

ment. Although NAA tests have been offered by individual laboratories, approval of commercial kits may result in increased use for clinical practice and TB control.

NAA tests for TB diagnosis do not replace any previously recommended tests. The CDC recently published interim guidelines for the use of NAA tests for TB diagnosis for public health and clinical decisions. These guidelines note that decisions about when and how to use NAA tests for TB diagnosis should be individualized. The tests may enhance diagnostic certainty, but should be interpreted in a clinical context and on the basis of local laboratory performance.

FROM: Centers for Disease Control and Prevention. Nucleic acid amplification tests for tuberculosis. *MMWR* 1996;45:950-951.

## Gloves and VRE Control

Researchers at Cook County Hospital in Chicago recently evaluated the efficacy of the use of gloves and gowns compared to the use of gloves alone for the prevention of nosocomial transmission of vancomycin-resistant enterococci (VRE) in a facility where this pathogen is endemic. The study was conducted in a medical intensive-care unit (MICU) that contains 12 beds in single rooms and 4 beds in double rooms. During the study, the unit was geographically divided, so that eight beds were in a glove-and-gown section, and eight beds were in a glove-only section; 181 consecutive patients were assigned to either group based on the availability of beds.

All hospital employees were required to use gloves and gowns when attending to the patients in the glove-and-gown section of the unit and were required to wear gloves when attending to patients in the glove-only section of the MICU. Hospitals employees were required to wear clean, nonsterile latex gloves when entering a room and to remove the gloves and wash their hands with antibacterial soap before leaving the room. In double rooms, hands were washed, and fresh gloves were donned if the worker moved from one patient to the other.

Disposable, nonwoven, water-resistant isolation gowns were worn when entering a glove-and-gown area and were removed before leaving a room. Because VRE culture results often are delayed, gown-and-glove and glove-only precautions were implemented on admission to the unit with a sign posted on the door of each room outlining the precautions to be taken. Visitors were asked to comply with the precautions. Blood pressure cuffs and thermometers were dedicated for use on individual patients. Rooms were cleaned daily with a phenolic disinfectant detergent. The use of oral vancomycin was restricted to patients who had antibiotic-associated colitis that did not respond to metronidazole.

Compliance with precautions was monitored on all shifts for approximately 7 hours per week by unobtrusive

observers. Compliance was evaluated on the basis of room entry, regardless of whether the person being evaluated had contact with the patient or objects in the room.

Rectal surveillance cultures were performed on patients daily. Cultures of environmental surfaces, such as bedrails, bedside tables, and other frequently touched objects in patient rooms and common areas, were taken monthly. Pulsed-field gel electrophoresis (PFGE) was used for molecular epidemiologic typing of VRE.

The 93 patients in the glove-and-gown rooms and the 88 patients in the glove-only rooms had similar demographic and clinical characteristics. Fifteen (16.1%) patients in the glove-and-gown group and 13 (14.8%) in the glove-only group had VRE on admission to the MICU. Twenty-four patients in the glove-and-gown group (25.8%) and 21 in the glove-only group (23.9%) acquired VRE while in the MICU. The mean times to colonization among the patients that became colonized was 8 days in the glove-and-gown group and 7.1 days in the glove-only group. None of these comparisons were statistically significant. In a multivariate analysis, risk factors for acquisition of VRE included length of stay in the MICU, use of enteral feeding, and use of sucralfate. Compliance with precautions was 79% in the glove-and-gown rooms and 62% in the glove-only room. Only 25 of 397 environmental cultures were positive for VRE. Nineteen types of VRE were documented by PFGE during the study period.

These results do not show an added benefit for the use of gloves and gown compared with gloves alone in preventing colonization by VRE in a hospital in which several strains of endemic VRE are circulating. The authors note that the use of fecal incontinence bags for all incontinent patients may have decreased environmental contamination and contributed to the low number of VRE recovered from the environment. The low colony counts on contaminated surfaces may explain why gowns offered no advantage.

The authors caution that this study was done in a facility in which VRE is endemic. They point out that the use of gloves and gown may be effective in specific contexts, such as during an outbreak of a single strain in a nonendemic environment or to control the spread from infected or colonized patients in institutions where prevalence is still low or environmental contamination is extensive.

FROM: Slaughter S, Hayden MK, Nathan C, et al. A comparison of the effect of universal use of gloves and gowns with that of glove use alone in acquisition of VRE in a medical intensive-care unit. *Ann Intern Med* 1996;125:448-456.

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*Additional news items in this issue: Protease Inhibitors and Rifampin—Serious Drug Interactions, page 18; HCV Transmission by Tattooing, page 23; Vibrio fluvialis and Leech Therapy, page 27; VRE and Long-Term Care, page 41; Perinatal AIDS Declines, page 57.*

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