

Safe management of health care waste

RCN guidance



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Introduction

The safe and effective disposal of this waste starts with the health care practitioner. There is a very real need to reduce both the cost and environmental impact arising from the generation and disposal of waste in health care settings.

This booklet aims to inform health care staff of the key requirements contained in the Department of Health's *Health technical memorandum 07-01: Safe management of health care waste*, so they can apply, assess, and communicate these requirements more effectively.

The guidance introduces some important changes:

- the old 'clinical waste groups A to E' definitions have been removed
- there are new terms to identify waste (health care waste, infectious waste, medicinal waste and offensive/hygiene waste)
- there is now a revised colour-coded system for the disposal of waste.

A full version of the *Safe management of health care waste* memorandum is available to download from the Department of Health's website at www.dh.gov.uk.

Background

Most waste goes to landfill, incineration, or is disposed of using alternative technologies. Irrespective of its disposal method, waste has the potential to pollute land, air and water.

Much health care waste (between 75–90%) is similar to domestic waste (for example, paper or packaging). However, a smaller proportion (between 10–15%) is infectious or hazardous waste, posing a risk to human health and the environment. The safe and effective disposal of this waste begins with the health care practitioner. Failure to segregate infectious or hazardous waste from non-infectious waste will mean the entire waste stream has to be classified as infectious waste, and consigned for appropriate treatment and recovery, or disposal.

Counting the cost

In the UK, the cost of waste disposal is increasing. The NHS produces an average of 250,000 tonnes of waste a year, at a cost of over £40 million. The generation and disposal of waste requires resources, materials, space and staff time – all of which contribute to the often unseen 'true cost' of waste management.

There is a very real need to reduce both the cost and environmental impact arising from the generation and disposal of waste. Many trusts are now actively engaged in waste minimisation or prevention programmes. Others are strengthening waste segregation processes as a means to reducing the issues (and costs) associated with holding and storing hazardous waste (research shows for example that between 40–50% of waste placed in clinical waste bags is domestic waste).

Adopting safe management of waste practices:

- satisfies governance requirements for an effective waste management process
- reduces harmful effects on the environment
- lowers waste disposal costs, releasing funding for reinvestment into direct patient care.

New UK-wide best practice guidance

Health care sector organisations, and the individuals that work within these organisations, have a legal and moral duty to dispose of waste properly in accordance with statutory 'duty of care' requirements.

Changes to legislation governing the management of waste, its storage, carriage, treatment and disposal meant previous guidance on clinical waste provided in the Health Services Advisory Committee (HSAC) publication *Safe disposal of clinical waste* (1999) required revision, and in December 2006 it was replaced by the Department of Health's *Health technical memorandum 07-01: Safe management of health care waste*.

This new multi-agency UK-wide best practice guidance:

- introduces a unified approach to waste management for the United Kingdom
- provides a framework to help health care organisations meet legislative requirements.

While the advice and courses of action contained within memorandum aren't mandatory, the memorandum advises that health care organisations must take steps to ensure compliance with all relevant legislation.

The new *Safe management of health care waste* memorandum introduces some key changes, specifically:

- the removal of the old 'clinical waste groups A to E' definitions
- the introduction and definition of new identification terms (health care waste, infectious waste, medicinal waste and offensive/hygiene waste)
- a revised colour-coded system for the disposal of waste.

It also clearly states that a unified approach to the management of health care waste begins with the segregation of waste at source by a health care professional; this segregation is now based on the new colour-coded scheme, linked to disposal.

This booklet aims to inform health care staff of the key requirements contained in the *Safe management of health care waste* memorandum, so they can apply, assess, and communicate these requirements more effectively.

A full version of the *Safe management of health care waste* memorandum is freely available for download from the Department of Health's website at www.dh.gov.uk.

one

1 Waste definition and classification

Waste regulation requires the classification of health care waste, produced as a consequence of health care activities in hospitals and community settings, on the basis of its hazardous characteristics and point of production. There are two types of health care waste – hazardous and non-hazardous.

