

# An Introductory Guide to Healthcare Waste Management in England & Wales

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## Sponsor's Comment

"In 2013 the NHS spent over £86m on the disposal of clinical waste ... double that of 2006. This figure is set to rise year on year as landfill becomes more expensive and this against a backdrop of an increasing requirement to be sustainable. Over the coming months and years there will be a greater focus on both reducing the amount of waste generated and looking at ways of dealing with the waste that is derived.

With a spectrum of waste generators, from the small (kilograms per year) to the large hospitals (thousands of tonnes per year) there is the need for a toolbox of processes, initiatives and solutions.

Whilst we as a company have a specific onsite waste to energy technology, our aim is to help precipitate understanding of and prompt debate in clinical waste as a topic ... and indeed a fuel source! We are therefore delighted to support this booklet and hope that it not only stimulates thoughts and ideas but also helps individuals and Trusts share solutions."

Nick Palmer,  
General Manager, Environmental Division, DPS Global



## Introduction

### Who Is The Booklet Aimed At?

The management of waste from all healthcare premises and practices (including those non healthcare premises that produce similar types of waste) involves a considerable amount of fairly complex legislation which must be complied with by all parties involved, from the producer through to the final disposal company. This document has been produced by CIWM as an introductory guide to healthcare waste management in England and Wales. It is aimed at small producers of healthcare waste, as well as members of the Institution who are looking to expand their general waste management knowledge and to enhance their continuing professional development (CPD) or structured learning and development (SLD). The document is based on legal compliance as well as good practice guidance. A recommended reading section (page 25) has been provided where further advice and assistance may be found.

It is important to note that there is some variation across the UK with respect to legislation and policies. As a result, this guidance is aimed at producers of healthcare wastes from England and Wales only.

Potential small producers of healthcare and healthcare type waste include:

- First Aid Rooms at schools and work environments
- Alternative Practitioners – eg, chiropractors, acupuncturists, non-NHS physiotherapists
- Beauty Salons
- Care Homes (with and without nursing care)
- Companies dealing with drugs-related litter (not including local authorities)
- Gymnasias
- Learning Disabilities Homes (residential, day care and respite)
- Nurseries
- Private Clinics
- Private Podiatrists/Chiropodists
- Tattooists

### What Is Covered In The Booklet?

The guidance document aims to cover the main areas of healthcare waste management that small producers are likely to come across and will be useful to newcomers to the healthcare waste management sector.

## Healthcare Waste Legislation

### Managing Waste In The UK

In the UK, the primary aim in the management of waste is to ensure that it is handled, treated and disposed of safely, cost effectively and in a manner that does not impact negatively on the environment.

### Key Legislation Governing Healthcare Waste

Healthcare wastes are defined as any wastes that result during a healthcare procedure. Some of these wastes (known as clinical/infectious waste) may be hazardous to those that come into contact with them and are subject to strict controls. Even activities that are not directly or indirectly related to healthcare can generate similar type wastes that need special attention.

There are a number of pieces of legislation that cover a wide range of issues, from the generation, through to the collection, transport and finally either treatment or disposal of healthcare waste. It is important to note that many of these are not necessarily solely focused on healthcare waste and are applicable to other waste streams.

The legislation covers a range of issues, including the working conditions and health and safety of employees; containment, packaging and transport; and treatment and disposal of the waste. Each has a key role to play in how healthcare waste is managed. For a full overview of the key content of the waste legislation, please see the following link:

<http://www.environment-agency.gov.uk/business/142643.aspx>

It is important to note that there is some variation across the UK with respect to legislation and policies. In England and Wales the Hazardous Waste (England and Wales) Regulations 2005 (as amended) are used.

The management of waste is regulated through various pieces of European Union (EU) and UK legislation, covering health and safety, packaging, transport and regulation and enforcement. There are also guidance documents from the Department of Health (DH) and the Royal College of Nursing (RCN) where you can find more detail (See the Recommended Reading Section, page 25).

## Waste Hierarchy And Disposal Technologies

### Waste Hierarchy

The Waste Hierarchy (Figure 1) provides a sliding scale that ranks waste management options according to what is good for the environment with the best option sitting at the top of the scale and the least preferred option at the bottom. It gives top priority to waste prevention with final disposal, e.g. landfill or incineration without energy recovery, the least preferred method.

