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VRE and Long-Term Care

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To assess the prevalence of VRE colonization among long-term-care facility (LTFC) residents requiring hospitalization, researchers studied colonization among admissions from 13 LTFCs to a private teaching hospital in the Chicago area. Rectal swab cultures were obtained from LTFC patients within 72 hours of admission to two medical wards and again at discharge. Samples were plated onto enterococcosel agar with 6 µg/mL of vancomycin. Molecular relatedness of the isolates was determined by pulsed-field gel electrophoresis; strains were defined by >6 band differences.

Overall, 19 (63%) of 30 LTFC patients were found to be colonized with vancomycin-resistant enterococci (VRE) during this hospitalization.

Ten strains were identified—2 *Enterococcus faecalis*, 5 *Enterococcus faecium*, 2 *Enterococcus gallinarum*, and 1 *Enterococcus avium*. Fourteen (47%) of 30 of the patients harbored VRE on admission (8 strains). Five of the 16 VRE-negative patients acquired VRE by discharge (4 strains). Five positive patients acquired a second VRE strain. LTFC patients maintained a VRE prevalence of twice that of other ward patients during this time. VRE-positive admissions came from 9 of 13 LTFC represented. Histories of antibiotic use, hospitalization within the prior 60 days, and presence of decubitus ulcers were associated strongly with VRE colonization on admission. Only one LTFC patient was clinically infected with VRE (hemodialysis graft bacteremia).

The researchers concluded that

almost half of LTFC patients requiring hospitalization carried VRE at admission; 31% of negative LTFC patients acquired VRE in the hospital. LTFC patients have become a reservoir for multiple strains of VRE and may transfer VRE to and from acute-care hospitals. Presumptive isolation and cohorting of LTFC patients at highest risk for VRE colonization—those with skin breakdown, recent hospitalization, or antibiotic exposure—should be studied in hospitals and LTFC.

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