

## Safety Note 73

### Sharps injuries in scientific research

#### 1. Purpose

Various research activities at the University (and off-site) involve sharps use, which on occasion lead to needlestick or similar sharps injuries. This Safety Note provides guidance **to the research community** on the minimum operational standard that should be put in place when sharps are used in a research environment.

#### 2. Sharps

Needles, blades (such as scalpels), metal wires and other medical/research instruments with a sharp edge or tip needed to carry out specific research or healthcare work and could cause an injury by cutting or pricking the skin are defined as sharps.

#### 3. Sharps injuries

Sharps injuries are a known risk in research, health and social care sector<sup>1</sup>. Sharps contaminated with biological agents or chemicals can transmit diseases (including blood born viruses<sup>2</sup> e.g. hepatitis B, C and human immunodeficiency virus) and/or introduce toxic chemicals into the body. Due to the transmission risk, sharps injuries can cause worry and stress to the injured person and can be serious.

#### 4. Who is at risk

Those who directly handle sharps (e.g. researchers, technicians, academics, students and visiting students) and others (e.g. co-workers, cleaners, porters, maintenance workers, visitors and members of public).

#### 5. What to do

Sharps are used for a variety of purposes in research, as a result the response to an injury will vary. Use of sharps both on and off-site (field trips, working at other research facilities, institutions and Universities) must be risk assessed prior to starting the work. Often work involving sharps with [open sources of ionising radiation](#), [biological agents](#), [genetically modified organisms](#), [human and animal tissue](#) and [body fluids \(blood, saliva, urine, excrement, etc\)](#) will require the authorisation from [Health and Safety Services](#). Risk assessment must identify a suitable response, proportionate to the risk posed by the sharps' injury. This could range from simply washing the cut/ injury under running water/soap and applying a plaster to a full medical/occupational health assessment at A&E (accident and emergency) or transport to a more specialist facility or quarantine/isolation ward.

Risk assessment based local arrangements must be put in place before the start of work. These arrangements should include:

- A set of local rules and a copy of signed risk assessment including full details of the chemicals/biological agents being used
- Induction, training and authorisation requirements and records
- Emergency contact details and first aid arrangements (including a phone line, transport arrangement and specialist/occupational health contact arrangements in high risk cases)

Near misses and incidents must be reported at the [Health and Safety Services website](#).

Health & Safety Services  
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References:

1. PHE.2012.Eye of the needle:2012 [ONLINE]Available  
<http://webarchive.nationalarchives.gov.uk/20140714091731/http://www.hpa.org.uk/Publications/InfectiousDiseases/BloodBorneInfections/EyeOfTheNeedle/1212EyeoftheNeedle2012Report/>.  
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2. HSE. 2001. *Blood-borne viruses in the workplace Guidance for employers and employees*.  
[ONLINE] Available at: <http://www.hse.gov.uk/pubns/indg342.pdf>. [Accessed 17 October 2018]
3. [http://www.reading.ac.uk/web/files/humanresources/Needlstick\\_poster\\_final2018.p  
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