disease prevention news

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Careful Antibiotic Use: Pharyngitis

Acute pharygitis is one of the most common pediatric illnesses, resulting in millions of physician office visits each year.[1,2] Because untreated pharyngitis caused by group A Streptococcus *(GAS) can lead to such nonsuppurative sequelae as acute rheumatic fever (ARF), a perception exists that prompt empiric treatment with antibiotics is warranted.[1-3] However, since most sore throats are caused by viral agents (only 15% by GAS),[4] and the accuracy of clinical diagnosis is at best mediocre, empiric treatment of acute pharyngitis with antibiotics is rarely warranted and often does more harm than good.*

Proper diagnosis and treatment of GAS pharyngitis is important for many reasons Acute rheumatic fever (ARF) can be prevented in patients with streptococcal pharyngitis if appropriate antibiotics are begun within 9 days of illness onset.[1-4] Treatment with antibiotics may also prevent other complications such as otitis media and sinusitis, shorten duration of illness, and prevent spread of infection. However, delaying antimicrobial treatment until GAS is laboratory confirmed prevents the medical and ecomonic costs associated with unnecessary antibiotic use. For instance, treating only confirmed GAS pharyngitis is one way to help prevent the emergence of drug resistant strains of bacteria.

Symptoms of classic GAS pharyngitis include acute onset of pharyngeal pain, dysphagia, and fever; malaise, headache, abdominal pain, and vomiting are common.[1] Prominent rhinorrhea, cough, hoarseness, conjunctivitis, or diarrhea suggest a viral etiology.[1,2,4] However, clinical findings alone do not adequately differentiate viral from GAS pharyngitis.[1-6] One study of GAS pharyngitis showed that only 54% of clinical diagnoses were correct.[6]

Therefore, it is essential to confirm GAS pharyngitis with either an antigen test (rapid strep test) or a throat culture. The sensitivity of either kind of test is highly dependent on the quality of the specimen (which must contain pharyngeal and tonsillar secretions), how well the assay is performed, and the experience of staff performing and evaluating the test. If rapid strep test results are negative for a child with suspected GAS pharyngitis, a culture also should be performed. Because the specificity of rapid strep tests is high, culture confirmation of a positive test is not necessary.[1,2] Delay of antibiotic treatment pending laboratory confirmation (<1 hr-2 days) improves rather than compromises patient care.

The Centers for Disease Control and the American Academy of Pediatrics offer these guidelines for appropriate treatment of pharyngitis:

- To assure proper diagnosis and treatment of sore throat, obtain a positive result from an antigen test (rapid strep test) or culture **before** initiating antibiotic treatment.[1,2,4]
- If other contingencies make immediate antibiotic treatment advisable,
  - make sure to stop antibiotics when the pre-antibiotic culture is negative, and
  - strongly urge patients (or patients' parents) to discard leftover antibiotics.[1-4]
- Use a penicillin as treatment for GAS.
- Use erythromycin if the patient is allergic to penicillin.

Since no group A streptococci are resistant to penicillin, it is the drug of choice for strep throat .[1-4] Treatment with penicillin is 90% effective in eliminating strep and may be even more effective in preventing acute rheumatic fever (ARF). Carriers are at very low risk for contracting ARF and for spreading infection.

References

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Also in this issue:

Pharyngitis Facts for Parents

Sore Throat

There are two main types of germs that cause sore throat: bacteria and viruses. Antibiotics work only against bacteria. Strep throat is a bacterial infection that should be treated with antibiotics. Most sore throats are caused by viruses and should not be treated with antibiotics.

For further information on antibiotic resistance, contact Dr. Olga Nuno at (512) 458-7676.

Only a lab test can confirm whether a bacteria is causing your child's sore throat. There are several kinds of tests that can be used. Some can be done while you wait.

Your doctor will decide which type of sore throat your child has and which treatment is best.

West Nile Fever arrives on the East Coast. Will it come to Texas?

The West Nile (WN) fever outbreak in the northeastern United States in the summer and fall of 1999 represents the first reported cases of this exotic arboviral disease in the US. As of December 9, 1999, 59 confirmed or probable human cases of WN virus infection had been identified. Seven people died. During the same time period, 18 cases of equine encephalitis caused by WN virus were also diagnosed in New York; 8 affected horses died or were euthanized. While very common in parts of Africa and the Middle East, WN fever had never before been reported in the US. WN virus is related to St. Louis encephalitis (SLE) virus: both are flaviviruses.