Hazardous waste	Non-hazardous waste
Infectious waste (for example, anatomical waste, sharps)	Offensive/hygiene waste (for example, incontinence and other human hygiene, sanitary waste, nappies)
Cytotoxic and cytostatic medicines	Non-cytotoxic and cytostatic medicines
Health care chemicals and hazardous properties	Domestic waste
Batteries	Packaging waste
X-ray photochemicals	Recyclable materials
Radioactive waste	Food waste

All clinical waste needs to be segregated so it can be disposed of appropriately, on the basis of the hazard it poses. The *Safe management of health care waste* memorandum introduces a new single classification system that enables a unified approach to assessing, at the source of production, whether waste is:

- infectious clinical waste
- medicinal waste
- offensive/hygiene waste.

The regulatory requirement for a unified approach

The *Hazardous Waste Regulations* (2005) place a duty on waste producers to segregate hazardous and non-hazardous waste at source. The unified approach outlined by the *Safe management of health care waste* memorandum is recommended to ensure compliance with all regulatory requirements — from production through to transport and finally to disposal.

1.1 Clinical waste definitions

Clinical waste is divided into two categories of materials:

- waste that poses a risk of infection
- medicinal waste.

Infectious waste

Infectious waste is defined as waste that poses a known or potential risk of infection. Even minor infections are included in the definition of infectious.

Any implanted medical device that has been in contact with infectious bodily fluids should also be classified and treated as infected waste.

All health care waste – whether produced in a hospital or a community setting – is assumed to be infectious waste until it's assessed. This assessment is based on an item

and patient-specific clinical assessment, which is undertaken by the health care practitioner.

Any failure to segregate infectious waste from non-infectious waste will mean the entire waste stream has to be classified as infectious waste, and consigned for appropriate treatment and recovery, or disposal.

Medicinal waste

Medicinal waste includes expired, unused, spilt and contaminated pharmaceutical products, drugs, vaccines, and sera that need to be disposed of appropriately. It also includes discarded items contaminated from use in the handling of pharmaceuticals, such as bottles or boxes with residues, masks, connecting tubing, syringe bodies and drug vials.

Only cytotoxic and cytostatic medicines are classified as hazardous waste and must be segregated from other medicines. Failure to segregate cyto medicines will mean the entire medicinal waste stream must be disposed of at a waste incinerator.

Other non-cyto medicines may have harmful properties (for example, controlled drugs) and should be referred to the appropriately authorised personnel for disposal and destruction.

now be classified using European Waste Catalogue (EWC) codes. In Scotland, the *List of Wastes Regulations* do not apply, and 'hazardous waste' is defined as 'special waste' under the *Special Waste Regulations*.

1.2 Non-clinical waste definitions

Offensive/hygiene waste

This is a new term to describe waste which is both non-infectious and non-hazardous (and therefore does not require specialist treatment or disposal) but which may cause offence to those coming into contact with it. The category includes waste previously described as human hygiene waste and 'sanpro' waste.

Examples of offensive/hygiene waste include:

- incontinence, and other waste produced from human hygiene
- sanitary waste
- nappies.

1.3 Waste classification

As a result of recent regulatory changes including the Landfill Regulations, the *Hazardous Waste Regulations* and the *List of Wastes Regulations*, all health care waste must

two

2.0 Waste segregation

Segregating waste at the point of production is critical to the safe management of health care waste. Segregation not only helps control the management costs associated with waste, but ensures the correct pathways are adopted for the storage, transport and ultimate disposal of waste.

For segregation to work effectively the *Safe management of health care waste* advises that staff must be provided with colour-coded and labelled waste receptacles and sack holders. These should be positioned in locations as close to the point of production as possible and replaced when three-quarters full, securely tied and appropriately labelled. Liquid or solidified waste should be placed in a rigid, leak-proof container.

Arrangements to routinely and regularly transport waste from ward level to a storage area should be in place. Infectious waste collection (excluding sharps) should take place weekly (unless the waste is refrigerated); sharps receptacles should be exchanged every three months.

The *Safe management of health care waste* memorandum recommends adopting a new national, colour-coded waste segregation system with *immediate* effect.

2.1 The national colour-coding system

A new national colour-coded system is now recommended for the segregation of health care waste into streams that are linked to an appropriate disposal path. This means that waste should be identified and segregated on the basis of its waste classification, which in turn determines its waste management option.

Adopting this new best practice segregation system will ensure standardisation across the UK.

The *Safe management of health care waste* memorandum provides a detailed chart that outlines the type of packaging, and the packaging colour required for each waste stream. This can be viewed in Appendix 1.

