NORTHWEST PORTLAND AREA
MATERNAL CHILD HEALTH NEWSLETTER
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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

Immunization Stuff

Pneumococcal Conjugate Vaccine (Prevnar): It is around but not all of us have access to it yet without paying extra. Lorraine Duncan, Vaccine For Children (VFC) Director in **Oregon**, reports that it's available in Oregon for VFC eligible children only through the State. Jeff Kingsbury, Senior Public Health Advisor in **Idaho** reports that he is confident that it will be available in Idaho by December or January. **Washington** is less clear about plans; Steve McInelly reports that they would like to start in January but they are not sure if it will be possible. WA is a universal vaccine state and they don't wish to complicate things by making Prevnar available to *only* VFC children...but the price to immunize all is gigantic. They are, however, required to make it available, in accordance with ACIP rules, within 90 days of publication of the ACIP statement. The pneumococcal conjugate ACIP statement was published in MMWR on Oct 6th, 2000 which means that the vaccine should be covered by Medicaid for all participating VFC providers by Jan 5, 2001.

Flu Vaccine: The flurry of emails on the IHS system alerted me to the fact that we are not the only site that has not received the flu shots ordered last summer, while private groups in town have got theirs. The bottom line is that it will arrive late and let's hope that true flu season comes in mid-January, as it has the last couple years, so that giving it in December is still worth it. The pity is that we will probably not get the amount ordered so universal coverage will be thwarted! Yet another study has concluded that vaccinating preschoolers and children is worth it (*Pediatrics* 2000;106:973-976). Mothers of children receiving child care outside the home have double the rate of respiratory illnesses (*Pediatrics* 2000;106:1013-1016). Next year.

Hepatitis A: We should all be administering the Hep A vaccine to youth. An article in *Arch Pediatr Adolesc Med* 2000;154:763-770 concludes that in our western States it is cost effective to vaccinate adolescents.

Pertussis: There are outbreaks of pertussis in the region. A study in Israel reminds us that young vaccinated children can be asymptomatic reservoirs in pertussis transmission, while we know that immunity wanes or is incomplete and many teens and adults have it but are not identified. The nasal swab cultures are successful only in the early catarrhal phase when it looks just like a typical cold. By the time the coughing jags begin the cultures and treatment are rarely useful. So we need a heightened index of suspicion. The most at-risk are the infants and there is still a risk of hospitalization and death for this population.

Distress with Shots: There was an interesting article in *Arch Pediatr Adolesc Med* 2000;154:719-724 showing that simple behavioral interventions before immunizations reduced behavioral and biochemical indicators of infant distress. They gave parents an information sheet that described "visual, auditory, oral, and kinesthetic modalities" as techniques to reduce stress. They don't give particular info and the authors have not replied with a copy of the info sheet yet, but we have had great success with blowing (a piece of paper or a pinwheel) in older children. What are other sites doing to reduce the stress for child and parent now that we often give 4 shots at a visit?

Varicella vaccine shots: Because the vials are frozen the stoppers are often very hard and may dull the needle. By rubbing the stopper with your thumb for 15 seconds it will warm it enough that the needle will pass through easily - and cause less pain to the patient.

Registries: Dr Marquart passed on a letter from the Chief Medical Officer Kermit Smith that states that it is permitted to share our IHS clinic immunization data with State Registries. If anyone needs a copy of that to support you in providing that info let me know.

Safety Issues:

Auto Safety: The biggest killer of Native children from 1-24 years old is the automobile. All diseases added up together don't come near to the lethality of a car. A study in *Arch Pediatr Adolesc Med* 2000;154:606-609 told how 266 seat "checkups" in Louisiana revealed that 94% were installed

incorrectly!! The three most common problems, and the points that we should stress at every Well Child Visit in less than 30 seconds, were **1)** seat not belted in to vehicle tightly (kneel in it when snugging seat belt), **2)** harness straps not snug (should only be able to slip a finger under), and **3)** harness clip not at armpit or nipple level (not at navel).

