

Dr Jim Livingstone
Director of Safety, Quality and Standards



Department of
**Health, Social Services
and Public Safety**

www.dhsspsni.gov.uk

AN ROINN

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

MÁNNYSTRIE O

**Poustie, Resydënter Heisin
an Fowk Siccar**

Rapid Response Report

Subject:

Oxygen Safety In Hospitals

For action by:

Chief Executive, HSC Board for cascade to:

- *Director of Commissioning*
- *Assistant Director of Pharmacy & Medicines Management*

Chief Executives, HSC Trusts for cascade to:

- *Medical Directors*
- *Directors of Pharmacy*
- *Directors of Nursing*
- *Director of Estates/ Facilities*
- *CSCG leads*

Chief Executive RQIA for cascade to:

- *Independent hospitals and clinics*

For Information to:

- Chief Executive, Public Health Agency
- Director of Public Health, Public Health Agency
- Director of Nursing, Public Health Agency
- Director of Performance Management & Service Improvement, HSC Board
- Assistant Director of Performance Management, HSC Board
- Professor David Woolfson, Head of School of Pharmacy, QUB
- Professor Linda Johnston, Head of Nursing & Midwifery, QUB
- Professor Hugh McKenna, Head of Life and Health Sciences, UU
- Dr Owen Barr, Head of School of Nursing, UU
- Professor Paul McCarron, Head of School of Pharmacy, UU
- Post Graduate Dean, NIMDTA
- Staff Tutor of Nursing, Open University
- Director, Safety Forum
- Lead, NI Medicines Governance Team

Summary of Contents:

The purpose of this circular is to highlight the importance of oxygen safety in hospitals

Enquiries:

Any enquiries about the content of this Circular should be addressed to:

Safety & Quality Unit
DHSSPS
Room D2.4
Castle Buildings
Stormont
BELFAST
BT4 3SQ

Tel: 028 9052 2239

qualityandsafety@dhsspsni.gov.uk

Circular Reference: HSC (SQSD) 63/09

Date of Issue: 12 January 2010

Related documents

BTS (2008) BTA (2008) Emergency Oxygen Use in Adult Patients
<http://www.brit-thoracic.org.uk/clinical-information/emergency-oxygen/emergency-oxygen-use-in-adult-patients.aspx>

HTM 02-01 Medical gas pipeline systems

<http://extranet.dhsspsni.gov.uk/files/documents/HTM%2002-01%20Medical%20gas%20pipeline%20systems%20-%20Part%20A.pdf>

Superseded documents

N/A

Status of Contents:

For completion of actions and assurance template by 28 June 2010

Implementation:

Immediate

SQSD material can be accessed on:

<http://www.dhsspsni.gov.uk/index/phealth/sqs.htm>

Working for a Healthier People

Chief Medical Officer Group



INVESTOR IN PEOPLE

Dear colleagues

OXYGEN SAFETY IN HOSPITALS

Oxygen is one of the most common medicines used in hospital settings. It is administered across a range of specialties and given by various healthcare professionals. Oxygen is indicated in many critical conditions and can save lives by preventing severe hypoxaemia. However, there is a potential for serious harm and even death if it is not administered and managed appropriately.

The content of the attached circular at Annex A has been reviewed by relevant professional colleagues in the Department and approved for regional dissemination.

I would ask you to bring this to the attention of relevant practitioners and key health and social care staff within your organisation. They should consider the best practice for their setting and take appropriate steps to minimise the risks of oxygen therapy.

I would draw your attention to the attached 'assurance template' which it has been decided to implement as a means of recording the response from the Trusts and Board in circumstances where SQS Circulars require action to be taken by a given date.

Yours sincerely



Dr J F Livingstone
Director, Safety, Quality & Standards

OXYGEN SAFETY IN HOSPITALS

Issue

1. Oxygen is one of the most common medicines used in hospital settings. It is administered across a range of specialties and given by various healthcare professionals. Oxygen is indicated in many critical conditions and can save lives by preventing severe hypoxemia. However, there is a potential for serious harm and even death if it is not administered and managed appropriately. The main safety concerns relate to underuse and overuse of oxygen:
 - Underuse of oxygen is extremely dangerous as it exposes critically ill patients to the risk of hypoxic organ damage.
 - Overuse of oxygen can also be harmful, especially for vulnerable patients such as premature infants and those patients with chronic obstructive pulmonary disease (COPD).