EWC Codes for health care waste	Description of waste
18 01 XX	Waste from natal care, diagnosis, treatment or prevention of disease in humans
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*	Waste where collection and disposal is subject to special requirements in order to prevent infection
18 01 04	Waste whose collection and disposal is not subject to special requirements in order to prevent infections (for example dressings, plaster casts, linens, disposable clothing)
18 01 06*	Chemicals consisting of dangerous substances
18 01 07	Chemicals other than those listed in 18 01 06*
18 01 08*	Cytotoxic and cytostatic medicines
18 01 09	Medicines other than those mentioned in 18 01 08*
18 01 10*	Amalgam waste from dental care

* Hazardous waste list entry

Radioactive waste

Radioactive health care waste is contaminated with low-level radioisotopes and is normally disposed of by incineration. Radioactive 'over stickers' placed on yellow (infectious) packaging should be used for this waste.

Purple/yellow stream (cytotoxic/cytostatic) waste

Infectious waste consisting of, or contaminated by cytotoxic/cytostatic products must be incinerated. Health care facilities must ensure that suitable purple/yellow receptacles are available for this waste stream, including:

- rigid containers for medicinal waste and/or infectious waste
- bags for infectious waste
- colour coded sharps receptacles.

Yellow stream (infectious) waste

Yellow stream infectious waste must be incinerated. Infectious and other waste requiring incineration includes anatomical waste, diagnostic specimens, reagent or test vials, and kits containing chemicals.

Orange stream (infectious) waste

Orange stream infectious waste can be treated to render it safe, before disposal. Treatment can only take place in a suitably licensed or permitted facility.

2.2 Colour-coding of sharps receptacles

Sharps are classified as items that cause cuts or puncture wounds, including needles, syringes with needles attached, broken glass ampoules, scalpel and other blades, and infusion sets. They must be disposed of in colour-coded sharps containers, which should be collected when three-quarters full. The colour of a sharps container is defined by how the waste it contains will be treated and disposed of. Sharps should never be discharged to allow disposal into a certain type of box.

Yellow/orange lid

Orange-lidded sharps receptacles should contain waste that can be treated to render it safe, for example:

- sharps NOT contaminated with medicinal products, OR
- fully discharged sharps contaminated with medicinal products other than cyto-medicines.

It is not acceptable practice to intentionally discharge syringes containing residual medicines in order to dispose of them in an orange-lidded sharps receptacle. Any partially discharged syringe, contaminated with residual medicine, *must* be disposed of in a yellow-lidded sharps receptacle.

Yellow/yellow lid

Yellow-lidded sharps receptacles contain waste that requires disposal by incineration, for example:

- undischarged sharps, OR
- partially discharged sharps.

Yellow/purple lid

Purple-lidded sharps receptacles are used for waste that is contaminated with cytotoxic and cytostatic medicinal products, and must be incinerated.

Colour	Description
Yellow stream 	Infectious waste which requires disposal by incineration
Orange stream 	Infectious waste which may be treated to render it safe prior to disposal, or alternatively can be incinerated
Purple stream 	Cytotoxic and cytostatic waste which must be incinerated in a permitted or licensed facility
Yellow/black stream 	Offensive/hygiene waste which may be land filled in a permitted or licensed site
Black stream 	Domestic waste which does not contain infectious materials, sharps or medicinal products and may be land filled in a permitted or licensed site. Recyclable components should be removed through segregation. Clear or opaque receptacles can also be used for domestic waste

three

3.0 Waste assessment

All health care waste must be assessed for its medicinal, chemical, infectious and offensive properties. The *Safe management of health care waste* memorandum provides detailed recommended assessment frameworks to support the segregation process. Colour-coded waste receptacles must be provided for each waste stream.

Step 1 Determine if the waste is a health care waste.

Step 2 Assess for the medicinal waste properties of a clinical waste.

The memorandum defines that medical waste as including:

- expired, unused, spilt and contaminated medicinal products
- discarded items with contaminated medicinal residues (boxes or bottles, gloves, masks, connecting tubing, syringe bodies, drug vials)
- secretions, excretions or other body fluids containing residual medicines
- anatomical waste containing residual medicines.

