

INFECTION PREVENTION AND CONTROL POLICY AND PROCEDURES **Sussex Partnership NHS Foundation Trust (The Trust)**

IPC12

MANAGEMENT OF HEALTHCARE WASTE

INTRODUCTION

The Trust and the individual staff are bound by a duty of care and have a legal responsibility to ensure waste is disposed of properly.

This waste policy has been written to provide guidance on managing waste in health and social care environments. Guidance is drawn from Health Technical Memorandum 07-01 Safe Management of Healthcare Waste (DH, 2013) (HTM 07-01). This guidance provides a number of changes designed to introduce cost savings, safer working practices and a reduction in carbon emissions related to managing waste. Relevant changes include:

- Updates to legislation, specifically for environmental permitting and transport / carriage regulations;
- A focus on the waste hierarchy through procurement practices, and the elimination, minimisation, recycling and recovery of waste;
- A drive to address the carbon impact related to waste through resource efficiency, transport impacts and disposal arrangements;
- A focus on practical advice and examples for classifying waste, in particular the infectious and offensive waste streams, including case studies to highlight best practice;
- A review of the terminology used for healthcare, clinical and non-clinical wastes

BACKGROUND

HTM 07-01 issues extensive guidance regarding the collection, storage, segregation, transportation and disposal of all healthcare waste to protect the health and safety of all personnel, the public and the environment. The type of clinical waste generated within this Trust has been subject to risk assessment - the Trust will continue to use the orange bags for clinical waste / incineration.

AIM

Good waste management is important for the following reasons:

- to reduce the health and safety risk to staff, service users and visitors from waste;
- to manage waste disposal costs and reduce where appropriate;
- to ensure compliance with environmental legislation which includes the reduction of carbon impacts of managing waste.

LEGISLATION AND REGULATION

To effectively manage waste generated, those responsible for the management of the waste should understand and comply with the requirements of different regulatory regimes;

- Health and Safety;
- Environment and waste;
- Medicines Management;
- Infection Prevention & Control;
- Transport.

The management of healthcare waste is directed by statute and regulation from the United Nations, European Union, UK parliament and devolved national parliaments. Such legislation and regulation is regularly reviewed and re-issued. For waste management practices to comply with these requirements, appropriate waste management services need to be procured. Organisations procuring such services should be aware that, under the Environmental Protection (Duty of Care) Regulations (England Scotland and Wales) contained within the Environmental Protection Act 1970, they have a duty of care for the safe management of waste “from cradle to grave” and not just within their own premises

Organisations that produce waste are required to register with the Environment Agency as a waste producer. This registration process should commence with an assessment of the types of waste to be produced and audit of same (pre-acceptance audit). Specialist advisors (Dangerous Goods Safety Advisors, DGSA) may be required depending on the volumes and types of waste generated.

The Waste Manager should produce a Waste Policy and strategy which will include sourcing appropriate advice. Guidance on policy production can be found in HTM 07-01, chapter 6, page 68.

HEALTH AND SOCIAL CARE ACT (2008) CODE OF PRACTICE

The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance (DH, 2015) applies to the safe handling and disposal of waste (criteria 2 and 9). This can be achieved by the following:

1. Risks from waste disposal are properly controlled by:
 - Assessing risk
 - Developing appropriate policies
 - Putting arrangements in place to manage risks
 - Monitoring, auditing and reviewing the way in which arrangements work and
 - Being aware of statutory requirements, legislative change and managing compliance

2. Precautions should be in place when handling waste including:
 - Training and information
 - Personal hygiene; immunisation and PPE
 - Segregation and storage of waste
 - Appropriate procedures for handling waste
 - Appropriate packaging and labelling
 - Suitable transport on-site and off-site
 - Clear procedures for accidents, incidents and spills and
 - Appropriate treatment and disposal of waste

3. Systems should be in place to ensure that the risks to service users from exposure to infections caused by waste present in the environment are properly managed, and that duties under environmental law are discharged. The most important of these are:
 - Duty of care in the management of waste
 - Duty to control polluting emissions to the air
 - Duty to control discharges to sewers and
 - Obligations of waste managers
 - Collection of data and obligations to complete and retain documentation including record keeping

- Requirement to provide contingency plans and have emergency procedures in place.

