

as barriers to hand contamination with gram-negative organisms and enterococci during hospital procedures, the researchers studied 137 procedures during which a healthcare worker's gloved hand contacted a patient's mucous membrane. The procedures included oral dental exams, endotracheal tube care, and digital rectal stimulation for bowel training. Quantitative hand cultures were obtained from each healthcare worker before and after the gloved contact.

The findings indicated that 86 of the 135 glove cultures had gram-negative rods or enterococci on the external surface after use and thus were sources of potential hand contamination. Microbial contamination of the healthcare worker's hands occurred in 11 (13%) of those 86 events.

Contamination was more frequent with vinyl gloves, occurring in 10 of 42 cases studied compared with only one out of 44 cases involving latex gloves. After use, glove leaks also were more frequent in vinyl gloves (26 out of 61) than with latex gloves (6 of 70). Even when leaks were present, gloves prevented hand contamination in 77% of instances, and quantitative counts of microorganisms contaminating hands were 2 to 4 logs less than counts on external surface of gloves. Healthcare workers reported awareness of the presence of glove leaks in only seven (22%) of the 32 events in which leaks were subsequently demonstrated.

The authors conclude that gloves are an effective barrier to hand contamination and that the data confirm the need for handwashing routinely following removal of gloves.

FROM: Olsen RJ, et al. Examination gloves as barriers to hand contamination in clinical practice. *JAMA* 1993;270:350-353.

### **Poor Antibody Response to Recombinant Hepatitis B Vaccines**

Following immunization with hepatitis B vaccine (Recombivax HB or Engerix-B) of 595 healthcare workers in 10 acute care hospitals in Minnesota, 11% were found to be seronegative for antibody to hepatitis B surface antigen (anti-HBs). Postvaccination antibody testing was done within 6 months after receiving the third dose of vaccine. No deficiencies were identified in vaccine shipping or storage practices and all vaccines were administered in the deltoid muscle. Although different needle lengths were used, needle length was not associated with lack of anti-HBs. Dr. Rachel Wood and colleagues at the Minnesota Department of Health reported that five variables were found by multivariate analysis to be independently associated with lacking anti-HBs: vaccine brand, smoking status, gender, age, and body mass index.

Stratifying by vaccine brand demonstrated that age, body mass index, and smoking status were associated with lacking anti-HBs only for Engerix-B recipients. After controlling for smoking status, age, gender, and body mass index, recipients of Recombivax HB were more likely to lack anti-HBs than recipients of Engerix-B (relative risk, 2.3; 95% confidence interval, 1.1 to 4.7;  $P=0.02$ ).

FROM: Wood RC, et al. Risk factors for lack of detectable antibody following hepatitis B vaccination of Minnesota healthcare workers. *JAMA* 1993;270:2935-2939.

### **National HIV Information Network Launched**

A national computer-based information network has been launched to help healthcare providers track trends and treatment patterns for AIDS and HIV. The CDC has awarded a 3-year, \$900,000 contract to suburban Chicago-based Dun & Bradstreet Corp for the effort, intended to help direct healthcare providers in their care of HIV and AIDS patients.

Believed to be the first national effort of this type in the United States, the network, known as Health Research Network, will provide two types of information. It will follow individual but anonymous patients over the course of their illnesses, showing the effects of treatment approaches. The in-depth longitudinal data base also will allow the CDC to analyze trends and provide statistical overviews of the disease and its treatment.

The network's first effort involves a study of between 5,000 and 10,000 HIV-infected individuals whose care is being directed by infectious disease physicians in Atlanta, Los Angeles, San Francisco, Tampa, Florida, and Portland. Additional sites are expected to be added during the 3-year life of the grant.

CDC officials said that the system will be able to track the spectrum of HIV disease, including symptoms and use of medical therapy, drugs, and costs, information that is important to healthcare delivery. Hospitals, through participating physicians, will be able to tap into the network via computer to decide what services they may need to provide to care for patients with the disease.

FROM: *Modem Health Care* December 13, 1993.