Determine if the waste contains cytotoxic/cytostatic medicinal waste. If the properties of a medicine can't be determined, it must be classified as cytotoxic/cytostatic.

Any item containing medicinal waste may also be contaminated with body fluids, and assessed as infectious waste. In this case, the waste item should be classified as cytotoxic/cytostatic waste and assigned the additional hazardous property label H9: Infectious.

Step 3 Assess the chemical waste properties of a clinical waste.

Does the waste contain chemicals that are dangerous substances? Where a chemical with a hazardous property is present, the waste is deemed a clinical and hazardous waste.

Step 4 Assess for the infectious waste properties of a clinical waste.

Does the waste arise from a patient known or suspected to have a disease/infection caused by a micro organism or toxin?

Is the waste a sharp?

Is the waste an anatomical waste?

Step 5 Is there any element of the waste that is neither clinical nor hazardous? If yes, then proceed to Step 6.

Step 6 Finally, assess for offensive properties and segregate if appropriate.

four

4.0 Waste audits

Waste auditing is a legal requirement, and not just best practice. Waste audits play an essential role in demonstrating compliance with regulatory standards. The memorandum *Safe management of health care waste* recommends undertaking audits prior to developing or updating waste management procedures. Regular audits are also recommended to enable line managers to monitor the effectiveness of waste segregation and minimisation initiatives.

The guidance confirms there are a number of benefits to undertaking regular audits, including:

- identifying and rectifying areas of non-compliance
- looking at the bigger picture
- identifying areas for improvement
- encouraging staff ownership and involvement
- gaining active staff participation.

4.1 Audit types and frequency

To assess the effectiveness of segregation procedures, the *Safe management of health care waste* memorandum recommends the audit should involve the observation, recording and classification of each waste item as it is placed into a receptacle. This type of audit should be carried out at least once a year and should cover all waste types, including:

- hazardous waste
- infectious waste (including sharps)
- medicinal waste (including sharps)
- offensive/hygienic waste.

Additional observation or 'spot checks' of waste receptacles should be undertaken once a quarter to further reinforce the audit process, and identify local training requirements. Staff understanding and practice can also be audited by using questionnaires. The main aim of this approach is to establish staff awareness and identify training or education needs.

A detailed waste analysis, involving the manual sorting of waste to determine the effectiveness of segregation procedures, is recommended for the medicinal waste stream (with the exclusion of segregated cyto medicines).

five

5.0 Accidents and incidents

The *Safe management of health care waste* memorandum advises that the health care organisation's waste management policy should contain written procedures for dealing with accidents or incidents. These procedures should include:

- immediate first aid measures (in the case of sharps injuries, procedures need to cover arrangements for suitable medical advice and counselling)
- immediate reporting to a responsible or designated person
- recording of the accident/incident
- retention (if possible) of the item and information about its source to help identify potential infection risks
- investigation of the incident, and implementation of remedial action.

All incidents involving spillages, damaged packaging, inappropriate segregation, or any incident involving sharps, must be reported to the line manager and investigated by them. The objective of any subsequent investigation is to establish what caused the accident or spillage, and identify what action needs to be taken to avoid a recurrence.

5.1 Spillages

There should be clear written procedures in place for dealing with spillages. These need to specify:

- the reporting and investigation procedures
- a safe system of work for clearing up the health care waste
- the appropriate requirements for decontamination
- the protective clothing to be worn.

5.2 Disinfectants

The use of suitable disinfectants should be detailed in the health care organisation's waste management policy, clearly identifying which products are to be used, where they are to be used, and for what purpose. The use of

disinfectants can be risky, especially in confined areas, and staff should be given proper training in the correct application of disinfectants.

Guidance from suitably qualified personnel, for example the infection control team, must be sought after any spillage containing, or suspected to contain, unusual infective agents, for example variant CJD.

5.3 Mercury

Employers who use mercury should carry out a risk assessment for dealing with mercury spillages, and produce written procedures. A spillage kit which includes disposable plastic gloves, paper towels, a bulb aspirator for the collection of large drops of mercury, a vapour mask, a suitable receptacle fitted with a seal, and mercury-absorbent paste needs to be available.

six

6.0 Training and competence

Staff who generate waste need to be made aware that they are personally responsible for complying with agreed local procedures, and the guidance recommends that the health care organisation's waste management policy should form the basis for staff training and awareness. All health care staff must be made aware of the procedures contained in this document and trained to apply the policy requirements competently.