There is a unified methodology and definitions that will allow everyone who handles waste to determine whether the waste fits in to one of the following defined categories:

- infectious clinical waste
- non infectious clinical waste
- hazardous waste
- offensive/hygiene waste
- waste that is dangerous for carriage

This unified approach has been developed to enable those involved with waste management to comply with waste regulations. While it is not mandatory to comply with this unified approach it is considered best practice.

SEGREGATION OF WASTE

Segregation of waste into separate streams ensures appropriate and safe disposal in order to reduce costs and treat waste appropriately.

It is essential that all staff are aware of and comply with safe methods of disposal which should be clearly documented in local procedures.

Segregation can be easily achieved by careful use of the correct receptacles (bags and bins), together with appropriate storage prior to collection.

It is the responsibility of the person who disposes of an item to ensure that it enters the waste stream in the correct receptacle.

DEFINITIONS OF WASTE

Clinical and Hazardous Waste

The definition of clinical waste (as defined by The Controlled Waste (England and Wales) Regulations 2012 – issued under the Environmental Protection Act) is:

1. “.....any waste which consists wholly or partly of:
 - human or animal tissue
 - blood or other body 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**

2. any other waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practice, investigation, treatment, carebeing waste which may cause infection to any person coming into contact with it.”

Clinical waste can be divided into three broad categories of materials:

- any healthcare waste which poses a risk of infection (and thus by definition possesses a hazardous property categorised as H9 infectious)
- certain healthcare wastes which pose a chemical hazard
- medicines and medicinally contaminated waste containing a pharmaceutically active agent

Offensive / Hygiene Waste describes waste that is non-infectious and which does not require any specialist form of treatment or disposal. In the past this has been described as Human Hygiene or Sanpro Waste. Offensive/hygiene waste is healthcare waste (or similar from municipal sources) which meets the following criteria

- It is not clinical waste
- It is not dangerous for carriage
- The producer has identified, after segregation at source, that it is suitable for disposal at a non-hazardous landfill site without further treatment
- It may cause offense to those coming into contact with it

Items that are considered to be offensive/hygiene waste are;

- incontinence and other waste produced from human hygiene
- sanitary waste
- disposable medical items and equipment that do not pose a risk of infection, including PPE (that is items that are not clinical waste)
- nappies

Such waste must be assessed for medicinal, chemical or infectious properties before being assigned to this category.

Sharp Waste is defined as any item that could pierce the skin. This includes: needles, broken crockery and glass

Items that may explode on incineration must not be disposed of as clinical waste, but must be decontaminated before disposal as per local authority guidance. This includes aerosol cans (even if empty) and batteries.

Other Waste Streams

There are other waste streams which do not carry infection risks but are covered by regulation. These streams should be defined in the organisations Waste Policy.

WASTE MINIMISATION AND CARBON IMPACT

The guidance in this policy stresses the importance and need to minimise both the volume of waste produced and also the carbon impact of waste disposal methods used. Thus consigning all waste as clinical for incineration is not considered acceptable. Waste assessments and strategies should be devised to allow minimisation of both waste quantities and carbon impact. This potentially benefits the organisation in cost savings as well as the environment. Further guidance on achieving this can be found in HTM 07-01, chapter 5, page 48. Additionally advice may be sought from the Waste Contractor.

NATIONAL COLOUR-CODING APPROACH

Segregation of waste at the point of production into suitable colour-coded packaging is vital to good waste management. Health and Safety, carriage and waste regulations require that waste is handled, transported and disposed of in a safe and effective manner. The following colour-coded waste segregation guide represents best practice and ensures, at minimum, compliance with current regulations.

Proper segregation of different types of waste is critical to safe management of healthcare waste and helps control management costs. The use of colour-coded receptacles is an essential element of good segregation practice.

The national waste colour-coded segregation system identifies and segregates waste on the basis of waste classification and suitability of treatment/disposal options.

Appendix 1 summarises the colour-coding system currently in use.

WASTE STREAMS – INTERPRETATION

INFECTIOUS WASTE – yellow stream

Infectious waste – yellow stream requires disposal by incineration in a suitably licensed or permitted facility. This waste stream includes anatomical waste and may include other types of waste which require incineration to comply with national or regional policy, including un-autoclaved waste from clinical laboratories. This waste stream also includes waste that is, or may be contaminated with infectious micro-organisms *but which also has an additional characteristic that means it must be incinerated*. For example: anatomical waste; medicinally-contaminated infectious waste etc. **This waste stream should NOT be used solely for known/suspected infectious waste. Such waste should be treated as infectious waste and placed into orange bags**

Yellow-stream infectious waste is hazardous waste and is subject to the controls of the Hazardous Waste Regulations.

