

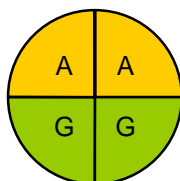
# Internal Audit



## Hospital Waste Management

April 2015

Report Assessment



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## **Introduction**

The Facilities directorate maintains an Operational Policy for Waste Disposal. The policy sets out requirements for segregating waste, with a colour scheme (eg Yellow, Orange and Red) used to identify different categories. It also covers specific aspects of waste management, including storage, transportation, and disposal of clinical and other waste.

To promote compliance with Waste (Scotland) Regulations 2012, NHS Health Facilities Scotland issued NHS Scotland's Waste Management Action Plan 2013 to 2016 in July 2013. The Action Plan provided a Board Audit Template for health boards to track their progress against key waste management actions. While not mandatory, health boards were encouraged to return their completed Board Audit Templates to NHS Health Facilities Scotland.

Facilities advises that disposing of clinical waste costs five times more than domestic waste, mainly due to the heat treatment required for clinical waste. Therefore, Facilities is eager to ensure that non-clinical items are not included inadvertently within clinical waste.

## **Scope**

We reviewed arrangements in place for the management of clinical and non-clinical waste in hospitals. The control objectives for the audit are set out on the Summary of Findings along with our assessment of the controls in place to meet each objective.

## **Acknowledgements**

We would like to thank all staff consulted during this review, for their assistance and cooperation.

## Executive Summary

### Conclusion

While there is an established framework of controls in place for the management of hospital waste, this audit has identified areas in which additional controls should be introduced to provide assurance that the control framework is applied consistently across NHS Lothian.

### Summary of Findings

The table below summarises internal audit's assessment of the adequacy and effectiveness of the controls in place to meet each of the control objectives agreed for this audit. Definitions of the ratings applied to each action are set out in Appendix 1.

No.	Control Objective	Control objective assessment	Number of actions by action rating			
			Critical	Significant	Important	Minor
1	Clear instructions are issued for dealing with different types of waste.	Amber			4	
2	Different types of waste are segregated for appropriate disposal.	Green			2	
3	Excessive levels of waste are not allowed to build up.	Green				
4	The disposal of waste is safe and secure, with waste recycled where possible.	Amber		2		

### Control Objective Ratings

Action Ratings	Definition
Red	Fundamental absence or failure of controls requiring immediate attention. (60 points and above)
Amber	Control objective not achieved - controls in place are inadequate or ineffective (21 – 59 points)
Green	Control objective achieved – no major weaknesses in controls but may be scope for improvement (20 points or less)

## Main Findings

We noted a number of areas of good practice during the review. For example, a framework of control has been established through the Operational Policy for Waste Disposal, which provides instruction to staff on types of waste, segregation, disposal, transport & storage and security. Staff are able to access the Policy through NHS Lothian's intranet site.

The Board's Lead for Waste Management is a member of Health Facilities Scotland's Waste Management Steering Group and chairs the Lothian & Forth Valley Waste Management Group and Consortia Chairman's Group, whose meetings include monitoring changes to legislation and reviewing contractor performance.

Waste is collected where and when required by portering staff, and areas where waste arises are provided with equipment for the secure collection and containment of waste.

Aspects of waste management, such as the segregation, storage and security of waste are assessed at wards and theatres by clinical staff through NHS Lothian's Patient Quality Indicator (PQI) checklist and the online Quality Improvement Data System (QiDS). Corrective actions are carried out following the assessments.

We identified two significant areas for improvement during the review:

- Our testing of the storage of clinical waste in 66 clinical areas identified that procedures are not followed effectively. Security of waste should be assessed and improved, with management reminded of the procedures for collecting and storing clinical waste securely.
- NHS Lothian does not currently comply with the requirement to segregate all recyclates at source. NHS Lothian should develop plans for the roll-out of source segregation of recyclates across all NHS sites.

Further details of each point are set out in the Management Action Plan along with details of six important findings.

