NORTHWEST PORTLAND AREA
MATERNAL CHILD HEALTH NEWSLETTER

March 2000 #2

Cliff O'Callahan, MD, PhD.
Puyallup Tribal Health Authority, 2209 E. 32nd St, Tacoma, WA 98404
253 593 0232 #478, fax 253 593 3311, cocal@u.washington.edu

Topics: Antibiotic resistance and our part in the play; Fluoride; Lead grants; ADHD med use; Newborn Screening; Pneumococcal vaccine; Kids and MVAs; Native Americans - Diabetes.

Antibiotic Resistance:

We all have a critical part to play in the struggle to reduce the incidence of resistant microorganisms. Every time we examine a patient with a sore throat or cough or runny nose or ear pain we are faced with many decisions. Do we examine them enough to determine the most likely diagnosis (pneumatic otoscopy, quick strep test), or quickly presume a diagnosis? Do we explain the process of viral ills, or fudge our diagnosis in order to be able to give antibiotics and get the patient out of the room? Do we follow current guidelines on the types and doses of antibiotics for the various common illnesses? WE cause antibiotic resistance and WE can help to keep it under control.

There has been lots written about this recently. The Washington State Dept of Health and others have recently reviewed the literature and developed fairly simple, clear guidelines for a few of the more common illnesses. I think they warrant careful consideration at our Provider or P&T meetings so that we can incorporate them into our daily practice. Copies will be available through the Portland office or directly from Patricia Temple, Univ of Washington Physicians at 206-324-5800 or ptemple@u.washington.edu.

Some important points.

1. Strep pharyngitis can NOT be diagnosed visually. According to studies, a provider who treats all sore throats with antibiotics is overtreating at least 70% of young children and 90% of teens and adults.

Do a rapid strep test IF they meet most of the symptoms that go with strep (not rhinnorhea, cough, coryza). If it is negative then teach simple pain relief techniques and explain that antibiotics are not needed. I had been following negative rapids with a culture to make sure, but according to recent data this seems to be unnecessary. If it is positive then treat. Penicillin is still the medicine of choice. Many have been using amoxicillin for its easier dosing/taste but we can use **twice** daily penicillin and it is just as effective (*Pediatrics* 2000;105(2)e19, and commentary p423).

2. Otitis media.

*We should be diagnosing abnormalities of the middle ear with the terms ACUTE otitis media (AOM) or otitis media WITH EFFUSION (OME).
*We do **not** treat OME if it is less than 3 months duration.
*Based on the common organisms we should be starting with amoxicillin or TMP/SMX.
*If the child is at risk for resistant organisms (day care, AOM in past 3 months) we should use ***high dose*** amoxicillin (80-90 mg/kg/day = twice the old dosage). If the child is over two this can be given just **twice** daily.
*If the start-off abx isn't working we go to ***high dose*** Augmentin (regular Augmentin and amoxicillin mixed in equal parts to make the amox component 80-90 mg/kg/day).
*We should ***not*** be *routinely* using azithromycin or IM ceftriaxone or any other 2nd/3rd generation cephalosporin that the drug reps push.
*Food for thought: a British general practice clinic reduced their use of antibiotics in "children who were not particularly ill" by **32%** by giving parents an informational handout, acetaminophen (I find ibuprofen works much better), and an antibiotic script that they could fill in a day or two if the child was not better (*BMJ* 318(7185):715- 16, 1999). Parent

education and risk sharing works (Dr Radetsky's editorialization).

3. Cough/Bronchitis/Sinusitis illnesses are treated with antibiotics if symptoms persist for **at least 10 days**, otherwise they are less likely to be bacterial or amenable to antibiotics. This means we have to **talk** rather than shoot off the script! Our perceptions of parental expectations regarding antibiotics for every little thing are not always right. "Failure to provide expected antimicrobials did not affect satisfaction" is the conclusion of a very good study (*Pediatrics* 103;4:711-18,1999). Providers fibbed and changed the diagnosis a lot in order to give abx based on ill-founded perceptions of what the parent wanted. Now who IS sick here...the patient or the provider?!!

4. Colds: Good reviews on the OTC medicines that we tend to push for URIs can be found in *Contemporary Pediatrics* 16;12:109-118,1999 and *Pediatrics in Review* 17;1:12-17,1996. Since this is our most common diagnosis we should know that pretty much NONE of the OTC meds have proved effective at real symptom relief in clinical trials with children!! Their utility seems to be in alleviating provider and parental anxiety about doing something, or perhaps in sedating the child with the side effects. An example of this is the fact that in studies dextromethorphan and codeine are equivalent at reducing cough but codeine has much more CNS depression. We are providing *sedation* when choosing codeine over DM. Are we explaining that to parents?!