National Context

2. The National Patient Safety Agency (NPSA) has received 281 reports of serious (up to June 2009) which are related to the inappropriate administration and management of oxygen. Of these incidents, poor oxygen management appears to have caused nine patient deaths and may have contributed to a further 35 deaths. Common themes identified from the review of these incidents, local investigations and other sources are:
 - Prescribing: failure to or wrongly prescribed
 - Monitoring: patients not monitored, abnormal oxygen saturation levels not acted upon
 - Administration: confusion of oxygen with medical compressed air, incorrect flow rates, inadvertent disconnection of supply
 - Equipment: empty cylinders, faulty and missing equipment

Local Context

3. The principles of safe oxygen therapy are applicable to all settings where oxygen is used. For the purposes of this circular all hospitals (acute, community and mental health and learning disability facilities) and the independent sector should ensure that:

- The use of oxygen cylinders is minimised and, where necessary, a business case for increased piped oxygen provision is developed in accordance with HTM 02-01 Part A.
 - Where the use of oxygen cylinders is unavoidable (i.e. transfer and emergency situations), robust systems are in place to ensure reliable and adequate supplies, including checking and stocktaking of cylinders.
 - The risks of confusing oxygen and medical compressed air are assessed and action plans developed (e.g. removing the medical air flow meter from the wall outlet when not in regular use).
 - Oxygen is prescribed in all situations in accordance with British Thoracic Society (BTS) guidelines (but note these **do not cover critical care or children under 16 years**). In an emergency, oxygen should always be given immediately and documented later.
 - Pulse oximetry is available in all locations where oxygen is used.
 - A multidisciplinary group (such as a Medical Gas Committee) is responsible for reviewing oxygen-related incidents, developing a local oxygen policy and a training programme.
4. The recommendations outlined above complement the British Thoracic Society's clinical guidance on the use of emergency oxygen (BTS, 2008) and the Department of Health's guidance on medical gases (HTM 02-01).
5. NPSA/2009/RRR006: *Oxygen safety in hospital* is available on <http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=62811>

Action Required

6. You will wish to bring the contents of this document to the attention of staff, particularly those involved in governance and risk management within your organisation. Organisations need to be aware of this best practice circular in order to assist in complying with the Quality Standards for Health and Social Care –
- Criteria 4.3(i) and 5.3.1(a) (the appropriate management of risk);
 - Criteria 4.3(m) (identify training and development needs); and
 - Criteria 5.3.3(f) (implementation of evidence-based practice through guidance).
7. HSC Trusts should take immediate action to implement the recommendations of this Rapid Response Report as outlined in paragraph 6 above by **28 June 2010**. Trusts should provide assurance on this action to the HSC Board by

completing **Section 2** of the attached template.

8. The HSC Board should complete **Section 1** of the attached assurance template and forward to the Department by **26 July 2010**.

SQS CIRCULARS: ASSURANCE TEMPLATE FOR HSC TRUSTS

Circular number: HSC (SQSD) 63/09: *Oxygen safety in hospitals* For Implementation by: 28/06/2010

(Section 2 is to be completed by HSCT and forwarded to HSCB for consideration. Section 1 should then be completed by HSCB and forwarded to DHSSPS)

SECTION 1:

To: Director, Safety, Quality & Standards Directorate, DHSSPS

I note the response from the Trust and –

I can confirm that the HSC Board is content the action(s) taken referred to in Section 2 below, complies with the requirements of the above circular.

I can confirm that the HSC Board is monitoring compliance with the above circular and has requested that further action is taken as follows:

I confirm that the Chief Executive and designated senior manager have been advised of this response and are content that it should be submitted to the Department.

Response submitted by: _____ (Name & contact details of person submitting response) on behalf of HSC Board. Date: _____

SECTION 2:

To: Chief Executive, HSC Board

I can confirm that the required actions set out in the above circular have been implemented in full by the due date.

I can confirm that the actions in the above correspondence have been partially implemented by the due date. Work is ongoing in the following areas:

I can confirm that the organisation has been unable to implement any actions of the above circular for the following reasons:

I confirm that the Chief Executive and designated senior manager have been advised of this response and are content that it should be submitted to the HSC Board.

Response submitted by: _____ (Name & contact details of person submitting response) on behalf of _____ HSC Trust. Date: _____