An article in *Pediatrics* 2000;106:924-929 told of a similar study in N. Carolina where checks of 109 car seats revealed that 93.6% were incorrectly installed. Their conclusion was that parents need to be actually shown how to install seats. If there is a SafeKids Coalition in your area contact them to see if they are training people to be certified car seat evaluators. It is a 4 day course but it would be great if a Tribal Police Officer or Community Health Nurse could provide education and checks periodically and during community gatherings such as Pow Wows. I know that MaryBridge in Tacoma will be hosting training in the future. The telephone number at the Center For Childhood Safety is 253 403-1234. I suspect there must be an equivalent in Portland.

Children from 4-9 years are still at high risk of injury and death in MVC (the C is for crash because they don't call them "accidents" anymore!!) because they tend to slip out of the seat belt in a crash ie. they are too small for the shoulder belt. For that reason WA state has a new law starting in June 2001 stating that all children up to 6 years or 60 pounds must be in a seat or booster seat. A study in *Pediatrics* 2000;106(2):333(e20) shows that only 28% of 4-9 yr olds were in a booster, while 28% of 4 yr olds and 70% of 6-8 yr olds used lap-shoulder belts.

There is a comprehensive up-to-date on child passenger safety principles for pediatric providers in *Pediatrics* 2000;106:1113-1116.

Bike Safety: I'm sure we all have a fair share of minimal bike injuries and the rare severe outcome. Bike related head injuries are responsible for over 150 deaths and 45,000 nonfatal injuries yearly. We know that helmets are highly effective but rarely worn! A report in *Pediatrics* 2000; 106:6-9 about a program in Georgia demonstrated that a community ***can*** change the prevalence of helmet use if it really wants to. They did so by having the Police impound the bikes of un-helmeted youth. Parents were able to retrieve the bikes without fines or citations by coming to the "police station where the safety message was reinforced to the parent and child, and helmet ownership was verified or a helmet provided."

This intervention was done after a period of community education through the papers, a bike fair, and school presentation. Their conclusion was that laws regarding helmet use don't change behavior (0% use) but community participation and enforcement do (up to 54% in 2 years).

Violence and Risky Behavior: I had mentioned in the last newsletter - if you can remember back that far - about the talk at the IHS research conference regarding multi-generational, post-colonial PTSD. There is a very good short review in the *Lancet* 2000;355:1116-1117 on "Research on intergenerational transmission of violence: the next generation." Good references. It makes me remember that just seeing children and their parents in clinic is often band-aide work. The real healing of a community is through early childhood programs, youth activities that involve healthy positive role models (see excellent article on "The potential role of an adult mentor in influencing high-risk behaviors in adolescents", in *Arch Pediatr Adolesc Med* 2000;154:327-331), sponsorship of needy but motivated families, etc. I wish we could all be given a little time to lobby our Councils and States for support of these services.

Pediatric Emergencies in the Office: The Amer Acadamy of Pediatrics just came out with a commentary for us all on this in the *Pediatrics* 2000;106,2:337-338. More helpful for me is the practical article in *Pediatrics* 2000;106:1391-1396 that found that the great majority of emergencies seen in primary care are respiratory. They provide a nice shopping list for what should be in our clinic to react to emergencies. Look this one up!

Miscellaneous Issues

Children placed in Foster Care: I read a very disturbing report that clicked because it seemed quite true based on my experience clinically. It reported that of children in foster care 91% had an abnormality in at least one body system while 39% needed urgent referrals for medical services at initial consultation. When screened, 53% of younger children had one or more developmental problem, while in adolescents 12% were PPD positive, 77% were in need of mental health referral, and of those, 15% had indicated either a previous attempted suicide or were suspect for suicidal ideation. Wow!

I don't feel like I'm doing a very good job at coordinating with social services and providing a quality comprehensive screening exam for youth on entry to foster care. What are others doing? Does anyone have a guideline or model for this? An article in *Pediatrics* 2000;106:59-66 made me feel worse because it's conclusion was that primary care providers just don't do a good enough job and they make the case that all youth being placed in foster

care should have a specialized evaluation by a multi disciplinary team.