Training needs will vary and are dependent on the responsibility and job function of the individual. Ideally, separate training programmes should be in place for:

- infection control staff
- health care managers and administrative staff responsible for implementing regulations on health care waste management
- medical doctors
- pharmacies
- all nursing staff
- cleaners, porters, auxiliary staff and handlers.

Training may include workshops and formal seminars for senior staff, and hands-on training in the work place for smaller groups. As part of the education process, all training should include:

- information and an explanation of all aspects of the waste management policy
- information on the role and responsibilities of each health care staff member in implementing the policy
- technical instructions relevant to the target group on the application of waste management practices.

6.1 Training procedures

The guidance recommends that training procedures and any related waste management information should be written in a way which can be easily understood by those who need to follow them. This means they should be designed to match the different levels of training, knowledge and experience of individuals (and their job

role). Managers need to ensure that these procedures are followed by all staff.

Training procedures should be regularly updated and available in all areas so that they are readily accessible to all staff including part-time, shift, temporary, agency and contract staff. Line managers also need to maintain training records to help identify which staff have received the appropriate level of training.

Under Health and Safety at Work legislation, the Management of Health and Safety at Work Regulations and Control of Substances Hazardous to Health Regulations (COSHH), it is a requirement that staff are given information on:

- the risks to their health and safety (that is, the details of the substances hazardous to health to which they are likely to be exposed)
- the significant findings of any risk assessment
- any precautions necessary
- the results of any monitoring carried out
- the collective results of any relevant health surveillance.

6.2 Induction training

As part of any induction programme all staff involved in handling health care waste should be given training, information and instruction in:

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

At the time of writing, the NHS Purchasing and Supply Agency (NHS PASA) is developing a framework agreement for the delivery of waste management training in the UK. The aim is to ensure that a comprehensive package of training is available for access by the NHS.

seven

7.0 Community nursing

Community nurses face a number of challenges, not least of which is the removal and transportation of waste materials and equipment from patients' homes. The new guidance acknowledges the complexity surrounding the removal of clinical waste in a community setting and offers two options to resolve the issue of transportation.

Community nursing activities produce infectious, sharps, offensive, medicinal, anatomical (for example, placentas) and domestic waste, and the new national colour coding system is recommended to ensure compliance with new regulations.

The guidance recognises that it is not always practical for community nurses to carry lots of types of packaging with them and advises nurses should carry only the most appropriate packaging to meet their needs. This will include using leak-proof plastic drum type packaging for liquids or waste containing free liquids (for example a partially discharged syringe) and using only sharps receptacles for all sharps waste. All other waste can be packaged in flexible sacks (infectious waste bags).

7.1 Colour-coded waste packaging

Orange

Orange boxes, sacks, and orange-lidded sharps receptacles should be used for all products that can be rendered safe. The guidance confirms that in practice this will include the majority of 'soft' infectious waste such as dressings, bandages and some plastic single-use instruments.

Yellow

Yellow boxes, sacks and yellow-lidded sharps receptacles should contain waste products which require incineration, including anatomical waste (placentas) and any sharps which contain a quantity of medicinal product.

Any maggots used for wound management must be secured in an airtight yellow container.

Yellow/purple

Yellow/purple boxes, sacks and purple-lidded sharps receptacles should be used for waste contaminated with cytotoxic and cytostatic medicinal products. This includes sharps which are used for the administration of chemotherapy, antiviral and/or hormonal drugs.

Yellow/black

Yellow/black packaging should be used for recognisable health care waste that is non-infectious or non-hazardous.

Black

Must be used for domestic waste, and should never be used for recognisable health care waste.

The *Safe management of health care waste* memorandum confirms that most 'bagged' community nursing waste enters the orange waste stream, and recommends the use of orange sacks. However, nurses are also recommended to carry rigid yellow boxes for any waste that requires incineration (usually anatomical or sharps, or containing lots of free liquid). If the waste is contaminated with cytotoxic/cytostatic medicines, then these boxes must have purple lids.

