

## Guidelines for Use of Sliding Scale and Patient-Held Kardex

Some of the points answer specific questions asked in original e-mails generated through the Bulletin Board

- The kardex and the sliding scale are parts of a bigger project developed to improve pain control in patients with cancer. The project was piloted in one selected GP practice, and has now been rolled out to all other practices in the region. It coincided with an out-of-hours service developed specifically for palliative care patients to bypass the national NHS24 Service (NHS Direct is the equivalent service in England). If patients use this service we expect their GP to have written up a palliative care kardex for them. There is a minority of GPs who are reluctant to write kardexes, - each GP has on average only 3 patients per year with a diagnosis of cancer and who have moderate to severe pain - so the task is not onerous
- All nurses like both tools. The sliding scale empowers them to react positively without the time delay involved in trying to find a doctor to write up a change in medication.
- Each nurse is educated in it's use and has to sign a declaration of competence before their name goes on a local register.
- The sliding scale was developed for opioids but there is no reason why it could not be used for other drugs e.g. antiemetics.
- The nurse education took the form of a discussion around a set of 20 questions and answers The Clinical Nurse Specialists did the education across both hospital and community.
- We obtained approval for the sliding scale process from the Home Office, the Scottish Executive, the Nursing and Midwifery Council, the Royal Pharmaceutical Society and NHS Borders before these tools were introduced.
- The sliding scale can be used as part of the drug prescribing for a syringe driver. There is also a new prescription/administration chart for use with the syringe driver. The use of these two tools has been audited with favourable results. The results will be incorporated into a planned publication.
- The kardex is similar to the one used in our hospitals, with the addition of the sliding scale facility
- The responsibility of keeping the kardex up to date lies with each prescriber. The clinical responsibility for the patient passes between doctors as the patient passes from home to community hospital or to the district general hospital. Previously when a patient was admitted to the district general hospital the admitting doctor checked the list of medication from the patient's GP and wrote up a kardex. Now the current medication information is on the kardex which the patient brings in with him/her; and any medication on this chart can be administered from the time of admission. This avoids delay in administering analgesia to patients in pain, and also reduces the risk of error. Changes to, or new medications, are now written in the same kardex. The kardex follows the patient wherever he or she goes
- The following documents are attached – The Sliding Scale Protocol, the Instructions for Filling in the Kardex - there are two documents of instructions, one for MST and another for Zomorph as our NHS Borders formulary team changed to using Zomorph after we set up the project, and our syringe driver prescription/administration chart.

If you would like further information you can contact me by e-mail at [aileen.scott-aiton@borders.scot.nhs.uk](mailto:aileen.scott-aiton@borders.scot.nhs.uk). Whilst we are more than happy to share our protocols and tools, we reserve the copyright. Please seek our permission to use them; and also ask you to acknowledge their source.

# **PROTOCOL FOR THE PRESCRIPTION & ADMINISTRATION OF OPIOIDS USING A SLIDING SCALE**

## **BACKGROUND**

In June 2000 SIGN produced guidelines for the Control of Pain in Patients with Cancer (SIGN 44). These highlighted the need for the active participation of patients in controlling pain caused by cancer. The principles of pain management are based on thorough and accurate assessment followed by treatment based on the principles of the WHO CANCER PAIN RELIEF programme. This states that initial prescription of analgesics should be based on the initial assessment and started at the appropriate step on the scale based on the severity of the pain.

SIGN 44 states that all health professionals caring for patients with cancer should receive continuing education in pain management. This is to ensure that effective and appropriate analgesics are prescribed in an appropriate and timely manner according to the patient's needs.

The Scottish Pain Audit has identified that more than 50% of patients with pain have their pain inadequately controlled in generalist settings. This is due to deficiencies in the management of moderate pain (step 2) and a reluctance to move to strong opioids (step 3) and titrate accordingly.

The Borders has recently been awarded a grant from the Scottish Executive to evaluate a Managed Clinical Network (MCN) in Palliative Care with particular emphasis on the implementation of the SIGN 44 guidelines. As a result of this the following protocol has been developed as part of the strategy to improve pain control in patients with cancer. With the agreement of individual primary care teams, the protocol will enable appropriately trained community nurses to increase a patient's analgesic dose, when necessary, by a maximum of 50% within the guidelines set out below. This is envisaged to be of benefit to both patients and staff

## **PRESCRIBING GUIDELINES FOR OPIOID ANALGESICS**

SIGN 44 recommends the implementation of the WHO Analgesic ladder when addressing pain in patients with cancer. This states that patients whose pain is uncontrolled on the optimum dosage of analgesic within step two should be moved onto step three and given an opioid analgesic.

