

# Managing and preventing sharps injuries:

A UNISON guide for safety reps



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## Definition

The term “sharps injury” applies to any incident where a needle, blade (such as scalpel) or other sharp instrument or object causes injury by penetrating the skin. This can include a cut, stab, or graze. The main risk from these injuries occurs when the sharp has been used, contaminated by bodily fluids, and therefore may cause exposure to infection through blood-borne viruses (BBVs) such as HIV, hepatitis B and C, and bacterium such as tetanus.

## Extent of the problem and how it impacts on UNISON members

Many UNISON members across all sectors face the daily risk of injury and infection through used sharps, whether they are delivering injections or handling discarded sharps. Staff affected include:

- *within the health sector:* nurses, ambulance paramedics and technicians, cleaning, portering, hospital laundry, sterile supplies, diagnostic and laboratory staff;
- *within the social care sector:* care assistants, social workers and other staff;
- *within the education sector:* teaching assistants, cleaning and maintenance staff;
- workers in the waste and recycling sector;
- those working in communal areas or in other areas or where drug related litter or other sharps might be left such as care takers, gardeners and park attendants.

It is difficult to accurately estimate the number of sharps injuries. The overwhelming majority are not RIDDOR reportable (see below for more details as to why) and there is no other national system for reporting and recording all sharps injuries. In addition studies have demonstrated that, because of under-reporting, local reporting systems fail to capture the majority of sharps injuries<sup>1</sup>.

However the Health and Safety Executive (HSE) estimates that within the health sector there could be many as 100,000 sharps injuries per year<sup>2</sup> and also lists sharps injuries as one of the most common causes of injury in the waste sector<sup>3</sup>. Further information on the risk of occupational exposure to BBVs in healthcare workers can also be found in Public Health England (formerly known as Health Protection Agency (HPA)) report, “Eye of the needle”<sup>4</sup>.

## Legal requirements

All employers must as far as is reasonably practical, ensure the health and safety of both their employees and the public (The Health and Safety at Work Act 1974). As part of this duty they must carry out a careful examination of the workplace to identify what hazards could cause harm, assess the likelihood of harm occurring, and then implement measures to eliminate so far as reasonably practicable, or otherwise minimise the risks associated with such hazards (The Management of Health and Safety at Work Regulations 1999).

There are additional regulations that tell employers what they must do to control substances that are hazardous to health, such as infected used sharps (The Control of Substances Hazardous to Health Regulations (COSHH) 2002). These regulations also explain what health surveillance measures must be put in place if there is a reasonable likelihood of a worker being exposed to a dangerous virus, infection, or other hazardous substance.

Employers are also required to consult with workers or their representatives on the introduction of any measures that might substantially affect their health and safety. This includes the introduction of new technology, such as sharps devices or new ways of working (Safety Representatives and Safety Committees Regulations (SRSC) 1977 and Health and Safety (Consultation with Employees) Regulations 1996).

If they employ 10 or more people, employers must keep a readily accessible accident book

(or its electronic equivalent), and investigate the circumstances of any incident they are notified of (The Social Security (Claims and Payments) Regulations 1979). However, best practice is for even small employers to have an accident book so that they may know of, and have the opportunity to investigate incidents and then take appropriate action.

Employers are also required (under The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013) to report and keep records of sharps injuries to the HSE if either:

- an employee is injured by a sharp known to be contaminated with a BBV or other hazardous substance (reportable as a dangerous occurrence);
- the injury results in the transmission of a reportable disease (these include HIV, Hepatitis B/C and tetanus);
- the injury itself is so severe that the employee is absent from work or unable to undertake their normal work duties for over seven days (including non-working days). Please note that employers must record any injury that incapacitates a worker for more than three days.

However the overwhelming majority of these injuries are not RIDDOR reportable. It is very rare for the source of a discarded sharp to be known. Even when the source is known it may still not be possible to determine whether the sharp was contaminated by a hazardous substance. For example, if the injury were to occur after delivering an injection it still may not be possible to determine whether the patient had a transmissible BBV if the patient does not consent to being tested.