I was heartened a bit by the guideline in *Pediatrics* 2000;106:1145-1150 on Developmental Issues for Young Children in Foster Care. They give us some direction of what to do and when. Share this one with your Children's Services team.

Croup: A number of studies have shown that children who continue to have stridor at rest and/or respiratory distress after a trial of cool mist often benefit from a ***single*** dose of ***orally*** administered dexamethasone. People were giving 0.6 mg/kg but studies have shown that even 0.15 mg/kg is equally effective (Pediatr Pulmonol 1995;20:362-368). It even tastes good, but do not give to children with varicella! The recent *Pediatrics* 2000;106:1344-1348 demonstrated that oral works as just as well as IM.

Oral Rehydration Solution: Lots of issues for providers and parents regarding rehydration solutions. The only solution given in most ER's is IV normal saline, not oral, despite the fact that it's proven to be as good. It takes more education and doctor/nurse time though, and is not as billable or interventionalist enough for most ER staff. Not great for parent empowerment!

Another issue is that of parents using Pedialyte equivalents for all kinds of things rather than for dehydration due to diarrhea (not vomiting or just not drinking). The electrolye composition makes it ideal for stool loss but bad for "not eating and drinking."

Yet another is that most providers feel that parents wouldn't like to be given a little packet of ORS salts to be made at home over a big fancy bottle of Pedialyte,, or equivalent. That's all hogwash, a study in *Arch Pediatr Adolesc Med* 2000;154:700-705 reports. Caretakers were not only happy to take packets over bottles but were ***more satisfied*** with how the packet solution worked!! We have no excuse except to look into getting some!!

Asthma issues: A couple of very good studies have demonstrated that giving albuterol to children with acute exacerbation of their asthma via a metered dose inhaler plus spacer device is just as effective as nebulizing it (*Pediatrics* 2000;106:311-317 and *J. Pediatr* 1999;135:22-27). One caveat is that 2-10 or more puffs need to be given. That has implications for our acute care clinics, ER's, office visits, and home therapy. It can be cheaper, is much quicker, and is more transportable.

If spacers are too expensive for some clinics then another report proved that the use of a sealed 500mL soft drink bottle is almost as effective as an Aerochamber (67 vs 74% change in peak expiratory flow after a dose) !! You make a hole in the side or base for the inhaler, cover the top when actuating the inhaler, and then bring it to the mouth, seal, and breath. *Lancet* 1999;354:979-982.

Fetal Alcohol Syndrome: There is an updated statement by the American Academy of Pediatrics on FAS and it's less severe counterparts that used to be called Fetal Alcohol Effect but are now ***alcohol related neurodevelopmental disorder*** (ARND) and ***alcohol related birth defects***. It can be found in *Pediatrics* 2000;106,2:358-360. There is less data on the effects of crack and methamphetamine.

Otic Suspensions and Tympanostomy Tubes: I just learnt something very important from an article in *Otolaryngol Head Neck Surg* 2000;122:330-333. (No I don't read this journal but saw a commentary in the AAP Grand Rounds, which is good, by the way). They demonstrated that if we do not teach parents to apply tragal pressure after putting in antibiotic ear drops in children with ear tubes then it's fairly useless because the drops will not just jump through the PE tubes! So providers and pharmacists, we need to teach the basics: warm the solution to body temp, lay the child's head to the side, instill drops, and squish down the tragus (the knob towards the front of the ear canal entrance) moderately firmly in order to push the suspension into the middle ear. Try it yourself to feel the pressure change. Now maybe those drops will work!!

SIDS: We are doing a good job educating people in our region about SIDS prevention. Here are some more tips. A study in *JAMA* 2000;283:2135-2142 reports that getting the message out about Back To Sleep by multiple sources (doctor, nurse, TV, radio, newsletters etc) increases the chance that a child will sleep supine. In *JAMA* 1998;280:341-346 they showed that the presence of a grandmother in the home *increased* the risk twofold! It wasn't long ago that we did teach parents to put them on their bellies. Perhaps elder-oriented educational messages need to be developed in our communities.

