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Youth Soccer: Scoring a Goal for Community Health

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“Dr. Orman, thank you so much for starting the soccer league. My son was overweight and the other kids at school were starting to pick on him. He has now lost at least five pounds, his clothes are loose, and he is able to run with me now in the evenings. He doesn’t want to stop playing soccer. Thank you again.”

-Parent of a 7-year-old soccer player

Early last year a group of pediatricians and Health Promotion and Disease Prevention (HPDP) staff at our hospital decided to start a youth soccer league in our community. All of us felt that we needed to do more to provide exercise opportunities for the children in our town. Here, the same as elsewhere, we have seen rates of childhood obesity skyrocket, and have felt frustrated in our efforts to combat this problem solely in the clinic setting.

We solicited help from staff within our hospital and members of the community at large, and created an American Youth Soccer Organization region in our town. For those not familiar with AYSO, this could be likened to “Little League Soccer.”

What follows is a description of our experience together with some “how to” material. I very much hope that other IHS providers will also take the lead in their communities and help create more exercise opportunities for youth. We all know obesity is a problem. It is time to act. I think you will be glad if you do. This project has been a lot of work, but has been very satisfying. A large number of our providers have participated as volunteers, and I think most of them had a great time. I know the kids have loved it.

Background

More than 40% of Native American children in our small town on the western Navajo reservation are overweight according

to statistics gathered recently at our public schools. It is well known that obesity is a risk factor for diabetes, hypertension, and cardiovascular disease. Not surprisingly, there is an associated epidemic of Type 2 diabetes among children in the United States.

The combination of a modern, high fat diet together with lack of physical activity are the critical factors in this epidemic. Compounding the problem, reservation towns often have an overabundance of fast food outlets and a lack of community resources for exercise and recreation for youth.

Approaches to obesity need to be multifaceted. “Comprehensive obesity-prevention programs beginning early in childhood are necessary if the epidemics of obesity and diabetes among AI/AN populations are to be reversed.” (April 2001 IHS Report to Congress: Obesity Prevention and Control for American Indians and Alaska Natives).

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Our interventions must not end in the clinic. It is critical that clinicians become involved in their communities to both advocate and facilitate exercise opportunities for children. As was noted in a recent article in the journal *Pediatrics*, "Health care professionals can play a crucial role in their communities by raising community awareness about the importance of programs and facilities for physical activity . . . The powerful influence of physicians extends outside the clinic when they thoughtfully advocate for healthy lifestyles . . . within the community." (Prevention and Treatment of Type 2 Diabetes Mellitus in Children, with Special Emphasis on American Indian and Alaska Native Children, Gahagan and Silverstein).

I would go one step beyond and say that health care professionals should not only raise community awareness, but should play active, leading roles in their communities by helping to create appropriate exercise and recreation programs. We can use our organizational skills as well as the resources of our hospital's wellness programs to actively participate with the community in the creation of sports and exercise programs.



Why Soccer?

No organized youth soccer program existed in our town. As far as I could determine, there had never been a youth soccer league anywhere on the Navajo reservation, despite the sport's growing popularity in the rest of the country. My 10-year-old son reported that he and a few friends would kick a ball around at school, but there were no real games being played there, either.

Nevertheless, soccer appeared in many ways to be an ideal sport for our town. It involves almost continuous motion, is aerobic, and is fun. Most children seem to love it if coached appropriately. It requires only very basic equipment, and existing school baseball and football fields can be used.

Unlike some other games, soccer permits play at a wide range of skill levels and levels of physical maturity. Overweight, underconditioned, nonathletic children can participate and feel successful and part of a team if the league and coaching philosophies are appropriately structured. In addition, children can practice and play at home with only a soccer ball, alone or with small groups of friends.

There are other attractive aspects to a soccer program. Large numbers of children can participate. The sport is relatively safe if properly played and supervised (we had no injuries during our first season.) The basic rules of the game are simple and

easy to learn, making it easy to supervise and coach. The game can be simplified even more with local rules. This is a big asset when trying to recruit volunteers who may have little or no soccer experience or knowledge.

And there are peripheral benefits to a community from an organized soccer program. Soccer helps build character if coached properly. Children learn to be part of a team, and can learn good sportsmanship from their coaches. American Youth Soccer Organization data reveal that children involved with organized soccer are more likely to graduate from high school, and are less likely to use drugs or join gangs. In addition, the sport can serve as an opportunity for high school students to volunteer and perform community service, often required by high school honor societies and colleges. A soccer program can also bring together diverse elements of the community, including the medical community, the schools, police, businesses, and parents.

That being said, what sort of program should be started?

Critical Aspects of a Community Soccer Program

When we decided to start a community league, there were several crucial decisions that had to be made. Addressing these issues early and appropriately was mandatory for a successful program. Among the decisions were the following:

- The primary purposes of the league would be fun and exercise, not competitive, championship play.
- We would emphasize full participation; the object would be to let all kids play, even if they were not the best players.
- We would try to encourage non-athletes to play.
- We would try to start play at a very early age.
- The league must be logistically simple; we would keep games within our own community and not travel.
- We would not have championship or all-star teams or special awards for "winning teams." The rationale again would be to equally value the play of all participants.
- Registration fees. We chose to charge a small registration fee to cover costs of insurance and to buy every child a uniform. This was somewhat controversial, but no parent seemed to have any problem with it.
- We would try to schedule the league so as not to interfere or compete with other community recreation programs, such as basketball.

I cannot overemphasize what I consider to be the importance of the above principles for a community league. Young children need the chance to have fun and play and exercise. They do not need to all become expert or champion players. It is easy for over-enthusiastic coaches and parents to focus on winning and championships. It is up to the league's administrators to rein this in and remind everyone of the real purpose of the program.

Options for a community soccer program

Once it is decided to start a community soccer program,

one of the first decisions to be made is how to go about it — whether to affiliate with an established national program such as AYSO, or to create a local program. There are many possibilities. Among them are:

- AYSO program – American Youth Soccer Organization
- School based programs
- Community recreation or tribal based programs

We chose to affiliate with AYSO. I believe it is an excellent organization, and there are many advantages.

AYSO

AYSO, the American Youth Soccer Organization, is a national soccer organization that promotes a fun, family soccer program. It was established in California in 1964 and now has more than 660,000 players nationwide playing on over 60,000 teams. About 43% of AYSO players are girls. The age range of players is from 4 1/2 years through age 19. It is an all-volunteer program, relying on over 250,000 volunteers in 48 states and now in several foreign countries.

AYSO soccer can best be summed up by looking at its five core philosophies:

- **Everyone plays.** AYSO rules require all children to play at least 50% of each game. (Most of our players played much more than this.)
- **Balanced teams.** Coaches rate all players after the first season so that subsequent teams can be balanced, as much as possible. Playing with evenly balanced teams is more fun for everyone, since there is less chance that one team will either win or lose all its games.
- **Open registration.** Any child who registers is placed on a team. There are no tryouts.
- **Positive coaching.** Fun and learning are emphasized. Negative comments are not tolerated. “Win at all costs” coaches are not invited back. Referees emphasize learning, not penalties.
- **Good sportsmanship.** Good sportsmanship is emphasized for players, coaches, and parents. Negative comments about opponents, referees, or teammates are not tolerated.

Training

One of the big advantages of affiliating with AYSO is their training program. When you form a new AYSO region, you will be part of a larger Section. The section head will help coordinate free training sessions for both coaches and referees. This is crucial for a new program, where most volunteers will likely have little or no soccer experience. Our Tuba City program also greatly benefited from help and advice from a long established AYSO program in neighboring non-reservation Flagstaff, 90 minutes away. Even though we chose not to travel and play their teams, they were extremely helpful in providing advice and training.

In addition, AYSO publishes a wide range of training

materials. I highly recommend *The Official American Youth Soccer Organization Handbook*. It is available for \$10.40 on amazon.com. It provides a great introduction to AYSO and the game of soccer, has many training suggestions, contains the rules of the game, and has many other helpful hints.

Other AYSO Benefits

A \$10.50 registration fee per child is paid to the national organization and covers the cost of insurance (\$1 million liability policy and soccer accident insurance). This is key in obtaining use of school fields. Team Up and Suit Up programs are potentially available for leagues in disadvantaged areas, providing assistance with uniforms and fees. We had uniforms and cleats donated to us by more affluent regions for our first season.

AYSO is a nonprofit organization. Affiliation allows a local region to solicit tax-deductible donations. There are also discounts on equipment available for start up regions from both AYSO and Score Sports.

Alternatives to AYSO

AYSO soccer is certainly not the only option for a community. A school based soccer program is certainly a good idea. I would encourage providers to advocate for a school based program in addition to, not instead of, a community program such as AYSO. There are a few potential pitfalls with a school program. They can easily become interscholastic and too competitive, limiting participation. Furthermore, volunteers will often be limited to teachers and school personnel. However, a properly run intramural school program does have the potential advantage of involving large numbers of children. Also, if soccer is made part of the regular school physical education program, large numbers of children can be introduced to the sport and can learn some of the basic skills involved. In Tuba City, we are in the process of developing soccer clinics for teachers using our AYSO volunteers, in the hope that the local schools will begin to utilize soccer as part of the physical education program.