All employers and contractors in England, Scotland and Wales, operating in the health care sector, must comply with The Health and Safety (Sharp Instruments in Healthcare) Regulations 2013. Workers in Northern Ireland are covered by The Health and Safety (Sharp Instruments in Healthcare) Regulations (Northern Ireland) 2013. Details of both of these regulations are contained in Appendix 1.

## What are UNISON's campaigning objectives?

UNISON has a long history of campaigning for stronger measures to combat sharps injuries. UNISON has campaigned for:

- robust procedures to ensure reporting and recording of all sharps injuries;
- stronger preventive measures, based on risk assessment, including safer sharps;
- improved training for staff and managers.

UNISON played a leading part in negotiating the “Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector” concluded by HOSPEEM (European Hospital & Healthcare Employers’ Association) and EPSU (European Federation of Public Service Unions) on which the European Directive 2010/32/EU and subsequent Health and Safety (Sharp Instruments in Healthcare) Regulations 2013 (see appendix 1) are based.

Although UNISON welcomed these regulations, it continues to campaign that they should apply to all sectors not just the healthcare sector.

UNISON is one of the founding partners of the European Biosafety Network<sup>5</sup> whose primary aims are for the:

- implementation of Directive 2010/32 across all the European Union;
- extension of this directive to all sectors.

However the effectiveness of this legislation is dependent on trade union safety reps campaigning to ensure that they are implemented at local level. That is why UNISON continues to recruit more safety reps (see UNISON Safety in Numbers toolkit and pack (stock nos. 3251 and 3252). It is also important that branches work together and share best practice through, for example, Regional Health and Safety Committees and other similar forums.

Below is a step by step guide that explains what employers must do, and best practice that UNISON branches should seek to achieve through negotiation.

## Step by step guide.

Risk assessments are essential to the management of sharps. All employers must conduct a risk assessment and, if they employ five or more people, record them.

### Step 1 – Identify the Hazards

Wherever sharps are used or discarded, there is a risk of exposure to BBVs or other hazardous substances. In the case of discarded sharps, the source is usually not known. When an injury occurs in the delivering of an injection, although the source will be known, if the patient has not been, and does not consent to being tested, you still won't know whether the sharp contained a hazardous substance. Therefore employers and workers must assume there is a risk of infection in this circumstance.

### Step 2 – Decide who might be harmed and how

Whether working in a controlled environment, such as a hospital operating theatre, or an uncontrolled one, such as a communal park, there is a potentially serious occupational safety risk, whenever a sharp is used, disposed of, or collected for disposal.

The key to a robust risk assessment is to identify the most vulnerable workers, the tasks they undertake, and ensure all incidents are reported and recorded. As described above all employers (with ten or more people) must keep an accident book (or its electronic equivalent), keep the records for at least three years and investigate every incident it is notified of. In addition some sharps injuries are reportable under RIDDOR (see above). Under the Sharps (Healthcare) Regulations, all health workers must report a

sharps injury. All workers should, regardless of where they work, report these injuries, not only for their own safety and wellbeing, but also to make employers investigate and prevent them re-occurring in the future.

Employers in the waste sector should consider the HSE recommendation of setting up a “needles finds reporting” system so that they can map where workers are most likely to encounter used sharps.

### Step 3 – Evaluate the risks and decide on precautions

Fatalities through sharps injuries are rare (although at least 4 workers are known to have died through such injuries<sup>6</sup>) but each injury can cause significant stress and psychological trauma. Even where no infection is ultimately acquired the worker will experience long periods of uncertainty regarding the outcome of the injury. There may also be other changes in lifestyle, possibly working restrictions and in some cases extended and debilitating treatments.

When deciding what precautions are most appropriate all employers must comply with regulation 7 of the COSHH Regulations which lists the preventive measures to be applied. In order of priority these are:

1. Eliminate the use of a harmful product or substance and use a safer one;
2. Use a safer form of the product;
3. Change the process to emit less of the substance;
4. Enclose the process so that the product does not escape;
5. Extract emissions of the substance near the source;
6. Have as few workers in harm's way as possible;

7. Provide personal protective equipment (PPE) such as gloves, coveralls and a respirator. In addition, PPE must fit the wearer.

