

Medical Device/Equipment ALERT

Ref. MDEA(NI)2007/15

Issued: 8 February 2007

For:

IMMEDIATE ACTION	
ACTION	✓
UPDATE	
INFORMATION	



HEALTH ESTATES

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	Section
Medical Device/Equipment: Electric lifting aids with mechanical anti crush protection	▶ ①
Problem: Risk of patient fall/trauma	▶ ②
Action by: All appropriate managers, staff and users.	▶ ③
Action: Electric lifting aids which have <u>mechanical</u> anti-crush protection should be evaluated to determine whether a patient could fall back/down suddenly if the 'lower' control is operated while the lowering of the lifting arm is obstructed. It is recommended that the evaluation should be carried out by a manual handling advisor and/or experienced technical officer.	▶ 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 NIAIC contacts for technical aspects	▶ ⑥
Feedback Requirements to NIAIC None required	▶ ⑦

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

1. DEVICE/EQUIPMENT:

Electric lifting aids with mechanical anti crush protection

2. PROBLEM:

Many electric standing and raising (lifting) aids are fitted with an electric actuator comprising a motor, drive gear and push rod. The actuator also provides structural support for the lifting arm when in the raised position.

Manufacturers normally design electric lifting aids to comply with the standard BS EN ISO 10535:1998, *hoists for the transfer of disabled persons - requirements and test methods*, one requirement of which is a means to ensure that the lifting arm will not crush the patient if it comes into contact with them while it is being lowered.

Some manufacturers meet this requirement by using an actuator with mechanical anti-crush protection which disconnects the push rod from the drive gear if the lifting arm is obstructed during lowering. However, when this happens the lifting arm is temporarily supported by the obstruction rather than the actuator.

An incident has been reported in which a patient, who was un-accustomed to being manoeuvred in a lifting aid, required to be lowered from a standing to a sitting position. As the operator lowered the lifting arm the patient hesitated and remained standing. While doing this she held the lifting arm. This prevented it from lowering, and activated the anti-crush device.

The operator continued to lower the lifting arm, creating an unseen separation of the actuator's push rod and drive gear which increased as the 'lower' control button remained activated. When the patient suddenly relaxed back into the sling, the unsupported lifting arm dropped, resulting in the patient falling backwards into the sling.

Fortunately, the patient only suffered discomfort, but the consequences could have been more serious.

Actuators with electric anti-crush protection are not implicated in this notice.

3. ACTION BY:

All appropriate managers, staff and users

4. ACTION:

All electric standing and raising (lifting) aids with mechanical anti-crush protection should be identified. Where necessary, the manufacturer, dealer or servicing agent should be contacted to clarify whether an actuator has anti-crush protection and if so, whether it is mechanical or electrical.

Electric lifting aids which have mechanical anti-crush protection should be evaluated to determine whether a patient could fall back/down suddenly if the 'lower' control is operated while the lowering of the lifting arm is obstructed. It is recommended that the evaluation should be carried out by a manual handling advisor and/or experienced technical officer.

Implicated lifting aids should be the subject of a risk assessment which should address:

- the need for additional care if the patient becomes weight bearing in a standing position,

- suitability of the lifting aid for use with particular patients, e.g. confused, non-compliant,
- whether additional staff/user training is needed.

Where the evaluation identifies any electric lifting aids which have no anti-crush protection, a risk assessment should be carried out to determine whether they are safe/suitable for use with appropriate precautions as necessary.

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
- Estates Managers
- Occupational Therapists
- Physiotherapists
- Rehabilitation Engineers
- Medical Directors
- Clinical Directors
- Nurse Directors
- Medical, Nursing and Care Staff
- Ambulance Staff and Paramedics
- Maternity Wards
- Practice Nurses
- Directors of Public Health
- Social Care Staff
- Community Care Staff
- Independent Health and Social Care Providers – Private Clinics, Residential and Nursing Homes through RQIA
- Community Stores

6. CONTACTS:

Enquires to manufacturer should be addressed to the relevant Manufacturer/Supplier:

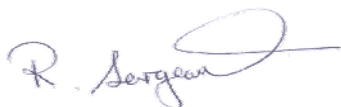
Enquires to NIAIC should quote reference number MDEA(NI)2007/15 and be addressed to:

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

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7. FEEDBACK:

None required



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