### **Shigella Strains Resistant to Fluoroquinolones**

The first fluoroquinolone-resistant *Shigella*

strains have been isolated in Japan. Horiuchi and colleagues reported in a recent issue of *Antimicrobial Agents and Chemotherapy* that seven strains of *Shigella* had sparfloxacin and ciprofloxacin MICs of approximately 0.4 µg/mL, with slightly higher resistance to ofloxacin and with high-level resistance to naladixic acid (> 100 µg/mL).

Although the MICs of resistant strains were within the breakpoint published by the NCCLS (for example, ≤2 µg/mL ofloxacin), the authors reported that three patients infected by relatively sparfloxacin-resistant strains did not have pathogens eradicated after sparfloxacin therapy. Susceptible strains have extremely low MICs, in the range of 0.001 to 0.01 µg/mL. The *Shigella sonnei* strains reported here were 16 to 32 times less susceptible to fluoroquinolones.

Nearly all strains that cause shigellosis in the United States are *S sonnei* and are uniformly susceptible to fluoroquinolones. Most laboratories report breakpoint susceptibilities of *S sonnei* strains and do not detect relatively resistant strains.

Because agents like fluoroquinolones have very low MICs against enteric bacteria, it is unclear whether MICs a log or two higher indicate resistant strains. This report by Horiuchi provides some clinical evidence that certain strains treated with sparfloxacin are not eradicated.

FROM: Horiuchi S, et al. *Antimicrob Agents Chemother* 1993;37:2486-2489.

## AHCPR Releases Clinical Practice Guidelines for Managing HIV Infection

The U.S. Department of Health and Human Services announced the release of new clinical practice guidelines to assist family physicians and other primary care practitioners in diagnosing and treating individuals with HIV infection. These guidelines were developed by a 19-member, private sector panel of medical experts and persons living with HIV for the Agency for Health Care Policy and Research (AHCPR), a part of HHS's Public Health Service. For additional information, contact AHCPR Bob Isquith at (301) 594-1364, extension 173.

## Paul Named to Replace Fauci as Head of AIDS Research Office

Dr. William E. Paul, a scientist at the National Institute of Allergy and Infectious Disease (NIAID) in Bethesda, MD, will take over the newly restructured

Office of AIDS Research from Dr. Anthony S. Fauci, an AIDS researcher. Dr. Paul, a highly regarded immunologist, will oversee the entire federal budget for AIDS studies, which this year comes to \$1.3 billion. He will be responsible for shaping the direction of the research and determining how best to distribute the funds among the 21 institutes at the National Institutes of Health (NIH).

Dr. Paul, who has been at the NIH for more than 25 years, has not been involved directly in AIDS research. But, because his work deals with the immune system, it could end up being relevant to the disease. He has published more than 400 scientific papers, the most celebrated of which were those describing his laboratory's discovery of interleukin-4, one of the essential signaling molecules of the immune system.

Dr. Fauci had run the Office of AIDS Research in a smaller and less formalized version since 1988, while carrying out other duties as an administrator and scientist, but when Congress restructured the office last spring, it demanded that a full-time director be chosen. Scientists and advocates of AIDS research have expressed enthusiasm for the selection of Dr. Paul.

FROM: *New York Times* February 17, 1994.

## FDA Considers New Rules for Reuse of Single-Use Hemodialyzers

The Food and Drug Administration (FDA) has proposed guidelines that would require manufacturers of single-use dialyzer products to test, label, and obtain new FDA approvals for multiple use of their products. Human test subjects would have to be stratified by age, race, sex, length of time receiving dialysis treatment, dialyzer type, and clinical cause of the end-stage renal disease (ESRD).

Although many manufacturers label and distribute their dialyzers for single use, the FDA believes that reprocessing for reuse has become so widespread that manufacturers should be required to qualify single-use dialyzers by the same standards that apply to dialyzers for multiple uses. The draft guidance document would go further than current requirements, however, in requiring manufacturers to monitor ESRD facilities' reprocessing for reuse. FDA data show that 70% of ESRD facilities have some form of reuse and that 80% of U.S. dialyzers are reused.

The Health Industry Manufacturers Association (HIMA) has challenged the FDA's authority to compel compliance with the proposed guidelines for hemodialyzer approval, labeling, and reprocessing for reuse, and may take legal action to block the guide-