microdilution method fails to detect all types of plasmid-mediated ESBL[10] and, therefore, disk-diffusion testing and a screen for ESBL were used to determine accurately the prevalence of beta-lactamase resistance within the unit. The newer forms of beta-lactamase-mediated resistance were detected in 35% of all isolates. ESBL did not appear to be an important cause of resistance in the ICU, as only three isolates were of the ESBL phenotype. Twenty-eight isolates (17%) exhibited Class I cephalosporinase production. As expected, the latter isolates were *Enterobacter, Acinetobacter,* and *P aeruginosa.*

The data emphasize the importance of identifying organisms that are indicators of potential resistance mutations and demonstrates the usefulness of focused surveillance in evaluating the degree of resistance present. This information then can be used to tailor antibiotic therapy within a unit and to encourage sound antibiotic prescribing practices. In addition, monitoring of potential problem areas leads to early identification of changes in resistance and facilitates interventions such as containment measures and restricted antibiotic policies.

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Serosurvey Finds Surgeons at Greatest Risk for Hepatitis B

by Gina Pugliese, RN, MS
Medical News Editor

An anonymous, voluntary serosurvey of surgeons from 21 hospitals in areas of the US that have moderate to high incidence of AIDS recently was conducted by Dr. Adelisa Panlilio and colleagues from the CDC to assess the risk for infection with bloodborne pathogens, including HIV, hepatitis B virus (HBV), and hepatitis C virus (HCV).

Of the 2,887 eligible surgeons, 770 (27%) participated in the study. Of the 740 surgeons not reporting nonoccupational risk factors, one was HIV seropositive. None of the 20 participants reporting nonoccupational HIV risk factors were HIV positive. Of the 129 participants (17%) with past or current HBV infection, three (0.4%) had chronic HBV infection; all were negative for hepatitis B e antigen. Independent risk factors for past or current HBV infection included not receiving hepatitis B vaccine, reporting nine or more percutaneous injuries in the past year, being a general surgeon, and having practiced surgery for at least 10 years. A complete three-dose series of hepatitis B vaccine had been received by 418 (55%) of the participants. Seven (0.9%) of the participants had anti-HCV

Researchers also collected data on the reported use of personal protective equipment (PPE), such as double gloves, eye wear, and impervious or fluid-resistant gowns. The reported use of PPEs varied by specialty, with orthopedic surgeons the most likely to use PPEs.

These results do not support the possibility that there is a high rate of previously undetected HIV infection among surgeons who trained or practiced in high AIDS incidence areas. Hepatitis B virus poses the highest risk of infection with a bloodborne pathogen, followed by HCV and HIV.

FROM: Panlilio AL, Shapiro CN, Schable CA, et. al. Serosurvey of HIV, HBV, and HCV infection among hospital-based surgeons. *J Am Coll Surg* 1995;180:16-24.