## Management Action Plan

Control objective 1: Clear instructions are issued for dealing with different types of waste.	
1.1 Operational Policy requires review and update	Important
<p><u>Observation and risk</u></p> <p>In March 2010, Health Facilities Scotland (HFS) issued Scottish Health Technical Note 3: NHS Scotland Waste Management Guidance (SHTN3), which required health boards to develop waste management policies. NHS Lothian's Operational Policy for Waste Disposal was implemented in March 2010.</p> <p>NHS Lothian requires that policies are reviewed every two years. However, there is no evidence that the Operational Policy has been reviewed since its introduction in 2010. We were informed that the Operational Policy was reviewed in 2012, but the review was not documented. HFS was expected to issue a revised version of SHTN3 during summer 2014 and NHS Lothian planned to wait for the revised guidance before reviewing the Operational Policy. The revised SHTN3 has yet to be issued.</p> <p>Without an up-to-date Operational Policy there is a risk that procedures in practice may not ensure a service provision that is safe and without risk to health. Also, the Policy may not reflect current regulations and requirements.</p>	
<p><u>Recommendation</u></p> <p>Following issue of a revised SHTN3, NHS Lothian should review the Operational Policy to reflect any new or amended requirements in SHTN3.</p> <p>In future, NHS Lothian should maintain records to document the biennial review and approval of the Operational Policy.</p>	
<p><u>Management Response</u></p> <p>Agreed. Health Facilities Scotland issued the updated SHTN3 in March 2015.</p> <p><u>Management Action</u></p> <p>Waste Management Operational Policy will be reviewed and, where necessary, updated following the publication of SHTN3. Once done, the Policy will be ratified by the Facilities Policy Review Group prior to publication.</p>	
Responsibility: Programme Manager / Lead for Waste Management	Target date: 31 July 2015

1.2 Waste Management Action Plan requires review and update	Important
<p><u>Observation and risk</u></p> <p>Following issue of SHTN3 in March 2010, additional waste management guidance and regulation has been issued. Most recently CEL 14 (2013): NHS Scotland Waste Management Action Plan 2013-2016 (the CEL) was issued in July 2013. The CEL brought together previous requirements and recommended that each health board should develop an action plan based on the CEL. NHS Lothian's Action Plan (the Action Plan) was developed in January 2014.</p> <p>However, there is no evidence of approval of the plan, and there is no formal process in place to track and report on completion of the actions within the Action Plan. Our review of the plan noted that some actions have been completed, such as delivery of Zero Waste Scotland training sessions (Waste Smart) and contractor-led audits of sites to identify waste streams and assess on-site segregation. However, other actions are ongoing and not yet completed, such as updating the LearnPro waste management module to include reference to segregation and the Waste (Scotland) Regulations 2012, and the update of NHS Lothian's Facilities Risk Register to identify liable fines for non-compliance with Regulations.</p> <p>There is a risk that the lack of oversight of the NHS Lothian Waste Management Action Plan could result in a failure to comply with regulations on a timely basis.</p>	
<p><u>Recommendation</u></p> <p>The NHS Lothian Waste Management Action plan should be updated to reflect the current status of actions within it. The plan should be approved by Facilities Heads of Service and Area/Site Managers, and progress in completing outstanding actions should be reported to the Sustainable Development Management Group at least twice a year.</p>	
<p><u>Management Response</u></p> <p>The Lead for Waste Management is member of NHSL's Sustainability Management Group, where waste is discussed and current position reported. Also, waste management features as a standing agenda item at Area Managers meetings. The Lead for Waste Management chairs the Lothian and Forth Valley Group where focus has been on clarifying the current position on recycling at source and developing a tracking sheet for sites following a revised management structure.</p> <p><u>Management Action</u></p> <p>The Waste Management Action Plan will be amended to include the person or department responsible, as well as target and completion dates. Progress against the Action Plan will be discussed quarterly at Heads of Service meetings. The updated Action Plan will be circulated to Area/Site Managers and the Sustainable Development Management Group for either tracking or action.</p>	
<p>Responsibility: Programme Manager / Lead for Waste Management</p>	<p>Target date: 31 May 2015</p>

1.3 Risk assessment to identify control measures required	Important
<p><u>Observation and risk</u></p> <p>SHTN3 requires that a health board's risk management systems should incorporate identification and assessment of risks associated with waste management. Within NHS Lothian's Operational Policy, responsibility for risk assessments relating to the creation, handling, segregating, storing and disposal of waste is allocated to department heads, line managers or persons in charge, depending on individual areas of control.</p> <p>We visited a sample of 13 clinical areas and found that a risk assessment of waste management had been carried out locally at only one location, although we noted risk assessments had been completed across NHS Lothian for the uplift, transport and storage of waste by Facilities staff.</p> <p>By not identifying and assessing all risks, waste management procedures in place may not fully protect the environment and individuals from harm.</p>	
<p><u>Recommendation</u></p> <p>The review of the Operational Policy recommended at 1.1 above, should include review and clarification, where appropriate, of the risk assessment guidance.</p> <p>The Lead for Waste Management should request NHS Lothian's Occupational Health and Safety Services to advise clinical areas that workplace risk assessments should include waste management, especially covering the potential for unauthorised access to clinical waste. Clinical Staff should use findings from these risk assessments to update their Health &amp; Safety Inspection Checklist.</p>	
<p><u>Management Response</u></p> <p>Responsibility for health &amp; safety and the carrying out of risk assessments lies with the departments generating and disposing of the waste.</p> <p><u>Management Action</u></p> <p>The Operational Policy will be updated to re-enforce health and safety and the requirement for each area to undertake risk assessments. In agreement with Occupational Health and Safety Services, a sample risk assessment will be added as guidance to the Health and Safety intranet pages.</p>	
<p>Responsibility: Programme Manager / Lead for Waste Management</p>	<p>Target date: 31 July 2015</p>



