

Safety Action Notice

Reference: SAN2402

Issued: 08 July 2024

Review Date: 08 July 2025

Covers for foam mattresses (hospital beds, hospital trolleys and community beds): risk of cross-infection due to wear and damage

Summary

This alert builds upon and extends the scope of Medical Device Alert MDA/2010/002, *All types of bed mattresses*, which was issued in January 2010. The scope is now extended to cover trolley mattresses and the actions have been revised in line with current recommended practice. The scope of this alert is limited to foam mattresses.

Action

1. Review procedures to ensure routine **pre-use checks** for wear and damage are carried out on hospital bed and trolley mattress covers between patients.
2. A system of periodic **thorough examinations** should be established
 - a) thorough examinations of hospital bed and trolley mattresses should be carried out at a suitable frequency based on a risk assessment which takes account of local usage factors.
 - b) it is recommended that community bed mattresses should be thoroughly examined between service users as a minimum and periodically during medium to long term use.
3. Thorough examination should include both exterior and interior surfaces:
 - a) examine the exterior surface for signs of wear and damage such as rippling, holes, cuts, tears and abrasions.
 - b) examine the internal surface and the mattress core for staining or other signs of contamination by body or other fluids.
 - c) Decontaminate or dispose of mattress covers which show signs of wear and damage that may lead to permeability or which show signs of staining to indicate strikethrough contamination:
 - decontamination of mattress covers should be carried out in accordance with the mattress manufacturer's instructions for use. In some cases the manufacturer may provide instructions for decontaminating the foam core, in which case the manufacturer's instructions should be followed.
 - disposal arrangements should follow local agreed processes and national waste policy.
 - It is recommended to maintain a stock of replacement mattress covers and foam cores sufficient to ensure that items which fail a pre-use check or thorough examination can be removed from use and replaced without delay.
4. Review bed and trolley mattress specifications to ensure they specify removable covers with light-coloured inner surfaces that highlight staining (exceptions may apply, e.g. some theatre trolley/table systems). It is recommended that 2-part covers are specified to allow the top and bottom covers to be replaced independently.
5. Consider permanently marking new and replacement mattress cores and covers with the date of first use and a unique identification number for management and audit purposes.

Equipment details

Foam mattresses for hospital beds, hospital trolleys, and community beds

Background Information

The Medicines and Healthcare products Regulatory Agency (MHRA) issued Medical Device Alert MDA/2010/002, *All types of bed mattresses*, in January 2010 ([see appendix](#)). It was adopted by IRIC and distributed in Scotland and therefore applies to all NHS Boards and local authorities. The Medical Device Alert format is no longer used but MDA/2010/002 remains an active alert.

Incidents of mattress strike-through continue to be reported in low numbers. However, concerns have been raised that trolley mattresses were not included in the scope of the MHRA alert and it was unclear whether community beds were included. This notice is therefore issued to supplement MDA/2010/002, to ensure trolley mattresses are included, to clarify that foam mattresses for community beds are also within scope, and to provide additional risk control measures.

MDA/2010/002 highlighted reports of damaged covers and consequent contamination of mattress cores. Once the mattress cover is compromised it no longer forms a barrier and therefore body and other fluids can cross in both directions leading to a risk of cross infection between patients and service users.

MHRA investigations at the time revealed a widespread lack of inspection regimes that incorporate frequent checks for external damage and internal contamination. It was noted that mattress covers can become damaged at any time during use or storage. Examples include needle stick; damage from sharp objects; abrasion during handling, transport or movement; inappropriate cleaning and decontamination procedures.

If mattresses with non-removable covers are in use it is impossible to check for the presence of contamination on the inside. Wear, damage and contamination are not always apparent on an external visual inspection and it is therefore essential to periodically remove the covers and carry out internal checks.



