

Medical Device/Equipment ALERT

Ref. MDEA(NI)2003/13

Issued: 17 June 2003

For:

IMMEDIATE ACTION	
ACTION	✓
UPDATE	
INFORMATION REQUEST	



**NORTHERN
IRELAND
ADVERSE
INCIDENT
CENTRE**

	Section
Medical Device/Equipment: Oxygen cylinder manifolds used to supply oxygen for patient use.	▶ ①
Problem: Risk of ignition of the seat material and the subsequent release of potentially toxic gases into the pipeline distribution system. Problem relates to the use of PTFE type soft seat inserts in control valves operating at cylinder pressure (up to 137 bar(g)).	▶ ②
Action by: Estates Directors, Estates Managers, Facilities Directors, Authorised Person(s) (MGPS).	▶ ③
Action: 1. Identify all oxygen cylinder manifolds that are used in the supply of oxygen for patient use; 2. Ensure that the manifolds are checked by the manufacturer or supplier to establish suitability of components; 3. Consider replacing older manifolds with systems that comply with C11.	▶ 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 For onward distribution see Section 5	▶ ⑤
Contacts NIAIC contacts for further information	▶ ⑥
Feedback Requirements to NIAIC None Required	▶ ⑦

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

1. DEVICE/EQUIPMENT:

Oxygen cylinder manifolds used to supply oxygen for patient use.

2. PROBLEM:

NIAIC has been advised by NHSEstates that they are aware of a problem with the operation of an emergency reserve cylinder manifold system which was brought into use following the run out of the contents of a liquid oxygen storage vessel on a hospital site (MDEA(NI)2003-12 refers). When the second bank of cylinders was brought on-line, to allow replenishment of cylinders for the first bank, combustion products resulting from ignition of the valve seat, were released into the pipeline distribution system. The combustion products caused three babies and an adult patient to suffer from respiratory distress, resulting in the babies being transferred to a specialist hospital.

The precise cause of ignition in the manifold system has not been established but the problem relates to the use of PTFE type soft seat inserts in control valves operating at cylinder pressure (up to 137 bar(g)).

3. ACTION BY:

Estates Directors, Estates Managers, Facilities Directors, Authorised Person(s) (MGPS).

4. ACTION:

1. Identify all oxygen cylinder manifolds that are used in the supply of oxygen for patient use.
2. At the next planned inspection, or within three months, whichever is the sooner, ensure that the manifolds are checked by the manufacturer or supplier, to establish that they contain materials and components that are suitable for use with oxygen at high pressure and do not release toxic substances in the event of an internal ignition within the components.
3. Consideration should be given to replacing all older manifolds with systems that comply fully with C11

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
- Independent Healthcare providers such as Private Clinics

6. CONTACTS:

Enquires to NIAIC should quote reference number MDEA(NI)2003/13 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, Fax: 028 9052 3900
Email: 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

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