

**Dr Jim Livingstone**  
Director of Safety, Quality and Standards

**Dr Norman Morrow**  
Chief Pharmaceutical Officer

### **Best Practice Guidance**

#### **Subject:**

**Safer practice with epidural injections and infusions**

#### **For action by:**

Chief Executive, HSC Board  
Chief Executive, HSC Trusts  
Chief Pharmacists, HSC Board/ Trusts

#### **For Info:**

Director of Primary Care, HSC Board for cascade to

- Prescribing advisers; and
- GP advisers

Director of Performance Management, HSC Board  
Assistant Director of Performance Management, HSC Board  
Chief Executive, Public Health Agency  
Director of Public Health, Public Health Agency  
Medical Director NIAS  
Directors of Nursing, HSC Trusts  
Chief Executive, RQIA  
Director, Safety Forum  
NI Medicines Governance Team  
Prof. David Woolfson, Head of School of Pharmacy, QUB  
Prof. Donald Burden, Director of Education, School of Dentistry  
Prof. Linda Johnston, Head of Nursing & Midwifery, QUB  
Prof. Hugh McKenna, Head of Life and Health Sciences, UU  
Dr Owen Barr, Head of School of Nursing, UU  
Prof. Paul McCarron, Head of School of Pharmacy, UU  
Chief Executives NIMDTA, NICPPET, NIPEC  
Regional Medicines Information Service

#### **Summary of Contents:**

The purpose of this Circular is draw your attention to the templates for epidural prescription, administration and monitoring records.

#### **Enquiries:**

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

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

[www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)

AN ROINN

Sláinte, Seirbhísí Sóisialta  
agus Sábháilteachta Poiblí

MÁNYSTRÍ O

Poustie, Resydënter Heisin  
an Fowk Siccar

**Circular Reference: HSC (SQSD) 28/07  
Addendum 03/09**

**Date of issue: 13 August 2009**

#### **Related documents**

HSC (SQSD) 28/07 NPSA Safe Medication Alerts

HSC (SQSD) 28/07 Addendum 01/08

HSC (SQSD) 28/07 Addendum 02/08

Recommendations for implementation in Northern Ireland

#### **Superseded documents**

N/A

#### **Status of Contents:**

**Best Practice Guidance**

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

**National Patient Safety Agency (NPSA) Alert 21 – Safer practice with epidural injections and infusions**

In August 2008 the Department issued Addendum 2/08 to Circular HSC (SQSD) 28/2007 relating to safer practice with epidural injections and infusions which included the Regional Working Group's recommendations for implementation in Northern Ireland.

At that time, the Regional Working Group identified that a number of different documents were being used across Northern Ireland for the prescription, administration and monitoring of epidurals. As a result, a Regional Epidural Sub-group was convened to develop template documents to promote greater consistency in the documentation used by HSC Trusts. The Terms of Reference of the Group is attached at **Appendix 1**.

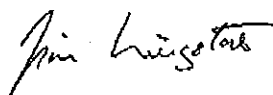
This work has now been completed and compliments the Regional Working Group's recommendations. It is anticipated that this will be of use to Trusts when developing their epidural charts. The templates and associated notes are attached at **Appendix 2**.

You will wish to bring the contents of this document and all related documents to the attention of staff, particularly those involved in governance and risk management within your organisation who need to be aware of this and similar alerts in order to assist in complying with the *Quality Standards for Health & Social Care* –

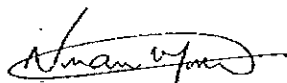
- Criterion 5.3.1(f)(viii) and (ix) (ensuring safe practice and appropriate management of risk); and
- Criterion 5.3.3(f) (implementation of evidence-based practice through guidance, for example, NPSA guidance).

Finally, may we take this opportunity to acknowledge all the work that has been done to date in improving medication safety across Northern Ireland including this latest contribution by the Regional Epidural Sub-group.

Yours sincerely



**DR J F Livingstone**  
Safety, Quality and Standards Directorate



**Dr Norman C Morrow**  
Chief Pharmaceutical Officer

**Regional Epidural Sub-group**

**Terms of reference**

**Group members**

Dr Susan Atkinson, Consultant Anaesthetist, BHSCT  
Mrs Anne Burns, Paediatric Pharmacist, BHSCT  
Mrs June Bradley, Lead Nurse, Acute Pain Service, WHSCT  
Mrs Patricia Coulter, Acute Paediatric Pain Nurse, BHSCT  
Mrs Jane Doyle, Lead Nurse, Acute Pain Service, SHSCT  
Ms Cheryl Ferguson, Acute Pain Pharmacist, SEHSCT (November 2008 – January 2009)  
Mr Simon Higgs, Lead Nurse, Acute Pain Service, SEHSCT  
Dr Damien Hughes, Consultant Anaesthetist, SEHSCT  
Mrs Erika Hughes, Acute Pain Pharmacist, SEHSCT (until November 2008)  
Dr Aideen Keaney, Consultant Paediatric Anaesthetist, BHSCT  
Dr Kathleen Kelly, Consultant Anaesthetist, WHSCT  
Mrs Louise MacDonald, Acute Paediatric Pain Nurse, BHSCT  
Mrs Olga O'Neill, Lead Nurse, Acute Pain Service, BHSCT  
Dr Karen Pillow, Consultant Anaesthetist, NHSCT  
Miss Jillian Redpath, Medicines Governance Pharmacist, SHSCT (Chair)

**Remit**

- To review all available documents currently used for prescription, administration and monitoring of epidural infusions in each Trust.
- To identify key elements that must be included in documents for prescription, administration and monitoring of epidural infusions.
- To develop a template document for prescription, administration and monitoring of epidural infusions.