### The Waste Hierarchy

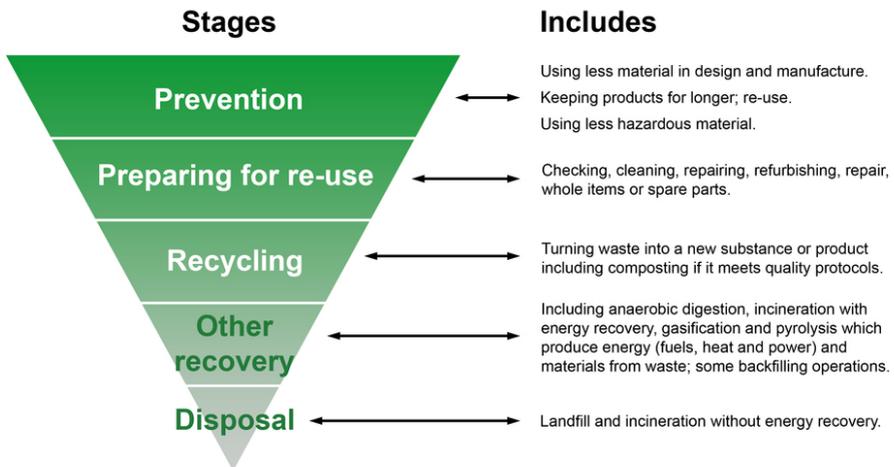


Figure 1: recommended reading list document 11, page 25

Hazardous and non-hazardous waste producers are required to apply the waste hierarchy. It is a legal requirement to state on all Waste Transfer Notes (WTN) and Hazardous Waste Consignment Notes (HWCN) that the Waste Hierarchy has been taken into consideration.

### Waste Management Treatment Methods

The following section will summarise the most commonly used waste management treatment methods for dealing with healthcare wastes, as well as non-healthcare waste streams (i.e. recycling and municipal waste). It is important that you understand the different treatment

methods as they are related to the colour coding of the packaging for particular waste streams. It should also be noted that certain wastes must be disposed of via a particular treatment method to ensure they are properly destroyed.

Most waste treatment processes will result in a small volume of ‘final’ disposal to a landfill site, or a municipal incinerator as ‘energy from waste’. Some (non-hazardous) wastes are taken directly to landfill without any material extraction or treatment. However, landfill disposal may be the final destination for some wastes (avoid where possible) and is the end of the Duty of Care chain.

## Alternative Treatment (AT)

The treatment of hazardous (infectious) healthcare waste is intended to provide protection to the environment and human health. To be effective, the treatment must reduce or eliminate the hazard present in the waste so that it no longer poses a risk. Treatment facilities are also required to make the waste unrecognisable (eg, to ensure that no confidential information is visible and/or that the waste does not cause offense when viewed) and reduce the waste volume as well as meet stringent requirements for sterilisation and disinfection.

There are several types of AT available for the treatment of healthcare waste. The most common type of AT for infectious healthcare waste involves the use of autoclaves. Autoclaving involves the addition of steam into a container at high pressures. Please see page 10 for more information on waste suitable for treatment using AT processes.

## High Temperature Treatment

Incineration is the most commonly used high temperature treatment for infectious waste but other technologies exist including pyrolysis and gasification. Incinerators suitable for hazardous waste (infectious and/or medical) come in a variety of designs, typically they have a primary chamber that operates at 800-1000°C and a secondary chamber operating at a minimum temperature of 1100°C. The steam from these incinerators may be used for heating buildings near the incinerator itself. Please see page 10 for more information on waste streams treated by this process.

Waste that is not hazardous, eg offensive waste may be sent for incineration but with energy recovery. This is where the heat and steam generated from burning the waste may be used to generate electricity that is fed back into the national grid. These sites are not permitted to take any hazardous wastes.

## Landfill

Landfill is the disposal of waste into or onto land in a carefully controlled manner in line with authorisation from the Environment Agency (EA) and Natural Resources Wales (NRW). Infectious waste is banned from landfill. Non-infectious offensive waste may be disposed of directly to landfill, as well as residual municipal waste (black/clear bag) that cannot be recycled.

## Waste Categories & Treatment Methods

Category of Healthcare Waste	Treatment method	Disposal
Infectious clinical	Alternative treatment or hazardous waste incineration	Energy from waste or landfill
Offensive waste		Energy from waste or Landfill
Non-medicine contaminated sharps	Alternative treatment or hazardous waste incineration	Residual ash recovery or landfill
Medicine contaminated sharps	Hazardous waste incineration	Incineration
Cytotoxic & cytostatic	Hazardous waste incineration	Incineration
Medicine waste	Hazardous waste incineration	Incineration
Medicine contaminated infectious clinical waste	Hazardous waste incineration	Incineration
Domestic or municipal waste		Re-use, recycle, energy from waste or landfill

Table 1: The available waste categories (see page 10) and their relevant treatment methods.



## Healthcare Waste Streams

The following table is an extract from the European Waste Catalogue (EWC) and shows different types of waste that may be produced from healthcare related activities. Information is provided to:

- describe the wastes, using a number of examples
- indicate how that waste should be packaged (whether in a bag or container) and the colour coding that should be used
- show the EWC code for that waste stream
- describe the disposal route for the waste
- indicate which wastes must NOT be placed into each waste stream.

Please note that an asterisk (\*) has been placed after the waste streams that are hazardous in line with WM2 (see recommended reading list document 5, page 25). Please note a waste description and EWC code(s) must be used on all legal paperwork that is completed prior to waste being removed from the producer's premises. Where it states that the bag or sharps container is UN approved then this means that the packaging must comply with international dangerous goods agreements which is enforced via The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended).

