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

MÄNNYSTRIE O
Poustie, Resydènter Heisin an Fowk Siccar

Rapid Response Report

Subject:

Preventing fatalities from medication loading doses

Circular Reference: HSC (SQSD)17/10

Date of Issue: 22 December 2010

For action by:
Chief Executive, HSC Board for cascade to :
Director of Integrated Care, HSCB
Assistant Director, Primary Care, HSCB
Assistant Director of Pharmacy & Medicines Managements, HSC Board for cascade to:
Pharmacy & Medicines Management Team
Chief Executives, HSC Trusts for cascade to:
Directors of Pharmacy
Medical Directors
Directors of Nursing
CSCG leads
Chief Executive RQIA for cascade to:
Independent hospitals and clinics
General Practitioners
Community Pharmacists

For Information to:
Chief Executive, Public Health Agency
Director of Public Health/Medical Director, PHA
Director of Nursing, PHA
Dir. of Performance Management & Service Improvement, HSCB
Assistant Director of Performance Management, HSC Board
Prof. David Woolfson, Head of School of Pharmacy, QUB
Prof. Linda Johnston, Head of Nursing & Midwifery, QUB
Prof. Hugh McKenna, Head of Life & Health Sciences, UU
Dr Owen Barr, Head of School of Nursing, UU
Prof. 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
NI Medicines Information Service
NI Centre for Pharmacy Learning and Development

Summary of Contents:
The purpose of this circular is to highlight the risk of fatalities from medication loading dose errors.

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: [redacted]
qualityandsafety[redacted]

Related documents
HSC (SSD) 3/10 Reducing harm from omitted and delayed medicines in hospital
http://www.dhsspsni.gov.uk/hsc_sqsd_3_10.pdf

HSC (SQSD) 27/08 Safety in Doses
http://www.dhsspsni.gov.uk/hsc__sqsd__27_08.pdf

Superseded documents

N/A

Status of Contents:
For completion of actions and assurance templates by 22 June 2011

Implementation:

Immediate

SQSD material can be accessed on:
http://www.dhsspsni.gov.uk/index/phealth/sqs.htm

Dear colleagues

PREVENTING FATALITIES FROM MEDICATION LOADING DOSES

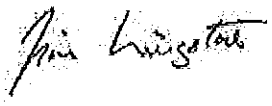
A loading dose is an initial large dose of a medicine used to ensure a quick therapeutic response. It is usually given for a short period before therapy continues with a lower maintenance dose. The use of loading doses of medicines can be complex and error prone. Incorrect use of loading doses or subsequent maintenance regimens may lead to severe harm or death.

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 to patients.

I would also draw your attention to the attached 'assurance template' which is 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

PREVENTING FATALITIES FROM MEDICATION LOADING DOSES

Issue

1. A loading dose is a large dose of medicine used to ensure a quick therapeutic response. It is usually administered for a short period before therapy continues on a lower maintenance dose. Depending on the medication type, a single loading dose or a series of loading doses over several days may be required. The maintenance dose is then administered over the medium to long term to maintain effective levels of medication in the body tissues and fluids.

2. The need for both loading and maintenance doses creates complexity in prescribing, dispensing and administering medication, and this complexity can increase the likelihood of human error. Errors can lead to over-medication (where levels of the medication can build to excessive levels with toxic effects) or to under-medication (where harm can result from failure to effectively treat the patient's illness).

National Context

3. Between 1 January 2005 and 30 April 2010 there were 1,165 patient safety incidents related to loading doses reported to the National Reporting and Learning System. Of these incidents, two were fatal, four caused severe harm and 102 caused moderate harm. A further fatality was reported by coroner's letter. The fatal and severe harm incidents all related to incorrect loading doses, omitted or delayed administration of loading doses, or unintentional continuation of loading doses.

4. NPSA has produced Rapid Response Report NPSA/2010/RRR018: Preventing fatalities from medication loading doses which is available on: http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=92305

Local Context

5. All HSC and independent sector organisations should ensure that:

    i. All medicines used by the organisation that are likely to cause harm if loading doses and subsequent maintenance doses are not prescribed and administered correctly are risk assessed and used to produce a list of critical medicines (which may contain speciality subsections). This must include warfarin, amiodarone, digoxin, phenytoin and any other medicines identified locally.

    ii. There is effective communication regarding loading dose and subsequent maintenance dose regimens when prescribing, dispensing or administering critical medicines. This should include handover of patients between healthcare organisations. Tools such as loading dose work sheets, loading dose prescription charts, handover and clinical protocols, and patient-held information should be considered.

iii. Clinical checks are performed by medical, nursing and pharmacy staff (when available) so that loading and maintenance doses are correct. Appropriate information should be available to support these checks.

iv. Healthcare professionals in the community know when to challenge abnormal doses of the identified critical medicines.

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 –

   i. Criteria 4.3(i) (the appropriate management of risk);
   ii. Criterion 5.3.1(f)(viii) (ensuring safe practice in medicines management);and
   iii. Criterion 5.3.3(f) (implementation of evidence-based practice through guidance, for example, NPSA guidance);and

7. HSC Trusts should take immediate action to implement this Rapid Response Report as outlined in paragraph 5 above by 22 June 2011 following which they should provide assurance on this action to the HSC Board by completing Section 1 of the attached template.

8. The HSC Board should complete Section 2 of the attached assurance template and forward to the Department by 22 July 2011.

SQS CIRCULARS: ASSURANCE TEMPLATE FOR HSC BOARD AND TRUSTS

Circular number: HSC (SQSD) 17/10 Preventing fatalities from medication loading doses

For Implementation by: 22 June 2011

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

SECTION 1:

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. The issues impacting on full implementation along with the timescales for resolving these issues are set out in the box below:

☐ I can confirm that the organisation has been unable to implement any actions of the above circular for the reasons set out in the box below. (The actions being taken/required to resolve or clarify the issues preventing implementation and the timescales for this should be outlined):

I confirm that the HSC Trust's 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: _____

SECTION 2:

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 1, complies with the requirements of the above circular.

☐ I can confirm that further action, as outlined in the box below, is needed to ensure compliance with the requirements of the above circular

I confirm that the HSC Board's 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: _____