1.4 Completion of waste management LearnPro module	Important
<p><u>Observation and risk</u></p> <p>The Operational Policy for Waste Disposal requires that staff working in areas where waste arises must be given instruction in procedures for handling, segregating, storing and disposing of waste. In addition, the Waste Management Action Plan requires compulsory attendance at induction and annual refresher training sessions for staff involved in the handling of clinical or special waste. Records of such training must be maintained to demonstrate compliance with the Scottish Government's Duty of Care – a Code of Practice.</p> <p>A training framework is in place, which includes an e-learning module on waste management that is made available through LearnPro. The Operational Policy advises that all staff are required to undertake the e-learning module and that departments will be audited on the staff up-take of the e-learning training. However such auditing is not currently carried out.</p> <p>In 6 of the 13 wards we tested, staff completion of the LearnPro module was out of date, with staff in a further two wards not using the module as part of mandatory training.</p> <p>Without being adequately trained, staff may not deal with waste correctly, increasing risks of harm to both individuals and the environment.</p>	
<p><u>Recommendation</u></p> <p>A review and monitoring process should be introduced to confirm, as a minimum, that all staff who regularly work in areas where waste arises are aware of and have completed e-learning training provided through LearnPro. Frequency of refresher training should be agreed with management and included in the monitoring process.</p> <p>The content of the LearnPro module should be subject to review, eg annually or following changes to legislation or policy, to confirm ongoing relevance and compliance with updated regulatory or best practice requirements.</p>	
<p><u>Management Response</u></p> <p>Agreed. Toolbox talks on waste procedures are carried out within Facilities and with relevant staff groups.</p> <p><u>Management Action</u></p> <p>The LearnPro waste module will be reviewed. Also, the use of LearnPro will be raised at the HFS Waste Steering Group to propose a consistent approach across NHS Scotland. The Operational Policy will be updated to state training is compulsory for all staff that deal with waste, through establishing the mandatory LearnPro modules and the frequency of refresher training.</p>	
<p>Responsibility: Programme Manager / Lead for Waste Management</p>	<p>Target date: 30 December 2015</p>

Control objective 2: Different types of waste are segregated for appropriate disposal.	
<b>2.1 Sanpro waste is not always segregated from clinical waste.</b>	<b>Important</b>
<p><u>Observation and risk</u></p> <p>Sanpro waste is categorised as items of waste used for the collection or disposal of human excreta and secreta (e.g. continence products, empty catheter bags, protective clothing). Provided it is free from infection, Sanpro waste should be disposed of separately rather than being included within the clinical waste stream. Charges for disposal of Sanpro waste are lower than disposal of clinical waste.</p> <p>We were informed that segregation and separate collection of Sanpro waste occurs in some long stay wards at some hospitals (Astley Ainslie Hospital, Ferryfield House, Ellen’s Glen House, Finlay House, Corstorphine Hospital, Royal Edinburgh Hospital, Royal Victoria Hospital and Royal Victoria Building). However, there has been no evaluation across NHS Lothian of the costs and benefits of introducing segregation of Sanpro waste at other hospitals, except for the Royal Hospital for Sick Children, where the Director of Operations – Facilities advises there is insufficient space to support the segregation of Sanpro waste.</p> <p>We found Sanpro waste was generated in 29 of the 66 clinical areas visited. However, the Sanpro waste was segregated in only 4 of those 29 clinical areas, with the waste being disposed of as clinical waste in the remaining 25 areas.</p> <p>There is a risk that NHS Lothian’s current approach to disposal of Sanpro waste results in additional waste disposal costs.</p>	
<p><u>Recommendation</u></p> <p>Management should evaluate the costs and benefits of introducing segregation of Sanpro waste at all relevant clinical areas within NHS Lothian to determine whether additional savings can be made.</p> <p>A plan for introducing Sanpro waste segregation should be developed and rolled out for any areas where management identifies savings can be made. Thereafter monitoring future segregation in those areas should be carried out through the Patient Quality Indicator (PQI) and Quality Improvement Data System (QiDS) review process.</p>	
<p><u>Management Response</u></p> <p>Segregating clinical waste from Sanpro waste has been discussed in a number of areas and requires support from clinical and Infection Control colleagues, due to significant risks from the potential inappropriate disposal of infected waste. Space requirements for additional bin storage has been a further reason for segregation not being possible.</p>	
<p><u>Management Action</u></p> <p>The Director of Operations – Facilities will liaise with Chief Nurses and the Head of Infection Control in identifying and assessing all sites generating Sanpro waste.</p>	