### Waste Descriptions

In order to work out what type of documentation is required and the most appropriate treatment and disposal route, waste must be classified into a colour coded waste stream. For assistance on classifying your waste as hazardous or non-hazardous, please see the recommended reading list (page 25) or use this EA webpage: <http://www.environment-agency.gov.uk/business/topics/waste/32180.aspx>

Every single waste that is generated must be allocated a code from the EWC. If you are delivering healthcare, the codes that you are most likely to use are in Table 2 opposite.

Healthcare waste is waste produced as a result of healthcare practice by or under the supervision of a trained practitioner. Waste similar in nature to healthcare waste, such as a soiled plaster may be produced in the home or office environment by people other than trained healthcare professionals, eg a first aider may assist a colleague at work but they are not a trained healthcare professional. In such instances the waste should not be classified as healthcare waste (in Chapter 18 of the EWC) but as a municipal waste as defined in Chapter 20 of the EWC.

Code	Description
18	Wastes from human and animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	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 whose 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 infection, e.g. dressings, plaster casts, linen, disposable clothing.
18 01 08*	Cytotoxic and cytostatic medicines
18 01 09	Medicines other than those mentioned in 18 01 08*

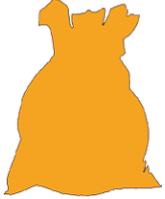
Table 2: Adapted from WM2, version 3 (recommended reading list document document 5, page 25). Please see WM2 version 3 for the full table of available codes

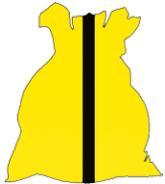
The code for non-healthcare wastes which may require specialist treatment is 20 01 99 (See Table 3). This code is applied to sharps containers and other wastes from beauticians, tattooists, nurseries, residential homes etc. Other wastes may be generated from these sources too, eg waste medicines from a care home.

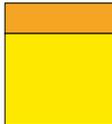
Code	Description
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 31*	Cytotoxic and cytostatic medicines
20 01 32	Medicines other than those mentioned in 20 01 31*
20 01 99	Other fractions not otherwise specified (used for offensive waste)

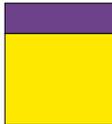
Table 3: Adapted from WM2 version 3 (Recommended reading list document 5). Please see WM2 version 3 for full table of available codes



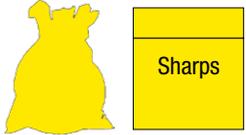
<b>Infectious clinical waste*</b>		<b>EWC Code: 18 01 03*</b>
<p>Waste that has been produced from the treatment of infectious patients, those suspected of having an infection and are contaminated with body fluids, for example:</p> <ul style="list-style-type: none"> <li>✓ personal protective equipment (gloves, masks, aprons)</li> <li>✓ wipes, dressings, plasters, bandages</li> <li>✓ incontinence waste</li> <li>✓ empty saline or glucose IV bags and tubing (no active medicines added) –infectious</li> </ul>	<p>UN approved orange bag</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ medicines or medicine contaminated items (i.e. empty medicine packaging, IV bags, lines and tubing that have had medicines added)</li> <li>✗ sharps waste</li> <li>✗ chemically contaminated waste</li> <li>✗ offensive waste</li> <li>✗ domestic waste or recyclable waste</li> </ul>	<p><b>Disposal route:</b> This waste stream is usually disposed of by alternative treatment methods, but may also be incinerated. The residue from this process may be sent to energy from waste or landfill.</p>	

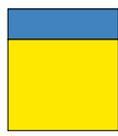
<b>Offensive waste including sanitary/nappy waste</b>		<b>EWC Code: 18 01 04 and 20 01 99</b>
<p>Waste that has been produced from the treatment of non-infectious patients and are contaminated with body fluids, for example:</p> <ul style="list-style-type: none"> <li>✓ personal protective equipment (gloves, masks, aprons) – non-infectious</li> <li>✓ wipes, dressings, plasters, bandages – non-infectious</li> <li>✓ incontinence waste – non-infectious</li> <li>✓ empty saline or glucose IV bags and tubing (no active medicines added) – non-infectious</li> <li>✓ soiled sanitary towels and tampons – from public and work based female toilets</li> <li>✓ nappies – from baby changing areas and nurseries</li> </ul> <p>These items may cause offence due to their appearance, odour or wetness</p>	<p>Yellow bag with black stripe(s)</p> <p>Sanitary waste bins and nappy bins may also be used for sanitary waste and nappies respectively</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ infectious clinical waste</li> <li>✗ sharps waste</li> <li>✗ medicines or medicine contaminated items (i.e. empty medicine packaging, IV bags, lines and tubing that have had medicines added)</li> <li>✗ chemically contaminated waste</li> <li>✗ domestic waste or recyclable waste</li> </ul>	<p><b>Disposal route:</b> This waste stream can be disposed of to landfill (separately to domestic waste), but may also be treated, recycled, or sent for energy from waste.</p>	