Tribal or other community recreation programs also certainly have merit. There may be fewer resources available in terms of training and expertise. There may also be insurance and liability concerns in terms of use of school facilities. Also these programs may not be able to attract donations and sponsors like a nonprofit such AYSO. Nevertheless, some communities do have very successful recreation leagues and these could certainly be structured using an AYSO model without formal affiliation.

Forming an AYSO Soccer League

If you do decide to affiliate with AYSO, the first step would be to check out AYSO’s excellent website at www.soccer.org. The next step is to contact the AYSO National Headquarters Development Office and request information about how to form a Pilot Region. My experience with AYSO was excellent. They were extremely supportive and were very anxious to spread soccer to Native American communities.

Six initial Board positions will be required for a pilot

region: Regional Commissioner, Treasurer, Coaching Administrator, Referee Administrator, Safety Director, and Child and Volunteer Protection Advocate. *Most volunteers have no soccer experience.* This was certainly the case with our program. It was a lot easier than we had imagined, though. We recruited volunteers from the hospital community, schools, parents, and community at large. I would say that enthusiasm and a desire to work with kids is far more important and soccer knowledge or skills.



Besides affiliation, other important issues that will need to be addressed early on include:

- Field availability. Contact school principals early. We used football fields for practice, and played on baseball outfields. The schools were very supportive and even helped us line and maintain fields.
- Start up funds to purchase equipment. The Health Promotion and Disease Prevention department at our hospital was critical in providing initial funds for goals, balls, shin guards, and other needed equipment. A community soccer program is the ideal diabetes prevention program. Finding funds will clearly be an early priority.
- Registration. We charged \$25 per player to cover AYSO membership and uniforms. We started registering months prior to start up, so we could order uniforms and equipment well in advance.
- Recruitment of coaches and referees. These will generally be parents, and they will usually have no soccer experience. That's OK! Most all of our coaches and referees did a great job. As an aside, communicating with your volunteers via e-mail is a good idea if possible. It will save a huge amount of time.
- Other volunteer board members. Our registrar was perhaps our most crucial position. The registrar not only got registration forms submitted to AYSO headquarters, but also divided kids into teams and made up the season schedule. A fundraiser and an equipment manager are also important positions.
- Coaching and referee clinics. These need to be arranged before starting the season. If you affiliate with AYSO, your section leaders will actively assist you.
- Team sizes and local rules. We played "short sided" soccer with small teams and small field sizes. Consult the AYSO website for details. For example, the U-6

(under age 6) teams had five players, with three actually playing on the field, on a 20 yard by 40 yard field. I strongly encourage short sided games, as they are much easier to manage as a new coach, and each child tends to play more on these teams.

Goals for a first season

- Start small; you can always expand later once you have the groundwork laid and have more experience.
- Try to identify a small group of dedicated volunteers: clinic, schools, community, parents. One nice thing about our league is that we had many first time volunteers from the community. I think it was a very good experience for them.
- Try to let kids have as much fun as possible. Their word of mouth will be your best advertising to increase participation in subsequent years.
- Again, emphasize fun, fun, fun, not competition. If you are a start up league, don't get caught in the situation of trying to play neighboring or regional leagues that have much more experience. The kids won't enjoy it and won't come back.

Our Experience in Tuba City

A small group of interested persons from the hospital and community began to meet in January. AYSO affiliation was suggested and pursued, based on their philosophy, support system, and the positive experiences of several of our volunteers with AYSO in other communities. We decided to have a fall league, to avoid conflict with spring Little League, winter basketball, and to avoid our summer heat. Our season ran for ten weeks and all games were local. Another option is to have a divided season, with half the games in the fall, and the other half in the spring, keeping the same teams.

We decided to begin our league with divisions ranging from age 4 1/2 years through age 12. We would like to expand to include teens next year, but did not have the resources to do so our first year. The divisions are divided up by age, i.e., under 6, under 8, etc. Each division had four teams. We opted for a coed league with boys and girls playing on the same teams. AYSO encourages separation of sexes, especially with older kids, but we decided to combine, at least to start, because of the relatively small numbers of players in our league. It seemed to work well.

We began registering children in the late spring, and then held another registration a few weeks prior to the start of the season. Our games were played on Thursday evenings and Saturday mornings. Most teams practiced once or twice a week for about an hour.

In all, we fielded 16 teams and about 150 children played. There appeared to be a high level of support and interest from the community, and games were well attended. I predict that participation will be significantly higher next year. We may also try to start a summer program, and perhaps an adult fun league as well.

Closing Thoughts

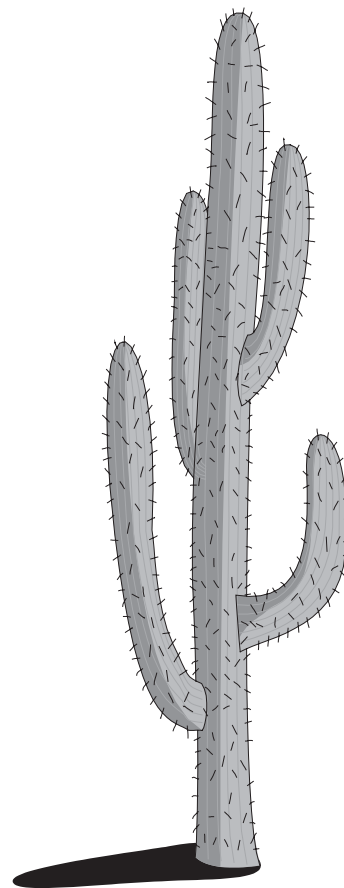
Soccer is great exercise and fun. We had a wonderful first season in Tuba. Almost all of the children and volunteers seemed to enjoy themselves. Many of our participants were not athletic, but all did well. Fitness levels visibly improved. During our first game, the referee had to end the game early because the kids were exhausted. By the end of the season, they didn't want to stop playing even after an hour. I was very proud of them all.

I would urge all IHS providers to participate in similar community health initiatives. We must get out of the clinic and encourage exercise and physical activity if we are to have a chance of defeating obesity and diabetes. If we can do it here in Tuba City with our marginal fields and resources, I know it can be done anywhere.

I would love to hear from anyone interested in starting a similar program. If there is interest, I can put together a handbook outlining the details on how to set up and structure a league. Contact me, Bill Orman, MD, Department of Pediatrics, Tuba City Regional Health Care Corporation, e-mail william.orman@tcimc.ihs.gov.

Thanks and Acknowledgments

We would not have been able to get this project off the ground without the generous and unflagging support of our hospital's HPDP department. We also received tremendous help from the community, the rest of our hospital staff, AYSO national headquarters and AYSO Flagstaff, and the Tuba City Unified School District.



What's Up With All the Antibiotics for Pharyngitis?

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Introduction

Pharyngitis is one of the most common illnesses for which children and adults seek medical care (and often receive antibiotics) in the Indian Health Service (IHS). Viruses are the most common cause of pharyngitis, and Group A Streptococcus (GAS) is the most common bacterial cause of pharyngitis. With rare exceptions, the use of antibiotics is not beneficial for pharyngitis due to bacteria other than GAS. GAS accounts for about 15% to 30% of pharyngitis in children and only 5% to 10% in adults.^{1,2}

Despite these numbers, approximately 75% of adults receive antibiotics for pharyngitis,³ and frequently the more expensive, broader spectrum antibiotics are prescribed.¹ The overtreatment of pharyngitis with antibiotics represents one of the major causes of antibiotic abuse.⁴ Results of chart reviews on 500 episodes of pharyngitis in children and adults, conducted on four Indian reservations in Montana during 2002 and 2003, showed that antibiotics were prescribed 66% of the time, providers ordered strep testing 74% of the time, and 18% of those tested were positive for strep (See Chart Review Results next page).

Testing

Determination whether GAS is the cause of pharyngitis cannot reliably be made on a clinical basis (history and exam). Physicians tend to overestimate the probability that patients have a GAS infection.² The clinical signs and symptoms of bacterial and viral pharyngitis overlap, making it difficult to make a positive diagnosis of GAS with any degree of certainty. Even the most experienced physicians cannot make the clinical diagnosis of GAS pharyngitis with accuracy; lab-testing confirmation is required.¹

For the strep test to be accurate, care must be taken to obtain a proper specimen. This is done by vigorously swabbing both tonsillar areas and the posterior pharynx while not touching the soft palate, uvula, or tongue.

When GAS is suspected in *children*, diagnosis should be based on the results of a throat culture strep screen (TC) or rapid antigen detection test (RADT). The American Academy of Pediatrics (AAP) recommends a TC as the standard for diagnosis. Therefore, if a child's RADT is negative, a TC needs to be done. If the RADT is positive, a TC need not be done. The AAP also recommends the diagnosis of GAS should be based on the results of lab testing in combination with clinical

and epidemiologic findings, and antibiotics should not be prescribed in the absence of GAS or other bacterial infection.²

In *adults*, the most reliable predictors of GAS pharyngitis are the Centor criteria. Centor criteria include tonsillar exudate, tender anterior cervical adenopathy, history of fever, and lack of cough. Two criteria are from the history (history of fever and lack of cough) and two from the exam (tonsillar exudate and tender anterior cervical adenopathy). When three or four of these criteria are present, the positive predictive value for GAS is 40% to 60%. In comparison, the absence of three or more criteria has a high negative predictive value of 80%.³

The following treatment strategies summarize different options using the Centor criteria and RADT in adults:

1. Do not test or treat patients with one or no criteria.
2. Test with a RADT when two, three, or four criteria are present, and limit antibiotics to positive test results only.
3. Test with a RADT when two or three criteria are present, and limit antibiotics to positive test results, or may use antibiotics (without strep testing) in patients with four criteria.
4. Do not use any diagnostic tests, and limit antibiotics to patients with three or four criteria.³

Treating all adults with antibiotics when three or four Centor criteria are present (without strep testing) results in the use of unnecessary antibiotics at least 50% of the time.⁴ The best treatment strategy in adults is RADT testing when two, three, or four criteria are present and using antibiotics for positive test results only.

