

# Medical Device/Equipment ALERT

Ref. MDEA(NI)2003/12

Issued: 17 June 2003

For:

IMMEDIATE ACTION	
<b>ACTION</b>	✓
UPDATE	
INFORMATION REQUEST	



**NORTHERN  
IRELAND  
ADVERSE  
INCIDENT  
CENTRE**

	Section
<b>Medical Device/Equipment:</b> Medical Liquid Oxygen Supply Systems	▶ ①
<b>Problem:</b> Contents Monitoring Procedures	▶ ②
<b>Action by:</b> Directors of Estates, Estates Managers, Directors of Facilities, Responsible Person(s) (MGPS) at Trust Departmental/Ward Level.	▶ ③
<b>Action:</b> Review the method and responsibilities for monitoring liquid oxygen stocks and the arrangements for ordering refills.	▶ ④
<b>Distributed by NIAIC to:</b> Chief Executive of each HSS Board Chief Executive of each HSS Trust Chief Executive of each Agency NIAIC Liaison Officers <b>For onward distribution see Section 5</b>	▶ ⑤
<b>Contacts</b> NIAIC contacts for further information	▶ ⑥
<b>Feedback Requirements to NIAIC</b> None required	▶ ⑦

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

## **1. DEVICE/EQUIPMENT:**

Medical Liquid oxygen supply systems

## **2. PROBLEM:**

Liquid oxygen in a liquid oxygen tank ran out at a NHS Trust necessitating the use of the emergency/reserve manifold. The emergency/reserve manifold subsequently failed and the oxygen pipeline to the hospital had to be isolated and the patients supplied from cylinders. The cause of the incident was due to a significant increase in oxygen consumption combined with failings in the day to day management of the medical gas system.

## **3. ACTION BY:**

Directors of Estates, Estates Managers, Directors of Facilities, Authorised Persons (MGPS), Responsible Person(s) (MGPS) at Trust Departmental Level.

## **4. ACTION:**

1. Review arrangements for monitoring the stock levels of medical liquid oxygen installations on site. It is the Trust responsibility to ensure that adequate stock levels of medical liquid oxygen are maintained at all times. Partnerships should be established between the supplier and the Trust for maintaining adequate stocks of liquid oxygen on site and for the re-ordering of product when the stocks are at the pre-determined re-order level.
2. Hospitals shall not delegate sole responsibility to the supplier for ensuring that stock levels are maintained.
3. In partnership arrangements where the supplier monitors the stock level, either using a telemetry system or a stock monitoring system based on recent demand, they shall organise additional supplies when the predicted stock level falls to a pre-agreed minimum level. For larger Trust sites or Trust sites with erratic demands, telemetry systems are advised.
4. The Trust should nominate a suitably trained person to inspect the installation daily to ensure that the system is functioning correctly and that the liquid oxygen vessel contents gauge is checked, recording the results in a logbook.
5. Designated responsible person(s) at Trust Department/Ward level should ensure their Authorised Person (MGPS) is informed where the liquid oxygen demand rises for specific reasons, and the suitably trained nominated person within the hospital should advise the supplier so that adjustments can be made to the predicted stock level.
6. Additionally Trusts should ensure that:
  1. the Authorised Person (MGPS) audits the logbook entries on a weekly basis.
  2. written procedures within the Trusts Medical Gas Operational Policy are available to ensure that when the person designated to check the medical liquid oxygen system is not available, that suitably trained nominated deputies undertake the defined tasks.
  3. a Risk Assessment (preferably with the Medical Liquid Oxygen supplier) is carried out to establish whether the medical oxygen reserve supply system is adequate for the current / predicted demands.
7. Where the Risk Assessment indicates that the reserve supply system is not adequate, consideration should be given to either:
  - where not fitted, consider installing a telemetry system to enable stocks to be monitored more closely by the Trust/supplier.
  - where a cylinder manifold system is used, consider installing a liquid oxygen reserve system
  - consider resizing the vesselsWhere the system is considered to be adequately sized, it is important to ensure that low level alarms are fitted to the system to provide adequate warning of potential contents depletion.
8. Ensure that the Authorised Persons (MGPS) and their nominated Deputies have received specific training from the gas supplier in the basic control and operation of the liquid oxygen systems. The training logs of the Authorised Persons and their nominated Deputies should be regularly reviewed to ensure that the training is up to date.

## 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:

- Risk Managers
- Health & Safety Officers/Advisors
- Clinical Governance Leads
- Medical Directors
- Trust Pharmacy Managers
- Responsible Person(s) (MGPS) at Trust Departmental Level
- Independent Healthcare Providers such as Private Clinics

## 6. CONTACTS:

Enquires to NIAIC should quote reference number MDEA(NI)2003/12 and be addressed to:  
Northern Ireland Adverse Incident Centre (NIAIC)

Health Estates  
Estate Policy Directorate  
Stoney Road  
Dundonald  
Belfast BT16 1US

Tel: 028 9052 3714

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Email: [NIAIC@dhsspsni.gov.uk](mailto:NIAIC@dhsspsni.gov.uk)

## 7. FEEDBACK:

None Required



Brian Godfrey  
NIAIC 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 Safety Notice SN (NI) 2003/01. 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](http://www.dhsspsni.gov.uk/niaic)

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