

# National Green Theatres Programme

Prògram Nàiseanta Lannsaireachd Uaine

## Embed waste segregation – Opportunity for Change

Published: May 2023

*An opportunity to save across NHS Scotland:*



**353**

Tonnes of  
CO<sub>2</sub>e



**£473,809**

## 1. Description of action

- 1.1 This action relates to theatres ensuring they have appropriate waste segregation in place to allow the maximum amount of waste to be recycled and minimise waste that will end up in the clinical waste stream.
- 1.2 The Waste (Scotland) Regulations 2012, introduced by the Scottish Government state that all businesses, public sector and not-for-profit organisations are required to present metal, plastic, glass, paper and card (including cardboard) for separate collection.
- 1.3 To comply with these regulations there is a requirement to better segregate waste material and increase the amount of recycling within operating theatres.

## 2. Background

- 2.1 Waste produced in theatre operating suites is contributing to the climate emergency, consideration must therefore be given not only to reducing the amount of waste produced, but also to identifying how to increase the amount of waste that is recycled. Theatres have historically been overlooked when considering potential for recycling however this is changing, and control of infection practice now recognises that not all waste produced in theatres needs to be considered infectious.
- 2.2 NHS Scotland health boards were given derogation until January 2014 to implement the Waste (Scotland) Regulations 2012, however many health boards progressed prior to this date.
- 2.3 A great deal of work has been and continues to be carried out by Waste Management Officers to ensure compliance with these regulations. In December 2022, NHS Scotland Assure and Waste Management Officers developed training modules, and training material has now been distributed across health boards. Waste management officers (WMO) are placing receptacles on site to ensure appropriate source segregation and campaign material is also available advising of the impact of incorrect segregation of waste.
- 2.4 This work predates the National Green Theatres Programme (NGTP), the purpose of which is to build on the NHS Highland Green Theatre project and other green initiatives, including waste segregation, and support implementation of agreed actions at national level.
- 2.5 Results of segregation at ward, clinic and theatre level have been mixed and Board WMO's continue to work with clinical teams and infection prevention control to ensure that all requirements of legislation are met safely and appropriately. Green Theatres is also now a standing item at the National Waste Managers Steering Group

### 3. Who needs to be involved in this change locally?

3.1 In order to implement this Action is recommended that the following groups should be consulted and involved:

- Anaesthetists
- Surgeons
- Theatre Managers/Staff
- Waste Management Officers
- Infection protection control
- Procurement Staff
- Health Boards waste contractors

### 4. Scope

4.1 The table below identifies the boundaries for this action:

In scope	Out of Scope
Segregation of clinical waste, household waste and recyclable materials in all NHS Scotland operating suites	The requirement to present each recyclable as an individual waste stream

### 5. What is the change and how will it be implemented?

- 5.1 Segregation of clinical waste, household waste and materials which can be recycled to allow separate collection and reduction in the amount of clinical waste requiring to be processed.
- 5.2 Waste Management Officers will continue to work with theatre teams and infection and protection control teams to promote increased waste segregation and ensure compliance with legislation.
- 5.3 Training will continue to be provided and the NHS Scotland Assure Sustainability Manager has been asked to deliver some of this training for various Boards.

## 6. What are the potential co-benefits of this change?

6.1 Based on figures submitted to the Public Bodies Climate Change Report by health boards, the estimated national benefits through implementing a 10% reduction in clinical waste (and an associated 10% increase in recycling) are detailed in table below:

Outcome	Potential Benefits
<b>Carbon reduction</b>	353 tonnes of carbon saved annually
<b>Cost savings</b>	£473,809 saved annually
<b>Patient outcomes</b>	No change to patient outcomes.
<b>Staff experience</b>	Increased knowledge and awareness of impact of current practice and opportunity to contribute

6.2 Contained within appendix 2, a health board breakdown for potential carbon and cost savings is provided. It should be noted that these are estimated figures and should be validated locally as part of the proposed measurement plan.

