Medical News

EDITED BY GINA PUGLIESE, RN, MS; MARTIN S. FAVERO, PHD

Additional news items in this issue: *Handwashing Compliance During Isolation,* page 797; *Outbreak of West Nile-Like Virus Encephalitis, New York City,* page 811; *Povidone-Iodine Versus Iodine Tincture for Venipuncture-Site Disinfection,* page 815; *Outbreak of Echovirus in a Neonatal Unit,* page 833.

FDA Approves Synercid for VRE

The FDA recently approved Synercid, the first antibacterial drug to treat infections associated with vancomycin-resistant *Enterococcus faecium* bacteremia (VREF) when no alternative treatment is available. Synercid also received approval for complicated skin and skin-structure infections.

Synercid, a combination of quinupristin and dalfopristin, is the first drug in the streptogramin class approved for use in humans in the United States. The drug has been granted accelerated approval, based on surrogate markers of effectiveness, in this case, the drugs' ability to clear VREF infection from the bloodstream. A study to verify the clinical benefit (eg, resolution of the specific site of infection) of therapy with Synercid is underway.

Synercid's approval was supported by clinical trials of more than 2,000 patients; 1,222 patients were treated with Synercid in four non-comparative studies for treatment of VREF infections of intra-abdominal sites, skin, soft tissue, and the urinary tract. In general, these patients were severely ill, making many of them unable to be evaluated fully for purposes of the clinical trials. For those able to be evaluated, the overall effectiveness of Synercid was 52%. Additionally, 330 of the 1,222 VREF patients had VREF bacteremia of unknown origin. For this subgroup, 90% had clearance of VREF in the first 48 to 72 hours of starting therapy.

FROM: FDA Talk Paper T99-44, September 21, 1999.

Molecular Epidemiology of Multiresistant *Escherichia coli*

Guyot and colleagues from St Mary's Hospital, London, United Kingdom, conducted a case-control study in which multiresistant *Escherichia coli* isolates were characterized on a molecular level and risk factors for their development were identified. Thirty-two multiresistant *E coli* strains were isolated from the urine of 13 patients attending a renal clinic for chronic urinary tract infection (UTI) and from different sites of 11 terminally ill patients with nosocomial infections hospitalized on five different wards. Pulsed-field gel electrophoresis analysis demonstrated 17 genotypes among 32 strains, which indicated a polyclonal outbreak with some geographic clustering. Monitoring of patients over the study period showed that either the resident genotype remained the same but the organism underwent changes in plasmid contents or that the initial strain was replaced by a different genotype after several months of therapy for chronic UTI. Univariate analysis indicated that multiresistant *E coli* develop in the presence of long-term selective ciprofloxacin pressure at a dosing regimen of 250 mg twice a day for more than 20 days and that treatment with a broad-spectrum antimicrobial for more than 3 days favors the selection of multiresistant *E coli* in the flora of terminally ill patients with multiple disorders.

FROM: Guyot A, Barrett SP, Threlfall EJ, Hampton MD, Cheasty T. Molecular epidemiology of multi-resistant *Escherichia coli. J Hosp Infect* 1999;43:39-48.

Nosocomial Diarrhea in Pediatrics

Langley and colleagues from IWK-Grace Health Center, Halifax, Nova Scotia, reported a study of nosocomial diarrhea in a tertiary pediatric hospital. Nosocomial diarrhea was defined as loose stools occurring later than 48 hours after admission, with at least two stools noted during a 12-hour period and no other infectious causes for the diarrhea. Of 181 cases of nosocomial diarrhea, 69% had documented infectious pathogens. *Clostridium difficile* was the most common (32%), followed by adenovirus (25%) and rotavirus (25%). The median age of the children with nosocomial diarrhea was 1.3 years, and 72% were younger than 3 years. Cases of viral and *C difficile* nosocomial diarrhea were compared with controls, and the use of diapers was most frequently associated with cases. The researchers also noted that their results confirmed other studies that have shown that routine cultures for bacterial pathogens (*Salmonella, Shigella, Campylobacter, Yersinia)* have low yield.

FROM: Langley JM. Changing etiology of nosocomial diarrhea in a pediatric hospital. Presented at the 39th ICAAC, September 26-29, 1999; San Francisco, CA. Abstract 1176.