<b>Non-medicine contaminated sharps*</b>		<b>EWC Code: 18 01 03*</b>
<p>Sharps waste that has been produced from the treatment of infectious patients and those suspected of having an infection, but has also NOT been used for the administration of medicines, for example:</p> <ul style="list-style-type: none"> <li>✓ needles and syringes – non-active medicine contaminated</li> <li>✓ blades – non-active medicine contaminated</li> <li>✓ scissors – non-active medicine contaminated</li> <li>✓ other disposable instruments – non-active medicine contaminated</li> </ul>	<p>Orange lidded sharps container</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ medicines or medicine contaminated items (ie sharps used for the administration of medicines, empty medicine packaging, IV bags, lines and tubing that have had medicines added)</li> <li>✗ cytotoxic or cytostatic waste</li> <li>✗ chemically contaminated waste</li> <li>✗ domestic waste or recyclable waste</li> </ul>	<p><b>Disposal route:</b> This waste stream is usually disposed of by alternative treatment methods, but may also be incinerated. The residue from this process may be sent to energy from waste or landfill.</p>	

<b>Cytotoxic &amp; cytostatic waste*</b>		<b>EWC Code: 18 01 03* and 18 01 08*</b>
<p>Waste that has been used in the treatment of infectious patients and those suspected of having an infection, and may also have been used for the administration of cytotoxic and cytostatic medicines, as well as cytotoxic and cytostatic medicines for example:</p> <ul style="list-style-type: none"> <li>✓ needles and syringes – cytotoxic/static medicine contaminated</li> <li>✓ blades – cytotoxic/static medicine contaminated</li> <li>✓ scissors – cytotoxic/static medicine contaminated</li> <li>✓ IV bags, lines and tubing that have had cytotoxic/static medicines added</li> <li>✓ unused, part used and out of date cytotoxic/static medicines</li> </ul>	<p>Purple lidded sharps container</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ medicines or medicine contaminated items (ie empty medicine packaging, IV lines and tubing that have had medicines added)</li> <li>✗ chemically contaminated waste</li> <li>✗ offensive waste</li> <li>✗ domestic waste or recyclable waste</li> </ul>	<p><b>Disposal route:</b> This waste stream must be disposed of by incineration.</p>	



<b>Medicine contaminated infectious clinical waste</b>		<b>EWC Code: 1801 03* and 1801 09</b>
<p>Waste items that have been used in the treatment of infectious patients and those suspected of having an infection and may also be contaminated with medicines or chemicals, for example:</p> <ul style="list-style-type: none"> <li>✓ IV bags, lines and tubing that have had medicines added</li> <li>✓ chemically contaminated waste.</li> </ul> <p>Sharps waste that has been used in the treatment of infectious and potentially infectious patients, and may also have been used for the administration of medicines or chemicals, for example:</p> <ul style="list-style-type: none"> <li>✓ needles and syringes – medicine contaminated</li> <li>✓ blades – medicine contaminated</li> <li>✓ scissors – medicine contaminated</li> <li>✓ other disposable instruments – medicine contaminated</li> </ul>	<p>Yellow bag or yellow rigid container – preferably labelled as “Medicine contaminated infectious clinical waste”</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ waste that is just clinical infectious</li> <li>✗ offensive waste</li> <li>✗ domestic waste or recyclable waste</li> </ul>	<p><b>Disposal route:</b> This waste stream must be disposed of by incineration.</p>	

<b>Medicine waste</b>		<b>EWC Code: 18 01 09</b>
<p>Non-cytotoxic/cytostatic waste medicines, for example:</p> <ul style="list-style-type: none"> <li>✓ unused, part used and out of date tablets, creams, liquid dose medicines and patches</li> </ul>	<p>Blue lidded container – please note that there are a variety of designs for this type of container and containers on your site may not look exactly like that pictured.</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>✗ waste that is just clinical infectious</li> <li>✗ chemically contaminated waste</li> <li>✗ offensive waste</li> <li>✗ domestic waste or recyclable waste</li> <li>✗ IV bags, lines and tubing that have had medicines added</li> </ul>	<p><b>Disposal route:</b> This waste stream must be disposed of by incineration.</p>	

<b>Domestic or municipal waste</b>		<b>EWC Code: 20 03 01</b>
<p>Waste similar to that produced in the home environment, for example:</p> <ul style="list-style-type: none"> <li>✓ flowers</li> <li>✓ food and associated food packaging</li> <li>✓ clean packaging and wrappings – from clinical products</li> </ul>	<p>Black or clear bag</p> 	
<p>The following wastes should NOT be placed in this waste stream:</p> <ul style="list-style-type: none"> <li>× infectious clinical waste</li> <li>× offensive waste</li> <li>× sharps waste</li> <li>× medicines or medicine contaminated items (ie empty medicine packaging, IV bags, lines and tubing that have had medicines added)</li> <li>× chemically contaminated waste</li> <li>× recyclable waste</li> </ul>	<p><b>Disposal route:</b>            This waste stream can be sent to energy from waste or disposed of to landfill. However, any material which can be recycled or recovered should be as best practice.</p>	

## EWC Codes and Waste Descriptions – Legal Paperwork

All movements of waste, not just healthcare streams, in the UK require a paper trail. There are several elements to this and some businesses may require more than others depending on the types of waste produced. Using the information below and at the start of the Healthcare Waste Streams section, this section should be able to help you correctly classify your waste and use the correct documentation.

