Simple Device to Reduce the Risk of Accidental Needle Puncture

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Dear Sir,

Hepatitis B and the human immunodeficiency virus are both known to be transmitted by needle pricks. Health care workers have a high risk occupational exposure. For this reason the Centers for Disease Control advocates universal blood and body fluid precautions for all patients.

Uncapped, used needles are a potential source of accidental injuries. Accidental puncture most frequently occurs during attempts to cap needles. The Centers for Disease Control recommends the use of puncture-resistant needle containers rather than recapping [1]. Despite routine care, needle pricking among nursing, laboratory, and housekeeping personnel in teaching hospitals is relatively common [2].

In the clinical laboratory and at the bedside most blood specimens are drawn through a vacuum system into a tube (Venoject; Vacutainer). After use the contaminated needle should be removed from the tube holder and discarded into a container. This requires that the needle is recapped; the wole of it is then unscrewed and withdrawn.

In the dialysis unit and in the intensive care setting, most blood specimens are drawn through a needle into a syringe and despite routine care a potential for inadvertent needle puncture exists. In addition, in housekeeping or in noninstitutional health care settings a 'sharps' container may not be readily available, and so used needles have to be recapped before disposal.

We have designed a simple device to ensheathe needles, thereby reducing the chance of accidental and dangerous needle puncture. It consists of a plastic disc that is fitted to the cap. The plastic disc is 25 mm in diameter with a hole to accommodate the cap. The device permits the needle to be easily inserted and encased within the

Fig. 1. The protective disc makes it possible to cover all needles safely.

sheath (fig. 1) prior to disposal. This protective disc is recommended for routine use when disassembly is necessary and when using nondisposable syringes, since it reduces the likelihood of inadvertent puncture. Our technicians have found that it is easy to use and makes it possible to cover all needles safely. Perhaps this device could be ready-fitted to the sheaths by the manufacturers.

References

Recommendations for prevention of HIV transmission in health-care settings. MMWR 36:3S-18S (1987).