Medical News

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

PHS Guideline on Infectious Disease Issues in Xenotransplantation

On behalf of the US Public Health Service (PHS), the FDA has announced the availability of a guideline entitled "PHS Guideline on Infectious Disease Issues in Xenotransplantation," dated January 19, 2001 (see http://www.fda.gov/OHRMS/DOCKETS/98fr/012901a.htm).

This guideline was developed by the PHS to identify general principles for the prevention and control of infectious diseases associated with xenotransplantation that may pose a hazard to public health. The guideline is intended to provide general guidance to local review bodies in evaluating proposed xenotransplantation protocols and to sponsors in developing xenotransplantation protocols, in preparing submissions to the FDA and the Secretary's Advisory Committee on Xenotransplantation, and in conducting xenotransplantation clinical trials.

Benzalkonium Chloride-Impregnated Central Venous Catheters

Jaeger and coinvestigators from the Department of Anesthesiology, Hannover Medical School, Hannover, Germany, performed a study to determine the efficacy of a benzalkonium chloride-impregnated central venous catheter (CVC) in preventing catheter-related infection in patients suffering from malignant diseases and undergoing chemotherapy. A randomized, prospective clinical trial was carried out to compare the incidence of catheter-related colonization and catheter-related bacteremia using an antiseptic-impregnated CVC (n=25) with that using a standard triple-lumen CVC (n=25).

All patients were treated with intensive chemotherapy for acute leukemia (n=28), lymphoma (n=17), or solid tumors (n=5). Both study groups presented with similar data in regard to age, insertion site, duration of catheterization, and neutropenia period during catheterization, demonstrating a comparable risk for catheter-related colonization. Suspicion of infection led to explantation in 14 versus 15 cases. Catheter-related colonization was proven in 4 cases (16%), and catheter-related bacteremia was observed only once (4%) in both groups. Statistical testing showed no significant differences between the study and control groups.

It was concluded that the rate of catheter-related colonization was lower than suspected in this high-risk patient group. The use of a benzalkonium chloride-impregnated CVC failed to decrease the incidence of catheter-related colonization and bacteremia in patients with a high risk of infectious complications.

FROM: Jaeger K, Osthaus A, Heine J, Ruschulte H, Kuhlmann C, Weissbrodt H, et al. Efficacy of a benzalkonium chloride-impregnated central venous catheter to prevent catheter-associated infection in cancer patients. *Chemotherapy* 2001;47:50-55.

Early Discharge Through Appropriate Antibiotic Use

Researchers from Kaiser Permanente Medical Center recently examined the role of antibiotic use in the discharge process. In an observational case-control study, they compared 111 patients hospitalized with cellulitis, community-acquired pneumonia, or pyelonephritis discharged from the hospital early in their clinical course before treatment by an infectious diseases (ID) specialist, with 112 patients discharged according to conventional standards of care by internal medicine (IM) physicians. Patients were matched for age, gender, diagnosis, and comorbidities. Outcomes were determined for average lengths of stay, readmission to the hospital within 30 days with the same diagnosis, satisfaction with their discharge program, and time to return to their normal activities of daily living (ADL).

They found that patients cared for by the ID specialists had a shorter average length of stay (mean difference, 1.7 days), no readmissions, higher patient satisfaction scores, and a shorter time to return to their ADL, compared with those cared for by the IM physicians. Also, ID specialists used outpatient parenteral antibiotic therapy more frequently than IM physicians in the treatment of cellulitis, and switched from intravenous to oral antibiotics sooner than IM physicians for patients with community-acquired pneumonia and urinary tract infection.

The early discharge strategy by the ID specialist shortened the average length of stay for all disease categories without increasing readmissions to the hospital and, in addition, increased patient satisfaction. The authors note that this may have been due to the patients' increased feelings of well-being at home, more participation their own care, and being more active, which led to the return to their normal ADL earlier than those conventionally treated. The authors concluded that ID specialists discharged patients earlier than IM physicians because of more efficient use of antibiotics, although the earlier discharge did not affect outcomes.

FROM: Eron LJ, Passos S. Early discharge of infected patients through appropriate antibiotic use. *Arch Intern Med* 2001;161:61-65.