

12. Hiemenz J, Skelton J, Pizzo PA. Perspective on the management of catheter-related infections in cancer patients. *Pediatr Infect Dis J* 1986;5:6-11.
13. Dugdale DC, Ramsey PG. *Staphylococcus aureus* bacteremia in patients with Hickman catheters. *Am J Med* 1990;89:137-141.
14. Cotton DJ, Gill VJ, Marshall DJ, Gress J, Thaler M, Pizzo PA. Clinical features and therapeutic interventions in 17 cases of *Bacillus* bacteremia in an immunosuppressed patient population. *J Clin Microbiol* 1987;25:672-674.
15. Banerjee C, Bustamante CI, Wharton R, Talley E, Wade JC. *Bacillus* infections in patients with cancer. *Arch Intern Med* 1988;148:1769-1774.
16. Lecciones JA, Lee JW, Navarro EE, et al. Vascular catheter-associated fungemia in patients with cancer: an analysis of 155 episodes. *Clin Infect Dis* 1992;14:875-883.
17. Hughes WT, Armstrong D, Bodey GP, et al. Guidelines for the use of antimicrobial agents in neutropenic patients with unexplained fever. *J Infect Dis* 1990;161:381-396.
18. Mayhall CG, Remington JS, Swartz MN, eds. *Diagnosis and Management of Infections of Implantable Devices Used for Prolonged Venous Access in Current Clinical Topics in Infectious Diseases*. Boston, MA: Blackwell Scientific Publications; 1992:83-110.
19. Groeger JS, Lucas AB, Thaler HT, et al. Infectious morbidity associated with long-term use of venous access devices in patients with cancer. *Ann Intern Med* 1993;119:1168-1174.
20. Pizzo PA. Management of fever in patients with cancer and treatment-induced neutropenia. *N Engl J Med* 1993;328:1323-1332.
21. Harvey MP, Trent RJ, Joshua DE, Ramsey-Stewart G, Storey DW, Kronenberg H. Complications associated with indwelling venous Hickman catheters in patients with hematological disorders. *Aust N Z J Med* 1986;16:211-215.
22. Raaf JR. Results from use of 826 vascular access devices in cancer patients. *Cancer* 1985;55:1312-1321.
23. Raad II, Bodey GP. Infectious complications of indwelling vascular catheters. *Clin Infect Dis* 1992;15:197-210.
24. Paya CV, Guerra L, March HM, Farnell MB, Washington JH, Thompson RL. Limited usefulness of quantitative culture of blood drawn through the device for diagnosis of intravascular-device-related bacteremia. *J Clin Microbiol* 1989;27:1431-1433.
25. Wade JC, Schimpff SC, Newman KA, Wiernik PH. *Staphylococcus epidermidis*: an increasing cause of infection in patients with granulocytopenia. *Ann Intern Med* 1982;97:503-508.
26. Hoffman KK, Weber DJ, Samsa GP, Rutala WA. Transparent polyurethane film as an intravenous catheter dressing: a meta-analysis of the infection risks. *JAMA* 1992;267:2072-2076.
27. Lim SH, Smith MP, Salooja N, Machin SI, Goldstone AH. A prospective randomized study of prophylactic teicoplanin to prevent early Hickman catheter-related sepsis in patients receiving intensive chemotherapy for hematological malignancies. *J Antimicrob Chemother* 1991;28:109-116.
28. Rozenberg-Arska M, Dekker AW, Verhoef J. Prevention of infections in granulocytopenic patients by fluorinated quinolones. *Rev Infect Dis* 1989;11(suppl 5):1231S-1236S.
29. Winston DJ, Chandrasekar PH, Lazarus HM, et al. Fluconazole prophylaxis of fungal infections in patients with acute leukemia: results of a randomized placebo-controlled, double-blind, multicenter trial. *Ann Intern Med* 1993;118:495-503.
30. Schwartz C, Hendrickson KJ, Roghmann K, Powell K. Prevention of bacteremia attributed to luminal colonization of tunneled central venous catheters with vancomycin-susceptible organisms. *J Clin Oncol* 1990;8:1591-1597.
31. Attal M, Schlaifer D, Rubie H, et al. Prevention of gram-positive infections after bone marrow transplantation by systemic vancomycin: a prospective randomized trial. *J Clin Oncol* 1991;9:865-870.
32. Groeger JS, Lucas AB, Coit D, et al. A prospective, randomized evaluation of the effect of silver impregnated subcutaneous cuffs for preventing tunneled chronic venous access catheter infections in cancer patients. *Ann Surg* 1993;218:206-210.
33. Allo MD, Miller J, Townsend T, Tan C. Primary cutaneous aspergillosis associated with Hickman intravenous catheters. *N Engl J Med* 1987;317:1105-1108.

OSHA's Revised Respiratory Protection Standard Will Not Apply to TB

by **Gina Pugliese, RN, MS**
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At the opening of the public hearings on June 6, 1995, to discuss the proposed revision of the 1971 Respiratory Protection Standard, the Occupational Safety and Health Administration (OSHA) announced that all issues related to the use of respirators for TB would be considered under a separate TB standard. Until the final tuberculosis standard is issued, OSHA will continue to enforce respirator use for TB control under the current, unrevised respirator standard (29 CFR 1910.134). The revised respiratory protection standard will, however, apply to the

healthcare industry for other types of occupational exposures to respiratory hazards.

OSHA also announced plans to incorporate quickly into a compliance document the revised NIOSH rules regarding respirators for TB use and not to await a final TB standard. (As noted in *ICHE* last month, NIOSH has finalized the long-awaited respirator certification procedures that will result in the certification and availability of more respirators that meet the CDC's performance criteria for respiratory protection against TB. These new respirators, labeled type 95N, may become available in August.)

SHEA's representative at the hearings, Dr. Michael Decker, noted that the proposed revised respiratory protection standard was inappropriate with respect to all biological hazards, not just TB, and urged OSHA to extend the "TB exemption" to all biologic hazards. Without such an exemption, healthcare workers would be required automatically to use air-line respirators (akin to deep sea divers) for protection from any newly recognized biological hazard from the time of its recognition until the adoption by OSHA of a specific standard (which, as we have seen with TB, could take years).