularly successful in past attempts at obtaining additional data from original authors within the time frame needed to complete the evidence report, and therefore we did not elect to spend the resources for this report in that way. • Noted. • Revised and additional write-up inserted. • Experts assistance sought. Additional materials provided in Methods and Results chapters.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>Language Fundamentals –Revised (standard version). On page 84, the Stanford Binet is mentioned as a test of “expressive language”. It is actually a test of verbal and nonverbal intelligence. It should be included in the table since it is referred to.</p> <ul style="list-style-type: none"> • The categorization of Audiologic tests was not described at all. There was a request from this technical expert for assistance in categorizing tests, and extensive information was returned, but this input, and the final categorization used is not mentioned or described in the methods. This is an important issue, because throughout the diagnostic tests section, terms are used that are not defined anywhere in the methods, and the cutpoints used are not defined for the various tests. For example, Type A and Type B tympanograms are introduced on pg. 78 with no definition or categorization provided. Another example is on pg. 81 – the terms “impedance tympanoscope” and Impedance audiometer” are used without definition. These are non-standard terms, so it is impossible to determine what they are. • The method is comprehensive with good described steps, but by selecting only English literature there could be some (?) language bias. For example, looking at the included studies for question 2 all studies were conducted in the USA and I can’t imagine that good quality studies were only conducted on that side of the Atlantic. The Dutch OME groups (Maastricht Otitis Media with Effusion and KNOOP, Nijmegen) are publishing most of their important work in English, but I’m not so sure that all Scandinavian groups are also expanding their markets to English language journals. Whether OME is a problem in French or German speaking countries I don’t know, but I can’t imagine it isn’t. Searching for foreign languages in Medline isn’t very useful, while most of these journals aren’t indexed. Only contacts with experts abroad could solve this problem. A discussion on this topic should be included in the discussion section of the report. • An important part of translating evidence into implementable guidelines for many users is quantifying the outcomes. Within the scope of this work, the sections titled natural history (page 16) and common outcomes (page 24), there is an attempt to quantify outcomes by a number needed to treat analysis. 	<ul style="list-style-type: none"> • A discussion of this issue is included in the Limitations of the Evidence Report section of the Conclusions chapter. • Noted. • Case control studies were not considered to be sufficiently strong evidence by the technical experts to be included in this report. We synthesized all the evidence that we did find that met the a priori criteria specified by our technical experts. • Noted. • We revised our analysis to just pooling sensitivity and specificity and deriving PPV and NPV for various prevalence levels. A new figure (Figure 7) was generated for the plot for pneumatic otoscopy. We also

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p><u>Synthesizing</u></p> <ul style="list-style-type: none"> • This is incomplete because of the omission of the children < 3 years, the case controlled studies and other mentioned deficiencies. • The criteria for the language of the children with < 3 compared to > 3 months duration should have had some form of correlation function to determine a worse <i>case best-case scenario</i>. (p47) . • You have performed meta-analyses on all variables even though you note that there is significant heterogeneity in the prevalence rates. Of course the other option is to do an ROC meta-analysis a la Littenberg, Moses, et al., but that really doesn't yield a result that is very useful for guidelines. My recommendation would be to do meta-analyses of sensitivity and specificity as you have done, but not do them for PPV, NPV, accuracy or prevalence. I would then take the resultants of the meta-analyses for sensitivity and specificity and use them to compute PPV, NPV and accuracy over a range of prevalence values. These could be plotted • For many meta-analyses, there was significant heterogeneity for the estimate of the pooled effect. In these analyses, it would seem appropriate <u>not</u> to present the pooled estimate due to heterogeneous effects among the individual studies -- if there is significant heterogeneity than it is appropriate to combine results across the studies. Eliminating the pooled effect estimates in these situations would avoid the potential for readers to mis-state results. • seems appropriate, however I cannot oversee the details of including and excluding studies. Comment on page 82 worries me, however, I don't believe that inclusion/exclusion of a several studies would have altered the conclusion. Qualitative reviews, such as by Mark Haggard, have reached the same conclusions. 	<p>pooled prevalence rates to evaluate the heterogeneity of the studies.</p> <ul style="list-style-type: none"> • We put in a caution in places where heterogeneity was encountered. • The inclusion and exclusion criteria were established a priori and described in Methods. For example, the Rach study which measured OM severity at 2-4 years of age, violated the criterion that OM severity is measured under 3 years of age. Since we could not separate the children whose severity were measured before 3 and after 3 years of age, it was excluded. • We used what were reported in the literature. It contained both ear and child as units of analysis. We reported both. However, there was not enough data to synthesize findings by child. This issue was addressed in Conclusion and Future Research chapters.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> Is it appropriate to analyse 'ears' instead of children in question 1? I don't think so. In bilateral OME there is, I suppose, a correlation between the 'cure rate' in both ears of the same child. Reumatologists did analyses of joints instead of patients and the whole world was laughing at them. At least you should discuss the reason to do an analysis on this unit of analysis. 	