Currently, the Infectious Diseases Society of America recommends antibiotics only if there is a positive RADT or TC. For children and adolescents a negative RADT should be confirmed with a TC. In adults, a negative RADT does not need to be confirmed with a TC because of the low incidence of GAS and extremely low risk of rheumatic fever.¹

Evidence for Antibiotics

GAS pharyngitis untreated is usually a self-limited illness, with symptoms lasting two to five days. Goals of treatment of GAS include:

1. Prevention of acute rheumatic fever
2. Prevention of suppurative complications
3. Improvement of clinical symptoms and signs
4. Reduction in transmission of GAS
5. Minimize potential adverse effects of inappropriate antibiotic therapy¹

Acute rheumatic fever (ARF) occurs most often in children four to nine years of age. Pharyngitis usually occurs two to four weeks before ARF symptoms begin. ARF usually presents with a febrile illness, and manifestations may include arthritis, carditis, chorea, subcutaneous nodules, and a rash.⁵ The illness is self-limited, but damage to the heart valves may be chronic and progressive. ARF is very unusual in people over the age of 15 without a prior history of the disorder.⁶

In adults, ARF is rare, and carditis is uncommon. Most cases of carditis are mild or asymptomatic, and the likelihood of permanent cardiac dysfunction appears to be very small. It is estimated that 3,000 to 4,000 adults with GAS must be treated to prevent one case of ARF.³ The likelihood of suppurative complications, whether antibiotics are used or not, is low.³ In adults, antibiotics for GAS decrease the risk for a rare disease (ARF) and decrease the risk for a rare complication (peritonsillar abscess).³ Also there is no evidence that antibiotics for pharyngitis decrease the likelihood of acute glomerulonephritis.³

In patients with a positive test for GAS, antibiotics started within two to three days of symptoms may shorten the duration of the illness by one or two days. However, antibiotics do not provide this benefit with a negative test result.³ Once an infected person with GAS has been treated with antibiotics for 24 hours, they are minimally contagious.⁶ This benefit allows for a more timely return to school, work, or daycare.

Antibiotics do not need to be given immediately to prevent ARF, but instead they can be postponed for up to nine days after the onset of pharyngitis and still be effective in preventing ARF.

Thus far, antimicrobial resistance has not been a significant concern in the treatment of GAS pharyngitis. No clinical isolate for GAS anywhere has been recognized to be resistant to penicillin.¹

Penicillin and erythromycin continue to be the drugs of choice for GAS, according to many professional organizations. The Food and Drug Administration (FDA) has approved cefdinir, cefpodoxime, and azithromycin for five-day treatments. However, these antibiotics are much broader in spectrum than penicillin and are considerably more expensive despite their shorter courses.¹ Azithromycin, cefadroxil, cefixime, and cefdinir are FDA approved as once daily treatment for GAS in children.

Chart Review Results

Pharyngitis is a common illness seen in IHS clinics and emergency rooms. During the past two years, 500 episodes of pharyngitis were evaluated using a chart review on four Indian reservations in Montana. The review focused on strep testing and prescription of antibiotics. Two facilities used TCs exclusively. The other two facilities conducted both TCs and RADTs, but one location predominantly used the RADT.

Of 500 episodes of pharyngitis in children and adults of all ages, strep testing (TC or RADT) was conducted in 368 out of 500 episodes (74%). Strep testing results were positive in 65 out of 368 tests (18%).

Antibiotics were prescribed in 331 out of 500 episodes (66%). In four cases, a patient received two antibiotics. Thirteen different antibiotics were prescribed. See Table 1 for a complete listing of antibiotics prescribed. The ideal practice of prescribing an antibiotic only after a positive strep test result occurred in only 37 out of 331 episodes (11%). An antibiotic was prescribed in 267 out of 331 episodes (81%) when either no strep testing was done or the strep test result was negative. When a RADT was negative, an antibiotic was prescribed 35% of the time (40/114). Antibiotics were unnecessarily prescribed 2.67 times (267%) more than they should have been (66% antibiotic prescription rate versus 18% positive strep results).

Table 1. Antibiotics Prescribed (335 prescriptions)

<u>Antibiotic</u>	<u>Frequency</u>	<u>Percent</u>	<u>Cost/Dose Children vs Adults</u>	
Pen VK	99	30%	\$ 0.15	\$ 0.15
Amoxicillin	77	23%	0.03	0.05
Azithromycin	56	17%	3.50	4.10
LA Bicillin	52	16%	3.90	2.87
Erythromycin	14	4%	0.16	0.05
Cephalexin	13	4%	0.05	0.04
Amoxicillin/clavulanate	11	3%	2.25	3.20
Ceftriaxone	6	2%	14.97	23.15
Cefuroxime axetil	3	1%	1.75	8.04
TMP/SMX	1	<1%	0.01	0.01
Cefaclor	1	<1%	0.46	2.84
Cefazolin	1	<1%	2.06	1.67
Doxycycline	1	<1%	0.08	0.03

- 335 antibiotics prescribed
- Four people received two antibiotics
- Cost per dose according to VA pricing to IHS pharmacies as of March 2004

Discussion

IHS facilities varied greatly in strep testing and treatment for pharyngitis. The four facilities conducted strep testing 100%, 94%, 71%, and 52% of the time and prescribed antibiotics 43%, 51%, 94%, and 72% of the time, respectively. In aggregate, the IHS facilities conducted strep testing 74% of the time (368/500). See Table 2 for the percentages of strep testing performed and antibiotics prescribed. IHS providers significantly overestimated the likelihood that their patients had GAS, frequently prescribed antibiotics without strep testing results or with negative results, and they often prescribed broad spectrum, expensive antibiotics.

It appears many antibiotics were prescribed unnecessarily and inappropriately: unnecessary, because most of the patients diagnosed with pharyngitis most likely had a viral illness; inappropriately, because oral penicillin, intramuscular penicillin, and erythromycin are the drugs of choice for GAS and were prescribed only 39% (129/335) of the time.

The literature recommends RADT's in children and adults with a confirmatory TC for a negative RADT in children. When it comes to the previously mentioned five goals of GAS treatment, RADT's, compared to TC's, have the distinct advantage of more efficiently accomplishing the last three treatment goals; improvement of clinical symptoms and signs, reduction in transmission of GAS, and minimizing potential adverse effects of inappropriate antibiotic therapy. However, RADT's offer no real advantage in accomplishing the first two treatment goals; the prevention of ARF and prevention of suppurative complications.

The diagnosis and treatment of uncomplicated pharyngitis is straightforward and simple. Implementation of treatment guidelines based on scientific evidence helps providers to use strep testing more effectively, use antibiotics more judiciously, and improve the quality and cost effectiveness of care given.

Guidelines are not always easy to implement or readily endorsed by providers. Pharyngitis treatment guidelines were implemented in 2003 at one of the four IHS facilities studied and are being followed only 38% of the time (per chart review three to five months after the guidelines were adopted). When treatment guidelines were not followed (62% of the time); 71% of the failures were because antibiotics were prescribed without strep testing, 24% because antibiotics were prescribed with

a negative strep test, and 5% because an inappropriate antibiotic was prescribed with a positive strep test result.

Chart reviews and developing treatment guidelines for pharyngitis are excellent Quality Improvement (QI) activities. QI activities related to treatment guidelines and use of antibiotics are encouraged by hospital accreditation agencies. An algorithm in Figure 1 summarizes information that can easily form the basis for treatment guidelines and chart reviews.

Summary

According to the literature, pharyngitis is treated with antibiotics in adults about 75% of the time. In an IHS chart review (children and adults) done during 2002 and 2003, providers prescribed antibiotics 66% of the time, often used broad spectrum antibiotics, and prescribed antibiotics when strep testing was not performed or when the strep test result was negative. Conducting more strep testing and only treating patients with a positive strep result would significantly reduce the overtreatment of GAS. The RADT does have some distinct advantages compared to the TC.

The Centers for Disease Control and Prevention (CDC) launched a nationwide campaign in September of 2003, "Get Smart: Know When Antibiotics Work." The goal of this campaign is to decrease inappropriate antimicrobial use and slow the rise in bacterial resistance. More information regarding this campaign can be found at www.cdc.gov/drugresistance/community or www.cdc.gov/getsmart.