The opioid of choice is morphine and should be prescribed initially in immediate release form (Oramorph, Sevredol) four hourly with initial doses of 5-10 mg. A double dose should be given at bedtime in an attempt to provide cover for a longer period overnight. Care should be taken to prescribe the lower dose when the patient is elderly or particularly frail. Appropriate breakthrough medication should be prescribed in tandem at a dose of 1/6<sup>th</sup> of the total daily dose i.e. 5-10mg 2 hourly prn. Titration should continue at intervals of 24 hours, increasing the dose by 30-50% as required until the pain is stabilised.

Once pain control is achieved a slow release morphine preparation (MST, MXL) should be prescribed with appropriate breakthrough analgesia (Oramorph, Sevredol) as detailed above.

If pain control fails to be maintained, the slow release opioid should be increased by 30-50% with the breakthrough dose increased accordingly. If pain control fails to be achieved, or the patient develops signs of opioid toxicity (eg twitching, respiratory depression, confusion, pinpoint pupils, over-sedation) then consideration should be given to "switching" to a different opioid preparation or seeking specialist advice on alternative methods of pain control.

### **Example:**

Initial prescription: Oramorph 10mgs four hourly (eg 06.00, 10.00, 14.00, and 18.00 and 20mg at 22.00) prescribed with Oramorph 10mg 2 hourly for breakthrough.

**1.** If fewer than two breakthrough doses are required within the 24hour period and pain is controlled over a two-day period the patient should be commenced on MST 30mg bd with 10mg Oramorph 2 hourly prn prescribed for breakthrough.

**2.** If the pain is uncontrolled, titration should continue until either the pain is controlled or signs of opioid toxicity are noted.

For example, if pain control has not been achieved on Oramorph 10mg four hourly and/or the patient has required three or more doses of breakthrough medication over 24 hours, then the four hourly dose should be increased by 30-50% eg Oramorph 15mg. The breakthrough dose should be similarly raised eg Oramorph 15mg 2 hourly prn. When pain has been controlled for two days then MST should be prescribed calculating the total 24 hour dose of morphine and dividing by two.

## **THE SLIDING SCALE PROTOCOL FOR OPIOID ANALGESICS**

Health professionals should respond timeously and appropriately if a patient's pain is not controlled. The Sliding Scale Protocol has been developed to enable nurses who have undergone specific training to increase a patient's analgesia within given parameters. The aim is to reduce delays in treating patients with pain.

- Prescribing using the Sliding Scale Protocol can only be done using the Borders Palliative Care Network "Patient Held Medicine Chart" (Appendix 1) which has been specifically designed for this purpose.
- Prescriptions should be written according to the guidelines contained in Appendix 2.
- The initial dose of opioid should be determined by the relevant GP and nurse following assessment of, and discussion with, the patient.
- The nurse should ensure that the patient understands the use of regular and breakthrough analgesia and the doses prescribed.
- The nurse should check the patient's Pain Chart (Appendix 3) regularly to determine whether pain has been adequately controlled on the prescribed dose of medication. Initially, this assessment should be on a daily basis until satisfactory pain control has been achieved.
- If pain control has not been established on the lower level of the Opioid Sliding Scale prescription then the nurse should increase the opioid dose by 30-50%. This new dose must not exceed the maximum sliding scale dose written in the prescription and should be recorded as the "Increased Dose" in the Patient Held Medicine Chart (see Appendix 2).
- If a nurse increases a patient's analgesia then he/she should notify the GP of any increase as soon as possible and certainly by the next working day. The opioid prescription should then be rewritten with a new sliding scale dose.
- If a new pain develops or the original pain has changed in origin (site) or type (description) the GP should be contacted as soon as possible before changes to the medication are made.
- Once pain control has been established the nurse should continue to monitor the patient regularly. At each visit the nurse should review the patient's Pain Chart to determine their pain level and how many breakthrough doses the patient has taken in the previous 24 hours.
- A nurse should **not** alter the dose if he/she
  - has not undergone specific training in pain management and received accreditation from the BPCN education team or
  - has any doubts about how much the dose should be increased.