Evidence	<ul style="list-style-type: none"> This is all quite straightforward, and in my spot-checking of sources and references I did not turn up any significant literature missed, nor inappropriate judgments of quality, nor inappropriate syntheses. Your conclusions appear to be that no definitive conclusions can be made. It appears from your conclusions that although there is much written there is a need for better research. You reiterated much that was reported in the 1994 Guidelines (Stool, et al). With respect to missing any crucial pieces of information in the literature search, I feel strongly that the literature search was very complete. There will always be professionals who will feel that certain articles should have to be included, but I think that you have done an excellent job in reviewing the present literature. The report does support your conclusions as written. The point about the many natural history and sequelae studies not sufficiently stratifying by treatment status is correct, but is overstated for three reasons: (1) Rightly or wrongly, in the US system the urge to treat makes it very difficult to obtain untreated controls, and any wholesale culture change on this is likely to be slow. (2) Most treatments are known to be of limited duration and effectiveness, so the disease effect (developmental sequelae) is thereby only slightly underestimated: (3) In the context of removing the financial interest bias which usually leads to overestimation of the impact of OM by professions with a vested interest, this failing is at least a conservative one. A) I do not see any crucial pieces of information missing in the literature search. B) Yes, the evidence does appear to support the conclusions. I did not read the evidence tables in detail. Probably, very few readers actually will. I will leave it to others, who know the literature better, to 	<ul style="list-style-type: none"> Noted Noted Noted Noted Noted. Noted. Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>comment if you missed anything (which I doubt).</p> <ul style="list-style-type: none"> • Since I'm not an otitis expert, I can't comment on whether any pieces of evidence were missed. The evidence reviewed seems to support the conclusions drawn. It looks like a really frustrating body of evidence to review. • I did not identify key studies missing from the search. Given that the conclusions are broad, the literature does support these conclusions. The conclusions are very conservative in their scope and do not extend beyond the literature review. With regard to the Natural History question, it may be worthwhile to use descriptive terms to present a range of time expected for effusions to clear after an episode of acute otitis media. Obviously, the exclusion of the current Pittsburgh study eliminates a potentially large body of important information; although, the length of follow-up disqualifies the interim reports from this study. Given the importance of the speech/language data, it may be worth mentioning the importance this study will have on understanding the impact on speech and language development. • it appears that a thorough literature search, including supplemental sources of data, was completed. The conclusion section makes appropriate mention of methodologic limitations in many of the published studies. As noted above, some further mention of the potential implications of multiple publications resulting from the same cohort of children (e.g., multiple publications by same research group along with a brief comment about how this was managed in the analyses) should be included in the conclusion section (and also in the summary). • Early Life OM and Long-Term Speech and Language: Your analysis supports that no conclusions can be drawn about the early life impact of OM on speech and language development in otherwise healthy children without preexisting developmental delays. I am concerned that this will be broadly interpreted as stating no relationship between OM and S&L development in all children. You need to state prominently and repeatedly the following points: 1) this analysis does not preclude an impact of <i>prolonged OME, especially bilateral</i>, on S&L development, 2) this analysis <i>does not apply at all</i> to children with OME who already 	<ul style="list-style-type: none"> • The issue of middle-ear effusion persistence after AOM was addressed in the AOM evidence report, pages 80-82 and Table 24 page 119, and is essentially OME after AOM. In the Conclusion chapter, we pointed out that the results of several ongoing cohort studies would be useful for the speech and language question when they come out. • Agree. As long as in one single meta-analysis we did not include multiple studies, that meta-analysis should not be subject to bias from double counting data. However, when outcomes are aggregated, then bias would exist. Discussion of this issue included • Disclaimer added in the Abstract, Summary, Results, and Conclusions.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>have speech or other developmental delays, and may have progress impaired by hearing loss or auditory input degradation from persistent middle-ear effusion. The concept here is to provide enough disclaimers so that children who suffer from delays secondary to OME <i>on an individualized basis</i> are not denied care based on lack of association at a group level.