Therefore the measures your employer would need to consider in the case of sharps injuries are:

**Elimination:** In the health and social care sectors employers can eliminate the unnecessary use of needles by adopting alternative procedures for giving drugs by substituting needles with oral transmission or jet injectors (the Sharps (Healthcare) Regulations requires healthcare employers to avoid the unnecessary use of sharps (see Appendix 1)).

In the waste sector workers should not sort material by hand, whilst in parks, gardens and other communal areas it is possible to design out spaces favoured by drug users.

**Using a safer product:** Sharps incorporating safety mechanisms can significantly reduce the risk of injury. Safety devices enclose the needle (through single handled or, preferably automatic activation) and shield the worker both before and after administering the injection. The choice of device will depend on the purpose of the injection being administered. However any safety mechanism should:

- not compromise patient care;
- perform reliably;
- be an integral part of the safety device, not a separate accessory;
- be easy and convenient to use and require little change of technique on the part of the care-giver;
- allow the care-giver to maintain appropriate control over the procedure;
- not create other safety hazards or sources of blood exposure;
- not be easily reversible once activated<sup>7</sup>.

Under the Sharps (Healthcare) Regulations health employers must whenever it is reasonably practical to do so substitute traditional unprotected sharps with ones incorporating safety

mechanisms, and UNISON would like to see all other sectors that employ staff to administer injections adopt this principle.

In waste and park sectors, using products such as litter pickers and sharps resistant containers such as wheelie bins, can significantly reduce the risk of sharps injuries.

**Changing or enclosing the process:** The COSHH Regulations say that arrangements must be made for the safe handling, storage and transport of hazardous substances. In the case of sharps these include measures such as:

- preventing sharps recapping or resheathing (under the Sharps (healthcare) regulations recapping is banned other than in exceptional circumstances (see Appendix 1));
- placing sharps containers at eye level and within arms' reach;
- disposing of sharps immediately after use in designated sharps containers;
- not overfilling sharps containers (i.e. no more than three quarters full).

Sharps should never be passed hand to hand and handling should be kept to a minimum. All sharps should be disposed of carefully at the point of use or when collected. This means that suitable sharps containers (conforming to British Standard BS 7320) should be portable enough to take to the site of a procedure, and designed specifically to allow needles and sharp instruments to be disposed of easily and safely.

**Have as few workers in harm's way as possible:** This can be achieved by employers limiting the number of people that handle sharps. For example, in the waste sector many local authorities operate specialist services with dedicated teams or members of staff to deal with needle finds. In addition there are specialist waste companies that collect and dispose of sharps bins routinely or by appointment.

**PPE:** These provide barriers and filters between the worker and the hazard. Examples include:

- **Gloves** should always be worn, even if you

are using a tool, to move or handle sharps. In the waste sector the HSE recommends that gloves should have a high level of puncture resistance, (i.e. conforming to EN 388: 2003 Protective gloves against mechanical risk, British Standards Institution).

If you are working in the health and social sector and are required to administer injections, although it may not be practical to wear puncture resistant gloves, you should still use gloves. Double gloving significantly reduces the risk of infection. The outer glove will remove up to 86 per cent of the blood on the outside of a needle, whilst the inner glove will remove most of the blood not removed by the outer glove;

- **Protective clothing for limbs:** The HSE recommends waste sector employers provide suitable puncture/cut resistant clothing to help protect limbs. Arms are vulnerable when throwing bags into collection vehicles, and in addition needles can also injure legs when black refuse sacks are being carried;
- **Eye protection:** If you are working with blood or other body fluids that could splash into the eye, eye protective gear should be used.

#### **Health surveillance procedures, vaccination and procedures for treating injuries when they occur:**

By applying all of the above employers should substantially reduce and minimise the risk of sharps injuries in their organisations. However, employers must have procedures in place to manage sharps injuries should they occur. The COSHH Regulations say that health surveillance is required in any workplace where each of the following are met:

- the work is known to harm health in some way;
- there are valid ways of detecting the disease or condition;
- there is a reasonable likelihood that damage to health may occur under the particular conditions at work;
- the surveillance is less likely to benefit the employee;
- the technique of investigation is of low risk to the employee.

