

Healthcare waste management

Advice Note 76
(Revised November 07)

The Legislative Requirements

As healthcare waste producers, dentists have a duty of care to ensure all healthcare waste is managed and disposed of properly. This practical guidance is tailored to general dental practice and ensures that dental healthcare waste is managed in accordance with the current waste regulations. It expands on advice contained in the Department of Health's publication *Safe Management of Healthcare Waste* (HTM 07-01, 2006) and the Environment Agency's technical guidance *Interpretation of the definition and classification of hazardous waste* (WM2).

Where dental practice activities take place in a hospital or community setting, local arrangements for the management of healthcare waste should be followed.

The Hazardous Waste (England and Wales) Regulations 2005 and List of Wastes Regulations 2005 introduced a number of changes in how healthcare waste should be managed.

The key changes outlined in this document include:

- The introduction of a healthcare waste policy
- The definition and classification of *infectious* and *offensive* waste
- The classification of dental amalgam as a hazardous waste
- The need for an amalgam separator if dental amalgams are placed or removed
- The removal of prescription only medicines (POMs) as a hazardous waste
- The inclusion of European waste catalogue (EWC) codes on waste documentation
- A revised colour-coding system
- Revised documentation for hazardous waste, including applicable fees
- Registration with the Environment Agency where hazardous waste production exceeds 200 kg per annum.

Healthcare Waste Policy

Each dental practice should have in place a healthcare waste policy which identifies

who is responsible for healthcare waste and how it should be managed. The policy should identify each waste stream as hazardous, non-hazardous or offensive. How the waste is segregated, stored and handled should be documented along with the practice arrangements for collection and record keeping.

Definitions and Classification of Dental Waste

Dental healthcare waste can consist of hazardous, non-hazardous, offensive waste and trade wastes. Clinical waste should be disposed of as hazardous waste. The following definitions and descriptions should be used to classify and manage dental healthcare waste.

Hazardous waste

The Regulations define hazardous waste as any waste listed as hazardous in the List of Waste (England) Regulations 2005 or equivalent legislation in Northern Ireland, Scotland or Wales. Under these regulations waste can either be automatically deemed hazardous (e.g. dental amalgam) or become hazardous as a result of an assessment of its properties.

Clinical waste

This is defined as:

(a) ...any waste which consists wholly or partly of human or animal tissue, blood or other bodily fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, syringes, needles or other sharp instruments, being waste which unless rendered safe may prove hazardous to any person coming into contact with it; and

(b) ...any other waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practice, investigation, treatment, care, teaching or research, or the collection of blood for transfusion, being waste which may cause infection to any person coming into contact with it.

Following guidance from the Environment Agency **ALL** clinical waste produced from the treatment of patients should now be considered hazardous waste.

The previous option of carrying out clinical assessment of the source patient based on examination and medical histories to classify the waste as offensive is no longer appropriate in the dental setting.

Sharps waste

Sharps are items that could cause cuts or puncture wounds, including needles, syringes with needles attached, broken glass ampoules, scalpels and other blades.

Sharps waste should be collected in yellow lidded receptacles that require disposal by incineration

Cytotoxic and cytostatic medicines

These are deemed hazardous wastes but are not used in routine dentistry. If sharps become contaminated with cytotoxic or cytostatic medicines they will have to be disposed of using yellow sharps boxes with purple lids (to indicate hazardous waste).

Extracted teeth

Extracted teeth containing amalgam are hazardous waste and the presence of amalgam means that these teeth cannot be incinerated, so they must not be put

into the sharps box. Instead, they should be collected and disposed of separately in a suitable container provided by the waste collection company.

Extracted teeth without amalgam should be disposed of via the dental sharps box.

Dental amalgam

Dental amalgam is classified as hazardous waste and includes amalgam in any form and materials contaminated with amalgam. Amalgam waste should be collected by suitable licensed or permitted waste management facilities where the waste undergoes a mercury recovery process prior to final disposal. Amalgam capsules are also classified as a hazardous waste.

Dental practices which place or remove amalgam fillings must install amalgam separators and ensure the amalgam collected is disposed of as hazardous waste. Separators should meet the British Standard *Dental equipment – amalgam separators* (BS ISO EN 11143:2000). Existing simple filters and gauze material do not comply with the new legislation. Further information on the installation of amalgam separators in dental practices is available from DEFRA and the BDA.

