

# Better equipped to care?

Follow-up report on managing medical equipment

Key messages / Prepared for the Auditor General for Scotland

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# Key messages

## Why medical equipment is important

Managing medical equipment<sup>1</sup> is complex but is essential to good patient care. Risks to patients and staff can arise if medical equipment is not available when needed, or not used properly. Failure to manage these risks can result in poor quality patient care and lead to clinical negligence claims.

The investment in medical equipment is substantial. It includes high cost, low volume items such as CT or MRI scanners, and low cost, high volume items such as blood pressure monitors. Medical equipment purchased from capital in 2001/02 is estimated at over £60 million, with a further £25 million purchased from revenue funds. More than £44 million is spent on maintenance each year for equipment with an estimated replacement value of £630 million<sup>2</sup>.

## The follow-up audit

This report was prepared by Audit Scotland on behalf of the Auditor General for Scotland. We reviewed progress across Scotland since we published good practice guidelines and recommendations in the 2001 baseline report, *Equipped to Care*.

The follow-up audit was carried out in trusts<sup>3</sup>, health boards and the Scottish Executive Health Department (SEHD). We did not follow up the more operational aspects of managing medical equipment, where our baseline work highlighted widespread good practice. Instead, we focused on the main performance issues arising from our baseline study.

During the course of the follow-up audit, the structure of NHSScotland began to evolve towards NHS boards with operating divisions. Although our findings relate to the previous NHSScotland structure, our recommendations reflect the new arrangements.

Our follow-up audit was carried out in 2003 and is based on 2001/02 data. We found that there are still significant risks for patients where medical equipment is not managed well, and there remains substantial room for improvement across Scotland. The main messages arising from our follow-up audit are summarised below and relate to strategic management, risk management and management information.

## Main findings

### 1 Strategic management

Strategic management of medical equipment needs to be given a higher priority at local and national levels.

*A strategic approach to medical equipment is needed at local and national levels to help ensure patient and staff safety, support quality of care and achieve value for money. Robust information is required to ensure that current and future needs for medical equipment can be properly assessed, and to support decisions about priorities and resources.*

### Local level

- Health boards tend to view medical equipment as an operational issue. There is seldom an individual or group

with overall responsibility for coordinating medical equipment planning, needs assessment and resource allocation at area level. Health boards have not clarified what information they require from trusts (or operating divisions) for performance monitoring purposes.

- At trust level, over three-quarters of trust boards continue to view medical equipment only as an operational issue:
  - almost half have no executive director responsible for medical equipment
  - half of trust boards are not involved in medical equipment needs assessments, and no trust boards are routinely involved in performance monitoring and management
  - where trust boards *do* consider reports on medical equipment, they tend to focus on financial issues rather than quality of care
  - approximately two-thirds of trust boards cannot show that their investment programmes are based on realistic forward planning for medical equipment or that investment is sufficient to meet clinical governance requirements or service priorities.

### National level

- The SEHD believes it discharges its role in holding NHSScotland to account for its management of medical equipment by addressing it within policy areas such as

1 The definition of medical equipment for our study and descriptions of medical equipment can be found in Appendix 2 of the main report.

2 See Exhibits 14 and 15 of the main report for expenditure details.

3 In this summary, the term 'trust' includes island health boards.

cancer and concentrating on capital expenditure. In our view, the SEHD's approach has some limitations:

- it tends to focus on new and high cost items
  - items of medical equipment are often used across policy areas
  - medical equipment is not directly covered by the Performance Assessment Framework (PAF) and is not routinely covered in Accountability Reviews.
- The approach also contrasts with the Department of Health in England which has introduced a specific standard for managing medical devices as part of its controls assurance requirements for the NHS.<sup>4</sup>

## 2 Risk management

Trusts and operating divisions need to do more to manage medical equipment risks.

*The aims of risk management are to avoid harming patients and staff, and to limit financial risk.*

### Local level

- Overall, trusts follow good practice for most key areas of medical equipment policy on acquiring and using medical equipment (Exhibit 1). For example, trusts follow good practice for managing clinical incidents, which includes capturing details of problems with medical equipment.