The purpose of health surveillance is to protect employees' health; collect data to evaluate health hazards and prevent serious disease from developing; check current control measures are working properly; identify further steps. It encompasses measures such as vaccination and procedures for monitoring and treating workers should an injury occur.

**Vaccination:** Although there is no vaccination for either HIV or Hepatitis C, one is available for Hepatitis B. According to the Department of Health's "Immunisation against infectious disease: the green book" vaccination is recommended for the following occupational groups:

- All healthcare workers (including students and trainees) who may have direct contact with patients' blood, blood-stained body fluids or tissues. This includes any staff who are at risk of injury from blood-contaminated sharp instruments;
- Laboratory staff who handle material that may contain the virus require vaccination;
- Staff of residential and other accommodation for those with learning difficulties.

It also says that similar considerations may apply to staff in day-care settings and special schools for those with severe learning disability, but that decisions on immunisation should be made on the basis of a local risk assessment.

The green book also says that all NHS staff should be up to date with their routine immunisations, e.g. tetanus, diphtheria, polio and MMR.

UNISON believes that all staff at risk of sharps injuries or any other risk of transmission of BBVs should be offered this vaccination free of charge through the employer's occupational health scheme.

**Monitoring and treating workers in the event of injury:** Wound washing remains one of the most effective ways of reducing the risk of infection getting into the blood stream. When a sharps injury occurs bleeding should be encouraged and the wound washed in warm running water with soap. It is therefore important



that all workers, including those working in the community, parks or open areas, have access to warm water, through either the mains supply or for example canisters. Joint Waste and Recycling industry/HSE guidance recommends that hand-washing provision should be provided where there is a risk of contact with corrosives, acids, biohazards, etc. This may include warm water, mild soap and towels. Cleansing wipes alone should only be provided on vehicles where there is a minimal health risk and no hand washing facilities. Strong cleansers that can cause irritant dermatitis should be avoided.

Although hand washing may reduce the risk of the infection developing, it does not eliminate it. Therefore arrangements must be in place to ensure that any worker that has been injured by a sharp, that has or may have exposed them to a BBV or any other form of infection, is provided with immediate medical advice and treatment. These treatments (known collectively as post exposure prophylaxis (PEP)) are most effective if administered as soon as possible after exposure. For example in the case of HIV exposure treatment should ideally begin within an hour of exposure. Treatment becomes much less effective if it is administered after 72 hours.

All healthcare employers must, under the Sharps (Healthcare) Regulations, provide immediate access to medical advice and offer preventive treatments. In the case of health care staff working out of hours and/or on premises where such advice and treatment is not immediately available, employers must ensure they have sufficiently robust arrangements that will allow staff to access treatment in a timely manner (see Appendix 1).

#### **Step 4 – Record your findings and implement them**

The findings of the risk assessment should be documented and form part of the action plan to reduce the risks of injury. The results of the risk assessment should be shared with all workers identified as being at risk and their safety reps.

Performance indicators can be used to ensure that risk assessments are being implemented e.g. decrease in the number of sharps injuries.

#### **Step 5 – Monitor performance and review**

Steps should be taken to periodically review the effectiveness of the risk assessment and consider additional control measures. UNISON recommends that it should be reviewed at least once a year. However risk assessments should also be reviewed if there is an incident (e.g. sharps injury), new equipment is introduced (safer sharps devices) or where there are changes to work practices.

## Case studies.

**Case Study 1:** A UNISON NHS branch had concerns over the number of sharps injuries and the effect this was having on their members. Although the injuries had not led to any fatalities it was having a serious effect on staff morale. The branch raised these concerns with the trust's Health and Safety Adviser. It was jointly agreed to set up a Sharps Sub-Committee of the Health and Safety Committee consisting of:

- Two Health & Safety Reps,
- Trust Health & Safety Adviser,
- Occupational Health Nurse,
- Infection Control Senior Nurse,
- Service Manager (responsible for the strategic, financial and day-to-day running of the NHS Trust).

Existing safety measures were reviewed. These included:

- Board policy;
- Local procedure reviews;
- Regular inspections;
- Robust local reporting procedures;
- Safe methods of disposal;
- Training, particularly staff induction sessions;
- A ban on recapping;
- Awareness raising measures including sharps injury prevention and first aid cards, BBV awareness sessions, and infection control.