The keys to appropriate antibiotic use are as follows:

- Prescribe antibiotics only when treatment is likely to benefit the patient
- Select antibiotics that target the likely pathogens
- Use antibiotics at the appropriate dose and for the correct duration⁷

IHS providers can improve the quality of care given to patients with pharyngitis at their facilities at a reduced cost and utilize antibiotics more judiciously by:

1. Developing and implementing pharyngitis guidelines for children and adults that focus on Centor criteria (adults), strep testing, and restricting treatment with antibiotics to patients with positive strep results
2. Preferentially prescribing penicillin and erythromycin

Table 2. Management of Pharyngitis on Four Indian Reservations

<u>Reservation</u>	<u>Test</u>	<u>Strep Testing</u>	<u>Antibiotics Prescribed</u>
A	RADT & TC	100%	43%
B	TC	71%	94%
C	TC	52%	72%
D	RADT & TC	94%	51%

RADT = Rapid Antigen Detection Test
TC = Throat Culture (strep screen)

(proven drugs of choice) for GAS

3. Monitoring the treatment of pharyngitis with QI activities

Treatment guidelines and/or QI activities can reduce the overtreatment of pharyngitis with unnecessary antibiotics and slow the rise in bacterial resistance. Consider the following questions in QI activities for pharyngitis. How is pharyngitis being treated at your facility? Does your facility have pharyngitis treatment guidelines? Is strep testing being done? Are providers only treating patients with a positive strep test? Which antibiotics are being prescribed?

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Figure 1. Acute Pharyngitis: Group A Streptococcus (GAS) vs. Viral Pharyngitis

Children		Adults	
Do rapid antigen detection test (RADT) for GAS		Apply Centor Criteria	
If Positive	If Negative	History of fever	
GAS	Viral	No cough	
Antibiotics	No Antibiotic	Tonsillar exudate	
Symptomatic tx	Symptomatic tx	Tender anterior cervical adenopathy	
TC not needed	Do TC and treat if positive	Patients with 0 to 1 criteria = no lab testing and no antibiotics	
		Patients with 2 to 4 criteria = do RADT	
		Positive	Negative
		GAS	Viral
		Antibiotics	No Antibiotic
		Symptomatic tx	Symptomatic tx
		TC not needed	TC not needed
Penicillin treatment of choice:			
Pen VK 250 mg B.I.D. or T.I.D. (< 12 years old) X 10 days)			
Pen VK 500 mg B.I.D. (≥ 12 years old) X 10 days)			
LA Bicillin 600,000 units < 27 kg or 1.2 million units if ≥ 27 kg			
Erythromycin if penicillin allergic:			
Children = erythromycin 40 mg/kg/day (÷ B.I.D. or T.I.D.) up to maximum daily dose of 1000 mg X 10 days			
Adults = erythromycin 500 mg (delayed release) B.I.D. X 10 days			
Retreatment of GAS:			
Children = clindamycin 20 to 30 mg/kg/day (÷ T.I.D.) X 10 days or augmentin 40 mg/kg/day (÷ B.I.D. or T.I.D.) X 10 days			
Adults = clindamycin 600 mg/day (÷ B.I.D. or T.I.D.) X 10 days or augmentin 500 mg B.I.D. X 10 days			
Adults = LA Bicillin 1.2 million units plus oral rifampin 20 mg/kg/day (÷ B.I.D.) up to maximum daily dose of 600 mg X 4 days			
Broad spectrum antibiotics, extended spectrum macrolides and fluoroquinolones are inappropriate for GAS			

Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Chief Clinical Consultant's Newsletter (Volume 2, No. 3, March 2004) available on the Internet at <http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm>. We wanted to make our readers aware of this resource, and encourage those who are interested to use it on a regular basis. You may also subscribe to a listserv to receive reminders about this service. If you have any questions, please contact Dr. Neil Murphy, Chief Clinical Consultant in Obstetrics and Gynecology, at nmurphy@anmc.org.

OB/GYN Chief Clinical Consultant's Corner Digest

News flash:

16th Annual Research Conference, Focus on Maternal and Child Health Research in Indian Country, May 11-13, 2004 Scottsdale, Arizona. Sponsored by the Indian Health Service Clinical Support Center.

Abstract of the Month

Recently, based on concerns about an increased risk of stroke, the National Institutes of Health (NIH) announced that it has instructed the 11,000 healthy, postmenopausal women participating in the estrogen-alone arm of the Women's Health Initiative (WHI) to stop taking their study pills and to begin the follow-up phase of the study. This follow-up will include data collection from mammograms and other outcomes.

Researchers found, after nearly seven years of study, that use of estrogen alone (hereafter referred to as estrogen therapy or ET) did not appear to affect heart disease by either increasing or decreasing a woman's risk of the disease. ET did not appear to increase the risk of breast cancer during the period of the study. ET decreased the risk of hip fracture, but it appeared to increase the risk of stroke at approximately the same rate found in the WHI study of estrogen-plus-progestin therapy (hereafter, combined hormone therapy or HT). In that study, reported in July 2002, women taking HT had 8 more strokes per year for every 10,000 women than did women taking a placebo.

According to NIH, it appears that the risks associated with ET are less adverse than those found in the WHI study of HT, which included increased risks of breast cancer, heart disease, blood clots, and stroke. In fact, the WHI Data and Safety Monitoring Board was split as to whether women in the ET study should stop their pills or have the option to continue their pills after being informed of the risks of continued use. Nevertheless, the NIH decided to ask participants in the ET study to stop their study pills because they believed 1) an increased stroke risk is not acceptable in healthy women in a research study, and 2) after 7 years of follow-up, results were unlikely to change in the one year remaining in the ET study. The NIH decision was made against the backdrop of the original purpose of the WHI hormone therapy studies. These studies

were intended to assess the risks or benefits of postmenopausal hormone use for conditions like heart disease, stroke, or breast cancer — not to rate the effectiveness of HT or ET in treating menopausal symptoms.

ACOG has noted previously that to date, ET and HT are the most effective treatments for such menopausal symptoms as hot flashes. ET is generally taken for relief of such menopausal symptoms in women who have had a hysterectomy. HT — which adds progestin to estrogen — is the therapy prescribed for women who have not had a hysterectomy, since estrogen alone can increase the risk of uterine cancer.

The NIH also notes that in two months, WHI researchers will publish not only the results of the ET study, but also results of the WHI-Memory Study (WHIMS), an ancillary study of women over 65 years of age in the WHI hormone trials. The NIH says WHIMS data suggest that among women on ET, there was an increased risk of probable dementia and/or mild cognitive impairment.

ACOG, through its Hormone Therapy Task Force, will be analyzing the ET and WHIMS study data of the WHI when they become available. For now, the Chair of ACOG's task force, Dr. Isaac Schiff, notes, "This should be reassuring for women who have had a hysterectomy and are taking estrogen only that there was no increased risk for breast cancer or heart disease for this period of time." "It would not be appropriate for women who have a uterus and are taking HT to stop taking the progestin component."

In an advisory to physicians today, the NIH said, "Until such time as the final data are available, and the FDA and the physician groups have had an opportunity to consider revisions to practice guidelines, the NIH advises physicians to follow the current FDA guidance."

ACOG concurs with this approach, particularly since the FDA's current advice is similar to the recommendations ACOG issued on HT use following the WHI announcement of July 2002. Among those ACOG recommendations:

- HT is effective and FDA-approved for the relief of menopausal symptoms such as hot flashes.
- Although HT is effective for prevention of postmenopausal

GPRA Indicators: Do We Pick Them Out of the Air?

Theresa Cullen MD, MS, GPRA Field Lead, Tucson, Arizona; Timothy Taylor, PhD, GPRA National Lead, Rockville, Maryland; and Stephen Mader, Chief Medical Officer, Sacramento, California

The GPRA (Government Performance and Results Act) requires that IHS demonstrate that federal funds are being used effectively towards meeting our mission. GPRA is a federal law that requires a data-supported audit trail from dollars appropriated for activities ultimately to customer benefits or outcomes that are consistent with our mission. In essence, GPRA requires the Indian Health Service to evaluate federal appropriations from the perspectives of return on investment (ROI) and value on investment (VOI). In addition, GPRA requires the Agency to develop an Annual Performance Plan; our Annual Performance Report is based upon this plan.

Annual Performance Plan

The annual performance plan for the Indian Health Service is an integral part of our national budget process. This plan is developed to reflect the current Indian Health Service strategic plan goals, as well as areas of clinical importance. The annual performance plan includes at least the following three parts:

1. performance goals and/or indicators for the fiscal year
2. description of resources needed to meet the goals
3. how the data to be reported are verified and validated

The performance goals are known to you as the GPRA Indicators. The clinical goals/indicators are designed to reflect important clinical areas. For instance, cancer screening is included in the current GPRA indicators (pap screening and mammography screening rates).

