

Sir,

### Lancets as a source of sharps injuries

Patient monitoring with devices which utilize capillary blood samples is common practice, and set to increase. The advantages of such systems are at least twofold: first, the simplicity of capillary blood sampling means that samples may be obtained by relatively unskilled staff or patients, and second, the equipment used is often portable enabling near-patient testing either within the healthcare setting, at home or even in the high street.

Capillary blood samples may be obtained either by pricking the finger (or heel) directly with a lancet or by using it in conjunction with a spring loaded device. The cross-infection risk from spring loaded devices was unrecognized until at least three outbreaks of hepatitis B occurred.<sup>1</sup> Their cause was traced to a failure to change the platform as well as the lancet between patients.

Whilst used lancets are a potential source of sharps injury we were surprised to discover how often they are implicated. In 1992, a sharps audit programme was introduced within our trust. Staff attending Accident and Emergency or Occupational Health following an injury are requested to fill in a questionnaire detailing the circumstances of the injury including the implement involved. Completed forms are analysed on an individual basis shortly after receipt, and then again as part of an annual review of all injuries. The first annual review, which covered part of 1992 and the whole of 1993, showed that lancets accounted for 16% of evaluable sharps injuries. One of the authors (S.T.), whilst working in a large teaching hospital in 1994, found lancets to account for 12% of injuries, suggesting that our findings may not be atypical of other hospitals.

As a result of the audit a new capillary blood sampling device, the Unistik (Owen Mumford Ltd, Oxford, UK), was introduced during the course of 1994. This is a self-contained, spring-loaded device incorporating lancet, disposed of after single use. The lancet recoils within the plastic body following activation thereby in theory eliminating the risk from sharps injury. The number of lancet injuries before and after introduction of the Unistik is shown in the Table. Most of the injuries that occurred in 1994 were prior to introduction of the Unistik at ward level. Lancet injuries may still arise because diabetic patients tend to bring their own monitoring equipment into hospital and may not dispose of their used lancets appropriately (as in 1995).

Table. Number of lancet injuries before and after introduction of the Unistik

Year	1992/1993	1994	1995	1996
Number of lancet injuries	8	7	2	0
Percent Sharps injuries	16%	10%	2%	0%

Introduction of the Unistik has successfully lowered the number of sharps injuries, virtually eliminating lancets as a cause. The system is popular both with patients and staff. At face value the Unistik may appear more expensive than a lancet, but if one takes into account the annual cost of replacing lost spring loaded devices (required to operate the lancets), the extra cost is offset. Additionally savings are achieved by preventing sharps injuries, the cost of which has been estimated to be up to \$480 per incident.<sup>2</sup> Most importantly it is safer.

We would recommend that the Unistik or similar system be introduced wherever multi-patient capillary blood sampling is undertaken.

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