

SOP 14 Waste management

14.1 Disposal of healthcare risk waste

“Healthcare waste” is defined as solid or liquid waste arising from healthcare or health related facilities. There are two categories of waste each of which must be segregated and disposed of separately. Each site specific waste management plan must extend to include healthcare risk waste. The dental team is responsible for arranging the safe disposal of healthcare risk waste, thereby protecting patients, staff and public. Each dental area must ensure that it complies with waste legislation including the generation and storage of waste transfer forms.

Non-risk waste	Risk waste
<i>This waste is not hazardous and is disposed of in the usual domestic waste disposal system.</i>	<i>This waste is potentially hazardous to anyone who comes in contact with it (infectious, biological, chemical or radioactive or by being categorised as sharp). Such waste has come in contact with patients’ body fluids such as blood and/or saliva.</i>

Relevant documentation

HSE Waste Management Awareness Handbook

<https://www.hse.ie/eng/services/news/newsfeatures/healthsustainabilityoffice/wasteprvention/waste-management-handbook-2014.pdf>

Waste Management Act 1996

<http://www.irishstatutebook.ie/eli/1996/act/10/enacted/en/html>

S.I. No. 126/2011 European Communities (waste directive) Regulations 2011

<http://www.irishstatutebook.ie/eli/2011/si/126/made/en/pdf>

S.I. No. 349/2011 - European Communities (Carriage Of Dangerous Goods By Road and Use of Transportable Pressure Equipment) Regulations 2011

<http://www.irishstatutebook.ie/eli/2011/si/349/made/en/print>

S.I. No. 277/2019 European Communities (Carriage Of Dangerous Goods By Road And Use Of Transportable Pressure Equipment) (Amendment) Regulations 2019.

<http://www.irishstatutebook.ie/eli/2019/si/277/made/en/print>

14.1.1 Segregation of waste

- This should take place at the point of generation.
- All staff should be familiar with the types of waste being generated within the practice and be trained on appropriate segregation.
- All practices should stock suitable and consistent packaging, which is vital in enabling the different forms of waste to be handled, transported and disposed of in a manner, which is safe and consistent with the nature of the waste.
- The risk of waste spreading infection is very low when handled properly.

14.1.2 Packaging of waste

- Practice staff should use appropriate personal protective equipment (PPE).
- Gloves are always used when handling waste; an apron can be used to protect clothes if handling wet waste.
- Hand hygiene should be carried out after handling waste (even if gloves are worn).
- In general all containers, including wheeled bins carrying bagged waste, should conform to basic requirements relating to:

Manufacturing:

All packaging must be manufactured and tested to the approved UN standards.

Colour coding:

The basic colour put forward for the body of each type of container is yellow. Lid colours are used to indicate the disposal stream.

Labelling:

All packaging used for healthcare risk waste must be marked with a diamond shaped risk label with class number “6” and biohazard symbol and the relevant 4 digit UN number (e.g. UN3291)

Filling:

Containers must not be over-filled. In general rigid boxes should not be more than three-quarters filled (or beyond manufacturer’s fill line) while bags should not be more than two thirds filled.

Closure and Storage:

It is essential that lids of UN containers are fitted and closed in accordance with the manufacturer’s recommendations. Plastic bags should be closed using a “swan-necking” technique (see 14.1.3) and tied with either tape or a cable-tie. Once closed the person must sign that the container is sealed correctly. Bags/containers that have been appropriately sealed, tagged and labelled should be stored in a designated secure area (inaccessible to the public) awaiting collection.

Traceability:

All waste packages must be tagged with a unique reference number which is traceable to the point of production. Proprietary closure ties which incorporate a reference number system are now extensively used. Each healthcare waste generator should retain records of tags issued to particular locations for a recommended period of not less than three years. Transportation of healthcare risk waste is governed by several sets of regulations (and must conform to ADR* requirements)

*ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

Refer to Appendix XVII for segregation and packaging on Healthcare risk and non-risk waste

14.1.3 Disposal of waste

- Healthcare risk waste must be placed and stored in yellow healthcare risk waste bags.
- Yellow healthcare risk waste bags should be housed within a rigid foot operated bin.
- Apply the swan neck sealing method as demonstrated below.