INFECTIOUS WASTE – orange stream

Infectious waste – orange stream may be treated to render it safe prior to final disposal to landfill. Treatment may only take place in a suitably licensed facility.

Orange-stream infectious waste is known or suspected to contain pathogens and is hazardous waste subject to the controls of the Hazardous Waste Regulations. ***The orange clinical waste stream should NOT contain waste that is non-infectious e.g. offensive and domestic waste or that has additional characteristics that require incineration e.g. medicinal, chemical, anatomical characteristics.***

Under the Landfill Regulations it is prohibited to send infectious waste direct to landfill for disposal without prior treatment.

INFECTIOUS LIQUID WASTE – yellow or orange receptacles

Infectious liquid waste should be contained in rigid receptacles for disposal. Some contractors require such waste to be solidified before removal.

OFFENSIVE / HYGIENE WASTE – yellow / black stream

Offensive/hygiene waste is disposed of by deep landfill. Such waste is collected in yellow / black striped bags – so-called “tiger stripe” bags.

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 and infusions sets. Sharp items such as needles attached to syringes that contain, or may potentially contain residues of Prescription Only Medicines (POMs) are also subject to classification under the Special Waste Regulations as Pharmaceutical waste (see below) and must be discarded into appropriate sharps bins with colour-coded lids. See Safe Management of Sharps Chapter of this Manual.

DOMESTIC (HOUSEHOLD) WASTE

Domestic waste is waste that is similar to the waste generated at home. It should not contain any infectious materials, sharps or medical products and may be placed in either black or clear bags for disposal.

PHARMACEUTICAL WASTE

Pharmaceutical waste is described as waste containing a pharmaceutically active agent. This may include expired or unused medicinal product, and discarded items associated with medicines e.g. bottles, connecting tubing, syringes etc.

Pharmaceutical waste is further divided into Cytotoxic/Cytostatic waste and non-Cytotoxic/Cytostatic waste.

All pharmaceutical waste must be disposed of into an appropriately coloured pharmaceutical waste container. This is blue for non-Cytotoxic/Cytostatic waste and Purple for Cytotoxic/Cytostatic waste.

WASTE RISK ASSESSMENT AND SEGREGATION

In England and Wales, **mixing of waste is prohibited by law**. This means that waste **MUST** be segregated into appropriate waste streams prior to disposal. This requires waste to be risk assessed *on a case by case basis* and thus requires a waste provider to ensure that a full range of waste streams is available for use when required.

On a daily basis this means that it is not acceptable to dispose of all clinical waste into an orange waste stream or into a yellow/black offensive waste stream but that both streams must be available for use. Both streams are acceptable for the disposal of waste contaminated with body fluids **BUT** the orange stream should only be used *if the body fluids are suspected / known to be infectious*.

This aspect of waste disposal is the most commonly misunderstood element of the waste cycle and requires a comprehensive understanding of waste management by those responsible for waste policy, together with easily understood local protocols supported by staff training.

Comprehensive guidance and further explanations can be found in HTM 07-01, chapter 10 sector guide on community healthcare, page 118. Although not aimed specifically at mental health environments, the general principles in this sector guide apply.

See Appendix 2 Waste Disposal Flow Chart

EFFECTIVE DISPOSAL OF WASTE

For effective disposal of waste it is important for consideration to be given to the placement of waste receptacles. Waste must be disposed of as close to source as possible and bins must be positioned where they are easily accessible to staff. Clinical waste bins should not be placed where visitors/service users may use them for the disposal of domestic waste.

Bins should be colour-coded or clearly labelled, fire retardant and fully enclosed with lids which must be foot-operated. All bins should be in good working order.

When bins are two-thirds full the bags must be removed, securely tied and, if appropriate, labelled in accordance with the legal requirements for transporting and packaging waste (to ensure traceability) and removed to a designated waste storage area or bin. In healthcare facilities (including Care Homes providing nursing) clinical waste bags should be secured with a tie and not by knotting.

The storage area or bin must be lockable (for clinical waste) and free from access to the public, pests or vermin. Waste streams should be clearly segregated in storage areas.