### Documentation

The documentation required depends upon what the waste is composed of and where it is collected from. No documentation is required if the waste is collected from a private household. However, documentation is required for all other collections and movements of waste. If the waste is defined in the EWC as a hazardous waste, that is one that has an asterisk (\*) after it, then it must be consigned on a HWCN. Non-hazardous waste does not require completion of a HWCN, but a waste transfer note (WTN) should be completed.

### Hazardous Waste Consignment Note (HWCN)

There are a number of pieces of information required on a HWCN. Part A contains details of the place producing the waste and will also ask for a premises code. A premises code can be obtained from the EA and NRW following registration as a hazardous waste producer. Producers only need to register for a premises code from the EA and NRW if their site produces more than 500kg of hazardous waste each year. This registration can be done online at [https://hwreg.environment-agency.gov.uk/registrationwelcome.jsp?lang=\\_e](https://hwreg.environment-agency.gov.uk/registrationwelcome.jsp?lang=_e) for England, or you can ring 03708 502 858.

When registering the EA or NRW will ask for the organisation's Standard Industry Classification (SIC) Code. Table 4 shows the most frequently used SIC codes for both HWCN and waste transfer notes (WTN) for non-hazardous waste. Different SIC codes are required for each type of note; 2007 SIC codes must be used on WTNs and the 2003 SIC codes must be used on HWCNs. Advice on SIC codes from the EA can be found at the following link: <http://www.environment-agency.gov.uk/business/regulation/129242.aspx>

Part B of the HWCN contains details of the waste, which includes the EWC code described above, an accurate description of the waste, the quantity of waste (kg or litres) and a description of its packaging, eg bags, sharps containers etc.

	2007 codes - for WTNs	2003 codes - for HWCNs
Private consultant clinic	86.22	85.12
Elderly Day centre (charitable)	87.30	85.31/1
Elderly Care Day centre non –charitable	87.30	85.31/2
Residential nursing care facilities (supervised by doctors)	87.10	85.14
Residential nursing care (not supervised by doctors)	87.10	85.11/3
Child daycare activities (charitable)	88.91	85.32/1
Child daycare activities (non charitable)	88.91	85.32/1
Beauty treatment activities	96.02	93.02
Tattooist	96.09	93.05/9
Gym	93.11	92.62/9
Physiotherapist (private)	86.9	85.14
Residential care for learning difficulties (charitable)	87.2	85.31/1
Residential care for learning difficulties (non charitable)	87.2	85.31/2
Decontamination services	39.00	90.03

Table 4 commonly used SIC Codes used in relation to healthcare waste. Please see <http://www.ons.gov.uk/guide-method/classifications/current-standard-classifications/standard-industrial-classification/sic-2007-indexes.pdf> for the full list of both 203 and 2007 SIC codes

Part B also contains some information required by the Department for Transport. If you are consigning clinical waste then this line should have the description UN3291, Clinical Waste, unspecified, n.o.s 6.2 II. It is important that all of these are included, the 6.2 and II can be in a different box but the description must be written in the order shown here.

The driver will fill in part C and then the person on your site who hands the waste over will sign part D. This must be signed legibly and the date and time added. The driver must not take the waste if there is no-one there to sign for it. It is a legal requirement to state on all HWCNs that the Waste Hierarchy has been taken into consideration.

Part E is completed after the waste has been received at the waste transfer station or treatment plant. You must have a copy of this sent back to you or alternatively, you may receive a quarterly summary of all the waste you have sent. You must keep all your HWCNs for a minimum of three years.

## Waste Transfer Note (WTN)

A WTN is used for the consignment of non-hazardous wastes, eg 18 01 04, 20 01 99 for offensive wastes, sanitary bin exchanges, domestic waste or recycling. If you have the same waste collected regularly then you may have a single WTN to cover the year (an annual note). If you produce different wastes or varying quantities then you should receive a WTN each time your waste is collected. WTNs must be kept for a minimum of two years. It is a legal requirement to state on all WTNs that the Waste Hierarchy has been taken into consideration.



The WTN provides essential information for carriers and other contractors involved in the transfer, treatment and disposal of the waste: the Duty of Care chain, also known as a 'cradle to grave' responsibility.

An electronic system of filling in WTNs, called Electronic Duty of Care (edoc) was been introduced in January 2014, information about this can be found at <http://edoconline.co.uk/>

## Waste Carrier's Licence

If you carry waste that you have produced as part of your job then you are required to register with the EA or NRW for a waste carrier's licence (lower tier). There is no charge for this type of registration and it will not expire. You should carry a copy of your registration number with you, this can be a copy of the printed registration or just a note in your diary as long as you have it to hand registration can be made online at: <https://www.gov.uk/waste-carrier-or-broker-registration> in England only. In Wales you need to contact [www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk).