Annual Performance Report

The annual performance report includes at least the following three parts:

1. what was actually accomplished for the specific goals
2. if goals were not met, why not
3. plan for achieving unmet goals or reasons why goal has become impractical or not feasible

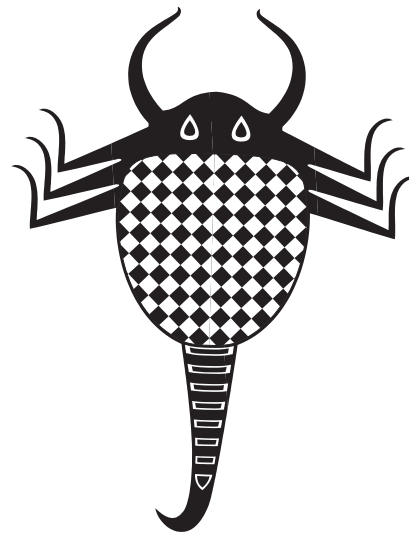
The annual performance plan is submitted in conjunction with the budget submission. It is due at the end of the fiscal year, and includes clinical performance data obtained from your local facilities. This data is aggregated at the national IHS

level, and is then submitted to the Department of Health and Human Services for inclusion with the proposed budget.

What is included in the Budget Submission?

The budget submission includes the performance report for the past year, the proposed indicators for the current year as well as the next year, and the budget submission for two years from now. The recent budget submission included the following:

1. GPRA performance report for FY 03
 - a. Includes why we met or did not meet a goal
2. Current GPRA indicators and goals for FY 04
3. Proposed GPRA indicators and goals for FY 05
4. Narrative description of the indicators
5. Estimated budget requirements to meet the indicator goals



Indicator Development

As you can tell, indicators are important to the Indian Health Service, as well as your local facilities. The National GPRA team believes that clinical indicators should reflect quality of care within our health care facilities. In addition, the goals should help reduce health care disparities, and move us towards Healthy People 2010 National goals.

Indicator development begins two years prior to the projected fiscal year during which they will apply. The need to develop additional GPRA indicators as well as refine current indicators is ongoing. Indian Health Service has developed an indicator development process (similar to that used by the

World Health Organization for their indicator development process). This indicator evaluative process is applied to any proposed GPRA indicator. Anyone can propose an indicator for review. Many of our current indicators have resulted from local facilities encouraging the National GPRA office to focus on a specific clinical topic.

Recently, the Office of Management and Budget (OMB) has requested the data for all indicators; these data are reviewed by OMB through a contract with Ernst and Young. This additional 'data audit' has resulted in an increased emphasis on data access and accountability. Because of this, the vast majority of the current clinical indicators are based upon data available within the Resource and Patient Management System (RPMS); using an electronic data source significantly decreases any potential problems with any audit.

This process and evaluation of any proposed or changed indicator is a multi-step endeavor. It includes the following:

1. Detailed description of the proposed indicator, including what clinical issue is addressed by this indicator.
2. Any information on the impact of this indicator on health status; the proposal should include detailed data (either evidence based and/or health outcome based) that support the new indicator.
3. Assessment of the cost effectiveness of measuring the indicator.
4. Specific definition of the target population and the significance of the indicator on this population.
5. Specific definitions of the underlying concepts.
 - a. Including denominator and terminology and standard codes to be queried.
 - b. 'computable' data sources.
6. Assessment of the data resources for the availability, reliability, and reproducibility of the data.
7. The ability to electronically document patient exceptions and/or patient refusals in the health information system.
8. Specific national goal (for instance, Healthy People 2010) exists, or Indian Health Service is able to develop an appropriate long term goal.
9. Scale of applying the indicator; is this indicator for local, regional, national use?
10. Interpretation: what will result mean; what will changes mean?
11. Assess resource requirements for collecting the information and availability of the information; is there a transparent way to collect the information?
 - a. Can the indicator be included in GPRA+, so that the data are easier to obtain?
12. Identify those responsible for collecting and reporting: IHS nationally, Area office, local sites.

Once a new indicator is developed, the proposed indicators are presented to DHHS for comment and review at least nine months prior to the start of the fiscal year. Completion of the review process by DHHS occurs at least six months before the

start of the fiscal year. However, Indian Health Service maintains the ability to modify indicators during the first quarter of the current fiscal year.

Conclusions

It may seem like GPRA indicators are picked out of the air on snowy, windy nights when there is little visibility. The GPRA National team hopes that this article has helped 'illuminate' some of the GPRA shadows that are still lurking in the background. The current GPRA indicators are all linked to either a HP 2010 goal, or an IHS 2010 goal. Achieving our annual GPRA goals will help move us closer to the elimination of health care disparities for American Indian/Alaska Native patients.

For further information, please visit our web site at <http://www.ihs.gov/nonmedicalprograms/planningevaluation/p-e-gpra.asp> or contact Theresa Cullen MD, MS at Theresa.cullen@ihs.gov; Timothy Taylor, PhD at Timothy.taylor@ihs.gov; or Stephen Mader at Stephen,mader@ihs.gov.



The ID Web Project: Improving Care and Surveillance Using the Internet

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Introduction

Institutional support for providers is necessary for the delivery of high quality primary care. In particular, information, technology, and organizational systems that work efficiently are necessary to support quality health care delivery. New health care technologies, medications, treatments, and procedures are being developed rapidly, and physicians are expected to incorporate them into their clinical practices. Meeting these expectations can be challenging.

The potential for strengthening quality of care through feedback of information to providers is just beginning to be explored. Published reports indicate that improved quality of care results from giving providers feedback linked to attainable benchmarks.^{1,2}

In this article, we describe a web-based quality of care improvement tool designed to address testing for and treatment of sexually transmitted diseases (STDs).

Background

In 2002, the syphilis rate among American Indians/Alaska Natives was twice as high as the syphilis rate among the non-Hispanic White population; the chlamydia rate was 5.7 times higher, the gonorrhea rate was 4 times higher, and the AIDS rate was 1.4 times higher.³ Addressing these health problems requires coordinated action by clinicians and public health agencies. In the clinical setting, the institutional support needed to assist health care providers to address STDs includes information, training, and identification of organizational structures that facilitate improved quality of care. Specifically,

information about the high STD prevalence in the patient population, training on STD testing and treatment guidelines, and identification and resolution of system issues related to STD testing and treatment are needed. The ID Web project came about as an innovative tool to support these actions.⁴

ID Web provides information on caseload and quality of care indicators related to Human Immunodeficiency Virus (HIV), syphilis, gonorrhea, chlamydia, and hepatitis B. It also provides links to training on national guidelines, for which CME credit can be earned. The project is operating at five pilot sites, which have access to this information through a secure website.

Albuquerque Indian Hospital (Albuquerque, New Mexico), Ignacio Indian Health Center (Ignacio, Colorado), Phoenix Indian Medical Center (Phoenix, Arizona), Rapid City Indian Health Service Hospital (Rapid City, South Dakota), and W.W. Hastings Indian Hospital (Tahlequah, Oklahoma) are participating in this project.

Description of ID Web

The ID Web Internet website provides secure access only to registered IHS health care providers and administrators, and protects data with “banking-level” security. The website provides an interactive query tool to explore information on thirteen clinical care indicators, including women seen for prenatal care who have been tested for syphilis, HIV, chlamydia, and hepatitis B; patients with chlamydia receiving CDC recommended treatment and Azithromycin for their sex partner; patients with chlamydia, syphilis or gonorrhea who were tested for HIV and hepatitis B; patients with HIV or AIDS receiving highly active antiretroviral therapy; and patients with a new STD/HIV who had documented risk-reduction counseling. Analyses can be run on a monthly, quarterly, or yearly basis using this query tool. Data views afford comparison of indicators among individual providers and among facilities. Providers who use the website are able to see only their user-specific information; identifying information for their peers is masked during comparisons. Numbers of cases with the infections diagnosed in each facility are provided in the “surveillance tables” view, by age and gender.

In addition, the website provides training to health care providers through accessible 15-minute Continuing Medical Education (CME) modules worth 0.25 credit each. These CME modules also provide links to other resources for disease-related guidelines and information. The website is developed and maintained by Cereplex, Inc., through a contract with IHS.

Laboratory and clinical data on the diseases of interest from patient, laboratory, diagnosis, and medical files already

present in the Resource Patient Management System (RPMS) are extracted and exported.⁵ All privacy and confidentiality standards are met for the export process by excluding patient identifiers such as name, chart number, date of birth, and social security number. The data are analyzed to measure the thirteen indicators of clinical care, based on national guidelines.⁶ This information is then posted monthly on the ID Web website.

ID Web is evolving over time. Links for patient educational materials that providers can download will be added. An additional new feature being developed will trigger a listing of patients needing follow-up action. This list will be transmitted to the Infection Control practitioner through encrypted e-mail (not posted on the website).

A "local champion" in each facility prints the indicator results and then distributes and discusses them at staff meetings. A discussion can identify system issues that may need to be addressed, as well as solutions. For example, at one of the pilot facilities, the percentage of STD patients tested for HIV was not as high as was desired. When the problem was identified at a staff meeting to review ID Web data, a solution was proposed and is now being tested. When STD patients go to the pharmacy to pick up their medications for STD treatment, the pharmacist gives them HIV counseling and encourages them to go to the lab for testing.

Accuracy of ID Web Data

To investigate the accuracy of ID Web data, we followed a 3-phase process as follows:

- Step 1. Check programming used to measure indicators;
- Step 2. Check data extraction (chart review);
- Step 3. Clinician review of results.

In the first phase, we made independent queries to identify any errors in programming that might lead to errors in indicator measurement. All the indicators for which query results did not match ID Web data were explored further until the differences were resolved. In the second phase of data validation, the patient charts were manually reviewed to identify any data capture issues. The purpose of this phase was to evaluate whether any discrepancies between the medical records and the electronic records could explain any unexpected indicator values returned by ID Web. In the third phase, health care providers reviewed the ID Web indicator results and discussed any results that did not match what they would expect.