Fluoride and dental decay: We tend to have a lot of baby bottle tooth decay (BBTD) and caries in our population. One of our clinical indicators has been teaching, then quizzing, about prevention of BBTD and I'm sure this will have an impact. One of the **tools** we use is a laminated color plate of normal to yucky teeth that hangs next to where the parents sit at a Well Child Visit. They've often looked at it (in horror) before we get to that part in anticipatory guidance and paves the way to increasing attention! We use the 4 page *WSDA News Special Section* from February 1998 entitled Healthy Babies-Healthy Smiles: Infant and Toddler Dental Examinations. Get a copy from your dentist or Dr Peter Domoto at the Univ of Washington School Dentistry.

The physical **intervention** we use is applying a fluoride varnish (Duraflor) to the teeth of 1-4 year olds in their Well Child Visits. If they have BBTD we refer them to dental where they will get q4 month applications. It is very easy and quick and we will probably also apply it, with parental permission, at the ECEAP/ Head Start program and Tribal Daycare center.

Remember to ask about fluoride supplementation from 6 months on. Each clinic will have to know whether the local water system has fluoride added or if the well-water has a naturally high level before prescribing supplementation. Remember that most bottled water does not contain fluoride and many people use it to make up their formula. Regular carbon and ceramic home filters do not remove fluoride, but the expensive reverse osmosis ones do.

We've found it very helpful to have a quick quarterly meeting with dental, community health, and medical staff in order to learn/teach each other about these issues.

Newborn Screening: A reminder: The second testing for the State Newborn Screening program should be done NO EARLIER than 7 days of life. Testing before 7 days defeats the purpose of repeating the test, which is to pick up late onset PKU and Thyroid disease. With more infants going home within 24-36 hours, this repeat test becomes even more important. Each clinic needs to have its unique system of insuring that the repeat test is actually done (!), and at the correct age.

Funding for Lead screening and awareness: The Environmental Protection Agency is soliciting pre-application grant proposals from Indian Tribes to conduct blood lead screening and for conducting lead awareness in the communities. All pre-applications must be in by May 23, 200 to get some of the $2 million pot for Indian Tribes. For more info contact Joseph Carra, EPA. 202-554-1404 or TSCA- Hotline@epa.gov. Each area will have a very different need and your local Health Dept might be helpful in determining the

risk of lead to children in the particular area. I don't routinely do blood-lead levels but do a questionnaire screen (old house, work with lead or make ammunition...but could ask about Mexican ceramic pots and remedies if in Eastern WA/OR). There are very few children with elevated lead levels in this urban area but a screening three years ago in the Yakima Valley found 9.4% of children tested exceeded the 10 mcg/dL level, compared to 3% nationally (0% in same sampling of Seattle kids, and 1% of Madigan Army base in Tacoma kids). For local information contact Dr William Robertson at UW 206-526-2008 or Victoria DeCillo, Childhood Lead Surveillance Manager, WA State Dept Health, 360-705-6056 or VXD0303@hub.doh.wa.gov.

Domestic violence screening tool: One of our new clinical indicators is to develop and implement a way to screen for DV. There has been a lot written about this and trials performed in pediatric, ambulatory, and obstetric clinics. Most make the survey short but find that it's very sensitive: the three questions most ask are **1)** have you been hit, kicked, punched, or otherwise hurt by someone within the past year? If so, by whom? **2)** Do you feel safe and comfortable in your current relationship? **3)** Is there a partner from a previous relationship who is making you feel unsafe now? We have been thinking about targeting all women at Pap, annual, and obstetric visits. There is a role for those of us working primarily with children and their parents: the AAP recommends doing the screening at Well Child Visits (more to do!!). *Pediatrics* 101;6:1091- 2,1998. *Pediatrics* 104;4:874-7,1999. *JAMA* 227(17):1357, 1997. *Arch Fam Med* 1(1):39, 1992.

ADHD medications and Hillary Clinton: You might have heard in the news that Hillary is proposing meetings regarding the dramatic increase in the use of stimulant medication (Ritalin, Dexadrine, Adderall) in young children. She would like to see the use decrease. I would hope that any of us prescribing stimulants for the very young (4-7) are doing so with caution, and for the older children after doing some sort of a decent evaluation to see that their symptomatology is not due to hearing, vision, or learning deficits, PTSD, FAS, obstructive sleep apnea, ...chaos at home. If used appropriately, it is good to know that use of stimulants was associated with an 85% ***reduction*** in risk for substance abuse disorders in ADHD youth (*Pediatrics* 104;2:e20,1999). Many of our people are wary of "drug" medicines and it is important to emphasize that stimulants, if used correctly, are not addicting and can actually cut down on drug use by allowing the child to be a better student (better self esteem through less failures and incidents etc).