If you carry waste on behalf of another organisation you may require an upper tier waste carrier registration, there is a charge for this and the registration will need to be renewed every three years.

## Keeping Records

It is a legal requirement that you keep accurate records of all waste that leaves your site. A good idea is to set up a folder which can include any aspects below or the entire list:

- a copy of your premises registration (if producing over 500 kg of hazardous waste per annum) – renew annually
- a copy of your carriers registration – one time registration (for lower tier registrations)
- all WTNs
- all HWCNs

If the EA or NRW visit your site, one of the first things they will ask for is your site register (or your waste management folder). If you have all the above information filed and stored where it can be easily accessed this will help with any audits you may have.



## Waste Handling and Storage

### Segregation

A key part of effective waste management and legislative compliance is the segregation of wastes at source. Poor segregation will lead to increased costs of disposal and may result in prosecution if the waste is considered to be 'mixed' and is deemed no longer suitable for the waste treatment or disposal option you have chosen to use. A clear policy and awareness training for all staff in effective segregation is fundamental. Please see page 10 for more information.

### Traceability

It is best practice that containers and bags used for final disposal are marked or tagged. This enables the waste to be traced and its source determined in the event of non-conformance being identified. This may take the form of specially coded bag ties, self adhesive labels or by clear permanent writing on the container. Most sharps containers and pharmaceutical bins have space on the label for this purpose. The packaging should ideally be labelled to show the source and the date produced.

Infectious wastes and other dangerous goods are subject to regulations regarding their transport and have to be contained in special UN tested and approved packaging. The use of ordinary bags and boxes is not permitted and your contractor will refuse to collect it in this form. A detailed colour coding system is in place for healthcare wastes. For further details please refer to page 10.

Your waste contractor may provide you with the correct form and quantity of packaging for each type of waste you identify to them. This packaging will be tested and designed to carry a set weight or volume of waste. You should identify what these limits are and not exceed them as you are responsible for any spillage that may result.

### Temporary Storage At Source

Infectious, dangerous or offensive wastes should be placed in suitable packaging immediately to avoid risk of contamination or spillage. This usually means that suitable temporary storage is close at hand (eg, pedal bins/bag holders etc), or that suitable containers are taken to the source and then returned to a storage location (eg, sharps containers or pharmaceutical bins).

Bag and sack holders should be able to be easily cleaned and disinfected and free from sharp edges that are liable to tear or puncture bags. To improve infection control, all bag/sack holders used for temporary storage should be pedal operated with self closing lids and must be labelled to clearly identify their use. Where practical, colour coded pedal bins help to reinforce correct identification and segregation.

Examples of good practice:

- The use of 0.5-litre or 1-litre sharps containers for a single user or low use application. A larger box may be appropriate for a central multi-user application, but limited to a maximum storage period of three months.
- Bags, sacks and containers must not be over filled. There must be adequate room within the bag or box to allow it to be easily closed, tied or sealed without the risk of it coming undone, splitting or bursting during handling or transport.

## External Storage And Security

Waste producers are legally responsible for ensuring that wastes are not allowed to escape. The word 'escape' includes:

- leakage or spillage from bags or containers, for example:
  - bags that are not properly tied or secured
  - bags that are overfilled causing splitting and spillage
  - bags or containers that have been ripped or torn by rodents (ie, rats) or other vermin
  - bags and waste containers that are only designed to contain solids used for free flowing liquids – if liquids are being disposed of then sufficient absorbent material must be added to take up the liquid
- Allowing persons to gain unauthorised access
  - Unauthorised access to healthcare wastes can be dangerous to human health. In addition, it is a legal requirement for waste to be stored securely. However “securely” is not defined in guidance documentation so “securely” could refer to a locked wheeled bin or container, a locked room or cupboard.

You should discuss with your contractor whether they will provide external storage container(s) (eg wheelie bin or other suitable containers), the location of the container(s) and how access is achieved during service. Waste contractors may offer a range of different services depending upon the facility the waste will be taken to. Key points to consider are the frequency of service. As above, wastes should not be allowed to accumulate excessively as this may cause odour, nuisance or pests to build up.

## Duty of Care

The 'Duty of Care' is a legal responsibility under Section 34 of the Environmental Protection Act 1990.

The Duty of Care applies to any individual and/or organisation producing or handling controlled waste. Controlled Waste is the legal definition for waste produced by all types of businesses, including healthcare providers.

Controlled waste may be hazardous\* or non-hazardous.

Producers of controlled waste must ensure that their waste is stored, collected, treated and disposed of (or recycled) by organisations/contractors registered with the EA, NRW or the local authority.

### Producer Responsibility - Selecting A Contractor

It is the responsibility of the waste producer to ensure that individuals or companies employed to transfer or treat their waste have the correct licences, permits or registrations to carry out these functions.