</p> <ul style="list-style-type: none"> • Early Life OM and Long-Term Hearing: In Table 36 you report an RD of 11% (95% CI, 3-19%) for sensorineural hearing loss (SNHL) in children with early life OM vs. those without early life OM. This suggests that for every 9 children with early life OM we get one additional hearing-impaired child. Given that OM is a nearly universal experience in childhood, we would expect a correspondingly huge population of hearing-impaired kids, which is clearly not the case. This inconsistency most likely stems from defining SNHL as a threshold of >20-25db HL at any frequency in either ear. Using this rather liberal criterion, about 1:16 (6.4%) of OM negative kids also had hearing loss (a whopping 20% in the Sorri 1995 study!). Bottom line: hearing loss is NOT a dichotomous outcome; need to delve deeper here to describe the laterality, frequency or frequencies involved (eg, 8kHz is much less relevant than 1kHz or 2kHz to daily functioning), and magnitude of impairment in dB HL. There is also a huge issue of external validity: how representative are the 346 OM+ kids in these 4 studies of the larger population of OM+ in general? Unless the magnitude, clinical relevance, and generalizability of this hearing loss vs. OM relationship is put in better context, you are likely to instill unnecessary fear in the minds of parents of children who suffer from early life OM. • Diagnostic Methods for OME: A real meta-analysis picnic here! Very interesting: confirms value of low-tech clinical skill (pneumatic otoscopy) as preferred measure. Some other interesting data in Table 50: portable tympanometer has only fair specificity (68%), which leads to over diagnosis of OME; ditto for professional tympanometer with B or C2 curve (57%). The acoustic reflectometry analysis does not take into consideration the 	<ul style="list-style-type: none"> • We did a sensitivity analysis, excluding the Sorri study and added comments in the Results section about the heterogeneity of the four studies with regard to exclusion criteria, type of OM history and how information on it was obtained. • Comment added to Conclusions. • Conclusions and Summary edited accordingly.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>impact of spectral gradient analysis. As noted in Table 8-10 of the Evidence-Based OM book, this technique gives better results than the dichotomous cut-point you used in the evidence report. The use of spectral gradient at least deserves some comment and mention.</p> <ul style="list-style-type: none"> • I believe the evidence supports the conclusions. My understanding of the literature is quite in agreement with the conclusions. The major frustration for the professional readership is the continued biases from their experiences and their own interpretation of the literature. The conclusions from this report that basically says there is little certainty about some of the previous cause and effect of OME and the sequelae will be hard to swallow. Therefore, clear and concise summaries of the full impact of supporting data will need to be pre-digested and presented carefully. • I am not aware of any crucial pieces of info that were missed. The evidence does seem to support the conclusions. • Useful information for development of practice guidelines is the development of a balance sheet or quantification of the benefits, harms and costs for each study.⁵ Adding a quantification analysis within the evidence table would allow for translation of an evidence based guideline into a clinical practice to assist with grading the evidence. The quality scores for each evidence table help evaluate the overall usefulness of the article for inclusion in the results for the evidence report. <p>⁵ Eddy DM. Chapter 7: Comparing Benefits and Harms The Balance Sheet. <i>Clinical Decision Making From Theory to Practice. A collection of essays from the Journal of the American Medical Association.</i> Jones and Bartlett Publishers: Sudbury Massachusetts. 1990: 48-56.</p> <ul style="list-style-type: none"> • I don't think you missed any crucial evidence that I am aware of. The evidence does support the conclusions • Omissions: <ul style="list-style-type: none"> A. <u>Child behavior and quality of life outcomes:</u> Disturbances in children's behavior associated with otitis media have been reported to include restlessness and fidgetiness, frequent, disobedience, impaired task orientation in the classroom, inattention, short attention span and/or distractibility, attention 	<ul style="list-style-type: none"> • Noted. • Quality scores are contained in the evidence tables and discussions of study quality for each key questions were added. <ul style="list-style-type: none"> • Noted <ul style="list-style-type: none"> • Our technical experts did not specify behavior as an outcome of our evidence analysis. We commented on the socioeconomic status. Quality of life is important but is also not a focus of this evidence analysis. Parenting is also important but not a focus of this evidence analysis. We agree that cost analysis is important, but it is outside the scope of our study. The pneumococcal vaccine is important but is not the focus of our evidence analysis. In addition, a recent