Radiographic fixer and developer solutions

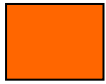
Waste radiographic fixer and developer solutions are classified as hazardous and should be collected by a suitably licensed company or waste facility for material recovery. If recovery is not appropriate, fixer and developer solution should be incinerated at suitably licensed or permitted facilities.

Lead foils

Any packaging containing residues of, or contaminated by, dangerous substances are classified as hazardous waste. In dentistry this includes the lead foil present in radiographs.

Colour coding

The following colour coding system for waste sacks should be adopted in each dental practice.



**Clinical/Hazardous
Waste for treatment
before disposal**



Trade Waste



**Clinical/Hazardous
Waste for incineration**

Radiographic developer and fixer solutions, dental amalgam and waste containing cytostatic and cytotoxic drugs will have collection containers supplied by the licensed waste collection companies, so will not require colour coding.

White rigid containers with a mercury suppressant are preferred for dental amalgam. Waste radiographic developer and fixer solution should be stored in leak proof containers.

All clinical waste must be stored in sacks as indicated above.

Waste classification summary

Hazardous Waste	Offensive Waste	Trade Waste
<ul style="list-style-type: none"> ▪ Clinical waste ▪ Dental amalgam ▪ Amalgam capsules ▪ Amalgam-filled teeth ▪ Radiographic fixer and developer solutions ▪ Lead foil ▪ Cytotoxic and cytostatic medicines 	<ul style="list-style-type: none"> ▪ Feminine hygiene waste 	<p>General business waste</p>

Storage and Collection

The collection of healthcare waste should occur at regular intervals to reduce its build up in the premises. If soft clinical waste is stored outside the practice for collection, it must be secure and not accessible to outside interference.

If patients are treated in their home, any waste produced as a result is considered to be the waste of the dental professional. If hazardous, the waste should be taken back to the practice for appropriate disposal.

Following advice from the Environment Agency the movement of healthcare waste between dental practices should not take place.

The storage of developer and fixer solutions, dental amalgam waste and other dental healthcare wastes should be carried out in accordance with the practice health and safety COSHH assessment and be detailed in the healthcare waste policy.

Documentation

The following information summarises the Department of Health's guidance *Safe Management of Healthcare Waste* (HTM 07-01):

Waste transfer notes

A key element of the duty of care is keeping track of the waste. The holder of the waste is responsible for:

- taking adequate steps to ensure that the waste is managed safely and kept secure
- transferring it only to an authorised or exempt person

When waste is transferred from one party to another, the person handing it on (the 'transferor') must complete a *Waste Transfer Note*. The transferor and the recipient (the 'transferee') sign the note; both take and keep a copy of it. An *Annual Transfer Note* may be used to cover all the movements of regular consignments of the same waste, between the same parties. A transfer note must state:

- the quantity of waste transferred, by weight where possible.
- how it is packed
- the type of container
- a description of the waste

The description of the waste should include:

- the European Waste Catalogue code,
- the type of premises or business from which the waste comes.
- the name of the substance or substances
- the process that produced the waste
- a chemical and physical analysis
- Special problems identified under (i) to (xi) below

The description must provide enough information to enable subsequent holders to avoid mismanaging the waste.

Special problems:

- (i) any special containment requirements
- (ii) type of container required, and material the container is made of
- (iii) can it be safely mixed with other wastes or are there wastes with which it should not be mixed
- (iv) can it be safely crushed and transferred from one vehicle to another
- (v) can it be safely incinerated or does it require specific minimum temperatures or combustion times
- (vi) can it be disposed of safely to landfill with other waste
- (vii) is it likely to change physical state during storage or transport
- (viii) any information, advice or instructions about the handling, recovery or disposal of the waste by the waste regulators or suppliers etc.

- (ix) details of problems previously encountered with the waste
- (x) changes to the description since the previous load
- (xi) anything unusual about the waste that may pose a problem

It is good practice to label drums and containers with the description of the waste. Copies of transfer notes should be retained by all parties for a minimum of two years.

Hazardous waste consignment notes

Each collection of hazardous waste must be accompanied with a *Hazardous Waste Consignment Note*. Practitioners may produce their own consignment note, use consignment notes supplied by a waste contractor or use an Environment Agency note. Printed blank consignment notes are available from the Environment Agency for a small charge; alternatively a blank note can be downloaded from the Environment Agency web site:

www.environmentagency.co.uk

Remember: Hazardous waste collection companies are entitled to pass on a consignment note fee each time hazardous waste is collected.

