infect the earpiece in stethoscopes assigned to individual patients, also.

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Safety Butterfly Needles for Blood Drawing

To the Editor:

Despite safety recommendations, the increased availability of personal protective equipment, and the implementation of improved disposal systems, high-risk needlestick injuries continue to occur in unacceptably high numbers in healthcare settings.[1]

Design features of needle devices are relevant to their high injury risk. For example, butterfly-type devices with needle-shielding features to protect against needlestick injuries showed a 25% reduction in needlesticks in a clinical trial.[2] Any other risk-reducing design enhancements that can be incorporated into butterfly-type devices should be promoted and evaluated, particularly those intended for blood drawing, because of their disproportionate involvement in the transmission of bloodborne pathogens.

In a recent study on device-specific sharps injuries among healthcare workers, of all hollow-bore needles, conventional butterfly needles were associated with the highest injury rate per 100,000 devices used.[3] This finding is consistent with the high rate of injury from butterfly-type needles documented in the Italian study on occupational risk of human immunodeficiency virus (HIV) that we reported previously.[4]

Since 1994, our data collection has been expanded to include all occupational exposures, regardless of source patient status, using the Exposure Prevention Information Network surveillance system.[5] Of a total of 7,240 percutaneous injuries reported through December 31, 1996, 2,079 (29%) injuries were caused by butterfly-type needles. Our data show that more high-risk injuries (those involving blood-filled hollow-bore needles) are caused by butterfly-type needles than by any other device.[1,4]

Butterfly-type needles are notorious for producing the "cobra effect" against users when the spiral tubing recoils during disassembly and disposal. This is due to the length of the tubing and the fact that it is wound in a tight coil in its package. Although butterfly-type needles were designed primarily for intravenous therapy, they are used primarily for blood drawing. In the above-mentioned study, the highest use of butterfly-type needles was among laboratory phlebotomists. Similarly, in 569 (27%) butterfly-related needlesticks reported in the Italian Study on Occupational Risk of HIV—Exposure Prevention Information Network study, the device was used to draw blood, and 176 (31%) of these incidents occurred while putting the butterfly into a disposal container.

These data demonstrate that, in relation to current practice, butterfly-type devices frequently are used for blood drawing, a different procedure than that for which they were designed. We suggest that butterfly-type devices intended for blood drawing should have only a short length of tubing and that the tubing should not be packaged in coils. The effectiveness of these kinds of devices should be evaluated.

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Vancomycin Use and Monitoring in Pediatric Patients in a Community Hospital

To the Editor:

Before 1988, resistance to vancomycin was rare in gram-positive bacteria. An increase in infection and colonization with vancomycin-resistant enterococci was reported after 1989,[1] and the Centers for Disease Control and Prevention (CDC) issued guidelines in 1995 recommending that vancomycin be used to treat only serious infections caused by β-lactam–resistant gram-positive cocci or used in patients with serious allergies to β-lactams.[2] We investigated patterns of vancomycin use in pediatric patients at our institution in reference to CDC guidelines.

In this retrospective study, information was abstracted from the vancomycin dispensing log of the pharmacy department on all patients age 18 and younger (patients admitted to the neonatal intensive-care unit were excluded) who received vancomycin between January 1, 1994, and December 31, 1995. Patient's age, admitting diagnosis or symptoms and signs, accompanying illness, location, duration of vancomycin therapy, other antibiotics used, number of serum vancomycin levels obtained, monitoring of blood urea nitrogen and creatinine, number of vancomycin dosages adjusted, development of any adverse reactions, and type, results, and susceptibilities of bacterial cultures were recorded.

During the study period, there were 6,239 admissions, of whom 80 (1.3%) received either parenteral (77

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