- A nurse should **not** alter the dose but should refer straight to the GP if
  - The patient has had no response to the opioid prescribed.
  - The patient shows signs of opioid toxicity
  - The patient is complaining of a new pain, or the type and severity of the pain has changed.
  - There are other features of concern eg those of spinal cord compression
- If a patient's conscious level is diminished then assessment of pain will be more difficult. In such a situation, assessment should be based on the health professionals' and carer's observations and should take account of periods of restlessness or distress. The nurse or carer should continue to complete the Pain Chart as appropriate. If a nurse is in any doubt then he/she should seek medical advice.

### **Syringe Drivers**

- The same protocol is equally applicable to opioids prescribed for syringe driver use.

### **CAUTION**

**The nurse should ensure that whenever a change is made to the opioid dose this is clearly recorded in the Patient Held Medicine Chart (see Appendix 2).**

**NO MORE THAN ONE CHANGE SHOULD BE MADE IN ANY 24 HOUR PERIOD.**

## PRESCRIBING CONTROLLED DRUGS ON A SLIDING SCALE USING THE PATIENT HELD MEDICINE CHART

### Introduction

The Patient Held Medicine Chart has been designed to allow prescribing of

- Opioid drugs using the sliding scale protocol
- Any drug at a fixed dose

### Doctors

- Enter the name of the controlled drug
- in the “Dose/Sliding Scale” box enter the sliding scale dose of the opioid drug e.g. 30 - 45 mg
- the prescribing doctor should ensure that the patient has sufficient tablets of appropriate strength to enable the prescribed sliding scale increase eg a patient on MST 30mg bd could be prescribed 15 mg tablets allowing an increase from 2 tabs (30mg) bd to 3 tabs (45mg) bd
- enter the starting dose and date e.g. 30 mg 8.2.02
- for “Regular Therapy” indicate the route and times of dosages
- for “As Required Therapy” indicate the route, frequency and any instructions on when it is to be used e.g. 2 hourly PRN for pain
- sign the prescription

REGULAR THERAPY			
Name <b>HELEN SMITH</b>		Number <b>1006249702</b>	Date of Birth <b>10/6/24</b>
		Date	
Reason for use <b>PAIN RELIEF</b>	Drug (Approved Name) <b>MST CONTINUS</b>	0800	<input checked="" type="checkbox"/>
	Opioid Sliding Scale Dose <b>30 - 45mg</b>	1000	
	Route <b>ORAL</b>	1400	
Starting Dose & Date <b>30mg 8/2/01</b>	Doctor Signature & Name <i>[Signature]</i> <b>CARMIE</b>	1800	
Increased Dose & Date	Nurse Signature & Name	2000	<input checked="" type="checkbox"/>
Date Discontinued	Doctor Signature & Name	2200	
Notes	Pharmacy		

**Fields coloured pink must be completed for all prescriptions.**

### Nurses

- a nurse may alter the dose of an opioid drug using the sliding scale protocol only if he/she has completed the BPCN training and



assessment programme and been issued with a certificate of competency

- if an increased dose of the controlled drug is indicated enter the increased dose and the date of increase in the appropriate box. The maximum dose that can be prescribed is the maximum stated in the "Sliding Scale Dose" box e.g. 45 mg 12.2.02
- put a single line through the starting dose and date
- sign the prescription

REGULAR THERAPY									
Name <b>HELEN SMITH</b>			Number <b>1006249702</b>			Date of Birth <b>10/6/24</b>			
Date			<b>8/2</b>	<b>9/2</b>	<b>10/2</b>	<b>11/2</b>	<b>12/2</b>		
Reason for use <b>PAIN RELIEF</b>	Drug (Approved Name) <b>MST CONTINUS</b>		0800	✓		<b>SM</b>	<b>SM</b>	<b>PT</b>	<b>SJ</b> <b>45mg</b>
	Opioid Sliding Scale Dose <b>30 - 45mg</b>		1000						
	Route <b>ORAL</b>		1400						
Starting Dose & Date <del><b>30mg 8/2/02</b></del>			Doctor Signature & Name <b>[Signature] CORNIE</b>						
Increased Dose & Date <b>45mg 12.2.02</b>			Nurse Signature & Name <b>[Signature] JONES</b>						
Date Discontinued			Doctor Signature & Name		2000	✓	<b>GB</b>	<b>PT</b>	<b>EB</b>
Notes			Pharmacy		2200				

#### Administering drugs to patients

- only the dose prescribed in either the starting dose box or the increased dose box can be administered to the patient ie **the dose is fixed and can only be changed by an appropriately trained nurse on one occasion.**
- Further increases require a new prescription to be written by a doctor.