A Short-Life Working Group will be established to evaluate the risks and cost benefits. Following evaluation a plan will be developed with local management teams to implement the segregation of Sanpro waste at agreed locations.

Responsibility: Director of Operations - Facilities

Target date: 31 January 2016

2.2 Segregation instruction not always on display	Important
<p><u>Observation and risk</u></p> <p>The Operational Policy contains a waste segregation chart, which contains instructions about how to segregate waste. Effective segregation of waste at source allows NHS Lothian to demonstrate compliance with the “duty of care” requirements in the Environmental Protection Act and reduces costs by minimising the amount of non-clinical waste that is included within clinical waste, which is more expensive to dispose of than general domestic waste.</p> <p>Of 66 clinical areas visited during the audit, 12 areas within the RIE and WGH hospitals and the Edinburgh Dental Institute at Lauriston Building did not have waste segregation charts on display to instruct staff on the appropriate categorisation and disposal of waste.</p> <p>Both PQI audits and QiDS assessments require staff to confirm that segregation charts are on display. However, records of these assessments at 4 of the 12 areas identified above reported no issues around the placement of segregation charts.</p> <p>Without clear instructions available to staff on how to identify and segregate different types of waste, risks are increased that waste disposal may not meet legal requirements and staff may be exposed to unnecessary risks. Furthermore, incorrect disposal may incur unnecessary costs.</p>	
<p><u>Recommendation</u></p> <p>The Lead for Waste Management should remind clinical areas to display the waste segregation charts. Local PQI audits and QiDS assessments of compliance with waste management regulations should test whether local managers are displaying charts, recording where segregation charts are not visible.</p>	
<p><u>Management Response</u></p> <p>Agreed. Posters are available.</p> <p><u>Management Action</u></p> <p>The Lead for Waste Management will request through Chief Nurses that wards and departments check their areas to ensure posters are on display and request additional posters if required. The Infection Prevention and Control Team (IPCT) and lead for PQI audits will be requested to remind wards and departments about the importance of displaying posters. The Facilities / IPCT joint support worker audit tool will be amended to include checking that waste segregation posters are on display.</p> <p>Additional posters will be procured to ensure an adequate supply.</p>	
<p>Responsibility: Programme Manager / Lead for Waste Management</p>	<p>Target date: 30 June 2015</p>

**Control objective 3: Excessive levels of waste are not allowed to build up.**

We found no significant issues in relation to this control objective.

Waste is regularly collected by portering staff to established schedules. On occasion and at busier times larger than usual amounts of waste can be generated, which porters collect when requested by the clinical area.

Contract management arrangements are in place to review the effectiveness of the service provided for the uplift and disposal of clinical and domestic waste.