- However, trusts need to do more to show how they are managing the risks associated with operator error and maintenance. Trusts must improve the management of staff training, such as systematically planning and recording the training received by healthcare staff for using medical equipment. They also need to assess maintenance needs to ensure that the mix<sup>5</sup> of maintenance services currently provided is appropriate and that in-house teams are adequately resourced.
- Trust boards need sufficient investment to replace medical equipment as it ages and to meet changes in services and technology. We found that capital expenditure in 42% of trusts fell short of depreciation levels, particularly in Primary Care Trusts (PCTs), indicating that their capital investment is not keeping pace with estimated replacement requirements. And, on average, 37%<sup>6</sup> of equipment still in use in acute trusts has no value<sup>7</sup> on the fixed asset register. Some trusts are still relying heavily on old equipment. Twenty-five percent of the medical equipment that we looked at was outwith its standard life (Exhibit 2).

### National level

- The national risk management scheme, CNORIS<sup>8</sup>, has not brought about the reduction in risk exposure expected when we published *Equipped to Care*. It has not been fully implemented and it does not specifically cover medical equipment. The SEHD plans to streamline the national

risk management scheme from 1 April 2004. This provides an opportunity for NHSScotland to consider implementing a specific medical devices management standard.

- The SEHD should make better use of information from existing national reporting schemes, such as the Adverse Incident Reporting Scheme<sup>9</sup>, to identify risks and keep local health services informed of them.

## 3 Management information

Information to support the management of medical equipment must improve at local and national levels.

- All trusts lack the information to manage their medical equipment effectively. For example, almost half the trusts were not able to provide figures for their revenue expenditure on medical equipment, 2001/02. This means that it is still not possible to provide a clear picture of the cost, availability and use of medical equipment, and benchmarking is impossible.
- NHSScotland cannot demonstrate that it is making best use of its medical equipment resources for patient care because of a lack of information.

4 Medical Devices Management Standard, Department of Health (DOH), October 2001 (revised 2003).

5 For example, equipment suppliers and manufacturers, and NHS teams, all provide trust equipment maintenance.

6 The range is 11% - 62%.

7 For example, equipment purchased from capital and fully written down.

8 Clinical Negligence and Other Risks Indemnity Scheme.

9 NHSMEL (1995)74. Reporting of adverse incidents and defective equipment.

## Exhibit 1

Trust implementation of formal medical equipment policies

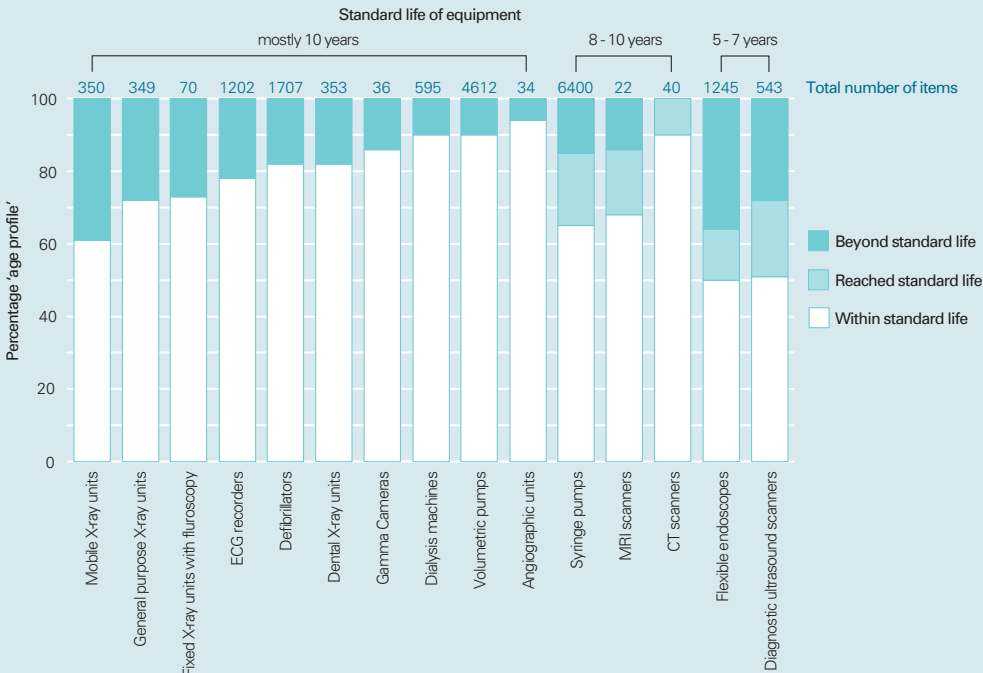
Trust staff mostly comply with formal policies for acquiring, commissioning and using medical equipment.		
	Medical equipment policies	Percentage of trusts demonstrating implementation
<b>Acquiring medical equipment</b>	• Purchasing decisions	77%
	• Standardising on models of equipment	77%
	• Involving clinicians throughout the process	74%
<b>Commissioning medical equipment</b>	• Acceptance testing (eg, electrical testing)	90%
	• Registering on inventories	87%
	• Decommissioning of equipment	81%
<b>Using medical equipment</b>	• Reporting critical incidents	100%
	• Health & safety requirements	97%
	• Personal electronic equipment (eg, mobile phones) in clinical areas	87%
	• Maintenance and fault reporting	84%
	• Training	74%
	• Modified equipment	71%