Figure 1 Ripling



Figure 2 Staining

Suggested onward distribution (may not include all affected departments)

NHS

Ambulance Services
 Critical Care
 Day Surgery
 Emergency Department
 Estates & Facilities
 Health Centres
 Health & Safety
 Medical Admissions
 Hospices
 Infection Control Staff

Intensive Therapy Units
 Medical Physics
 Nursing
 Operating Departments
 Risk Management
 Supplies/Procurement
 Surgical
 Wards

Local Authority

Adult Residential Services

Care Homes
 Children's Residential Services
 Facilities Management
 Health, safety and wellbeing
 Health & Social Care
 Partnerships
 Joint Loaned Equipment Stores
 Respite Care Services
 Special Schools

Information about IRIC

Incident Reporting & Investigation Centre (IRIC), Facilities Division, NHSScotland Assure
 NHS National Services Scotland, Tel: 0131 275 7575, email: nss.irc@nhs.scot

Accessibility: Please contact us using the above details if you are blind or have a sight impairment and would like to request this alert in a more suitable format.

IRIC remit: general information about adverse incidents, safety alerts and IRIC's role can be found in [CEL 43 \(2009\)](#), *Safety of Health, Social Care, Estates and Facilities Equipment: NHS Board and Local Authority Responsibilities*, issued 30 October 2009.

To find safety alerts:

scan the QR code or [click this link to visit our website](#)



To report an incident:

scan the QR code or [click this link to visit our website](#)



NHS National Services Scotland is the common name for the Common Services Agency for the Scottish Health Service <https://www.nss.nhs.scot/>

Appendix (page 1 of 5)



Medical Device Alert

Action

Ref: MDA/2010/002

Issued: 05 January 2010 at 11:00

Device

All types of bed mattresses.

Problem	Action
<p>If mattress covers are damaged, body or other fluids can pass through and contaminate the inner core.</p> <p>There is the potential for cross-infection if contaminated mattresses remain in use.</p>	<ul style="list-style-type: none"> Inspect the exterior surface of each mattress cover for signs of damage, such as holes or cuts. Remove the cover and inspect its inside surface and the mattress core for staining or contamination. Safely dispose of any covers showing signs of damage or staining. Arrange for contaminated mattress cores to be either: cleaned and decontaminated in accordance with the manufacturer's instructions; or safely disposed of. Ensure that a frequent inspection regime is established for all mattresses before and during use. Distribute the attached poster within your organisation.
Action by	
<p>All those responsible for the provision, inspection, use and maintenance of bed mattresses.</p> <p>In particular: nurses, tissue viability staff, stores managers, care staff, decontamination managers, infection control staff and maintenance staff and contractors.</p>	
CAS deadlines	
<p>Action underway: 12 January 2010 Action complete: 05 March 2010</p>	

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Issued: 05 January 2010 at 11:00

Ref: **MDA/2010/002****Problem**

The MHRA has received numerous reports of damaged covers and associated interior mattress contamination.

Three Medical Device Alerts have already been issued on specific models:

[MDA/2007/065 - Hospital beds: Hill-Rom TotalCare Duo 2](#)

[MDA/2008/026 - Birthright birthing bed mattresses manufactured by Huntleigh Healthcare](#)

[MDA/2009/051 - Thermo contour mattress for hospital beds manufactured by Barrington Healthcare International Ltd](#)

Investigations have revealed that there is a widespread lack of inspection regimes that incorporate frequent checks for external damage and internal contamination.

Mattress covers can become damaged at any time during use or storage, for example from: needle stick; strike-through; damage from sharp objects; abrasion during handling, transport or movement; inappropriate cleaning and decontamination procedures.

If mattresses with non-removable covers are in use it is impossible to check the level of contamination on the inside.

Action

A [poster](#) to help raise awareness of this problem is attached here as a PDF file, which should be distributed within your organisation. If you print the poster yourself, please print it in colour to show the contamination.