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>deficits and restricted social interaction. Paradise, Feldman, Colborn 1999 found that parent-child stress and behavior problems were consistently highest among children from the most socioeconomically disadvantaged homes. Haggard and Smith (1) reviewed the various studies of the impact of otitis media on the quality of life of the child. Since the Paradise article is listed in the bibliography I may have missed the discussion of this important issue. The Haggard article is not specifically referenced but others by the same author are in your bibliography.</p> <p>B. <u>Parents also suffer</u>: Chase (2) noted that parents of 1 year old children who had experienced otitis media were less effective teachers in structured interactions. They were less effective in gaining the child’s attention, less able to respond effectively when the child was distracted from the task, and less able to help the child understand and perform the task.</p> <p>C. <u>Cost analyses should be considered more completely.</u></p> <p>D. <u>Pneumococcal conjugate vaccine</u> should be described as having decreased the incidence of number of acute episodes and decreased the number of surgeries for placement of tympanostomy tubes for severe and recurrent episodes of AOM and OME.</p> <p>References</p> <ol style="list-style-type: none"> Haggard MP and Smith SC. Impact of otitis media on child quality of life. In: Rosenfeld RM and Bluestone CD, editors. Evidence-based otitis media. Hamilton, Ontario: Decker, 1999 pp. 375-378. Chase C. Hearing loss and development: a neuropsychologic perspective. In Eavey RD, Klein JO, editors. Hearing loss in childhood: a primer. Report of the 102nd Ross Conference on Pediatric Research. Columbus, OH: Ross Laboratories 1992:88-94. <p><u>Any missed crucial pieces of information</u></p> <ul style="list-style-type: none"> The large population studies which were not included because they were not “prospective” 	<p>article does not show a decrease in overall AOM, only a decrease in AOM due to pneumococcus (Eskola, Kilpi, Palmu et al., NEJM 2001;344(6):403-409)</p> <ul style="list-style-type: none"> We agree. We are aware of several prospective studies being conducted. This was commented in Conclusions. Case control studies are generally perceived to be more prone to bias than either cohort studies or randomized controlled trials. Empiric evidence exists to support this conclusion (Lijmer, JAMA, 1999:282:1061-1066). Therefore, while there may be ‘substantial information’ in such studies, the validity of conclusions based on this information is questionable, and therefore we did not include case

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed

Comment

EPC Response

	<ul style="list-style-type: none"> As all case controlled and cross sectional studies were excluded, there is the probability that much information was missed. I could not determine how many of the articles were excluded on these grounds. There is substantial information available from these studies in the language domain that should have been included. The second part of the language study was not performed (p48) which had to be done. Thus the conclusions concerning language have to be modified and it should be noted that there is data that has not been examined. The meta regression analysis may have provided some of the most useful information – who is susceptible and who is not. by limiting the evidence included in the report, several important papers are ‘missed’. This is however described clearly in the method section. In 2000 several important papers addressing question 1 (natural history) and question 2 (language) have been published: Maw et al. Rovers et al. You missed a study of <i>Rovers MM et al</i> about the large Dutch KNOOP study in <i>Pediatrics 2000</i> in answering question 2. (But that was published after your searches, so be excused). RCT with a non intervention arm. In the conclusion (page 146 and 147) you mention large studies coming up the coming years. Please look also to Europe were MOMES and KNOOP are following children for several years. The literature is focused and well documented regarding methods. It would be helpful to explain the screening tool in appendix H. Is this a strategy for keeping the evidence up to date and at what interval for review? A more clear explanation in the text and an independent explanation in the appendix would be helpful on its purpose. <p><u>Does the evidence support the conclusions?</u></p>	<p>control or cross sectional studies as evidence in this report.</p> <ul style="list-style-type: none"> Due to time constraints, the second part of the question was not done. We hope that this will be done in the future. This issue was addressed in the Methods section. Noted. They are after our cutoff date. Yes the cutoff point was January, 2000. Noted and added to Conclusions. The initial screening for this study was described in the Methods section. Unfortunately, properly designed and executed prospective studies are needed in this area. Case-control studies are not the answer to the problem. Noted Details on the type of hearing tests and how children were classified were added to the evidence table, Table 35 and Table 36.