Domestic waste bags must also be changed when two-thirds full, secured and stored in a designated area separate from clinical waste.

Sharps bins, when full, must be closed securely and labelling completed prior to disposal. Sharps bins must NOT be placed inside yellow / orange bags but should be stored in a locked storage area.

When handling any waste bag the bag must only ever be held by the neck.

STAFF PROTECTION

When handling clinical or hazardous waste staff should always wear appropriate protective clothing i.e. apron / overalls and gloves.

When such waste handling is complete protective clothing must be disposed of in to the clinical waste stream.

Hands must be thoroughly washed and dried after protective clothing has been removed.

All staff handling clinical waste must be offered a programme of vaccinations for Hepatitis B, Hepatitis A and Tetanus. See policy for Vaccination Programme for Staff.

All staff must be aware of the policy for exposure to blood-borne viruses and take the appropriate action after an incident. See policy for Management of Occupational Exposure to Blood Borne Virus.

SPILLAGE

All spillages must be regarded as potentially hazardous and dealt with immediately.

Under no circumstances should service users or members of the public be allowed to assist, or be involved in any way in the clearing or cleaning up of spillage.

When dealing with spillage, protective clothing (gloves and apron and if necessary face protection) must be worn.

If it is possible, ask another member of staff to assist in keeping unauthorised persons away, until the area can be barricaded off.

If dealing with a broken or split bag, re-bag the contents and ensure that the area is free of waste.

If sharps are present, puncture proof gloves/gauntlets must be worn. A pair should be available in all areas where clinical waste is handled.

If the area has been contaminated with blood or body fluids clean the area well with a solution of detergent and warm water, followed by a hypochlorite disinfectant. See policy for Spillages of Blood and Body Fluids.

After any spillage always thoroughly wash and dry your hands.

Spillages of clinical/hazardous waste should be reported using the organisation's incident reporting processes with an investigation being undertaken to identify risks and allow risk reduction actions to be implemented.

AUDIT AND MONITORING

The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance (DH, 2015) requires a programme of audit to demonstrate and ensure compliance with policies. Waste management guidance also requires an audit programme of waste segregation and storage arrangements. This should include quarterly observation of waste containers (without handling the waste itself) as a minimum. Additional and more detailed audits of container contents are advised at intervals determined by the volume and types of waste produced. Such audits require careful risk assessment and the application of control measures to ensure the safety of auditors. Such control measures will include, but not be limited to, the use of Personal Protective Equipment.

TRAINING

All staff that have contact with waste, whether through the production of waste or disposal must have training in safe management of waste and local policies. Staff should be trained at induction and regularly thereafter, at least annually.

RECORD KEEPING

The manager with designated responsibility for waste disposal must keep records that include details of the waste disposal contract and records of all clinical waste collections from the healthcare premises. Waste transfer and consignments notes for hazardous waste should be retained for three years.