Another risk factor for SIDS was being in day care, where 20.4% of deaths occur. Someone from each clinic could check whether the day cares in their area are truly aware of the position guidelines, or provide a poster or something. I understand the staff turnover in most day care facilities is enormous and that must be a risk factor. Article in *Pediatrics* 2000;106:295-300.

This concept of *increased* risk when "other" people caring for a child put them to sleep on their tummy is born out in a recent study of 157 SIDS

cases in Quebec. It seems the risk is ***much*** higher when infants who are used to being on their backs are suddenly laid on their tummy. Pediatrics 2000;106:1476,e86.

Native Radio: There is a wonderful radio station that is run by Native people for Natives in Alaska and the lower states. AIROS is played over the airwaves in some areas but we can all access it off the internet too at http://airos.org. I am hoping to convince our staff to have it played over the speakers in parts of the waiting room. They have a weekly Wellness Edition on Fridays at 1 pm and music and talk formats 24 hours a day!

Books for Children: I've mentioned the Reach Out and Read program before. That's where providers give a new book to children from 6 months through 5 years at their Well Child Visits. To supplement the book-giving for other visits and older youth I've looked around and discovered that Half Price Books gives a LOT of books away to non-profit groups. I have stocked all our waiting room bookshelves to overflowing with children and teen books. If there is one in the area, get yourself on the list to get books!!

Teens and Contraception: A revealing article in the *BMJ* 2000;321:461-462,486-489 notes that the vast majority (93%) of teens who got pregnant before they were 20 years of age had not only visited their doctor in the previous year, but discussed contraception (71%), and had got a contraception method (50%)! For some reason, though, they got pregnant! The editorial with this article challenges us to become better developing rapport with our teen patients and educating them well. What astonishes me is that 50% of these sexually active teens were not on birth control after a visit where they brought it up with their doctor. Are we so busy that ***we*** become the obstacle to preventing pregnancies?

Obesity and Diabetes etc: The potential to be overwhelmed is looming as we have more youth who are obese with acanthosis and insulin resistence, teetering on the edge of the diabetes abyss. What suggestions can we make to families? One study compared the effect of increased activity to targeting and reducing sedentary behaviors such as sitting to watch TV, playing video games, and talking on the telephone. The effect was about equal at reducing their weight over 24 months and increasing their physical work capacity. *Arch Pediatr Adolesc Med* 2000;154:220-226. The downside was that it took a lot of work from a coordinated team of health professionals to do this.

As we bring up the issue of obesity and family history for diabetes we need to remember how sensitive this can be for our youth. A study of 3rd grade students in N. California revealed that obesity itself, or a high BMI, does not predict depressive symptoms. That's good to know. However, "overweight concerns," especially in females, was strongly associated with depressive symptoms regardless of their BMI. *Arch Pediatr Adolesc Med* 2000;154:931-935.

If mothers do not see their children as obese they are not as compelled to make changes. A study in *Pediatrics* 2000;106:1380-1386 reveals that obesity is more common in mothers with less education. Those moms did regard themselves as overweight but *did not* view their obese children as overweight! So we have to use tact and patience in bringing this up and convincing them to make preventive changes. Good luck to us!!

I almost overlooked the most exciting report which is about teaching preschool children how to focus on their internal signals and regulate their eating. ***This may be one of the most important and do-able preventive interventions if it bears out*** in other communities. *Pediatrics* 2000;106:1429-1435.

Growth Charts: The new growth charts that incorporate BMI are available through the AAP at 888 227 1770 for about $50 for 100 of each of the 4 series, or download the original free at www.cdc.gov/growthcharts

Suicide: There is a very good article in *Arch Pediatr Adolesc Med* 2000;153:573-580 entitled "Suicide Attempts Among American Indian and Alaska Native Youth." It comes from old, 1990, data but the truths are timeless. I guess what I liked was that they identified protective factors that we could strive to promote, such as the ability to discuss problems with friends and family, emotional health, and family connectedness. They recommend a good wellness screen for all teens because it would pick up the risk factors - alcohol, marijuana, and other drug use; past or present physical or sexual abuse (especially in males), family and school connectedness (*Pediatrics* 2000;106:1017-1021); and suicidal ideation.