

# Training Brief

## Management of sharps waste

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Sharps are items that could cause cuts or puncture wounds, for e.g. needles, scalpel blades, knives, infusion sets, saws, amino hooks, broken glass, ampoules etc. These items are considered as highly hazardous health care risk waste (HCRW) even if they are not infectious because of their ability to cause a sharps injury.

### Safety, Health and Environmental Issues

1. Sharps may not only cause a cut or puncture wound but may also infect the wound with possible pathogens that have previously contaminated the sharps.
2. Due to this double risk of injury - disease and transmission - sharps are considered a very high risk waste stream.
3. The main diseases of concern obtained from a needle stick injury (NSI) are viral blood infections for e.g. HIV, Hepatitis B and C.
4. Healthcare staff, nurses and doctors are at the greatest risk of obtaining a needle stick injury. NSI's can occur during the administration of injections, the handling of the sharps prior to disposal into the containers, from overfilled sharps containers and from incorrect disposal of the sharps. (For e.g. a needle left lying on the patient's bed).
5. Other healthcare workers and waste management operators outside the healthcare facility are also exposed to significant risk when the sharps are not properly segregated and contained (for e.g. sharps placed in red bags and not into the sharps container can cause a puncture wound to the individual/s collecting, treating and disposing of the red bag waste. This will result in the individual/s having to undergo ARV treatment).

### Guidelines to the management of sharps waste

1. Sharps waste is a highly hazardous waste stream and therefore requires to be placed in a **rigid, puncture proof container** that is **yellow** in colour.
2. There are single use containers and reusable containers available for sharps waste.
3. All sharps, whether contaminated or not, must be placed into a **yellow** sharps container.
4. Prior to using a sharps container, one must ensure that the sharps lid is securely fitted.
5. It is the personal responsibility of the person using the sharps to dispose of it safely.
6. The needle should never be removed from the syringe because of the increased risk of injury.
7. As a rule: **Never re-sheath needles.**
8. No other HCRW should be placed into a sharps container as sharps containers are more expensive to purchase compared to HCRW containers i.e. plastic liners, cardboard box sets or reusable red containers.
9. The sharps container must be securely placed as near as possible to the point of generation, such as in a wall mounted bracket at the patient's bedside, or on the dressing room/medicine/emergency trolley.
10. Sharps containers must be maintained in an upright position throughout their use by means of brackets.
11. Sharps containers must be placed at a height where the opening is easily visible and out of reach of children, approximately 1.2 m from the floor.
12. When the sharps container is  $\frac{3}{4}$  full, the container must be securely closed and placed in the intermediate storage area for collection. **Never fill above the fill mark line.**
13. **Never overfill sharps containers** as it makes closing the lid difficult (and could cause a NSI whilst doing so). Transporting sharps containers that are overfilled is dangerous and must be avoided.
14. The sharps container lid must be tamper proof when closed and sealed.

15. Sharps containers must be carried by their handles where ever possible.
16. Sharps containers must be SABS approved according to the United Nations Recommendations for the Transportation of Dangerous Goods, Chapter 6. The SABS certificate number must be printed on to the outside of the container.
17. Never place mercury or broken thermometers containing mercury into a sharps container. This is a separate waste stream and is to be dealt with by the rules and regulations governing this waste stream.

**Treatment and Disposal**

1. Sharps waste can be disposed of by either incineration or by environmentally friendly technology, for e.g. Autoclaves.
2. Untreated sharps waste should never be directly disposed of at a landfill site.
3. Untreated sharps waste should never be disposed of via the general waste stream.

**Reference**

1. SANS 452:2008 Non reusable and reusable sharps containers
2. SANS 10248 – 1:2008 Management of healthcare risk waste from a healthcare facility
3. A code of practice for the safe use and disposal of sharps – British Medical Association.

**Correct use of sharps containers**



Reusable sharps container



Single use sharps container



Sharps container secured by a bracket and positions as close as possible to the point of generation

**Incorrect use of sharps containers**



Sharps containers not secured by brackets and incorrectly placed below eye level



The lid is not secured onto the container



Incorrect disposal of sharps (needle is facing upwards)