<b>Control Objective 4: The disposal of waste is safe and secure, with waste recycled where possible.</b>	
<b>4.1 Clinical waste is not always stored securely.</b>	<b>Significant</b>
<p><u>Observation and risk</u></p> <p>SHTN3 requires that all clinical waste is held secure and away from areas of public access, with individual bins kept locked except when being filled. The Operational Policy reflects these requirements and also requires that clinical waste bags are closed using a specific method and sealed with a ratchet-type ID tag to secure against leakage and allow identification of source locations.</p> <p>Internal audit visits to 66 clinical areas noted the following exceptions:</p> <ul style="list-style-type: none"> <li>• clinical waste bins were located in areas routinely accessed by the public for 10 clinical areas;</li> <li>• clinical waste bins were held in unlocked rooms in a further 55 clinical areas;</li> <li>• clinical waste bins were unlocked in 6 instances, 2 of which were located in areas routinely accessed by the public;</li> <li>• clinical waste bags did not have ID tags attached in 3 clinical areas; and</li> <li>• clinical waste bags were not closed using the approved method in 61 areas.</li> </ul> <p>If NHS Lothian cannot demonstrate compliance with waste management regulations, there is an increased risk of harm to individuals, and reputational damage.</p>	
<p><u>Recommendation</u></p> <p>Management should be reminded of the procedures for collecting, securing and storing clinical waste, including the requirement to ensure that clinical waste bins must be secured and locked away. Compliance with NHS Lothian's procedures should be monitored through regular PQI and QIDS visits, with repeated non-compliance being escalated through line-management.</p>	
<p><u>Management Response</u></p> <p>The Director of Operations – Facilities advises that where lockable wheeled clinical waste bins are held in unlocked rooms, it is not workable in practice to have the rooms locked as well, due to regular access being required by a number of staff. It is accepted that in certain circumstances clinical waste bins cannot be secured from public areas, although all 770ltr bins supplied by waste contactor are lockable.</p> <p><u>Management Action</u></p> <p>The Lead for Waste Management will request through Chief Nurses that clinical staff are reminded to keep wheeled clinical waste bins locked at all times.</p>	
Responsibility: Programme Manager, Lead for Waste Management	Target date: 31 July 2015

4.2 Duty of care – recycling	Significant
<p><u>Observation and risk</u></p> <p>The Waste (Scotland) Regulations (the regulations) require that businesses (including hospitals) segregate all recyclates (glass, metals, plastics, paper and card/cardboard) at source from 1 January 2014.</p> <p>Within SJH, Leith CTC and Lauriston Building, facilities are in place to segregate all domestic waste at source, to comply with current regulation. However, at these locations and throughout NHS Lothian, recyclates are treated as domestic waste, with an external contractor paid to uplift and separate recyclates.</p> <p>NHS Lothian and the external contractor have been completing audits since January 2014 to identify waste streams and increase compliance with the regulations. This has led to an increase in the volume of domestic waste segregated at source. However segregation at source remained less than 25% of all domestic waste produced as at December 2014.</p> <p>Without significant increase to segregation of recyclates at source, NHS Lothian may not meet Zero Waste Plan targets or comply with regulation, with the potential for fines imposed as a result.</p>	
<p><u>Recommendation</u></p> <p>In accordance with the Waste Management Action Plan 2013-16, NHS Lothian should develop plans to roll-out the source segregation of recyclates across all NHS Lothian sites, targeting the least compliant locations first.</p>	
<p><u>Management Response</u></p> <p>Facilities are in place on a number of sites to accommodate different waste streams such as domestic, cardboard, confidential paper and dry mixed recycling. This will enable roll out to wards and departments to ensure that waste segregated at source eg ward or department, is collected and stored separately for collection by the waste contractor.</p> <p>While a tracking sheet is being developed to identify the current status, Site Managers and the waste contractor are rolling out facilities to enable source segregation. The least compliant sites are being targeted first unless otherwise identified by Site Managers.</p> <p>With the support of clinical colleagues, a pilot exercise to improve waste segregation within theatres 1 to 3 (renal and transplant) at RIE is planned to commence within the next month.</p> <p>Also, a six month trial to promote waste management best practice will be carried out from April 2015 through the introduction of clinical support worker joint posts within Facilities and IPCT.</p> <p><u>Management Action</u></p> <p>Tracking sheet to be fully developed and implemented, with review and monitoring of monthly source segregation figures by the Lothian and Forth Valley Waste Group. Recycling</p>	

percentages and volumes of waste by stream to be included in Facilities Performance Dashboard.

Action plan and information pack to be developed covering support workers joint posts (Waste Champions) within Facilities and IPCT.

Updates on the above will be provided to Sustainability Management Group, Area Managers and Heads of Service meetings.

Responsibility: Programme Manager, Lead for Waste Management

Target date: 31 October 2015



## Appendix 1 - Definition of Ratings

### Management Action Ratings

Action Ratings	Definition
<b>Critical</b>	The issue has a material effect upon the wider organisation – 60 points
<b>Significant</b>	The issue is material for the subject under review – 20 points
<b>Important</b>	The issue is relevant for the subject under review – 10 points
<b>Minor</b>	This issue is a housekeeping point for the subject under review – 5 points

### Control Objective Ratings

Action Ratings	Definition
<b>Red</b>	Fundamental absence or failure of controls requiring immediate attention. (60 points and above)
<b>Amber</b>	Control objective not achieved - controls in place are inadequate or ineffective (21 – 59 points)
<b>Green</b>	Control objective achieved – no major weaknesses in controls but may be scope for improvement (20 points or less)