#### OTHER EXAMPLES

##### 1. Non Opioid Prescription

Reason for use <b>PAIN RELIEF</b>	Drug (Approved Name) <b>PARACETAMOL</b>		0800	✓					
	Opioid Sliding Scale Dose		1000						
	Route <b>ORAL</b>		1400	✓					
Starting Dose & Date <b>1 gram 8/2/02</b>			Doctor Signature & Name <b>[Signature] CORNIE</b>						
Increased Dose & Date			Nurse Signature & Name		1800	✓			
Date Discontinued			Doctor Signature & Name		2000				
Notes			Pharmacy		2200	✓			

## 2. Original Prescription

AS REQUIRED THERAPY							
Name HELEN SMITH		Number 1006249702		Date of Birth 10/6/24			
Reason for use BREAK - THROUGH PAIN	Drug (Approved Name) ORAMORPH		Dose/Sliding Scale Dose 10-15 mg	Date			
	Frequency & Instruction 2 HOURLY PRN FOR PAIN	Route ORAL	Max Dose in 24 hours	Time			
Starting Dose & Date 10mg 8/2/01		Signature & Name J. CORMIE		Pharmacy	Dose		
Increased Dose & Date		Signature & Name		Date Discontinued & Initials	Given by		

## 3. Increased Prescription

AS REQUIRED THERAPY							
Name HELEN SMITH		Number 1006249702		Date of Birth 10/6/24			
Reason for use BREAK - THROUGH PAIN	Drug (Approved Name) ORAMORPH		Dose/Sliding Scale Dose 10-15 mg	Date	9/2	11/2	11/2
	Frequency & Instruction 2 HOURLY PRN FOR PAIN	Route ORAL	Max Dose in 24 hours	Time	10:00	08:00	12:00
Starting Dose & Date <del>10mg 8/2/01</del>		Signature & Name J. CORMIE		Pharmacy	Dose	10mg	10mg
Increased Dose & Date 15mg 12/2/01		Signature & Name JONES JONES		Date Discontinued & Initials	Given by	EB	PT

## 4. Subcutaneous Infusion

REGULAR THERAPY							
Name HELEN SMITH		Number 1006249702		Date of Birth 10/6/24			
Date							
Reason for use PAIN RELIEF	Drug (Approved Name) DIAMORPHINE		Opioid Sliding Scale Dose 20-30mg in 24hrs	Route subcut infusion	0800		
	Starting Dose & Date 20mg per 24hrs 14/2		Doctor Signature & Name J. CORMIE		1000		
Increased Dose & Date		Nurse Signature & Name		1400			
Date Discontinued		Doctor Signature & Name		1800			
Notes		Pharmacy		2000			
				2200			



**Prescription/Administration Chart for continuous subcutaneous infusion with syringe driver when used for symptom relief – For Use in NHS Borders**



**Name:**

<b>Unit/CHI No:</b>	<b>Driver No</b>
<b>Hospital Ward:</b>	<b>DOB:</b>

**Section 1 – Prescription Details (to be completed by doctor)**

Date:	Name of drug	Dose (Sliding Scale if used)	For Sliding Scale Only		Diluent	Duration	Prescriber's Signature	Discontinued Date      Initials
			Start dose and date	Increased dose date&signature				
Drug 1 (Opioid)						24 hours		
Drug 2								
Drug 3								

**Section 2 – Preparation and Flow Rate Details**

Syringe Size.....		Length of Fluid ....48mm		Rate Setting.....mm/hr	
Date	Time	Drugs and Batch Numbers		Prepared and checked by (2 names where applicable)	
		Drugs & diluent – Volume of diluent	Batch No		
					<b>Expected completion time....</b>
		Diluent - mls			
					<b>Expected completion time...</b>
		Diluent - mls			
					<b>Expected completion time.....</b>
		Diluent - mls			

**Breakthrough pain medication dose given by subcutaneous injection should be a sixth of the total daily dose of analgesic in the driver**

Date	Time	Drugs and Batch Numbers		Prepared and checked by (2 names where applicable)
		Drugs & diluent – Volume of diluent	Batch No	
				<b>Expected completion time....</b>
		Diluent - mls		
				<b>Expected completion time...</b>
		Diluent - mls		
				<b>Expected completion time.....</b>
		Diluent - mls		
				<b>Expected completion time....</b>
		Diluent - mls		
				<b>Expected completion time....</b>
		Diluent - mls		
				<b>Expected completion time...</b>
		Diluent - mls		
				<b>Expected completion time.....</b>
		Diluent - mls		
				<b>Expected completion time....</b>
		Diluent - mls		