Despite these measures, accident report data suggested there were on average still 65 sharps injuries per year over the previous five years. Although none of these injuries had proved fatal they had in some cases resulted in expensive, time-consuming and stressful treatments.

A costly benefit study was carried out that included an estimation of the cost of low, medium and high risk injuries.

In addition the new Sharps (Healthcare) Regulations place additional legal duties on employers and it was noted that the HSE had already issued improvement notices to NHS trusts for failure to comply, particularly with regard to the provision of safety sharps devices<sup>8</sup>.

Most importantly though the trust accepted that these injuries were preventable and they had a moral duty to protect staff from harm.

It was therefore agreed to introduce the following additional safety measures.

- Safety needleless devices wherever this was reasonably practical, e.g. some “blood gas collection” (i.e. collection of blood for testing of oxygen levels).
- Safety sharps devices including:
  - Safety cannula;
  - Safety multifly;
  - Safety monovette;
  - Safety insulin pen.
- A review of existing training and induction programmes to ensure that all staff understood existing procedures, were trained in the use of any new equipment and understood their duty under the Sharps (Healthcare) Regulations (see Appendix 1) to report all sharps injuries.

The sharps sub-committee agreed to monitor and review the outcome of these measures after 12 months.

**Case study 2:** A UNISON branch working in the waste sector had concerns at the number of sharps injuries to its members working in refuse disposal. It raised the issue with the local Health and Safety Committee. It was agreed to review existing safety procedures. These already included the provision of litter pickers, sharps resistant containers, gloves and trousers. Following the review the employer agreed to:

- Set up a dedicated team to deal with needle finds;
- Ensure that that all workers in the event of a sharps injury had ready access to running hot water, and where required, the appropriate medical treatment such as PEP;
- Review existing training programmes to ensure that all staff understood what to do in the event of either a sharps injury or a needles find.

## Checklist for safety reps

If you have any members in your branch who regularly use or handle used or discarded sharps, ensure employers and managers have:

- Trained staff educated in the dangers of sharps injuries and how to avoid them (including training in the use of any equipment).
  - Robust procedures in place to enable workers to notify and report sharps injuries in a timely manner. It is mandatory for all workers in the health sector to report sharps injuries (see Appendix 1), and it is important that all staff regardless of where they work are encouraged to report these injuries.
  - Where they employ staff to deliver injections, consider whether it is reasonably practical to:
    - Avoid unnecessary use of sharps or substitute needles with needle free devices;
    - Substitute traditional unprotected sharps with ones incorporating safety mechanisms;
    - Banning two handed recapping of sharps. If you are working in the health care sector all recapping is banned other than in exceptional circumstances, (see Appendix 1).
  - Robust procedures in place for the disposal of used sharps. These include, where appropriate and depending on where you work:
    - Provision of sharps containers at eye level and within arms' reach;
    - Disposing of sharps immediately after use in designated sharps containers;
    - Not overfilling sharps containers (i.e. no more than three quarters full);
    - Provision of sharp resistant containers such as wheelie bins for the collection of waste, recyclables, and compostables.
- Ensure workers have easy and readily available access to:
    - Hand washing facilities;
    - Preventive medical treatments (PEP) when required.

## Appendix: “The Health and Safety (Sharp Instruments in Healthcare) Regulations 2013” and “The Health and Safety (Sharp Instruments in Healthcare Regulations (Northern Ireland) 2013”.

These regulations apply to health care employers and employees. This includes:

- All NHS providers;
- All private and independent healthcare providers;
- Residential care homes where the primary purpose of the home is to provide healthcare (they do not apply where the primary purpose of the home is residential care);
- Healthcare workers providing care to people at their homes, where the employer’s primary activity is the provision of healthcare;
- Students on clinical placements when they are on placement in a hospital or other healthcare premises;
- Bank nurses and agency workers, as long as they are working in the NHS or for an organisation whose main activity is the provision of healthcare;
- Clinical trials in the pharmaceutical sector where it is employees of a healthcare employer who carry out the trial on behalf of a clinical research organisation or pharmaceutical company. They would also apply to employees of a pharmaceutical company or research company when they enter healthcare premises to carry out the trial;
- Contractors when their employees are working in the healthcare sector (however they do apply to their employees when they are working outside the health sector);
- Pharmacies where their primary activity is to provide healthcare, for example pharmacies that are part of a hospital and/or an NHS run service (they do not apply to high street pharmacies).