One of the most dramatic characteristics of the introduction of WN virus in New York has been the large number of crows that were infected and died. As with other arboviruses, birds harbor and amplify WN virus, which is then spread to other species by infected mosquitos. Investigators have not yet determined how the virus came to the US, and there is some concern that migrating birds might spread the virus down the eastern seaboard, across the gulf coast, and into Texas.

The Texas Department of Health (TDH) Zoonosis Control Division (ZCD) is participating in a Centers for Disease Control and Prevention (CDC) surveillance project to detect and monitor the presence of the WN virus in the event that it enters Texas. The ZCD has teamed with the Texas Parks and Wildlife Department and the US Department of Agriculture's Wildlife Damage Management Service to locate and identify significant bird population die-offs across the state. Crows will serve as the primary surveillance species because they appear to be much more sensitive to WN virus than other bird species. If a significant number of dead or dying crows are reported, a sample of these birds will be sent to the National Wildlife Research Center for viral screening.

In addition, because the TDH Laboratory routinely screens for the presence of SLE virus in mosquitoes, and WN virus cross-reacts with SLE virus— all specimens positive for SLE virus will be retested by the Centers for Disease Control and Prevention to rule out WN virus. This surveillance project should provide data on the presence of the virus prior to any human disease. With this forewarning, public health officials will be able to make recommendations for disease mitigation.

For further information regarding animal arboviral disease, and to report cases, contact the TDH Zoonosis Control Division at (512) 458-7255. For information on arboviral diseases in humans contact Julie Rawlings in the TDH Infectious Disease Epidemiology and Surveillance Division at (512) 458-7228.

Perspectives in Public Health: Texas Department of Health (TDH) Quarterly CME Conference

On Friday, March 24, 2000, from 8:00 AM to 4:00 PM, the Texas Department of Health (TDH) will present its Perspectives in Public Health: TDH Quarterly CME Conference. Designed for public health and primary care physicians, the conference will be held at the North Austin Medical Center, in the Decherd Auditorium, 12221 Mopac Expressway N. in Austin, Texas. The program will consist of lectures supplemented by audiovisual slide presentations.

After attending this conference, the participants will be able to

- prevent, detect at an early stage, treat, control, or take remedial action against specific medical conditions that may adversely affect the health of individuals and populations in Texas;
- identify policies, processes, and products that promote and protect the health of people and preserve environmental quality; and
- establish relationships with other physicians concerned with public health and preventive medicine issues through dialogue with presenters and other participants.

Topics covered at the upcoming conference include

- Putting Prevention Into Practice: Diabetic Retinopathy
  Victor H. Gonzalez, MD, Texas Diabetes Council, Valley Retina Institute, McAllen, Texas
- Panel: Health Authority? The Role of the County Health Officer (2 hours)
  Alecia A. Hathaway, MD, MPH, FACPM, Public Health Authority & Medical Director, Tarrant County Public Health Department, Fort Worth, Texas; W. S. Riggins, Jr. MD, MPH, Director Public Health Region 8, Texas Department of Health, San Antonio, Texas; Jane Shephard, MD, Director of Internal Medicine, People's Community Clinic, Williamson County Health Authority, Austin, Texas
- Medical Newsdesk
  W. S. Riggins, Jr. MD, MPH, Director, Public Health Region 8, Texas Department of Health, San Antonio, Texas
- Part I: Prevention & Management of Alcohol Related Illnesses & Injury
  Saundra Gilfillan, DO, Assistant Professor of Psychiatry, Psychiatry Department, UT Southwestern Medical Center, Director of Psychiatry, Emergency Room, Parkland Hospital, Dallas, Texas
- Part II: Prevention & Management of Alcohol Related Illnesses & Injury
  Raymond Krych, PhD, Program Director, Alcohol & Drug Abuse Program, Scott & White Mental Health Center, Scott & White Hospital, Temple, Texas

This CME activity provides one hour of ethics and/or professional responsibility content.

The Texas Department of Health designates this educational activity for a maximum of 6 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

This program has been reviewed and is acceptable for 5.75 prescribed hours by the American Academy of Family Physicians.

The Texas Department of Health is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The Texas Department of Health takes responsibility for the content, quality, and scientific integrity of this CME activity.

For further information and to register, call the TDH Public Health Professional Education Program at ***(800) 252-8239, Press 4, or (512) 458-7677****. You may pay the registration fee at that time by credit card or you may send a check with the completed form located on the back page of this issue.*

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4C423-001 *Registration Form* DPN

Perspectives in Public Health: Texas Department of Health Quarterly CME Conference
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