Children 4-8 years old in Car Wrecks: The *MMWR* report 49(07);135-7, Feb 25,2000 on fatalities for children aged 4-8 years as occupants in MVAs is timely and important. Gov Locke (WA) just signed "Anton's Law" making it a law that all children up to 6 years of age or 60 pounds be in a booster seat, and that police can stop and cite if they see a violation of this. It will go into effect July 1, 2002, giving us some time to educate.

The point is that we are pretty good at putting our infants in seats (about 70%, albeit incorrectly!), but only 38% of our 4-8 yr old children are restrained at all. Additionally, 25% are in the front seat (in the first 40 days of 2000, 35 children 4-8 years old have DIED while seated in front of air bags!!), and even if they do have a seat belt on they can slip through in a crash unless they are in a booster. Even in States without the law we can teach about car safety for 4-8 year old and perhaps do a community education effort. Save some lives!

Type 2 Diabetes: There's a deluge of information recently about our soaring rates of obesity and type 2 diabetes in American Indians/Alaska Natives. It takes an enormous amount of energy to care for our current diabetics: predictions for the future are scary. Three articles from *MMWR* speak to this and every unit's Diabetes Team should have them: *#1:Prevalence of Diagnosed Diabetes among AI/AN* 47(42);901- 904,Oct1998; *#2:State-Specific Prevalence of Selected Health Behaviors, by Race and Ethnicity* 49(SS02);1-

60,March2000; and *#3:Prevalence of Selected Risk Factors for chronic disease among AI/AN* 49(04);79-82,Feb2000.

I figure that we need to work on prevention now so that we'll have time to take care of things *other* than diabetes in years to come! Easier said than done...but the first thing is to be aware and knowledgeable, then do screening and provide basic information. The AAP has issued a guideline statement (*Pediatrics* 105,3:671-680,2000) in response to the American Diabetes Association: Clinical Practice Recommendations 1999 (*Diabetes Care* 22 (suppl 1):S1-114, 1999) that is very good.

The first step in improving the ***quality of care*** for a chronic illness is to improve our **screening** and documentation. In this case it means that in teen and adult annual exams we need to **1)** ask about family history of diabetes, **2)** calculate the body mass index (BMI) to see if it is >85%ile, **3)** look for acanthosis nigricans (velvety/warty brown patches on neck and axilla etc), and *add* them to the problem list. Then we need to **test** those who have the above risky findings with a fasting plasma glucose level every two years, starting at puberty! If the glucose is normal we need to educate the family; if abnormal then...well, get the article.

The conclusion is that we have to start and any effort to prevent insulin resistance is worthwhile. We have to know that type 2 diabetes is affecting our youth and know how to manage it. Now!

SIDS: Please see the article in *Pediatrics* 105,3:650-656,2000. When we do our SIDS teaching and quizzing (one of our clinical indicators) we should be specifically pointing out 1) prone or side position, 2) a certified crib, 3) no placement on waterbeds or couches or soft surfaces, 4) no pillows or quilts or stuffed toys in the bed, 5) avoiding overheating, and 6) cautioning co-sleeping if worried that parents drink or use drugs. This region has done a phenomenal job decreasing the risk to national levels. Let's get it even lower.

Circumcision: I have no idea how the issue of circumcision is raised and dealt with at other clinics. We have just made a policy of not performing them in this clinic. Although there is some small health benefit to being circumcised, the risks and impracticality of universal circumcision outweigh it. You will find a very good parent education tool on the pros and cons on circumcision from the AAP, based on their recent statement (*Pediatrics* 103:686-693,1999). There is controversy, however, and if you wish to keep informed, and entertained, please see the recent *Pediatrics* 105;3:620-623,2000 article and letters to the editor in the same issue.

Immunizations: You probably all realize that we are not using oral **polio** any more. I mentioned in the last newsletter that we should be trying to administer the **Hep A** series to 2 year and older children. Apparently there seems to be some negative press in Indian country regarding the new **pneumococcal** vaccine, based on a grandmother alleging in an open letter that it's "equivalent to genocide." Everyone should know that it was ***not*** developed specifically for black and Native American children. It was tested on 18,000 infants of all races in N. California and 5,000 Navajo and Apache infants. It is true that Native American infants seem to be at higher risk for pneumococcal disease.

The **new immunization package** is now open to all and it is wonderful. If your site does not have it, please contact me or Rosalyn Singleton at 907-729-3418.

NEXT TIME: I'll keep reviewing the literature but would love to respond to some of your needs or interests.