CHAPTER 19: NEEDLESTICK MANAGEMENT
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Introduction

The National Audit Office (NAO) report of April 2003, *A safer place to work – improving the management of health and safety risks to staff in NHS trusts*, and the subsequent Public Accounts Committee hearing, highlighted the need for the better management of needlestick and sharps incidents in the NHS.

The report stated that needlestick and sharps injuries accounted for 17 per cent of accidents to NHS staff and were the second most common cause of injury, behind moving and handling at 18 per cent.

Contaminated needles can transmit more than 20 dangerous blood-borne pathogens, including hepatitis B, hepatitis C and HIV.

During 2005, the Department of Health will be working with the Health and Safety Executive (HSE) and the Safer Needles Network (SNN) to produce an NHS-wide strategy for safer needle management. In the meantime, this chapter gives guidance on what NHS employers should do to reduce the risks of needlestick and sharps injuries to staff.

Needlestick and sharps injuries can have devastating effects on the members of staff concerned.

- At least four UK healthcare workers are known to have died following occupationally acquired HIV infection.
- Since 1996, the Health Protection Agency has received reports of nine healthcare workers who have been infected with HCV because of occupational exposure.

For this reason, NHS employers should look at the following in relation to needlesticks:

- risk assessment
- risk management
- training
- where indicated, the provision of medical devices incorporating sharps protection mechanisms.

With 40,000 reported incidents a year, and at least as many unreported, needlesticks and sharps injuries are a significant issue. They should be managed as part of a trust’s integrated risk management policy.
The legal situation

The Health and Safety at Work etc Act 1974 places a legal duty on employers to provide for the health and safety of their employees. NHS trusts have been subject to the full requirements of this legislation since 1991.

These duties were extended under the Management of Health and Safety at Work Regulations 1992, which require employers to:

• assess risks to the health and safety of their employees
• arrange for implementing a comprehensive system of safety management.

Trusts can be in breach of health and safety regulations because of reported needlestick injuries, and many have settled such cases, resulting in substantial legal expenses and compensation payments.


The Control of Substances Hazardous to Health Regulations 2002 (COSHH) specifically include micro-organisms in the definition of substances that are hazardous to health. The law requires employers to make a suitable and sufficient assessment of the risks to the health of workers exposed to such substances, with a view to preventing or adequately controlling the risks. This includes the proper use of protective equipment and regular monitoring of exposure.

Under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR), exposures to hepatitis B or C, or HIV, are reportable to the HSE as a dangerous occurrence (‘accidental release of a biological agent likely to cause severe human illness’) using form F2508, rather than as an injury (unless the exposure results in three or more days absence from work). Reports can be made online at: www.riddor.gov.uk

Managing the risks

Data, record-keeping and monitoring

One of the major problems associated with the management of needlestick incidents, identified by the NAO in their report, and confirmed by the HSE, is the lack of hard evidence relating to the actual numbers of incidents in trusts. This is due to the under-reporting of exposure incidents, which some studies have identified as being as high as 85 per cent. The NAO identified data collection and record keeping, together with the monitoring of those records, as a key area that requires more work.

All exposure incidents should be reported promptly, following local reporting arrangements (usually to the trust’s occupational health service). This is important for three reasons.

• It ensures appropriate management to reduce the risk of blood-borne virus transmission.
• It documents the incident and the circumstances, in case of later claim for occupational injury or infection.

• It provides accurate surveillance, so that collective data analysis can inform measures to reduce the risk of further exposures.

**Managing exposure incidents**

Guidance on managing blood and body-fluid exposure incidents can be found in these publications.


• *Guidelines for pre-test discussion on HIV testing*. Department of Health, 1996.


• *Immunisation against infectious disease*. Department of Health, HMSO 1996.

(See appendix 2: Needlestick injury)

**Surveillance systems**

All cases of occupational exposure to blood or body fluid from patients infected with HIV, HCV or HBV, and all incidents where PEP for HIV has started (whatever the HIV status of the source), should be reported to the Health Protection Agency national surveillance scheme.

The anonymity of the healthcare worker is maintained through unique identifier codes. The scheme aims to record:

• the numbers of healthcare workers being exposed to these viruses

• the circumstances contributing to occupational exposures

• the clinical management of those exposures, including HIV exposures

• whether the healthcare worker had PEP

• the side-effects and outcomes.

Further information about the scheme can be found at: [www.hpa.org.uk/infections/topics_az/bbv/bbmenu.htm](http://www.hpa.org.uk/infections/topics_az/bbv/bbmenu.htm)

It is unlikely that there will be a compulsory national surveillance scheme in the NHS, but it may be that the work being done by the HSE, Department of Health and the SNN will result in a nationally agreed format for collecting data locally. Trusts interested in devising a format for collecting their data might wish to refer to the SNN or to one of the health service unions, who all have experience in this area.

For example, the Royal College of Nursing has worked on establishing a national study on the prevalence and causes of needlestick and sharps injuries, using the EPINet™ surveillance system.
Assessing the risk

Risk assessments should be made of all situations where a healthcare worker may be exposed to blood or other potentially infectious material. This will:

• identify which technologies could be used to eliminate exposures
• allow consideration of possible alternatives
• eliminate the unnecessary use of sharps by implementing changes in practice and providing, where practicable, sharp-free devices or safer needle technologies which retract or shield needles after use.

Further information on blood-borne viruses is in the chapter on this subject (see chapter 18). A list of publications relating to blood-borne viruses is in annex A.

Identifying alternatives

Independent studies show that a combination of training, safer working practices and the use of medical devices incorporating sharps protection mechanisms can prevent more than 80 per cent of needlestick and sharps injuries.

Numerous, cost-effective alternatives are available on the market in the UK. The Department of Health, HSE, NHS unions, SNN and others have contributed to the setting up of an interactive website to allow for the exchange of information on new alternatives and how to source them. This can be found at www.pasa.nhs.uk

Training

Trusts should include specific time within training programmes and at induction for all staff to cover:

• the risks associated with blood and body-fluid exposures
• the correct use and disposal of sharps
• the use of medical devices incorporating sharps protection mechanisms.

Refresher training should be made available on a regular basis.

Improved sharps disposal

Studies in the United States and Europe have also shown significant reductions in the numbers of needlestick injuries from improving sharps disposal. It is not acceptable, particularly for cost reasons, to reduce the number of sharps bins to such an extent that staff are forced to carry used needles to the sharps bin to dispose of them.

There should be enough portable sharps bins for staff at all times, to allow the used needle to be disposed of safely at the point of use. This should also reduce the number of incidents resulting from needles being left in bedding.
Summary

The provision of training, education and safer technology will lead to a significant reduction in the incidence of blood and body-fluid exposures. This can be achieved by:

- implementing proper surveillance and reporting procedures
- ongoing training and education, locally and nationally, of healthcare workers in preventative measures and safer working practices
- the availability of safety-engineered devices to all healthcare workers in the workplace, where proper and ongoing risk assessment has identified that such devices will reduce the risk of blood and body-fluid exposure.