--	--	--

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • The answer, for the language section, is unfortunately NO for critical portions of the evidence have not been included. This is a serious shortcoming as the expectation of such a government-initiated report is both accuracy and precision: as well as, to be free of bias. The language section fails in all three areas. • To my knowledge, no crucial pieces of information were overlooked in the literature search. • Question 3 - Early OME and Hearing outcome: it would be useful to specify the audiometric range considered in the studies. It is unclear whether all of the studies included in the evidence tables used the same criterion for hearing loss (e.g., 3-frequency or 4-frequency pure tone average). Further, the type of hearing loss experienced by children in the studies considered is not specified: in the four studies considered, was later hearing loss conductive or sensorineural in type? • Question 4- Diagnostic Methods: the classification scheme for types of tympanometry/acoustic immittance technology is not clear: 'professional' versus 'portable' may or may not mean the same thing as qualitative (tympanogram classification by pattern: A, B, etc) versus quantitative (specified in specific units) tympanometry. More explanation would be useful. The question of whether or not in every clinician's hands pneumatic otoscopy achieves better operating characteristics than tympanometry was not addressed. • The evidence supports the conclusions. • The evidence supports the conclusion well in this report. The report also indicates appropriately the need to be cautious with the interpretation of the studies on natural history given the poor quality of the data. Previous guidelines (1994) have looked at the effect on short term outcomes such as speech and language and the results and report similar conclusions. Given that the type and number of research studies hasn't changed the conclusions for key questions 1, 2 and 3, more standardization and direction is research is needed. 	<ul style="list-style-type: none"> • Definitions, a table, and clarifications had been added to both the Methods and Results sections. • Noted. • Noted and addressed in Future Research.
Utility	<ul style="list-style-type: none"> • As a state of the art review, the evidence report will be of importance. The conclusions are of necessity limited because there are still more data to come to appropriate conclusions about the importance of OME. 	<ul style="list-style-type: none"> • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • There is utility for questions 1,3,&4 but not for 2. • Personally, I am disappointed that none of the selected topics deal with updating the treatment portion of the guideline. The results of this evidence report will make updating the guideline difficult because of that lack. • I am very disappointed. The only part of this that has potential practical utility is the section on diagnostic methods; and, even there, very little more is provided than what the AHRQ panel did seven years ago. The rest of the material provides intrinsically interesting summaries on natural history and the effects of OME on hearing and learning, but has no direct applicability to practice and, again, hardly advances where we were seven years ago. The conclusions on the relationship between OME and outcomes are expressed in many thousands more words and tables than we did on the AHRQ panel, but are not materially different. • I wish the EPC had spent a great deal less time in constructing the elaborate tables, meta-analyses, funnel plots, shrinkage plots, and ROC curves; instead expanding scope on the treatment questions that would be useful in developing a better clinical guideline. This strikes me as an example of methods run amok, losing perspective on why we should be investing in these reports in the first place. The report might be useful to someone planning more epidemiologic or intervention studies; but I cannot see that it will be useful to clinicians caring for children at risk for this condition. I believe it fails to provide useful materials "to develop clinical practice guidelines or medical review criteria." • The biggest roadblock to better research to write guidelines for treatment of OME is there is no definitive diagnosis. I am not alone in this thought as I read of disagreement among your technical panel on page 157. I think until all can agree on a definite diagnosis, treatment options will remain varied. Without a doubt, being in clinical practice, I concur pneumatic otoscopy is the best diagnostic tool with tympanometry as a good backup too. The problem is with the rising 	<ul style="list-style-type: none"> • Noted • Addressed in section: "Limitations of the Evidence Report." • Noted • We disagree with this reviewer's assertion that this would be a better report if we had spent less time on analyzing the data for the key questions we did study and instead used this time to analyze more key questions, specifically those on management. We sympathize with the reviewer's desire for more questions to be assessed, but we cannot do this by cutting corners on the analysis of those key questions we did include. There are, unfortunately, no short cuts in this process, and the assessment of key questions on management will need to await another day. • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>practical questions must be answered in a guideline, and the likelihood that there is adequate evidence available to draw conclusions. In the case of the OME report, each of the questions chosen is important and would probably have been selected