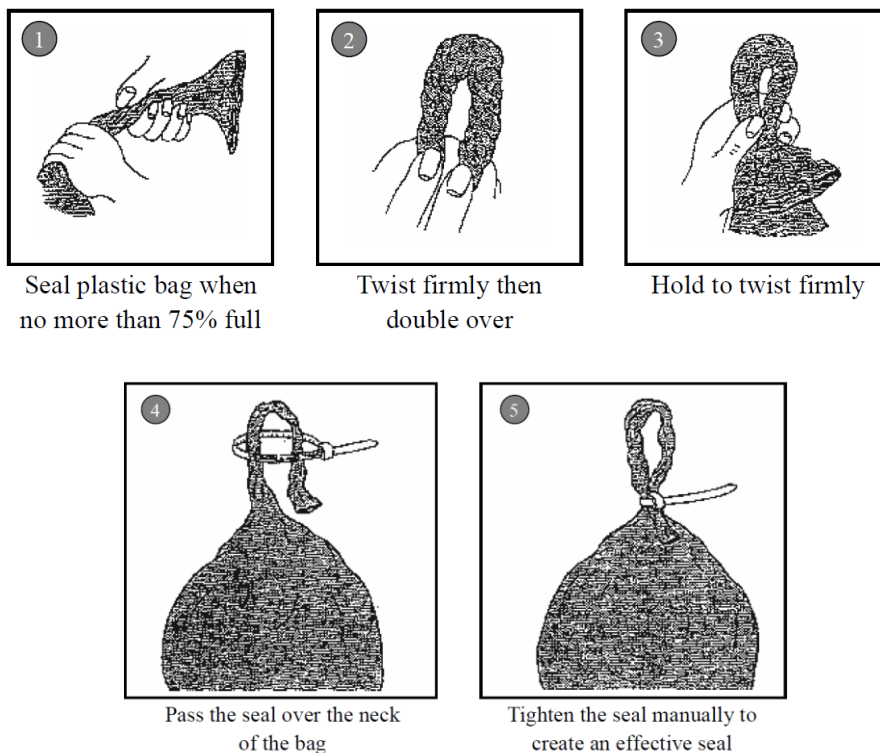


Figure 5: Swan Neck Sealing Method

- It is important that clinical sharps bins are not filled to more than two thirds of their capacity to avoid sharps injuries and they should be in the temporary lock position when not in use.
- Full sharps bins should be locked, signed and stored upright in a secure location awaiting collection.
- It is essential that each healthcare risk waste bag/sharps container is tagged and the tag number recorded for reasons of traceability and accountability.
- Amalgam waste/dappen dishes used to hold amalgam/used amalgam capsules must be placed and stored in the appropriate amalgam waste containers and collected by an authorised waste disposal company.
- Extracted teeth should be placed in specific waste tooth boxes/pots available from the waste contractor. Alternatively they can be cleaned and returned to the patient.

- The following items are suitable for disposal in clinical sharps bins but this list is not exhaustive:
 - Needles
 - Matrix bands/orthodontic bands
 - Orthodontic wires
 - Temporary anchorage devices
 - Removable appliances and fixed appliances
 - Burs
 - Scalpel blades and disposable scalpel blades
 - Endodontic instruments such as files, reamers, broaches
 - Empty local anaesthetic cartridges
 - Etch tips (where possible etchant gel should be placed in a disposable dappen dish and a disposable brush used to apply same).

14.2 Disposal of Pharmaceutical waste

- Pharmaceutical waste should NOT be disposed of in clinical sharps bins.
- Out of date pharmaceuticals e.g. midazolam may be disposed of by arrangement with a local pharmacist or in designated bins – Pharmabin (yellow bin and purple lid).
- Aerosols should be disposed of in the appropriate containers which are supplied by the waste collectors.

14.3 Disposal of end of life instruments

- End of life instruments should be decontaminated.
- Contact the local healthcare risk waste operator for their recommendations regarding disposal.