To date, we have completed data validation at four sites. This process did not uncover any major indicator measurement problems. Some minor issues involving age calculation were resolved immediately.

Future Directions

We are planning to formally evaluate the use and effectiveness of ID Web this year. In the future, we hope to expand this project to other IHS sites.

Conclusion

This pilot project demonstrates a potentially powerful tool to assist providers in delivering high quality care for HIV, STDs, and hepatitis B, that could be expanded to include other diseases. Larger scale implementation of this project will be dependent on its perceived value and whether it can be integrated with existing systems. Support of data entry and consistency of location of entry within RPMS are also important. ID Web data can only be as accurate and consistent as the data entered into RPMS.

For further information about participating in ID Web, please contact the ID Web Coordinator, Emily LeVeen, by telephone at (505) 248-4226 or by e-mail at Emily.LeVeen@ihs.gov. A demo of the system is available at www.webepi.com/index.jsp.

Acknowledgements

The authors would like to thank our colleagues in the five pilot sites for their help with this project, including Bill Gloyd (Albuquerque), Joan MacEachen (Ignacio), Erica Avery (Phoenix), Mike Crutcher (Rapid City), and Rod Copely (Tahlequah).

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Editor's Note: The following is a description of a new best practices resource available to all providers and staff involved in health care for American Indians/Alaska Natives. If you have any questions, please contact Dr. Neil Murphy, Chief Clinical Consultant in Obstetrics and Gynecology, at nmurphy@anmc.org.

Primary Care Discussion Forum for the Indian Health System

The Primary Care Discussion Forum is an e-mail based forum for the discussion of clinical best practices. This moderated discussion forum process involves an initial primer presented by a nationally recognized expert, followed by the discussion of a series of questions that are pertinent to local health care providers. The discussion facilitator moderates an open discussion among members of the Indian health primary care listserv. There are also spontaneous discussions that arise and are listed below.

Moderated Discussions to date

- New guidelines and technologies for Pap test screening, by Alan Waxman, MD. Dr Waxman is the former OB/GYN Chief Clinical Consultant who is now on the faculty of the University of New Mexico. Dr. Waxman was a key contributor to the recent ACOG Practice Bulletin on this topic.
- Evidence Based Periodic Exam in the Elderly Native American by Bruce Finke, MD. Dr. Finke is the Director of the Indian Health Elder Care Initiative.

Each Moderated Discussion includes:

- A short primer or review of the topic
- A series of relevant questions to be addressed from each facility
- All the E-mail discussion is captured and posted on the MCH web page
- A summary of the topic and discussion by the facilitator

Upcoming Discussions

Topic: Adolescent risk taking behaviors (a.k.a. "Sex, drugs, and rock and roll")

Discussion facilitator: Donna Perry, Adolescent Medicine, Chinle

Date: May 1, 2004

This will include discussion of methamphetamine (up to 15% AI youth in some IHS Areas have tried it), alcohol, and marijuana, driving while "high" or riding with someone who is, and not wearing seatbelts.

Other proposed topics

A new topic is planned each quarter, and the following are under consideration:

- Judicious antibiotic use in the ambulatory care setting
- Other Adolescent issues
- SA/Alcohol/Tobacco
- Use of narcotics/ pain control/ addiction medicine issues
- End of life issues/ hospice care/ palliative medicine
- Violence/ Domestic violence
- Immunizations

- Cancer screening/prevention
- Diabetes/HTN/CAD/management and prevention
- *IHS Primary Care Provider* Topic of the month
- GPRA indicated topics
- Prevention topics with clinical case reviews
- Morbidity and Mortality discussions
- Primary care trauma
- HRT after the WHI
- Elder care

What to expect from the Primary Care Discussion Forum?

You can expect 20 - 30 e-mail messages per topic. Each discussion will last approximately 4 - 6 weeks, and the facilitated discussions occur four times a year. If that is too much e-mail for you, then don't subscribe, or just subscribe for those topics of special interest to your practice. You can unsubscribe after the topic is closed out, or at any time. If you just want to review the primer, e-mail discussions, or summaries, they are posted at <http://www.ihs.gov/MedicalPrograms/MCH/M/PCdiscForum.asp>.

How to join the Primary Care Discussion Forum

If you want to join the Primary Care Discussion Forum listserv go to <http://www.ihs.gov/MedicalPrograms/MCH/M/PCdiscForum.asp> and click on the word "Subscribe." Another way to join the Primary Care Discussion Forum listserv is to contact Jason Crim at jason.crim@ihs.gov and ask Jason to subscribe you; he can also unsubscribe you. Please avoid 'spamming' the Primary Care Discussion Forum listserv. It's just for discussion, not announcements, etc.

Digest mode available

There is a digest mode available. That allows you to get all the listserv e-mail in one day compiled into one message. You cannot get attachments from the listserv in the digest mode, and the format can be difficult to read until you get used to the digest.

Other Discussions to date

- Chronic pain management strategies
- Emergency contraception
- Exclusive breast feeding versus Vitamin D Supplementation
- Patients carrying their own charts

We want to hear your thoughts.

It's an e-mail based discussion forum; therefore, you need to tell us what your thoughts are, or if you want other topics to be covered. Please let Neil Murphy, MD know.

- osteoporosis, consider non-estrogen medications first if osteoporosis prevention is the sole reason for using HT.
- HT should not be used for the prevention of heart disease.
 - Although the WHI study of HT used a specific prescription product [Prempro™, estrogen plus progestin], absent further data it should not be assumed that the risks would be different for any other hormone therapies or products.
 - Before using HT for symptoms such as hot flashes, a woman should discuss the risks and benefits of such use for her particular circumstances with her physician.
 - When using HT, women should do so at the lowest effective dose and for the shortest possible duration for her circumstances.

The current FDA guidance goes even farther by applying such recommendations to both HT and ET use. Until ACOG has the opportunity to review the forthcoming published articles on ET, it is reasonable for physicians to follow FDA recommendations regarding ET use.

For NIH's announcements on the WHI's estrogen-alone study, see the website of the National Heart, Lung, and Blood Institute (NHLBI) at <http://www.nhlbi.nih.gov/new/press/04-03-02.htm> or the NIH website at <http://www.nih.gov/news/pr/mar2004/nhlbi-02.htm>. To review ACOG's earlier recommendations to women on the WHI's combined HT study, announced in 2002, see "Questions and Answers About Hormone Therapy" at http://www.acog.org/from_home/publications/press_releases/nr08-30-02.cfm

OB/GYN CCC Editorial comment

This is one further development that reinforces that hormone replacement therapy should be limited to treating symptomatic postmenopausal women for the shortest duration possible at the lowest dose possible. In addition, estrogen is no longer the first line agent for osteoporosis prevention if that is the sole reason for using HT.

From Tony Ogburn, Albuquerque

Just wanted to remind everyone that the annual IHS/ACOG Postgraduate Course on Obsteric, Neonatal, and Gynecology Care will be held June 13 - 17 this year instead of during September. Same great course geared to IHS, tribal, and urban providers and nurses with lots of CME at a very reasonable cost. An addition this year is an NRP course to be held on Sunday morning. For more information or to register, contact Teddra Penland at (301) 443-1840, or go to <http://www.ihs.gov/MedicalPrograms/MCH/M/CN01.cfm#Jun e2004>.

OB/GYN CCC Editorial comment:

This is both a very good primer in health care for women and an update on the latest care. The dates were changed to June to avoid any travel restrictions late in the fiscal year, yet

registration is down so far because this is its first year in the new time slot. Each I/T/U facility that cares for women should send one new staff member for a primer and one experienced staff member for an update to take advantage of this excellent resource.

Obstetrics

New guidelines for management of hypertension in pregnancy are available.

- Hypertensive disorders are the most common medical complications of pregnancy with an incidence of 12-22% in pregnancy.
- The best screening test is a BP measured in the sitting position after a 10-minute rest. The BP needs to be repeated in 6 hours for the diagnosis. The patient should not use tobacco or caffeine for 30 minutes preceding the measurement. Details below.
- There is no good predictive test for preeclampsia, e.g., urine or blood tests.
- Urine dipstick testing has NO role in universal screening for preeclampsia in routine prenatal care, e.g., if BP < 140/90 and asymptomatic.
- Low dose aspirin therapy is indicated if the patient has had prior severe preeclampsia, chronic hypertension, pre-existing diabetes, or significant renal disease. (Level I recommendation).
- It has been demonstrated that over 500 mild preeclamptic women have to be treated to prevent one seizure. One in 30 severe preeclamptic women may seize if untreated.
- There is, to date, no scientific evidence that antihypertensive therapy will improve perinatal outcome in chronic hypertension.
- We do not use the terms "pregnancy induced hypertension" or "PIH" anymore. Hypertension without proteinuria is now called "gestational hypertension."
- For more information, go to <http://www.ihs.gov/NonMedicalPrograms/NC4/Documents/HYPERT12004.doc>.

Exclusive Breastfeeding or supplement with Vitamin D?

