

Medical Device/Equipment ALERT

Ref. MDEA(NI)2005/83

Issued: 21 November 2005

For:

IMMEDIATE ACTION	
ACTION	✓
UPDATE	
INFORMATION	



**NORTHERN
IRELAND
ADVERSE
INCIDENT
CENTRE**

	Section
Medical Device/Equipment: Air-filled mattress overlays: Risk of patients falling from bed	▶ ①
Problem: Some air-filled mattress overlays may provide insufficient support at the edges and, unless precautions are taken, occupants are at risk of rolling over the edge and falling from the bed.	▶ ②
Action by: This notice should be brought to the attention of all appropriate managers, staff and users.	▶ ③
Action: Air-filled mattress overlays should be used in accordance with the manufacturers' instructions and should be compatible with the bed and underlying mattress.	▶ ④
Distributed by NIAIC to: Chief Executive of each HSS Board Chief Executive of each HSS Trust Chief Executive of each Agency NIAIC Liaison Officers Hospices	▶ ⑤
Contacts Details of NIAIC contacts for technical aspects.	▶ ⑥
Feedback Requirements to NIAIC	▶ ⑦

This Alert is on our web site: <http://www.dhsspsni.gov.uk/niaic>

1. DEVICE/EQUIPMENT:

Air-filled mattress overlays.

2. PROBLEM:

A report has been received involving a patient falling from a hospital bed fitted with an air-filled mattress overlay. The patient was receiving nursing care from two nurses, one at either side of the bed. The patient had reduced cognisance and physical ability, with weight estimated as 14 stone.

To allow access by the smaller nurse (5ft 2in) one of the bed safety rails was lowered. The patient was rolled onto their side and appeared to be stable but then started to roll towards the edge of the bed. The nurse was unable to prevent the patient from falling from the bed and serious injuries resulted.

Subsequent investigation by the hospital concluded that the mattress overlay provided initial support when an occupant was first rolled onto their side but within 3-4 seconds the air was redistributed such that support reduced at the front of the occupant and increased at their back. This resulted in a 'positive momentum' towards the edge of the bed. The hospital was not aware of any previous problems of this nature with mattress overlays.

Tests conducted by the Health & Safety Laboratory following an earlier fatality at another hospital concluded that air-filled mattress overlays lacked support (stiffness) at the edges and this could result in the occupant having "a tendency to roll out of control". This was in contrast to conventional mattresses which usually provide extra support near the edges to prevent occupants from being ejected from the bed should they lie near or roll towards the edge.

Some air-filled mattress overlays have side stiffeners / formers to give added support when the patient is sitting or lying at the edge. However, the behaviour of an overlay (with or without side stiffeners) may vary with the weight and size of occupant. There is also a risk of the occupant becoming trapped between the overlay and bed safety rail.

3. ACTION BY:

This notice should be brought to the attention of all appropriate managers, staff and users.

4. ACTION:

Air-filled mattress overlays should be used in accordance with the manufacturers' instructions and should be compatible with the bed and underlying mattress as well as any safety equipment such as bed safety rails.

Staff (nurses and carers) looking after patients on beds fitted with an air-filled mattress overlay should be made aware that:

- a) the overlay may not support the patient sitting or lying near the edge,
- b) moving the patient onto their side may redistribute air within the overlay and could contribute to the patient rolling in an unexpected and uncontrolled manner,
- c) the weight of the patient may make it difficult or impossible for the nurse/carer to prevent the patient from falling from the bed, in which case patient injury is likely as well as possible staff injury.

In order to minimise any risk of them falling from the bed, each patient should be assessed before they are placed on an air-filled mattress overlay and before care interventions are undertaken such as bathing or linen changes which involve the patient being moved while on the overlay. Assessment should take into account:

- a) the likelihood of the patient moving while unsupervised,
- b) whether bed safety rails (or other safety equipment) are required to ensure the security of the patient,
- c) the suitability of bed safety rails (or other safety equipment) for the application,
- d) the condition and weight of the patient and the likelihood of the patient moving in an unexpected or uncontrolled manner during care interventions,
- e) whether bed safety rails (or other safety equipment) can be left in the raised position on both sides of the bed during care interventions.

If existing local risk policy regarding the use of bed safety rails has concluded that they are not required, or should not be used, or require to be lowered completely during care interventions, then a further risk assessment may be required to determine whether more than one nurse/carer is required to support the patient at any side. It is recommended that the patient should be rolled to no more than 45 degrees and for as short a time as possible.

If design of the bed safety rail permits (e.g. the vertical drop type) it is recommended that only the foot end be lowered for care interventions on patients on air-filled mattress overlays.

If bed safety rails are used in conjunction with an overlay mattress they should be of suitable height to compensate for the increased height of the patient, as advised in Alert MDEA(NI)2005/05.

5. ONWARD DISTRIBUTION TO:

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

- Liaison Officers
- Risk Managers
- Health & Safety Officers/Advisors
- Clinical Governance Leads
- Device Managers
- Occupational Therapists
- Physiotherapists
- Medical Directors
- Clinical Directors
- Nurse Directors
- Medical, Nursing and Care Staff
- All Wards
- Practice Nurses
- Community Nurses
- Directors of Public Health
- Social Care Staff
- Independent Health and Social Care Providers – Private Clinics, Residential and Nursing Homes through HSSRIA
- Allied Health Professionals

6. CONTACTS:

Enquires to NIAIC should quote reference number MDEA(NI)2005/83 and be addressed to:

Northern Ireland Adverse Incident Centre (NIAIC)
Health Estates
Estate Policy Directorate
Stoney Road
Dundonald
Belfast BT16 1US

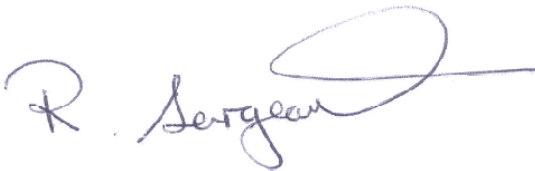
Tel: 028 9052 3868

Fax: 028 9052 3900

Email: NIAIC@dhsspsni.gov.uk

7. FEEDBACK:

None required.



Robert Sergeant
NIAIC Operational Manager

HOW TO REPORT ADVERSE INCIDENTS

Adverse Incidents relating to medical devices, non-medical equipment, plant and buildings should be reported to NIAIC as soon as possible. Advice on how to report is given in MDEA(NI)2005/01. If you are in doubt about how to report incidents, please speak to your liaison officer or contact NIAIC using the telephone number provided. Adverse Incident reporting forms and an on-line reporting facility are available on the NIAIC website at www.dhsspsni.gov.uk/niaic

Heath Estates is an Executive Agency of the Department of Health, Social Services and Public Safety