*Can the company accept and/or treat or dispose of the waste type requiring removal?*

Prior to selection, initial checks can be undertaken to confirm whether specific contractors are registered as waste carriers, environmental permit holders, etc via the EA 'Public Registers' pages: <http://epr.environment-agency.gov.uk/ePRInternet/SearchRegisters.aspx>. In Wales contact the NRW Customer Care Centre on 0300065 3000.

Visiting a prospective site is advisable, particularly where hazardous waste treatment is required. Visiting the company website and reviewing testimonials, etc are good examples of how to measure the reliability of a company. Annual 'due diligence' checks are advised throughout the life of the contract, including:

- Do licences, permits or other authorisations need updating?
- Is the waste taken to the site identified on the WTN (shadowing the transfer is an option)?
- Are quarterly returns provided for HWCNs?
- Are WTNs completed correctly (and final copies returned to the producer)?
- Is the site well managed?
- Is the waste treated as stated?

## Waste Transfer

The transfer of waste comes under the Duty of Care. For further information on this topic, please see page 20.

## Waste Treatment

Contractors who treat, recycle or dispose of waste must be registered with the EA or NRW. For further information on the treatment of waste please see page 7.



## Policy and Procedures

To ensure the compliant and appropriate management of healthcare waste, protection of human health and the environment, it is essential that a Waste Management Policy or set of operational procedures are available to all waste producers.

The Care Quality Commission (CQC) and Care and Social Service Inspectorate Wales require that organisations providing healthcare should have a number of supplementary policies available, including one for the safe handling and disposal of waste and sharps.

The information in this document may be reproduced to assist in the production of a suitable policy and/or procedures. Further information may be found in those documents listed on page 25.

It is recommended that a Waste Management Policy and/or procedures should include the following sections and relevant information:

- waste types, descriptions and definitions
- segregation, colour coding and packaging of the different waste streams
- waste handling, storage, collection and movement
- responsibilities
- health and safety – including risk assessments, immunisations, accidents and incidents (involving waste), dealing with spillages, management of sharps
- staff training
- legal paperwork – HWCNs and WTNs, site registers and record keeping
- auditing and monitoring

Ideally the policy and/or procedures should be reviewed and updated on a regular basis to include any changes in practice, legislative requirements or waste contractor.

It is important to ensure that all of those involved in dealing with waste have access to the policy and/or procedures and have received training in how to manage waste that they produce, handle and send for alternative treatment or disposal.

## Key Sources of Information & Recommended Reading List

1. The DH offers guidance on healthcare waste management, through a key document, Health Technical Memorandum (HTM) 07-01: Safe management of healthcare waste, March 2013: <https://www.gov.uk/government/publications/guidance-on-the-safe-management-of-healthcare-waste>
2. The RCN has issued a report on healthcare waste management across the UK, entitled Freedom of Information report on waste management, April 2011: [http://www.rcn.org.uk/\\_data/assets/pdf\\_file/0005/372308/004108.pdf](http://www.rcn.org.uk/_data/assets/pdf_file/0005/372308/004108.pdf)
3. In 2010, the EA produced guidance on Healthcare Waste Pre-Acceptance Audits for producers of healthcare and related wastes. A copy of the document can be found at the link below: [http://www.environment-agency.gov.uk/static/documents/Business/Briefing\\_note\\_Oct\\_2010\\_vs\\_6\\_final.pdf](http://www.environment-agency.gov.uk/static/documents/Business/Briefing_note_Oct_2010_vs_6_final.pdf)
4. In 2013, the EA produced their latest briefing note on clinical waste pre-acceptance information (September 2013). This document can be located at the link below: [http://www.ciwm.co.uk/web/FILES/Technical/Briefing\\_Note\\_-\\_Clinical\\_Waste\\_Pre-acceptance\\_Information\\_\(Sept\\_2013\).pdf](http://www.ciwm.co.uk/web/FILES/Technical/Briefing_Note_-_Clinical_Waste_Pre-acceptance_Information_(Sept_2013).pdf)
5. In 2013, the EA updated the latest version of WM2 (version 3), which describes how to classify whether your waste is hazardous or non-hazardous. This document can be found at the link below: <http://www.environment-agency.gov.uk/business/topics/waste/32180.aspx>
6. The EA have produced a basic guide to understanding hazardous wastes, called HWR01A. This document can help you to classify your waste and can be found at the following link: [http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/LIT\\_5552\\_28b742.pdf](http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/LIT_5552_28b742.pdf)
7. For policies on healthcare waste specifically, please see: <https://www.gov.uk/healthcare-waste>
8. The Health and Safety Executive (HSE) provides information on a range of health and safety issues associated with the management of healthcare waste: <http://www.hse.gov.uk/healthservices/healthcare-waste.htm>

9. This also includes guidance on 'best practice' for the management of offensive/hygiene waste: <http://www.hse.gov.uk/pubns/waste22.pdf>
10. CIWM has produced guidance for large organisations that have to undertake pre-acceptance audits: [http://www.ciwm.co.uk/web/FILES/Technical/Pre-acceptance\\_audit\\_guidance\\_document\\_140114.pdf](http://www.ciwm.co.uk/web/FILES/Technical/Pre-acceptance_audit_guidance_document_140114.pdf)
11. Defra produced guidance on applying the Waste Hierarchy in 2011. This document can be found below: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69403/pb13530-waste-hierarchy-guidance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf)
12. The EA 'Public Registers' pages can be used to undertake prior checks to confirm whether specific contractors are registered as waste carriers, environmental permit holders, etc : <http://epr.environment-agency.gov.uk/ePRIInternet/SearchRegisters.aspx>.