by a guideline committee. In addition, however, questions regarding efficacy of each potential intervention, would also probably have been chosen, since this is what the guideline committee must eventually make recommendations on. Recognizing the limits of resources available for this evidence report, it would take a like effort to answer the next set of questions. The more academic members of the expert panel probably knew that the literature would be inconclusive on some of the key questions. Would a more guideline oriented panel have preferred a more limited preliminary review followed by an analysis of likelihood of useful conclusions? If the likelihood of definitive answers was low, the team could then move on to other questions. This would potentially give a guideline committee more to work with when it met. I would suggest that the sponsoring organizations empanel the guideline committees as part of the process of developing future evidence reports. Perhaps, the guideline committee, including consultants and liaisons should be one and the same as the technical expert panel.</p> <ul style="list-style-type: none"> • Since I am on the US Preventive Services Task Force, I'm quite accustomed to using reports like this one as a foundation for recommendations. It is a useful report. It would be hard to write recommendations for otitis media with effusion -- I can imagine the USPSTF would give diagnosis and treatment for this condition a rating of "insufficient evidence". However, I think this is due to intrinsic limitations of the evidence, more so than the methods you used or the report you wrote. • The evidence presented in this report supports a limited number of conclusions that can be directly applied to clinical practice. Diagnostic techniques are presented clearly and offer support for pneumatic otoscopy and the value of tympanometry. I would emphasize the importance of "well-trained" otoscopists and the possibility that the predictive values presented for pneumatic otoscopy may not realistically reflect the situation in clinical practice and therefore increase the need 	<ul style="list-style-type: none"> • Noted • We have added comments in the Abstract and Summary. • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>for other diagnostic tools and methods. The ambiguity associated with speech and language problem and risk for permanent hearing loss draw attention to important gaps in our knowledge and provide background information about otitis media without supporting strict time limits for surgical or medial interventions.</p> <ul style="list-style-type: none"> • within the context of limitations resulting the available body of published studies, this document provides a comprehensive summary of published evidence relating to the key questions examined. Many of the published studies are of limited quality. It is unclear whether there is sufficient evidence upon which to develop a guideline. However, the report does identify areas requiring further research. • I would find it useful if I were developing a practice guideline. • I am a bit concerned here. The sound bites are: up to 40+% of OME resolves in 1-3 months, relationship of OME to speech & language development is anyone's guess, OM increases risk of SNHL by over 2-fold (the panic sets in...), and pneumatic otoscopy is best. Some polish and perspective are needed here, as suggested above. <p>There is certainly some utility here for developing a clinical practice guideline. The info on natural history is useful, when viewed in conjunction with other data from RCT control groups as collated in the Evidence-Based OM book. The speech and language analysis saves a lot of effort in reviewing the literature, but doesn't necessarily provide any therapeutic guidance. The hearing loss analysis, in my opinion, doesn't accomplish much except generate unnecessary worry on the part of parents and providers (at least as presented in the draft report). Probably the most benefit comes from the diagnostic analysis. Great to stress pneumatic otoscopy. Also great to put in perspective the various tympanometric results (by static admittance, peak shape, and handheld vs. professional).</p> <ul style="list-style-type: none"> • I do not see how the report helps much in formulating <i>treatment</i> guidelines. Clearly, much of this stems from the choice of key issues decided upon by the panel at the start. It also highlights the need for a follow-up to this report, perhaps focusing exclusively on issues of treatment. • I understand that there is a minimum 13-month publication delay for 	<ul style="list-style-type: none"> • Noted. • Disclaimer added in the Abstract, Summary, Results, and Conclusions. For hearing, we did a sensitivity analysis, excluding the Sorri study and added comments in the Results section about the heterogeneity of the four studies with regard to exclusion criteria, type of OM history and how information on it was obtained. <ul style="list-style-type: none"> • The title of this Report has been changed. <ul style="list-style-type: none"> • The time from delivery of the final document to publication by AHRQ is out of our control. <ul style="list-style-type: none"> • Noted