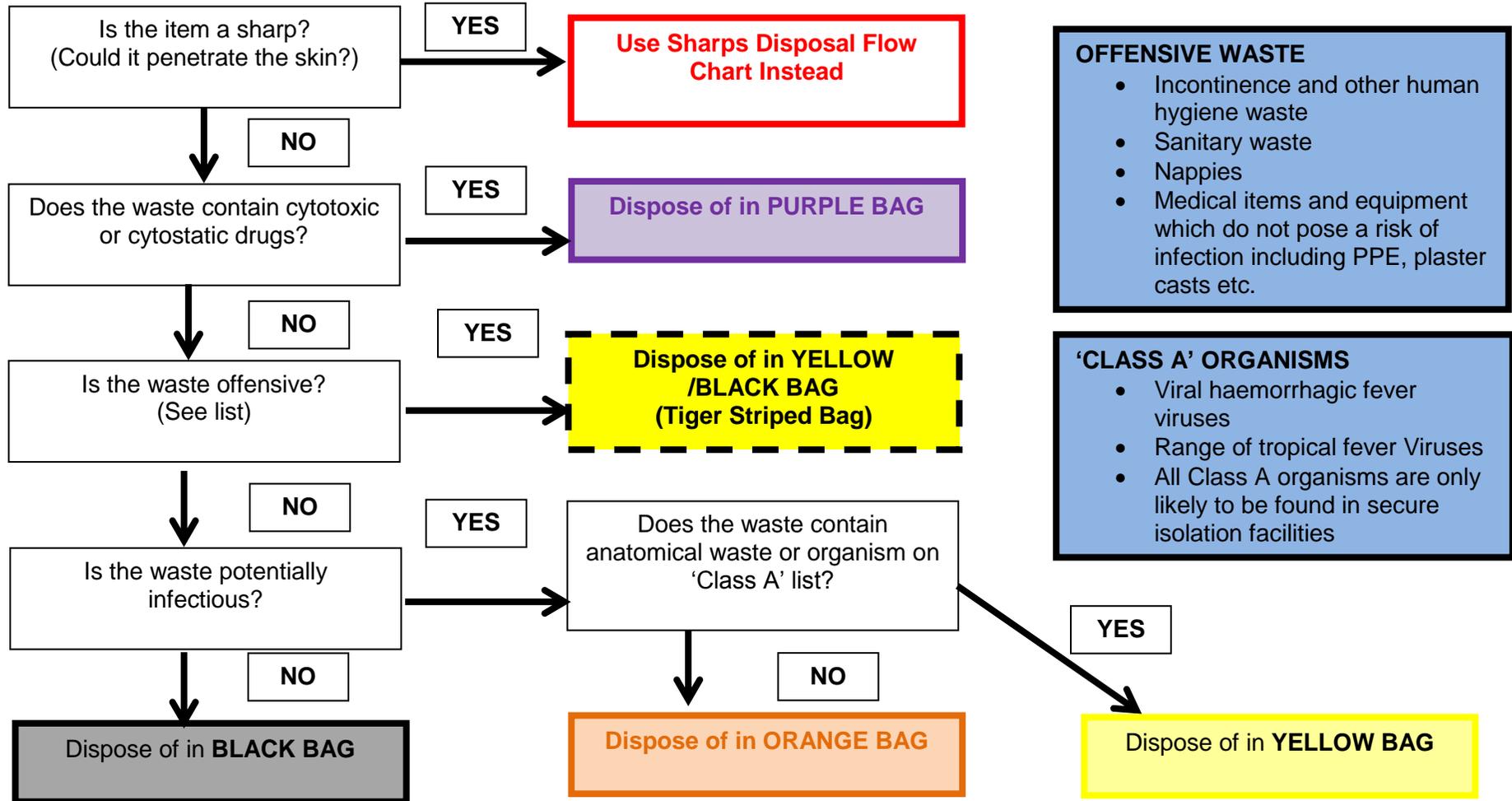
APPENDIX 1 WASTE SEGREGATION COLOUR CODING

Colour	Description
	Waste which requires disposal by incineration Indicative treatment/disposal required is incineration in a suitably permitted or licensed facility.
	Waste which may be “treated” Indicative treatment/disposal required is to be “rendered safe” in a suitably permitted or licensed facility, usually alternative treatment plants (ATPs). However this waste may also be disposed of by incineration.
	Cytotoxic and cytostatic waste Indicative treatment/disposal required is incineration in a suitably permitted or licensed facility.
	Offensive / hygiene waste* Indicative treatment/disposal required is landfill or municipal incineration/energy from waste at a suitably permitted or licensed facility.
	Anatomical waste for incineration Indicative treatment/disposal required is incineration in a suitably permitted facility.
	Domestic (municipal) waste Minimum treatment disposal required is landfill , municipal incineration/energy from waste or other municipal waste treatment process at a suitably permitted or licensed facility. Recyclable components should be removed through segregation. Clear / opaque bags/sacks may also be used for domestic waste.
	Medicinal waste for incineration Indicative treatment/disposal required is incineration in a suitably permitted facility.
	Amalgam waste for recovery

* The use of yellow / black for offensive / hygiene waste was chosen as these colours have historically been universally used for the sanitary /offensive / hygiene waste stream.

(Based on the HTM 07-01 Safe Management of Healthcare Waste, DH 2013)

APPENDIX 2 WASTE DISPOSAL FLOW CHART



- OFFENSIVE WASTE**
- Incontinence and other human hygiene waste
 - Sanitary waste
 - Nappies
 - Medical items and equipment which do not pose a risk of infection including PPE, plaster casts etc.

- 'CLASS A' ORGANISMS**
- Viral haemorrhagic fever viruses
 - Range of tropical fever Viruses
 - All Class A organisms are only likely to be found in secure isolation facilities