## Glossary & Acronyms

**ADR:** European agreement concerning the international carriage of dangerous goods by road.

**AT:** Alternative Treatment.

**BAT:** Best Available Techniques.

**Care and Social Service Inspectorate Wales:** The regulator for social care and social services in Wales, from child minders and nurseries to homes for older people.

**Category A/Category B:** Classification of infectious substances in line with the Carriage Regulations.

**Clinical waste:** means waste from a healthcare activity (including veterinary healthcare) that:

- (a) contains viable micro-organisms or their toxins which are known or reliably believed to cause disease in humans or other living organisms,
- (b) contains or is contaminated with a medicine that contains a biologically active pharmaceutical agent, or
- (c) is a sharp, or a body fluid or other biological material (including human and animal tissue) containing or contaminated with a dangerous substance within the meaning of Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (b).

**COSHH:** Control of Substances Hazardous to Health Regulations.

**CPD:** Continual Professional Development.

**CQC:** Care Quality Commission. The health and social care regulator for England.

**Cytotoxic and cytostatic:** Classification of medicinal waste used in the List of Wastes Regulations for medicinal products with one or more of the hazardous properties toxic, carcinogenic, toxic for reproduction or mutagenic.

**Defra:** Department for the Environment, Food and Rural Affairs.

**DH:** The Department of Health. They lead, shape and fund health and care in England.

**Duty of Care:** When used in relation to waste management, this term refers to the statutory responsibilities of individuals and organisations.

**EA:** Environment Agency. Regulator responsible for environmental regulation (including waste) in England.

**EU:** European Union.

**EWC:** European Waste Catalogue (code).

**Hazardous waste:** Waste classified as hazardous waste by the Hazardous Waste Regulations and the List of Wastes Regulations.

**Healthcare waste (HCW):** defined as any waste that result during a healthcare procedure. Some of these wastes (known as clinical/infectious waste) may be hazardous to those that come into contact with them and are subject to stringent controls.

**HSE:** The Health and Safety Executive.

**HTM 07-01:** Otherwise known as the Health Technical Memorandum (HTM) 07-01: Safe management of healthcare waste. This document is produced by the Department of Health and provides detailed guidance on how to deal with healthcare wastes.

**HWCN:** Hazardous Waste Consignment Note.

**LoW:** List of Wastes (Regulations).

**Medicinal waste:** Medicinal waste includes expired, unused, spilt, and contaminated pharmaceutical products, drugs, vaccines, and sera that are no longer required and need to be disposed of appropriately.

**NRW:** Natural Resources Wales. Regulator responsible for environmental regulation (including waste) in Wales.

**Offensive waste:** is waste that:

- (a) is not clinical waste,
- (b) contains body fluids, secretions or excretions, and
- (c) falls within code 18 01 04, 18 02 03 or 20 01 99 in Schedule 1 to:
  - (i) the List of Wastes (England) Regulations 2005(d), in relation to England, or
  - (ii) the List of Wastes (Wales) Regulations 2005(e), in relation to Wales;

**Permit:** (Environmental Permit) Approval or consent issued by the Environment Agency (England) and Natural Resources Wales (Wales) for a specified waste processing activity.

**Pharmaceutically active:** Pharmaceutically active medicines may be non-hazardous or hazardous depending upon properties and include, but are not limited to, cytotoxic and cytostatic medicinal wastes (hazardous waste). Examples of non-pharmaceutically-active products include saline and glucose.

**PPE:** Personal Protective Equipment.

**RCN:** Royal College of Nursing.

**Sharps:** Sharps are items that could cause cuts or puncture wounds. They include needles, hypodermic needles, scalpels and other blades, knives, infusion sets, saws, broken glass, and nails.

**SIC Code:** Standard Industry Classification Code.

**SLD:** Structured Learning and Development.

**UN:** United Nations.

**WM2:** Technical document produced by the Environment Agency, Natural Resources Wales, the Scottish Environment Protection Agency and the Northern Ireland Environment Agency to provide guidance on the assessment and classification of hazardous waste based on the Waste Directive definition of hazardous waste.

**WTN:** Waste Transfer Note.



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## Disclaimer

This guidance document is intended to provide information to all those who produce healthcare and healthcare type waste and/or are looking to become more informed on this sector of the waste and resource management industry. It has never been the intention that this document should be used for legal or public appeal cases.

Please note that the Environment Agency website is currently moving to the .GOV.UK website. As a result of this, some of the links within this booklet may not work in future. Please see the recommended reading list, item 7, if any links do not work.

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