

Faxnotes

Apr. 10, 2006

MEDICAL UPDATE

**Enterovirus
(Nonpoliovirus)
Infections:
Coxsackievirus, Echovirus
and Enterovirus**

Enteroviruses cause a wide clinical spectrum in infants and children. They are second only to rhinoviruses as the most common viral infectious agents in humans. The enteroviruses account for 10 million to 15 million symptomatic infections a year in the United States. These RNA viruses most commonly present as a nonspecific febrile illness, but also can manifest in the following ways:

1. Respiratory: common cold ("summer cold"), pharyngitis, herpangina, stomatitis, pneumonia and pleurodynia
2. Skin: exanthum
3. Neurologic: aseptic meningitis, encephalitis and paralysis
4. GI: vomiting, diarrhea, abdominal pain and hepatitis
5. Eye: acute hemorrhagic conjunctivitis
6. Heart: myopericarditis

Enterovirus infections are most commonly spread via fecal-oral and respiratory routes, and they may survive on environmental surfaces. Young children and infants are most commonly infected. There is a seasonal correlation with a peak incidence of summer and early fall in Texas. The incubation period is 3 to 6 days, except for acute hemorrhagic conjunctivitis, which is 24 to 72 hours. Viral shedding is limited to one week in respiratory cases, but may continue for several weeks, especially in cases of diarrhea.

Viral culture remains the gold standard for identifying the particular virus, but the lengthy turn-around time limits its usefulness in the acute illness. PCR of sampled material may provide a quicker result, as in meningitis caused by enterovirus (*Pediatrics*, 94, 2, 157). Febrile infants and children who are virus-positive are less likely to have a serious bacterial infection compared to those who don't have a viral infection (*Pediatrics*, 113, 6, 1662). If a patient is at low risk and a PCR is positive, a patient may be watched off antibiotics or discharged early from the hospital (*Pediatrics*, 103, 3, e27).

Unfortunately, there is no specific treatment, and supportive care is the current management strategy. Most patients recover fully; however, those suffering from myocarditis, encephalitis or paralysis may have lasting morbidity. Hand washing, especially after diaper changing, is strongly recommended in order to reduce spread. Cleaning contaminated surfaces and soiled articles first with soap and water, and then disinfecting them with a dilute solution of chlorine-containing bleach (made by mixing approximately a quarter cup of bleach with 1 gallon of water) can be a very effective way to inactivate the virus, especially in institutional settings such as child-care centers.

For more information, please read the *Red Book*® under Enterovirus Infections, visit: http://www.cdc.gov/ncidod/dvrd/revb/enterovirus/non-polio_entero.htm, or contact Ben Lee, M.D. at ben.lee@childrens.com.

EDUCATIONAL OPPORTUNITY Developmental- Behavioral Pediatrics

"Developmental-Behavioral Pediatrics: Topics for the Primary Care Clinician" will be presented Saturday, April 29, at Texas Scottish Rite Hospital for Children. UT Southwestern, the accredited sponsor, is jointly sponsoring this activity with Texas Scottish Rite. The conference will update primary care clinicians on anxiety disorders, ADHD/comorbidities, management of disruptive behaviors, new developments in educational law, and optimizing care and coding strategies for children with special healthcare needs. The \$75 registration fee includes syllabus materials, continental breakfast and lunch. This activity has been approved for 7.75 AMA PRA credits, which includes one hour of ethics.

For more information, visit www.tsrhc.org, call 214-559-7817 or e-mail: susan.dyess@tsrh.org.

PEDIATRIC GRAND ROUNDS

Wednesdays at 8 a.m. in the Children's auditorium. For CME information, contact the UT Southwestern office of continuing medical education at 214-648-3705.

April 12 "*Red Book*® Updated: A View of the Future," Larry K Pickering, M.D., F.A.A.P., Senior Advisor to the Director of the National Immunization Program; Executive Secretary Advisory Committee on Immunization Practices, Centers for Disease Control and Prevention.

April 19 "Diagnostic Pearls In Pediatric Dermatology," Fred Ghali, M.D., private practice, Pediatric Dermatology of North Texas, PA, Grapevine.

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