Under the regulations those employers that fall in any of the above categories must:

- First avoid the unnecessary use of sharps;
- Where sharps remain in use, substitute

traditional unprotected sharps with ones incorporating safety mechanisms where it is reasonably practical to do so;

- Place secure containers and instructions for safe disposal of needles close to the work area;
- Completely eliminate recapping of sharps, unless the employer’s risk assessment has identified that avoiding recapping is more dangerous than recapping. In these limited circumstances appropriate devices to control the risk of injury to employees must be provided, e.g. needle-blocks can be used to remove and hold the needle cap;
- Provide the necessary information and training to workers;
- Investigate and take action in response to work related sharps injuries or near-misses;
- In the event of a sharps injury ensure workers receive the appropriate treatment;
- Provide information for workers on:
  - The risks involving medical sharps;
  - The legal duties and rights of employers and workers;
  - Good practice in preventing injury;
  - The benefits and drawbacks of vaccination;
  - The support available from the employer to someone who is injured by a sharp.
- Provide training on
  - The safe use and disposal of sharps;
  - What to do in the event of a sharps injury;
  - The employer’s arrangement for health surveillance and other procedures.

In addition employees must notify their employer

of any sharps injury as soon as practicable. The employer in turn needs to ensure they have sufficiently robust arrangements to allow employees (including those working out of office hours or away from the employer's premises) to notify them in a timely manner.

## Appendix 2: Further reading.

### UNISON guides available from the UNISON Online Catalogue

- Risk assessment: a UNISON Guide (stock no. 1351)
- UNISON's guidance on working with hazardous substances at work (stock no. 2253) (Currently under review)
- UNISON Safety-in Number toolkit and pack (stock nos. 3251 and 3252)
- (see UNISON's Health and Safety Representatives Guide (stock no. 1684))

### HSE publications (<http://www.hse.gov.uk>)

- Health and Safety (Sharp Instruments in Healthcare) Regulations 2013 Guidance for employers and employees
- Handling needles in the waste and recycling industry
- Waste and recycling vehicles in street collection
- Control of substances hazardous to health regulations 2002: ACOP (Approved Code of Practice) and Guidance
- Blood-borne viruses in the workplace: guidance for employers and employees (INDG3442)

### Other publications

- European Biosafety Network Toolkit for implementation of European Directive on prevention from sharps injuries (<http://europeanbiosafetynetwork.eu>)
- NHS Staff Council Guidance for employers and employees: health and safety (sharp instruments in health care regulations 2013 – see NHS Staff Council “HSWPG (Health Safety and Wellbeing Partnership) publications” (<http://www.nhsemployers.org>))

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<sup>1</sup> Needlestick Injuries among Surgeons in Training by Martin A. Makary (M.D., M.P.H) and others; New England Journal of Medicine 2007, June 28 (issue no 356), pp 2693-2699

<sup>2</sup> HSE Board Paper HSE/08/60 European Commission measures for protecting healthcare workers from infectious injuries, HSE, 2008

<sup>3</sup> <http://www.hse.gov.uk/waste/municipal.htm>

<sup>4</sup> Eye of the Needle, HPA, 2012

<sup>5</sup> European Biosafety Network (<http://www.europeanbiosafetynetwork.eu/>)

<sup>6</sup> NHS Staff Council Guidance for employers and employees: health and safety (sharp instruments in health care regulations 2013)

<sup>7</sup> These criteria are set out in both the “European Biosafety Network Toolkit for implementation of European Directive on prevention from sharps injuries” and “NHS Staff Council Guidance for employers and employees: health and safety (sharp instruments in health care regulations 2013” (see other publications for more details).

<sup>8</sup> <http://www.hse.gov.uk/notices/>



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