EWC Codes

European Waste Catalogue (EWC) codes must be included on the waste transfer note and the hazardous waste consignment note. The codes relevant to dental waste are shown below.

SIC Codes

Hazardous Waste Consignment Notes also require the addition of a SIC (Standard Industrial Classification) code. For dental practices the SIC code is: 85.13 (dental practice activities)

Code	Description	(*denotes a hazardous waste)
09 01 03*	Solvent-based developer solutions	
09 01 04*	Fixer solutions	
15 01 10 *	Packaging containing residues of or contaminated by dangerous substances (i.e. Lead foil)	
18 01 01	Sharps (except 18 01 03)	
18 01 02	Body parts and organs including blood bags and blood preserves (except 18 01 03)	
18 01 03*	Clinical waste	
18 01 04	Offensive waste	
18 01 08*	Cytotoxic and cytostatic medicines	
18 01 09	Medicines other than those mentioned in 18 01 08	
18 01 10*	Dental amalgam waste	

Registration with The Environment Agency

Dental practices are exempt from notifying the agency as long as the total amount of hazardous waste produced in any twelve-month period is less than 200kg. There is no limit on the number of consignments that can be made from the premises under the registration exemption. Where a practice owner initially considers that less than 200kg of hazardous waste (such as developer and fixer solution, dental amalgam, etc) will be produced from the practice but later anticipates that this limit will be exceeded, the practice owner must notify the Agency before the limit is exceeded. Registration can be made through the Environment Agency Website: www.environment-agency.gov.uk.

Note: Non-healthcare related hazardous waste also needs to be taken into consideration when deciding if the 200kg weight threshold is exceeded. Non healthcare hazardous waste includes, but is not limited to, televisions, computer monitors and fluorescent tubes.

Health and Safety Provisions

Arrangements for managing healthcare waste needs to be part of the overall health and safety management system for the practice. This is largely based on the assessment of risks and the information below should be considered alongside the practice risk assessment.

COSHH

The COSHH Regulations provide a framework of actions specifically designed to control the risk from a range of hazardous substances, including biological agents, and is therefore applicable to dental healthcare waste. To comply with the regulations practitioners must, among other things:

- assess the risks to employees and others
- from healthcare waste
- make arrangements for renewing the assessment as and when necessary
- aim to eliminate or prevent these risks, if this is not possible to adequately control the risks

- provide suitable and sufficient information, instruction and training for employees about the identified risk and controls
- offer immunisation where appropriate

Training

All staff who work with dental waste need to be adequately trained. Training procedures and information should reflect the outcomes of the COSHH assessment and should:

- be written in a way which can be understood by those who need to follow them, including those who may not have a good command of English
- take account of different levels of training, knowledge and experience
- be up to date
- be available to all staff including part time, shift, temporary, agency and contract staff.

Training needs vary depending on the job and on the individual. All dental staff involved in handling healthcare waste need training, information and instruction in:

- the risks associated with healthcare waste, its segregation, handling, storage and collection
- personal hygiene
- any procedures which apply to their particular type of work
- procedures for dealing with spillages and accidents
- emergency procedures
- the appropriate use of protective clothing.

Managers must ensure that procedures are followed by all staff. All staff who generate the waste need to understand that they are personally responsible for complying with agreed local procedures.

Personal Protective Equipment (PPE)

Protective clothing (gloves, aprons) should be used for the handling and movement of clinical and hazardous waste when deemed necessary by the practice COSHH assessment and if spillages occur.

Mercury

Employers who use mercury should carry out a risk assessment for dealing with mercury spillages and produce written procedures. A spillage kit including disposable plastic gloves, paper towels, a bulb aspirator for the collection of large drops of mercury, a vapour mask, a suitable container fitted with a seal and mercury absorbent paste (equal parts of calcium hydroxide, flowers of sulphur and water) must be available. In no circumstances should a vacuum cleaner or aspiration unit be used, as this will vent mercury vapour into the atmosphere.

Immunisation

Employees handling clinical waste who are not vaccinated against hepatitis B should be offered immunisation without charge. Staff must be informed of the benefits (e.g. protection against serious illness, protection against spreading illness) and drawbacks (e.g. reactions to the vaccine) of vaccination. Employers need to establish arrangements for dealing with staff who decline to accept the immunisation offered and those who do not sero-convert.

Further Information

Further information on the legislation affecting waste management can be obtained from the Environment Agency (England and Wales) or the regionally devolved regulatory agencies. The Department of Health document can be viewed in full at: www.dh.gov.uk