Disinfection and Decontamination Core Subject

Waste Management in Dental Practice

Aim: To provide important information on the different types of waste produced in a dental practice hazardous and non-hazardous and to provide information about disposing of the waste in line with current regulations.

Learning outcomes:

- You will be able to identify some of the various types of waste produced in a dental practice
- Through completion of a multiple choice questionnaire you will be able to demonstrate the understanding of your role in assisting with safe waste management in a dental practice
- You will be able to identify which storage containers are suitable for each type of waste produced in a dental practice

Introduction

Dental practices produce a significant amount of hazardous and non-hazardous waste and have a legal responsibility to dispose of it safely and in accordance with current regulations.

The good practice framework for dealing with waste is outlined in the Department of Health publication ‘Safe Management of Healthcare Waste.’ This document was produced to provide a best practice guide for the management of healthcare waste and provides practical advice which will be reviewed and applied to dental practice in this article.

Who is Responsible for Ensuring Waste is Disposed of Correctly?

The registered manager of the dental practice or if there is not an appointed manager the practice owner is responsible making sure that waste is:

- Correctly segregated
- Stored safely and securely away from areas of public access within the premises
- Packaged correctly for transport
- Described accurately and fully on the appropriate documentation
- Transferred to an authorised person for transport to an authorised waste site
- Correct documentation is recorded and stored
- Staff should be trained and be aware of waste procedures

**Types of Waste Produced in Dental Practice**

<table>
<thead>
<tr>
<th>Hazardous Clinical Waste</th>
<th>Hazardous Trade Waste</th>
<th>Offensive Waste</th>
<th>Domestic Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>local anaesthetic needles</td>
<td>Fluorescent light bulbs</td>
<td>Feminine hygiene products</td>
<td>Food</td>
</tr>
<tr>
<td>surgical sharps</td>
<td>Computer monitors</td>
<td></td>
<td>Drinks and cans</td>
</tr>
<tr>
<td>burs/sutures</td>
<td></td>
<td></td>
<td>Shredded confidential</td>
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<tr>
<td>single use instruments</td>
<td></td>
<td></td>
<td>documents</td>
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<tr>
<td>fully discharged anaesthetic cartridges</td>
<td></td>
<td></td>
<td>Paper</td>
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<tr>
<td>clinical waste (e.g. gloves aprons, masks, bibs, swabs, paper</td>
<td></td>
<td></td>
<td>Used paper towels</td>
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<tr>
<td>towels, tissues)</td>
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<tr>
<td>lead foils</td>
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<tr>
<td>chemical waste (e.g. Fixer and developer)</td>
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<td></td>
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<tr>
<td>pharmaceutical waste (e.g. medicines)</td>
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<tr>
<td>amalgam waste/amalgam capsules/teeth filled with amalgam</td>
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</table>

**Dealing with Hazardous Clinical Waste**

A wide variety of hazardous waste is produced by a dental practice. This waste needs to be segregated, labelled and stored correctly before it is collected by a registered waste collection company.²

Yellow sharps boxes with a secure yellow lid are used to dispose of local anaesthetic needles, surgical sharps, burs, sutures, single use instruments, fully discharged anaesthetic cartridges and teeth not containing amalgam. The sharps boxes should only be filled to two thirds full. This waste is sent for incineration.
Clinical waste that is contaminated with blood or saliva should be disposed of in orange clinical waste bags which are tied securely. This waste is sent to an alternative treatment plant or incineration.

X-ray fixer and x-ray developer should be stored separately in secure leak proof containers with a secure screw lid to prevent accidental spillage. They should be labelled to prevent mixing. Lead foils can be stored in a white container with a secure lid. This type of waste should be collected for disposal by a registered waste management company and is then disposed of in various ways.
including used and out of date medicines should be stored in a secure rigid leak proof container. This type of waste is sent for incineration.

Amalgam waste must be removed using an amalgam separator to prevent amalgam entering the waste water system. It should be stored in a secure white labelled container under a mercury separator. Teeth filled with amalgam should be stored in this container. This type of waste is sent to a registered waste management company for metal recovery.⁷ (A mercury spillage kit should be kept available for use in case of an accidental spillage.)

![Amalgam waste container](image)

**Fig 4. Amalgam waste container⁸**

**Dealing with Hazardous Trade Waste**

Disposal of this type of waste is very complex and further information can be found in the [Health Technical Memorandum 07-05](#) available on the internet. However, care must be taken when disposing of computer equipment. If patients records have been stored on the computer it is not sufficient to erase them, it is advisable to use the services of a professional company to ensure the data stored is removed and no longer accessible.

**Dealing with Offensive Waste**

Waste such as gowns, tissues, gloves, x-ray film that is not contaminated with bodily fluids can be disposed of at the local landfill site. This includes feminine hygiene products and nappies. It should be stored securely in yellow or black sacks that are securely tied and labelled.

![Yellow waste sacks](image)

**Fig 5. Yellow waste sacks⁹**

**Dealing with Domestic Waste**
Domestic waste can be stored in black or clear sacks and disposed of at the local landfill site. Care should be taken with confidential shredded documents. It is advisable to use the services of a registered disposal service to ensure that the shredded documents are incinerated to safeguard patient’s confidentiality.\textsuperscript{10}

![Fig. 6 Black waste sacks\textsuperscript{11}]

**Maintaining Records**

As the producer of waste the dental practice has a legal responsibility to ensure that documentation for waste is completed accurately and stored for inspection should it be required.

If they produce in excess of 500kg of hazardous waste each year they are required to register their premises annually with the Environmental Agency. If they produce less waste than this amount they must apply to be exempt from registration.

There are two main documents when dealing with waste:

1) Consignment notes – when dealing with hazardous waste

These are used to track the movements and ensure the safe disposal of hazardous waste. The information contained in the note should be adequate to ensure the safe disposal of the waste.

There are three copies to a consignment note. The dental practice completes part A of the note giving all the details of the practice and the destination of the waste. Part B is also completed by the dental practice providing information about the waste and its packaging. Part C contains details of the driver, the vehicle and verification from the carrier that they agree with the information the dental practice has provided. The dental practice then completes part D to verify that all the information about the waste and the carrier is correct and they keep a copy. When the waste arrives at its destination part E is signed to say it has been received.\textsuperscript{12}

2) Waste transfer notes – when dealing with non-hazardous waste

The responsibility for completing a waste transfer note is solely the dental practices. It is used for the collection of non hazardous waste.
**Practice Register**

Each dental practice should maintain a register. This contains details of their waste records and should contain:

- Consignment notes
- Waste transfer notes
- Consignee returns (this is a record that the waste company send back to the dental practice every quarter detailing what has happened to their waste)
- The register should be kept for at least three years

**Waste Audit**

To comply with regulations and maintain standards when dealing with waste it is recommended that practices carry out regular waste audits.

The DOH and Infection Prevention Society provide an audit tool to assist practices in carrying out audit to comply with the HTM 01-05 document and part of the tool provides a framework to use to carry out a practice audit of waste. This will be available to access as part of the non-verifiable CPD from Cpd4dentalnurses.

**Portfolio Tip**

Why not ask your dentist if he would like you to conduct an audit of your waste in the practice. You can use the audit tool available on non-verifiable CPD and completing an audit provides you with additional CPD hours.

Do your practice recycle? Is this something you could implement?

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References