Recent data show Vitamin D levels are significantly decreased in one Indian Health Service Area. The AAP Section on Breastfeeding recommended Vitamin D supplementation even in our sun-drenched Southwest. Here is a discussion with various Indian health care providers as they try to sort out the feasibility of Vitamin D supplementation in AI/AN: <http://www.ihs.gov/MedicalPrograms/MCH/M/PCdiscForum.asp#other>

One click: UpToDate Online now on the IHS Home page

In response to a request from the Chief Clinical Consultants, Theresa Cullen, MD, was able to get UpToDate Online linked from the IHS home page so that you can get to this resource with one click. As the IHS home page is valuable "real estate," so to speak, it is actually quite a statement of

commitment to get this item linked from the home page, <http://www.ihs.gov/index.asp>. UpToDate can now be found in the *IHS Resources* box, second box from the top on the left margin. Please share this information with your colleagues.

From your colleagues

From Melissa Boll: Is a cesarean delivery indicated after a prior 4th degree laceration?

From Terry Cullen: Screening for Family and Intimate Partner Violence

From David Gahn: Medical trip to rural Brazil. Interested?

From Bill Green: AAP Indian health: Special Interest Group Discussion Forum Site

From Sheila Kimble-Haas: Can we use Lispro in pregnancy?

From Sandra Haldane: Labor and Delivery Management Course

From Augustine Provencio: Are there alternatives to insulin use in pregnancy? Can you use glyburide in pregnancy?

From Judy Thierry: Interested in other resources to analyze infant mortality data?

Hot Topics:

Obstetrics

Predominately Fetal Growth-Based Strategy to Guide Management of GDM; How thorough is your VBAC or TOLAC consent? Maternal smoking in pregnancy, fetal development, and childhood asthma; Effects of Automobile Crashes Occurring During Pregnancy: Protects fetus; Randomised controlled trial of labouring in water; Practical Selection of Antiemetics; Calcium supplementation appears to be beneficial for women at high risk of gestational hypertension and in communities with low dietary calcium intake; Impact of iron deficiency anemia on prevalence of gestational diabetes mellitus; Can Biophysical Profiles in Labor Predict C-Section?

Gynecology

Abbreviated Surveillance Safe After Treatment of High-Grade Cervical Dysplasia; Medical treatment of miscarriage in a general hospital is safe and effective up to 12 weeks; Estrogen withdrawal has been described as a trigger for migraine headache; Raloxifene inhibits leiomyoma growth in premenopausal women; Reproductive endocrine disorders common among women treated for epilepsy; Therapeutic Options for External Genital Warts; Effect of Oral Contraceptives on Functional Ovarian Cysts

Child Health

Full term infant with laboratory evidence of congenitally acquired West Nile Virus infection

Chronic Illness and Disease

Trial stopped: HABITS (hormonal replacement therapy after breast cancer—is it safe?); Screening for Coronary Heart Disease: Level D, e.g., Recommends against; Virtual colonoscopy is an accurate method for the detection of colorectal neoplasia; Antibiotic use in relation to the risk of breast cancer; Finnish study supports anti-diabetes effect for coffee; Initial Evaluation of Hypertension

Other

Nail Abnormalities: Clues to Systemic Disease; Alcohol Withdrawal Syndrome; Screening for Dementia: Recommendation and Rationale

Features

AFP: Does it make sense to test for human papillomavirus (HPV) if cervical cytology shows low-grade squamous intraepithelial lesion (LSIL)? One-Day Drug Regimen Eliminates *H. pylori*; British Medical Journal: Clinical Evidence Concise, Evidence Based Medicine Excerpt HIV: Mother-to-Child Transmission

ACOG: Chronic Pelvic Pain; Cervical cancer prevention in low resource settings

AHRQ: Cervical cancer rates among younger women decreased over the past 25 years; Screening for Obesity in Adults: Level B recommendation

Breastfeeding: Breast-Feeding During Infancy May Lower Blood Pressures in Childhood; Learn how to determine whether a drug is safe for lactating mothers

Domestic Violence: Improving Screening of Women for Violence

Elder Care News: Statin therapy significantly reduces the risk of stroke

Frequently asked questions: Sterilization in non-Native women with Native partners

Hormone Replacement Update: Benefits of HRT depend on menopausal symptoms and perceived quality of life; Transdermal Estrogen and Venous Thromboembolism; Breast Cancer Risk Related to Type of Hormone Therapy

International Health: Violence and Human Rights: Women in the Developing World

MCH Alert: Prevent Bullying and youth violence

Medscape: New Guidelines for Polycystic Ovary Syndrome

Office of Women's Health, CDC: Racial disparity in pregnancy-related mortality persists: Pregnancy-Related Mortality

Osteoporosis: Good association with ultrasound attenuation of the calcaneus and hip fracture; Use of Ultra-Low-Dose Estrogen to Prevent Bone Loss

Patient Education: Genital Herpes Patient Education Center; List of recommended patient resources on birth control with FAQs; Alcohol Abuse: How to Recognize Problem Drinking; Alcohol Withdrawal Syndrome; Substance Abuse

What's new on the ITU MCH web pages:

Who is Yolanda Adams? Who is Margaret Baldwin? and what they can do for you? About Denise Exendine: Indian Health Urban MCH programs; Cardiovascular Disease Prevention in Women; Disparities in Premature Deaths from Heart Disease

Editor's Note: The following is excerpted from the monthly Notes from the Elder Care Initiative that is published as an e-mail newsletter. Information about how to subscribe can be found below. We would appreciate your feedback about whether or not you find a periodic digest of this publication printed in The Provider useful.

Notes From The Elder Care Initiative

Bruce Finke, MD, Coordinator, IHS Elder Care Initiative, Northampton, Massachusetts

From the Literature

Effects of cholesterol-lowering with simvastatin on stroke and other major vascular events in 20,536 people with cerebrovascular disease or other high-risk conditions. Heart Protection Study Group. *Lancet*. 2004 March 6;363,9411:757-767.

Meta-analyses of the large secondary prevention trials with statins have suggested a reduction in risk of stroke associated with statin therapy in those with CAD or CAD equivalents. This is the first randomized controlled trial with sufficient numbers to evaluate the effect of statin therapy on stroke risk directly. In this study, 3,280 adults with cerebrovascular disease and 17,256 adults with CHD, DM, or other known vascular disease were assigned to either 40mg simvastatin or placebo. Overall there was a 25% reduction in ischemic stroke in those treated with simvastatin over the five year period. This was true of those subgroups with and without known CHD, with and without DM, over 70 and under 70, regardless of blood pressure or lipid level on entry. Among the smaller group of patients (3,280) with a history of cerebrovascular disease, there was not a significant decrease in recurrent stroke risk, but there was a 20% reduction in the risk of any major vascular event, and the study is not powerful enough to show a reduction in stroke rate in this smaller subgroup. There was no impact on the rate of hemorrhagic stroke.

This study confirms that treating those with CHD or CHD equivalents (DM, PVD) with statins significantly reduces the risk of stroke (and resultant disability) regardless of age. It also suggests that those with a history of cerebrovascular disease benefit from aggressive lipid lowering, and that a history of stroke or TIA might be considered a CHD equivalent.

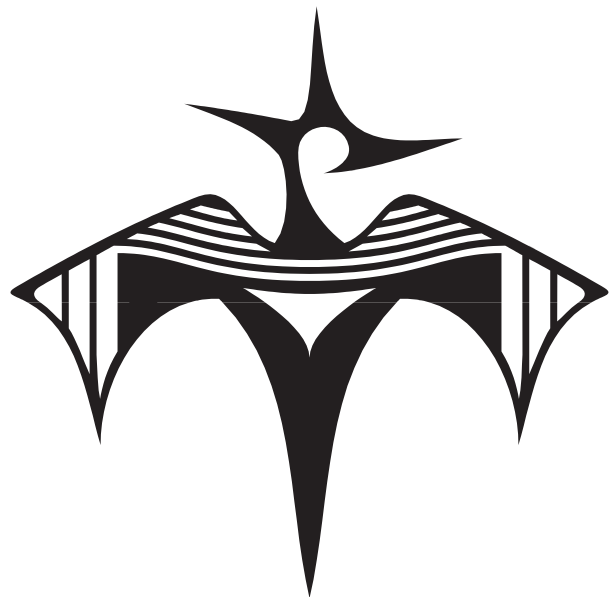
Increased risk of Achilles tendon rupture with quinolone antibacterial use, especially in elderly patients taking oral corticosteroids. van der Linden, PD, et al. *Arch Intern Med* 2003 May 12;163(9):1089-94.

Quinolone antibiotics have been associated with Achilles tendonitis and tendon rupture. This is consistent with known effects of quinolones on connective tissue. This population-

based, case-control study in the UK looked at the association between quinolone antibiotic use and Achilles tendon rupture in 1637 cases and 50,000 controls.

Persons with Achilles tendon rupture were 4.3 times as likely as controls to have had recent exposure to a quinolone (OR 4.3, 95% CI 2.4-7.8). The older the person, the higher the odds ratio (in those 80 and older the OR was 28.4 (95% CI 7.0-115). The odds ratio was even higher when oral steroids were given with the quinolone. Quinolone use in the elderly conveys a modest but significant risk of Achilles tendon rupture. Avoid concurrent use of quinolones and corticosteroids in the elderly when possible.