## 7. Risks and Issues

7.1 As part of the development of this action a number of risk and issues have been identified below:

Description of risk or issue	Mitigation / Action Plan
Competing demands from theatre teams which may impact ability to implement these changes	Ongoing communication and support between theatre teams, WMO and NHS Assure Sustainability Manager
Incorrect streaming of waste	Training undertaken to ensure all staff are aware of what can/cannot be recycled.
Lack of space within theatre suite to accommodate additional bins	Variety of bin sizes available to suit size of available space
Availability of data from which accurate audit of change can be measured	Explore with local teams how reduction in clinical waste disposal/increase in recycling can be demonstrated
Concern from IPC on source segregation of waste	Increased engagement and communication with IPC teams
Variation across health boards on what contractors will collect	Clear signage on or near bins

## 8. Implementation Guidance

- 8.1 The opportunity for change highlights the importance of implementing this action. This modification will help your site and NHS Scotland achieve net-zero emissions by 2040 as stated in NHS Scotland’s Climate Emergency & Sustainability Strategy 2022-2026
- 8.2 Below the National Green Theatres Programme has provided guidance on how you can implement this change within your area. If you require any further information or guidance, please contact the National Green Theatres programme team on: [cfsdgreentheatres@gjnh.scot.nhs.uk](mailto:cfsdgreentheatres@gjnh.scot.nhs.uk)

Local Sustainability or Green Theatre Group:	
1.	Review opportunity for change and validate what this means locally.
2.	Provides National Green Theatre Programme Team with validated information/local targets.
3.	Convene a discussion with the staff who need to implement it and those who are impacted by the action.
4.	Understand what the opportunity is for implementing the action locally: work already undertaken and challenges.
5.	Agree a local implementation plan.
6.	Implement local plan.
7.	Provide data as per measurement plan.
8.	Monitor implementation of action.

## Appendix 1 – Measurement plan

Name of Measure (,carbon, cost, staff experience and patient outcome)	Type of measure (Outcome, Process, Balancing)	Concept being measured?	Where is the data available from?	Who is collecting the data?	Frequency of collection
Carbon	Outcome	Decrease in tCO <sub>2</sub> e resulting from the reduction in amount of clinical waste collection and disposal	Health Boards/NHS Assure	Waste Managers	Quarterly
Cost	Outcome	Financial savings resulting from less clinical waste	Health Boards/NHS Assure	NHS Boards	Quarterly

## Appendix 2 – Potential Savings

The following figures are based on those submitted to the Public Bodies Climate Change Report by Health Boards between April 2022 to February 2023 (ie a period of 11 months). The estimated national benefits of reducing clinical waste by 10% were then calculated.

It should be noted that data for NHS Orkney, NHS Shetland and NHS Western Isles is incomplete.

<b>Table 3: Anticipated Carbon Savings for all Health Boards</b>						
	<b>Current</b>		<b>10% reduction of clinical waste</b>			
	<b>Total Carbon Emissions (Tonnes)</b>	<b>Clinical Waste (Tonne)</b>	<b>Reduction in Carbon emissions (Orange Bag)</b>	<b>Carbon Emissions (Recycling)</b>	<b>Carbon Saving (Tonne)</b>	<b>Clinical Waste (Tonnes)</b>
<b>Total for NHS Scotland</b>	<b>14,032.98</b>	<b>3,830.70</b>	<b>1,403.30</b>	<b>383.07</b>	<b>29.86</b>	<b>353.21</b>



**Table 4: Anticipated Cost Savings for NHS SCotland**

	Current		10% reduction of clinical waste			
	Clinical Waste (Tonnes)	Total Cost (£)	Clinical Waste (Tonne)	Reduction in Cost (Orange Bag) (£)	Cost for Recycling (£)	Cost Saving (£)
<b>Total for NHS Scotland</b>	<b>14,032.98</b>	<b>7,071,778.43</b>	<b>1,403.30</b>	<b>707,177.84</b>	<b>233,368.68</b>	<b>473,809.15</b>