14.4 Disposal of plaster models (e.g. orthodontic study models, plaster casts) made of plaster containing gypsum

- Gypsum is prohibited from domestic landfill sites.
- Models should be segregated from other waste, anonymised, and coded as 18 01 04, and either sent for recycling as gypsum or for disposal in a specifically designated landfill site.
- In a small number of cases, the model may become contaminated with body fluids if the appliance or crown is retriied on the model after insertion in the patient's mouth. In this case models should then be disposed of in a yellow waste bag as an infectious waste.

Appendix XVII Segregation and Packaging of Healthcare Risk and Non Risk Waste poster

http://www.rcsi.ie/files/facultyofnursingmidwifery/20190208094954_waste%20poster%20edition%202014.pdf

SEGREGATION & PACKAGING OF HEALTHCARE RISK & NON-RISK WASTE

RISK WASTE

YELLOW BAG



- All blood-stained items and all items soiled with body fluids assessed as infectious
 - Suction catheters & tubing
 - Incontinence waste from known or suspected enteric infections
- * NO SHARPS OR FREE LIQUIDS**

YELLOW SHARPS BIN (with blue or red lid)



- Needles, Syringes & Scalpels
 - Contaminated slides & glass
 - Sharps tips of clear IV giving sets
 - Blood stained glass
 - Stitch cutters
 - Guide wires/trocars
 - Razors
- * NO FREE LIQUIDS**

YELLOW 30/60 LITRE RIGID BIN (with yellow lid)



- Blood administration sets (never disconnect line from bag)
 - Contained blood and body fluids
 - Non-cultured laboratory waste (including autoclaved microbiological cultures)
 - Disposable suction liners
 - Redivac drains (ensure drain closure sealed)
 - Sputum containers
 - Chest drains
- * NO SHARPS OR FREE LIQUIDS**

RISK WASTE

YELLOW 30/60 LITRE RIGID BIN (with purple lid)



- Cytotoxic drugs including infusion lines, left over drug preparations and personal protective equipment used.
 - Small quantities of residual medicines or pharmaceuticals left over after administration to patients.
- * NO SHARPS OR FREE LIQUIDS**

YELLOW SHARPS BIN (with purple lid)



- Contaminated cytotoxic sharps, needles, syringes, sharp instruments and broken glass
- * NO FREE LIQUIDS**

YELLOW RIGID BIN (with black lid)



- Non-autoclaved microbiological cultures
 - Large / recognisable anatomical body parts
 - Placentas with additional leak proof containment
 - Large solid metal objects and instruments
- * NO SHARPS OR FREE LIQUIDS**

NON-RISK WASTE

CLEAR BAG



- Incontinence wear (from non-infectious patients)
 - Oxygen face masks
 - Empty urinary drainage and empty otome drainage bags
 - Clear tubing (e.g. oxygen, urinary catheters, ventilator, naso gastric, IV lines with tips removed)
 - Enteral feeding equipment
 - Non contaminated gloves, aprons and masks
 - Empty continuous ambulatory peritoneal dialysis (CAPD) bags
 - All other household non-risk, non-recyclable waste
- * NO SHARPS OR LIQUIDS**

RECYCLABLE WASTE

GREEN BAG



- Mixed Dry Recyclables - Paper, Cardboard, Tetra Packs, Plastic Packaging / Wrappings, Tins/Cans, Plastic Bottles
- * NO SHARPS OR LIQUIDS**

PLEASE NOTE:

- Do not use waste bags for sharp or breakable items or for liquids
- Close healthcare risk waste bags using "swan neck" when 2/3 full
- Sign and seal sharps bins correctly when 3/4 full or at manufacturers fill line
- Label all healthcare risk waste appropriately at point of generation
- Apply traceability tags to all healthcare risk waste at point of generation
- Use long sharps bins for large trocars, knives, stapling guns etc.
- For all 30/60 litre rigid bins, add absorbent material or gelling agent in sufficient quantities to hold the fluid and prevent leakage.
- For further details on healthcare risk waste, please refer to www.dohc.ie/publications

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DEPARTMENT OF HEALTH

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HSE National Guideline for Infection Prevention and Control in HSE Dental and Orthodontic Services

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