

At-Home RSV Prophylaxis Improved Compliance

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PHILADELPHIA — Infants who receive prophylactic palivizumab at home are more likely to get all their doses on time than are those who receive the injections at their pediatrician's office, Dr. Caroline O. Chua reported at the annual meeting of the Eastern Society for Pediatric Research.

Dr. Chua of the Maria Fareri Children's Hospital, Valhalla, N.Y., did a prospective review that included 1,362 infants eligible for respiratory syncytial virus (RSV) prophylaxis during the 2005-2006 RSV season.

Upon discharge from the neonatal intensive care unit, 744 of the infants were scheduled to receive their monthly injections in their pediatricians' offices. The remaining 618 were scheduled to receive the injections at home through the services of a home health care agency.

All of the infants received their first dose of the drug within 24-48 hours of discharge.

But infants scheduled for at-home ther-

apy received significantly more of their scheduled doses on time (95% compliance rate) than did the in-office group (91% compliance rate).

Total hospitalizations, including those secondary to RSV infection, were significantly higher among the in-office group than the in-home group (16 vs. 2). Hospitalizations caused by RSV infections only also were higher in the in-office group, but the difference was not statistically significant (5 vs. 1).

Although the in-office compliance rate leaves something to be desired, it does show a significant improvement from the rate observed in a similar study performed in the same community during the 2001-2002 RSV season, Dr. Chua said.

That study followed 1,446 infants, 969 of whom received their monthly injections at home. The compliance rate was significantly higher than that observed among the 477 who received their injections in the office setting (98% vs. 89%)

(*Ped. Infect. Dis.* 2004;23:318-22).

"We speculate that the increased compliance in offices could be a reflection of better education on the part of pediatricians or media exposure that reached parents," she said.

The half-life of palivizumab is only 20 days, Dr. Chua noted. Compliance with the monthly dosing schedule is important to maintain a constantly active trough serum level of the drug (more than 40 mcg/mL). ■

FDA Approves Rapid Test for Viral Meningitis

The first rapid test for viral meningitis has been cleared for marketing by the Food and Drug Administration.

The Xpert EV test (Cepheid, Sunnyvale, Calif.)—which was released in Europe last summer—can help identify viral meningitis within 2.5 hours instead of the current 3-7 days, thus helping physicians to distinguish quickly between the viral and bacterial forms of the infection, according to the FDA.

"Since bacterial meningitis can be deadly within as little as 2 days, patients who have viral meningitis are frequently treated with antibiotics as a safeguard," said Dr. Daniel G. Schultz, director of the FDA's Center for Devices and Radiological Health, in a written statement. By using the rapid test, physicians can reduce this unnecessary antibiotic treatment, he noted.

The Xpert EV test uses reverse-transcription real-time polymerase chain reaction to detect enterovirus, which is responsible for 85%-95% of viral meningitis, in cerebrospinal fluid (CSF). However, the test should not be used in isolation, said Dr. Steven Gutman, director of the FDA's Office of In Vitro Diagnostics. "It is not intended that this test would be the sole determinant. It is an adjunctive test," he said in an interview.

Indeed, according to the company, the test is designed to be used in conjunction "with standard CSF tests [such as] bacterial Gram stain, bacterial culture, CSF glucose, CSF-blood glucose ratio, CSF protein concentrations, and CSF leukocyte counts." It "fills a clinical testing void," because it is a fully automated test, thereby allowing "round-the-clock" testing, Cepheid said in a written statement.

—Kate Johnson

In the treatment of Acute Otitis Media and Pharyngitis

"Works great."

According to published peer-reviewed literature,^{1,3} compliance factors that make an antibiotic easy to take include:

- Taste (palatability)
- Tolerability
- Short duration of treatment
- Number of daily doses

Indications (mild to moderate infections caused by susceptible microorganisms in pediatric patients 6 months through 12 years).⁴

Acute Bacterial Otitis Media due to *H influenzae* (including β-lactamase producing strains), *S pneumoniae* (penicillin-susceptible strains only), and *M catarrhalis* (including β-lactamase producing strains). **Pharyngitis/Tonsillitis** due to *S pyogenes*. Cefdinir is effective in the eradication of *S pyogenes* from the oropharynx. Cefdinir has not, however, been studied for the prevention of rheumatic fever following *S pyogenes* pharyngitis/tonsillitis. Only intramuscular penicillin has been demonstrated to be effective for the prevention of rheumatic fever.

Important Safety Information⁴

- To reduce the development of drug-resistant bacteria and maintain the effectiveness of OMNICEF and other antibacterial drugs, OMNICEF should be used only to treat or prevent infections that are proven or strongly suspected to be caused by bacteria
- OMNICEF is contraindicated in patients with known allergy to the cephalosporin class of antibiotics
- For patients with previous hypersensitivity reaction to penicillins, caution should be exercised because cross-hypersensitivity among β-lactam antibiotics has been clearly documented. If an allergic reaction to cefdinir occurs, the drug should be discontinued

"Easy to take."

- Safety and efficacy in neonates and infants less than 6 months of age have not been established
- 2% of 2,289 pediatric patients discontinued medication due to adverse events in US and non-US clinical trials. Discontinuations were primarily for gastrointestinal disturbance, usually diarrhea
- The most common reported adverse events occurring in ≥1% of pediatric patients in US clinical trials (N=1,783) were diarrhea (8%), rash (3%), and vomiting (1%)

References: 1. Brixner DJ. Improving acute otitis media outcomes through proper antibiotic use and adherence. *Am J Manag Care.* 2005;11(6 suppl):S202-S210. 2. Kardas P. Patient compliance with antibiotic treatment for respiratory tract infections. *J Antimicrob Chemother.* 2002;49:897-903. 3. Ramgoolam A, Steele R. Formulations of antibiotics for children in primary care. *Pediatr Drugs.* 2002;4:323-333. 4. OMNICEF (cefdinir) Capsules and for Oral Suspension Prescribing Information, Abbott Laboratories.

Please see adjacent brief summary of full prescribing information.

"Works great." "Easy to take."

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