7.2 Non-infectious waste

Non-infectious dressings cannot legally be disposed of in the black-bag waste stream, and community nurses are advised to dispose of these in the offensive/hygiene waste stream. However, mixed domestic waste can contain small amounts of plasters, small dressings and incontinence products. Any waste which is small in size (130 mm x 220 mm) and non-infectious can be wrapped in plastic (such as a sandwich bag or bin liner) and safely placed in the black domestic bag.

Infectious waste

In the rare instance that a community nurse encounters Ebola fever, viral haemorrhagic fever or small pox, they must contact the Health Protection Agency. For the main part however, the *Safe management of health care waste* memorandum identifies a community nurse's primary concern will relate to the removal of wound dressings. If these are infected, they will need to be placed in an orange sack. If there are other reasons why the waste may present a risk of infection, appropriate action should be taken.

Wound vacuum drains should be treated as infectious waste, and disposed of in the orange-bag waste stream. They should never be placed in domestic refuse.

Patients with MRSA

The guidance confirms that any patient cared for in the community and diagnosed with MRSA is not necessarily infectious. It is advised that such patients only require special 'infectious' consideration if being treated for MRSA, and the infection is present in any resulting clinical waste.

Patients with stoma/catheter bags

Waste from a stoma patient can be disposed of in the black-bag waste stream. However, if used in bulk this becomes offensive/hygiene waste for disposal in black/yellow striped bags. If the patient develops any kind of gastrointestinal infection, or the site becomes infected, the bag must be disposed of as infectious waste in the orange-bag waste stream.

Self-medicating patients can dispose of their own waste in the domestic black-bag waste stream.

7.3 Sharps disposal

Orange-lidded sharps receptacles should only be used for non-medicinally contaminated sharps and the *Safe management of health care waste* memorandum does not recommend the use of these in the community.

Many community nurses administer cyto medicines and all associated sharps and liquid residues should be placed in a yellow and purple leak-proof sharps box. If none of the products used for injection are classified as cytotoxic or cytostatic, it is acceptable to use a yellow-lidded sharps box.

For reasons of practicality, the guidance recognises community nurses may want to use just a single sharps receptacle. If this is the case, nurses are recommended to use a yellow/purple leak-proof sharps receptacle.

Sharps boxes should be collected when three-quarters full and, if seldom used, after a maximum of three months, regardless of the filled capacity.

Self-medication by patients is becoming more common place, and the *Safe management of health care waste* memorandum confirms households need to be prescribed an appropriate sharps box and trained to ensure proper

use. Once three-quarters full, the householder is responsible for sealing and returning the box to a pharmacy or GP surgery for disposal. The guidance clearly states it is no longer acceptable to advise self-medicating patients to dispose of their sharps or lances into the household black-bag waste system.

7.4 Disposable instruments

Disposable instruments cannot be legally disposed of in the domestic refuse.

Infectious contaminated plastic disposable instruments that contain no risk of sharps can be safely disposed of as infectious waste and should be put into the orange-bag waste stream. However, contaminated metal disposable instruments, again containing no risk of sharps, must be put into a rigid yellow container and marked 'for incineration only'.

Non-infectious instruments that contain no risk of sharps can be disposed of as offensive/hygiene waste — and in the case of metal instruments, metal reclamation and recovery where available.

7.5 Offensive/hygiene waste

The *Safe management of health care waste* memorandum confirms that most health care waste produced by community nurses is unlikely to be infectious waste, however, it should be segregated and managed as offensive/hygiene waste. This waste should not be placed in domestic refuse. Offensive/hygiene waste should include:

- non-infectious dressings
- non-infectious disposable instruments
- non-infectious stoma bags
- non-infectious catheter bags
- non-infectious incontinence bags.

7.6 Transporting waste

Nurses are responsible for ensuring the waste they generate in the community is managed correctly and must make sure arrangements are in place to ensure waste is packaged and labelled correctly, and transported for suitable treatment and disposal. The *Safe management of health care waste* memorandum proposes two options for transportation.

Option 1

Nurses can transport infectious waste from the home environment back to base, where waste collection and disposal arrangements are in place. They will need secure, rigid air-tight packaging and should be given appropriate training which addresses the safe transport of waste.

Option 2

The waste can be collected from the home by a waste contractor, local authority or health care provider. In this instance, the nurses' duty of care extends to ensuring the waste is stored in a suitable place which is not accessible to animals, children or pests and is packaged and labelled appropriately. It is not acceptable to leave the waste unsupervised on the pavement awaiting collection.