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>members of the evidence based review to team to add a few paragraphs summarizing and recording any additional insights – if any given the useful comments in the various chapters of the report – they might have that would be of benefit to guideline development panels.</p> <ul style="list-style-type: none"> • (Appendix D page 727) is a helpful tool to key persons involved in constructing a clinical practice guideline as it provides a summary of the different components regarding how the information is useful and what focus the guideline would apply to for population, intervention and the potential biases. A balance sheet (Eddy DM. Chapter 7: Comparing Benefits and Harms The Balance Sheet. Clinical Decision Making From Theory to Practice. <i>A collection of essays from the Journal of the American Medical Association</i>. Jones and Bartlett Publishers: Sudbury Massachusetts. 1990: 48-56) may be helpful in making recommendations (this may be difficult to do if there is poor quality of the evidence). The difficulty of a developing strong evidence for a guideline is the lack of Randomized Controlled Trial (RCT) and heterogeneity of the data. • (page 153). It would be useful in this report to have a template or a model which is more precise which could serve as a starting point for a standard development for these three key questions. Tables 5-9 could serve this purpose and it would be helpful to make reference to this in the conclusions and implications for future research. (Sackett, DL, RB Hayes, GH Guyatt, P Tugwell. <i>Clinical epidemiology a basic science for clinical medicine</i>. 1991. Little, Brown and Company: Boston/Toronto/London) • Currently there is a great deal of practice variation in the management and treatment of otitis media which is going to influence the results for natural history and short term outcomes which were two key questions of this evidence report. Future research should use uniform standards for monitoring, management, and treatment and then potentially more useful information will be available to improve the research for natural history and short term outcomes. (Berg Alferd O. Dimensions of Evidence. <i>Journal of the American Board of Family Practice</i>. 1998. 11(3): 216-223.) • Clinical judgement plays a large role in the assessment and 	<ul style="list-style-type: none"> • Tables 5-9 were intended for this purpose. • In Future Research. • This is not a focus of this evidence analysis. • Comment noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<p>management of otitis media in primary care practice. Standardized clinical charting forms may help reach more uniformity in documentation understanding the disease process. However, strategies regarding changing clinical practice styles needs to be incorporated. (Issues in Permanente Medicine. Focus: Evidence-Based Medicine. July 1999. 1-8.)</p> <ul style="list-style-type: none"> • Patient preferences regarding management and patient relevant outcomes are becoming more important to clinicians and clinical practice regarding reaching shared decision making. Currently in this evidence report there is a great deal of back ground on the expert preferences and consensus. Focus groups and patient rankings would be helpful in developing patient education materials for understanding the report. Also, if additional key questions were to be addressed it would be useful to obtain the patients point of view for Table 3 and Appendix A, page 709 to understand their priorities. (Djublbegovic, B., Hozo I; Lyman GH. Linking evidence-based medicine therapeutic summary measures to clinical decision analysis. Department of Mathematics Indiana University Northwest. January 31, 2000. Available from URL: http:// www.medscape.com/medscape/) • Clinical guidelines can be developed by several methods including global-subjective judgement, evidence based, outcomes based, and patient preference based. Outcomes base is an evidence based approach with more quantifiable estimates of the benefits, harms, and costs. Additional analyses that could support this quantification would be helpful in making the guideline more useful to clinical practice and a broader audience such as your report is intended. Also, a grading scheme that can be developed to rate the evidence would be useful. (Geyman JP. Evidence-based medicine in primary care: an overview. Journal of the American Board of Family Practice. URL. Http:// www.medscape .com/ABFP/JABFP 1-18; January 31, 2000 • A recommendation regarding how frequently this should be updated should be included in the future directions. It would be helpful to describe a starting process for automatic data collection cycle for the next review if the intent of this guideline is to have a database for new article submission available online for ongoing update by researchers. 	<ul style="list-style-type: none"> • Comment noted. • Comment noted. • Noted. • Noted.

Appendix I. Peer Review Comments and Responses (Continued)
[Editorial comments were excluded]

Area Addressed	Comment	EPC Response
	<ul style="list-style-type: none"> • I think that those persons developing clinical guidelines would have an adequate of information. I think that a team approach consisting of a statistician, researchers and clinicians would be most appropriate for developing these guidelines. • This information is useful for a large segment of our pediatric practices. It also will be a good source of information on areas in need of future research projects. With e-mail and e-commerce taking off, office based research can quickly yield results on large populations seen in day to day practices across the country. 	
Others	<ul style="list-style-type: none"> • Way too much information to thoroughly digest in three weeks. • Upon receiving the report, I was a bit overwhelmed at the size of the material. I am happy to report that it really was not that difficult to review. • It would be useful to describe the pathophysiology of OME. 	<ul style="list-style-type: none"> • Noted • Noted • We greatly revised and reduced the Introduction.