## Appendix 2

### Templates for epidural prescription, administration and monitoring records

Option 1: Pre-printed stickers for prescription and administration record of new infusion bag – for attachment to regional Kardex template

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>LEVObupivacaine 1mg/ml (0.1%) + FENTANYL 2 microgram/ml Sodium chloride 0.9%</b>			<b>250ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>LEVObupivacaine 1mg/ml (0.1%) + FENTANYL 2 microgram/ml Sodium chloride 0.9%</b>			<b>100ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>LEVObupivacaine 1mg/ml (0.1%) + FENTANYL 5 microgram/ml Sodium chloride 0.9%</b>			<b>250ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>LEVObupivacaine 1.25mg/ml (0.125%) Sodium chloride 0.9%</b>			<b>100ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>LEVObupivacaine 1.25mg/ml (0.125%) Sodium chloride 0.9%</b>			<b>200ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Continuous EPIDURAL infusion prescription				Administration: Record of new infusion bag commenced					
<b>ROPIVACAINE 2mg/ml</b>			<b>200ml infusion</b>	Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
Start rate	Rate (Range)	PCEA / Bolus (q4h)	Lockout	Time					
ml/hour	ml/hour	ml	minute	Volume					
Signature (sign over sticker and Kardex & print name)			Start date	Stop date	Signature	Rate			
						Pump ID number			
						Signatures			

Option 2: Prescription and administration record of new infusion bag – for printing on reverse of epidural MEWS/PEWS chart

Prescription must be referenced on the medicine Kardex										
Continuous EPIDURAL infusion prescription					Administration: Record of new infusion bag commenced					
Local anaesthetic					Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
.....mg/ml (.....%)					Time					
Oploid										
.....microgram/ml										
Diluent					Volume					
sodium chloride 0.9%										
Start rate		Rate (Range)		PCEA / Bolus (circle)	Lockout		Rate			
.....ml/hour		.....ml/hour		.....ml	.....minute		Pump ID Number			
Signature (sign over sticker and Kardex & print name)				Start date	Stop date	Signature		Signatures		
Change in prescription: Draw diagonal line through above prescription, sign and date and prescribe new prescription below										
Continuous EPIDURAL infusion prescription					Administration: Record of new infusion bag commenced					
Local anaesthetic					Date					Record rate and volume administered at each check, rate change or bolus on epidural section of MEWS
.....mg/ml (.....%)					Time					
Oploid										
.....microgram/ml										
Diluent					Volume					
sodium chloride 0.9%										
Start rate		Rate (Range)		PCEA / Bolus (circle)	Lockout		Rate			
.....ml/hour		.....ml/hour		.....ml	.....minute		Pump ID Number			
Signature (sign over sticker and Kardex & print name)				Start date	Stop date	Signature		Signatures		

Monitoring and administration record of continuous infusion – for incorporation into MEWS/PEWS chart

[illegible]

## Notes on templates

Two options are given for the prescription and administration record of a new infusion bag. Both options facilitate a consistent approach to prescription while accommodating differences in documentation, for example, not all Trusts have a separate epidural MEWS/PEWS chart while other Trusts do not use adhesive labels.

Option 1: The template is designed for use with the regional kardex template. Some minor adjustments in size may be necessary to fit the spacing on the kardex in use in individual Trusts. DHSSPS Pharmaceutical Inspectorate have advised that Use and Control of Medicines (April 2004), which recommends that pre-printed adhesive labels are not acceptable for a prescription, has now been superseded by an update to the Misuse of Drugs Regulations (2007). The regulations allow for pre-printed adhesive stickers to be used for a prescription provided that the signature is 'oversigned', that is the signature must be written in such a way as to cover both the sticker and the kardex. The stickers have been designed to accommodate this. A sticker has been produced for each of the pre-prepared epidural infusions included in the recommendations of the Regional Working Group.

Option 2: The template is designed for printing on the reverse of an epidural MEWS/PEWS chart where this is in use and requires prescription details to be handwritten in accordance with Use and Control of Medicines. Where only one local anaesthetic is in use, the local anaesthetic may be pre-printed as part of the prescription. The template allows for one prescription change. The prescription must be referenced on the medicine kardex according to Trust policy. Training in use of the prescription should incorporate guidance that where no opioid is included in the prescription, a line should be drawn through that part of the prescription or 'None' written to prevent addition after the prescription has been written. Where ropivacaine is prescribed, a line should be drawn through sodium chloride.

Epidural catheter site, length of catheter in epidural space, distance from skin to epidural space and initial dose of local anaesthetic +/- opioid are currently recorded on the anaesthetic record and this should continue.

The monitoring and administration record of continuous infusion is designed for incorporation into a MEWS/PEWS observation chart as a template of what should be recorded for monitoring in addition to standard observations.