Appendix 1

Appendix 1: Waste packaging and colour-coding chart

Colour	Description
Yellow stream 	Infectious waste which requires disposal by incineration
Orange stream 	Infectious waste which may be treated to render it safe prior to disposal, or alternatively can be incinerated
Purple stream 	Cytotoxic and cytostatic waste which must be incinerated in a permitted or licensed facility
Yellow/black stream 	Offensive/hygiene waste which may be land filled in a permitted or licensed site
Black stream 	Domestic waste which does not contain infectious materials, sharps or medicinal products and may be land filled in a permitted or licensed site. Recyclable components should be removed through segregation. Clear or opaque receptacles can also be used for domestic waste

Appendix 2

Appendix 2: Responsibilities of employers and staff

This RCN guidance recommends that staff ensure they are aware of their responsibilities as outlined in their health care organisation's waste management policy.

Employers

Employers are responsible for developing and making available an appropriate health care waste management policy which clearly outlines written instructions on the way waste should be managed. The policy should cover all aspects of waste management, identifying the roles and responsibilities of those involved in the waste management chain, and should clearly state how all parties involved should communicate with each other to ensure compliance throughout the waste management chain.

To be used effectively, the health care waste policy should link with other health care policies and guidance, and should be used as the basis for staff awareness and training.

As a minimum, the waste management policy needs to contain:

- a clear statement outlining the aims of the policy
- legal and statutory obligations
- current waste management arrangements
- an outline of who has waste management responsibilities, and the lines of accountability
- arrangements for implementing the policy
- processes for identifying improvement programmes and monitoring progress
- sources of further information and guidance (for example, the health care organisation's waste guidance).

The guidance clearly states that the existence of a policy should not be assumed to be an indication of good practice and that employers are responsible for monitoring practice in the health care organisation through the implementation of robust audit procedures.

The *Safe management of health care waste* memorandum also recommends the health care organisation appoints a designated competent waste manager to co-ordinate and manage all health care waste and other waste management activities.

In addition, the guidance reaffirms that all employers must consult their employees and their representatives about aspects of their health and safety at work, including:

- any change which may substantially affect their health and safety
- the employer's arrangements for getting competent health and safety advice
- the information provided on reducing and dealing with risks
- the planning of health and safety training
- the health and safety consequences of introducing new technology.

By incorporating health and safety requirements in the health care waste management policy, employers are able to provide staff with information relevant to their job or role. The policy can then be used as a basis for training and discussion.

Local managers

Ward managers, department and line managers should ensure they clarify and define their responsibilities surrounding the following areas:

- ensuring all staff are aware of, and comply with, the health care organisation's waste management policy
- incidence reporting and investigation
- the delivery of adequate, appropriate training to all staff involved in the handling of waste materials, and ensuring all staff periodically attend refresher training
- ensuring all staff involved are aware of the nature and danger of waste being disposed of
- ensure that waste disposal complies with the appropriate codes of practice, for example, the correct use of coloured bags and receptacles
- keeping training records
- ensuring formal risk assessments are carried out on all processes and types of waste handled
- the frequency and scope of audits.

Staff

All staff should:

- be familiar with the waste management policy and procedures for health care waste management, and aware of emergency procedures
- report dangerous waste situations to their line manager as soon as they are identified, and assist with the incident report form
- not handle any waste considered too heavy, or for which the correct method of disposal is unfamiliar
- wear protective clothing in accordance with policies in force in their respective work place
- be responsible for their own hygiene
- assist in the reduction of waste and improvement of the policy and safe working practices
- ensure that the nature and dangers of waste to be carried are made known to the collectors, handlers and portering services through proper segregation and clear labelling
- only collect and transport correctly sealed and labelled waste
- ensure personal protection and basic hygiene precautions are adhered to
- assist with the correct classification of waste, and the reduction of waste produced.

References

References and further reading

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Websites

Further waste-specific guidance can be found at the following websites:

Environment Agency for England and Wales
www.environment-agency.gov.uk

Health and Safety Executive (HSE) www.hse.gov.uk

Health Facilities Scotland (HFS) www.hfs.scot.nhs.uk

Northern Ireland Environment Agency www.netregs.gov.uk

Scottish Environment Protection Agency www.sepa.org.uk



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