Telithromycin Targets Respiratory Pathogens

BY BRUCE JANCIN
Denver Bureau

Telithromycin is an excellent first-line choice for empiric outpatient treatment of mild-to-moderate respiratory tract infections, Carman A. Ciervo, D.O., declared at a satellite symposium held in conjunction with Wonca 2004, the conference of the World Organization of Family Doctors.

The drug, first in the novel ketolide class of antibiotics, has well-established efficacy against the full spectrum of respiratory tract pathogens: the typical and atypical ones, as well as resistant strains. Most importantly, it provides a tailored spectrum of coverage, sparing the primarily enteric gram-negative pathogens such as Escherichia coli and Proteus mirabilis.

This will minimize emergence of resistance.

I think the advantage the ketolides have is that they are a judicious way to treat respiratory tract infections.

DR. CIERVO

occur when a drug has two binding sites. Unlike the fluorquinolones, macrolides, another often-prescribed drug class for respiratory tract infections, don’t cause collateral damage to gram-negative pathogens. But they don’t cover the full spectrum of respiratory tract infections. Macrolides have poor activity against penicillin-nonsusceptible Streptococcus pneumoniae, and the incidence of such infections in the United States has been on a steady rise since the mid-1990s.

Macrolide-resistant S. pneumoniae is also an emerging problem. It appears to be promoted by use of macrolides having a very long half-life. Azithromycin, for example, has a 72-hour half-life and, consequently, a high potential to select for resistance due to therapeutic drug concentrations. Telithromycin, in contrast, has a 10-hour half-life.

Telithromycin features once-daily dosing and a 3-day treatment course. There is a growing appreciation that patient compliance falls off dramatically with dosing more than once daily or for more than 5 days, Dr. Ciervo said.

In response to a question, he described doxycline as “an important and underutilized option” for respiratory tract infections in younger patients—say, those aged 15-50 years—without comorbidity or other significant risk factors for resistant infection, such as having in day care, chronic renal insufficiency, or recent history of beta-lactam therapy.