Distribution

This MDA has been distributed to:

- NHS trusts in England (Chief Executives)
- Care Quality Commission (CQC) (Headquarters)
- HSC trusts in Northern Ireland (Chief Executives) – for information only
- NHS Boards in Scotland (Chief Executives)
- NHS boards and trusts in Wales (Chief Executives)
- OFSTED
- Primary care trusts in England (Chief Executives)
- Social services in England (Directors)

Onward distribution

Please bring this notice to the attention of all who need to know or be aware of it. This may include distribution by:

Trusts to:

CAS and SABS (NI) liaison officers for onward distribution to all relevant staff including:

- A&E departments
- All wards
- Day surgery units
- EBME departments
- Equipment store managers
- Infection control staff
- Infection prevention and control directors
- Intensive care units
- Maintenance staff and contractors
- Medical directors
- Nursing executive directors
- Purchasing managers
- Risk managers
- Tissue viability staff

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Issued: 05 January 2010 at 11:00

Ref: **MDA/2010/002****Care Quality Commission (CQC) (England only) to:**

The MHRA considers this to be important to:

- Care homes providing nursing care (adults)
- Further education colleges registered as care homes
- Hospices
- Hospitals in the independent sector
- Independent treatment centres
- Infection control staff

Primary care trusts to:

CAS liaison officers for onward distribution to all relevant staff including:

- Community hospitals
- Community nurses
- Equipment store managers
- Infection control staff
- Maintenance staff and contractors
- Palliative care teams
- Tissue viability staff

Social services to:

Liaison officers for onward distribution to all relevant staff including:

- Equipment store managers
- Equipment supplies managers
- In-house domiciliary care providers (personal care services in the home)
- In-house residential care homes
- Care staff
- Nursing staff
- Maintenance staff and contractors
- Infection control staff

OFSTED to:

The MHRA considers this to be important to:

- Residential special schools

England

If you are in England, please send enquiries about this notice to the MHRA, quoting reference number **MDA/2010/002 or 2009/011/017/301/001**.

20 copies of the poster will be distributed to liaison officers in acute care trusts, PCTs and social services by the end of January 2010. Further copies are available from the Department of Health Orderline www.orderline.dh.gov.uk – product code MATTRESS-POSTER. Alternatively download the PDF for local printing.

Technical aspects

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E-mail: andy.marsden@mhra.gsi.gov.uk

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Clinical aspects

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Issued: 05 January 2010 at 11:00

Ref: **MDA/2010/002****How to report adverse incidents**Please report via our website <http://www.mhra.gov.uk>Further information about **CAS** can be found at <https://www.cas.dh.gov.uk/Home.aspx>**Northern Ireland**

Enquiries in Northern Ireland should be addressed to:

Northern Ireland Adverse Incident Centre (NIAIC)

Health Estates

Estate Policy Directorate

Stoney Road

Dundonald

Belfast BT16 1US

Tel: 02890 523 704

Fax: 02890 523 900

E-mail: NIAIC@dhsspsni.gov.uk<http://www.dhsspsni.gov.uk/index/hea/niaic.htm>**How to report adverse incidents in Northern Ireland**Please report directly to NIAIC, further information can be found on our website <http://www.dhsspsni.gov.uk/niaic>Further information about **SABS** can be found at <http://sabs.dhsspsni.gov.uk/>**Scotland**

The MDA referred to on page 2, [MDA/2007/065 - Hospital beds: Hill-Rom TotalCare Duo 2](#) has a Scottish equivalent Hazard Notice, issued on 5 Sept 2007: [HAZ\(SC\)07/14 Hill-Rom TotalCare® Duo 2® pressure relieving hospital beds: risk of cross infection](#),

Requests for copies of the poster should not be directed to MHRA. The poster should be downloaded from the MHRA website for local printing as described on page 2.

Enquiries and adverse incident reports in Scotland should be addressed to:

Incident Reporting and Investigation Centre

Health Facilities Scotland

NHS National Services Scotland

Gyle Square

1 South Gyle Crescent

Edinburgh EH12 9EB

Tel: 0131 275 7575

Fax: 0131 314 0722

E-mail: nss.irc@nhs.net<http://www.hfs.scot.nhs.uk/online-services/incident-reporting-and-investigation-centre-irc/>

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Issued: 05 January 2010 at 11:00

Ref: **MDA/2010/002****Wales**

Enquiries in Wales should be addressed to:

National Assembly for Wales

HIMTE 3 Division

NHS Directorate

Cathays Park

Cardiff CF10 3NQ

Tel: 029 2082 3373

Fax: 029 2082 5479

E-mail: Haz-Aic@wales.gsi.gov.uk

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Addressees may take copies for distribution within their own organisations