To subscribe to this monthly email newsletter, subscribe to the Eldercare list serve. Instructions are available at: <http://www.ihs.gov/cio/listserver/index.cfm>.



“It doesn’t matter if the cat is black or white, as long as it catches mice.”

Deng Hsaio P’ing 1904-1997

This is a page for sharing “what works” as seen in the published literature, as well as what is being done at sites that care for American Indian/Alaskan Native children. If you have any suggestions, comments, or questions, please contact Steve Holve, MD, Chief Clinical Consultant in Pediatrics at sholve@tcimic.ihs.gov

IHS Child Health Notes

Articles of Interest

Reduction in pediatric hospitalizations for varicella-related invasive group A streptococcal infections in the varicella vaccine era. *J Pediatr.* 2004 Jan;144(1):68-74. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14722521

- 30% of pediatric invasive group A strep infections were related to chickenpox prior to the introduction of the varicella vaccine in 1995.
- In the current era of widespread varicella vaccine use, only 2% of pediatric invasive group A strep infections were secondary to chickenpox.
- Oddly, despite the decrease in cases related to varicella, the overall rate of hospitalization for invasive group A strep did not change from 1995 to 2001.

Outbreak of varicella at a day care center despite vaccination. *NEJM.* 2002 Dec 12;347(24):1909-15.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12477940

- Effectiveness was only 44% against any sign/symptoms of chickenpox.
- It was, however, nearly 90% effective for preventing severe disease.
- Here was an increased risk of illness if it was > 3 years from the time of varicella vaccination.

Younger age at vaccination may increase risk of varicella vaccine failure. *J Infect Dis.* 2002 Jul1;186(1) 102-5.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12089668

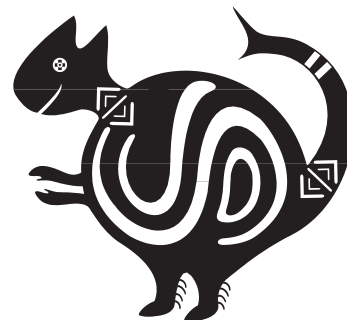
- Vaccine effectiveness was better in this study: 80% against any disease and 95% for severe varicella.
- Varicella vaccination at <14 months of age was associated with a 3-fold greater risk of breakthrough disease.

Author’s Comment

Geezer pediatricians remember when every child got chickenpox. Despite what even older geezer pediatricians told

us back then, varicella was not always a benign disease. The first study documents one of the benefits of vaccination: a reduction in the risk of invasive group A strep infections. The second and third studies point out one of the drawbacks of the varicella vaccine. It is effective at preventing severe varicella disease, but it does not absolutely prevent chickenpox. The third study also suggests a way to maximize the benefits of varicella vaccine: give it at >14 months of age.

In Navajo Area IHS, we recently changed our vaccination schedule so that the varicella vaccine is given routinely at 15 months to take advantage of the increased immunogenicity that comes with increased age. This same approach was taken years ago with the MMR vaccine when the time of administration was increased from 9 months to 12 months to take advantage of increased immunogenicity. One caveat: the MMR and the varicella vaccines, as live vaccines, must be given at least one month apart. For further information, see the AAP policy statement from 2000 on varicella at: [http://aappolicy.aappublications.org/cgi/content/full/pediatrics;105/1/136?maxtoshow=.](http://aappolicy.aappublications.org/cgi/content/full/pediatrics;105/1/136?maxtoshow=)



Recent literature on American Indian/Alaskan Native Health

Vaccination coverage of American Indian/Alaska native children aged 19 to 35 months: findings from the National Immunization Survey, 1998-2000. *Am J Public Health.* 2003 Dec;93(12):2046-9.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14652331

- Despite having several risk factors for underimmunization, such as low socioeconomic status and large family size, AI/AN had immunization rates that were equivalent to that of the U.S. population as a whole. In the ten states with the largest AI/AN population, the immunization rates for AI/AN were actually higher than the non-AI/AN population. The authors speculate that the comprehensive health care system provided by the IHS may account for this excellent showing despite risk for factors for underimmunization.

Diabetes among young American Indians — Montana and Wyoming, 2000-2002. *Morb Mortal Wkly Rep.* 2003 Nov 21;52(46):1127-9. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14627952

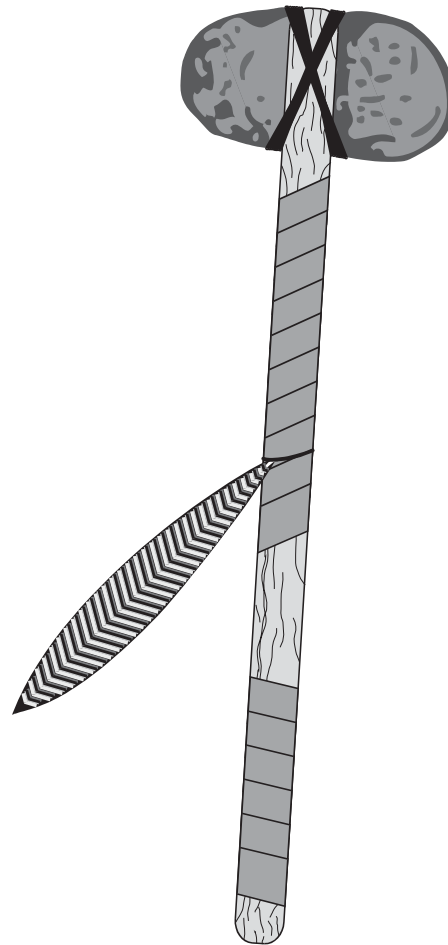
- As anyone who has used the RPMS system to retrieve data knows, there are lots of coding errors. To minimize overcounting patients with diabetes, this report suggests a patient needs to have at least two visits coded under diabetes mellitus to insure the diagnosis is reliable.

Childhood cancer among Alaska Natives. *Pediatrics.* 2003 Nov;112(5):e396. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=14595083

- Childhood cancer rates for Alaskan Natives were similar to US whites except for hepatocellular cancer, which was 45 times higher in the Eskimo. All cases of hepatocellular carcinoma were HbsAg positive. Alaska began a statewide hepatitis B vaccine program in 1982. There have been no cases of hepatitis B in children born in the past 20 years. Another example of the power of vaccinations.

Meetings of Interest for Child Health

The Biennial IHS, Tribal, and Urban (I/T/U) Meeting on Women's Health and Maternity Care will be held August 4 - 6, 2004 in Albuquerque, NM. Subjects to be addressed include adolescent health issues in Indian health, school-based health, sexually transmitted diseases, contraception, and more. For more information, go to the website at <http://www.ihs.gov/MedicalPrograms/MCH/M/CN01.cfm#August2004> or contact Neil Murphy, MD at nmurphy@anmc.org.



Association of American Indian Physicians Releases the “Phillip Smith Story” Video

AIDS is one of the greatest public health threats of this century. As we enter the third decade of HIV infection, there is still no vaccine or cure. The first and most powerful tool we have to stop the spread of HIV is education. HIV is a preventable disease.

The Association of American Indian Physicians provides basic information about HIV/AIDS to American Indian and Alaskan Native Youth. Creating an opportunity for AI/AN youth to learn about HIV and sharing that knowledge may be the most effective method we have to stop the spread of HIV.

It is estimated that about half of all new HIV infections occur among young people under age 25. In 1999, 1,813 young people ages 13 - 24 were reported with AIDS. Centers for Disease Control and Prevention analysis of HIV cases diagnosed in 25 states reporting HIV infections from 1994 to 1997 found no relative decline in newly diagnosed HIV infections among youth.

The Association of American Indian Physicians has come to the forefront in this fight to stop the spread of AIDS by producing a video of a young man’s journey living with AIDS. Phillip Smith has become part of the AAIP family through his efforts as a Peer Educator for youth, offering education and awareness. In this video, we chronicle the life of this young Choctaw man living with AIDS, in an effort to educate American Indian and Alaskan Native youth about the consequences of high risk behavior. By following Phillip in his day-to-day life, we follow not only his family and personal life, but also the true journey of what it is like to live with AIDS.

This video premiered at the Association of American Indian Physicians’ Annual Conference in Santa Fe, New Mexico, in August 2003 and at the 28th Annual American Indian Film Festival held November 6 - 13, 2003 in San Francisco. The “Phillip Smith Story,” along with a study guide, will be available for distribution soon. For more information, please contact the Association of American Indian Physicians at (405) 946-7072 or visit aaip@aaip.com.

The Association of American Indian Physicians HIV/AIDS Program is funded by a grant through the Office of Minority Health.



The 9th Annual Elders Issue

The May 2004 issue of THE IHS PROVIDER, to be published on the occasion of National Older Americans Month, will be the ninth annual issue dedicated to our elders. Indian Health Service, tribal, and Urban Program professionals are encouraged to submit articles for this issue on elders and their health and health care. We are also interested in articles written by Indian elders themselves giving their perspective on health and health care issues. Inquiries or submissions can be addressed to the attention of the editor at the address on the back page of this issue.



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THE IHS PRIMARY CARE PROVIDER



A journal for health professionals working with American Indians and Alaska Natives

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