the 123 patients in our study were thought to have died due to a port-related bacteremia. Both were patients with acquired immunodeficiency syndrome and a high degree of immunosuppression (CD4 counts of 41 and 58 cells/mm^3 at the time of device implantation). Excluding these two cases, nearly two thirds (21) of the remaining 32 infections did not require removal of the PAS-Port device to treat infection. In 6 of the 11 cases where the device was removed, infection was due to *S aureus.*

A limitation of our study was that detailed information about the frequency of device access was not available from the medical records. More frequent PAS-Port access could potentially elevate a patient's risk of infection, and frequency of access may vary greatly between different underlying illnesses, depending on treatment regimens. In addition, for certain underlying oncological diagnoses, there were very few patients, which limited the usefulness of comparisons between underlying illness groups.

In summary, our study provides useful information regarding the risk and rate of catheter-associated infections related to the use of a long-term implantable vascular access device (PAS-Port), especially among HIV-infected individuals. While infections occurred in a quarter of patients, the overall infection rate per 1,000 device days was relatively low. The majority of infections were due to gram-positive bacteria. The specific underlying illness may be an important predictor of the risk of infection in patients with long-term venous access devices.

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Vancomycin-Resistant Enterococci and Biomaterial Surfaces

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Enterococci are a frequent cause of nosocomial infections and often are found adherent to indwelling catheters. Concern about such device-associated infections has increased with the appearance of vancomycin-resistant (VR) enterococci. However, the possible influence of vancomycin resistance in the pathogenesis of biomaterial-centered infection has not yet been assessed. Using polyethylene terephthalate (PET) disks as model surfaces, Su and coinvestigators from Baylor College of Medicine, Houston, Texas, evaluated possible differences in the adherence and persistence of vancomycin-sensitive (VS) and VR strains of *Enterococcus faecium* and *Enterococcus faecalis* on biomaterial surfaces in vitro and in vivo. The results indicated that (1) as expected, the clearance of free VR and VS organisms after intraperitoneal injection into normal mice is equally efficient; (2) in vitro, VR bacteria are roughly twice as adherent to plasma-coated PET surfaces as are VS organisms; (3) however, in vivo persistence of VS organisms preadherent to biomaterial implants is 5- to 10-fold better than that of preadherent VR organisms. The authors conclude that a discrete change in bacterial cell-wall composition between VR and VS enterococci may contribute to the substantial differences in bacterial adhesion and survival of adherent organisms.

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