Source: Audit Scotland, 2003

## Exhibit 2

'All Scotland' age profiles for selected examples of medical equipment

Approximately 25% of these items of medical equipment are older than the standard life.



Source: Audit Scotland, 2003

Note: Includes trust data where complete age profiles were provided.

# Recommendations

The recommendations from our main report are listed below.

## Strategic management

### Local

1. NHS boards should assign responsibility for all aspects of medical equipment in the area to an executive board member, supported by a multidisciplinary group. This would help ensure that medical equipment is available to deliver care in line with national strategies and clinical priorities.
2. NHS boards should ensure that their operating divisions have processes in place to assess their medical equipment needs and agree priorities. They should also ensure that medical equipment investment programmes are based on realistic forward planning.
3. NHS boards should specify their reporting requirements for medical equipment and monitor operating division performance regularly.
4. Operating divisions should ensure that responsibility for medical equipment is clear throughout their organisations.

### National

5. The SEHD should consider introducing a specific medical equipment management standard to provide assurances that proper strategic and operational medical equipment practices are in place.
6. The SEHD should improve governance and accountability for medical equipment by using performance information to inform Accountability Reviews. This should include seeking assurances that any gaps between equipment needs and resources are being addressed.

## Risk management

### Local

7. NHS board risk management strategies should explicitly include medical equipment.
8. NHS boards should discuss medical equipment risks and performance information at performance reviews with operating divisions.
9. Operating divisions should ensure that they manage risks in relation to:
  - training, by ensuring that all staff expected to use equipment are appropriately trained and that this is properly recorded
  - maintenance, by ensuring that the split between different types of service provider is evidence based and that in-house teams are adequately resourced
  - forward investment programmes, by ensuring that these are realistic in terms of meeting formally assessed medical equipment needs.
10. Divisional management teams should ensure that they have the information needed to manage medical equipment effectively and to minimise risk.

### National

11. The SEHD should ensure that the new national risk management scheme addresses the risks associated with medical equipment.
12. The SEHD should rationalise and make use of the data from existing national systems that cover medical equipment, including adverse incidents,

clinical risk incidents and occupational health & safety.

## Management information (in addition to the above)

### Local

13. Operating divisions should ensure that the information held on medical equipment registers meets agreed minimum data set requirements, is up to date, accurate and easily accessible. Regular reviews of the availability, reliability and consistency of data should be undertaken by operating divisions.
14. NHS boards should ensure this medical equipment performance information is used to assess whether the local area is making best use of its medical equipment resources for patient care.

### National

15. The SEHD should ensure that a minimum data set for managing medical equipment is agreed and implemented.
16. The SEHD should make use of this performance information to inform Accountability Reviews and other performance monitoring processes.

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