

Appendix 4 - LCH Last Days of Life Symptom Management Guidance

Guidance on prescribing and administering drugs for syringe drivers in the last days of life in the community

For advice on anything relating to this document please contact:

LCH Palliative Care Leads

Sue Ryder Wheatfields Hospice 0113 2787249

St Gemma's Hospice 0113 2185500

Key Points: Prescribers

All ranges are suggestions only and prescribers must take responsibility for their prescribing actions, taking into account possible reversible causes for deterioration and non-pharmacological approaches for symptom management. If necessary seek advice from LCH Palliative Care Leads or Specialist Palliative Care Teams, or an Independent Prescriber with experience in this area.

Drugs other than those listed in this document are not prescribed with ranges unless specifically advised to do so by a Specialist Palliative Care Team.

Discuss with the patient and/or carers the potential benefits and possible adverse effects of the medicines prescribed.

For patients on analgesic patches (Fentanyl or Buprenorphine): leave the patch in place and seek specialist palliative care advice regarding syringe driver doses.

For patients on oral analgesics: an independent prescriber needs to review current medications as patients/relatives/carers may well need to stop oral and any other drugs as appropriate. MAR charts must be re-transcribed if medicines are altered.

There may be occasions when an anticipatory prescription of a syringe driver is required. This should NOT be standard practice and the reason for doing this must be documented in the patient's electronic record together with the indication for starting the syringe driver and medications that require stopping when the syringe driver is commenced.

Key points: Administration

Where a range is prescribed the first syringe driver is commenced at the lowest prescribed dose. If there is concern that this dose is too low then contact the LCH Palliative Care Leads or Specialist Palliative Care Teams for advice.

Prior to any decision to increase dose there must be an assessment of the benefit of the medications including PRN doses to determine if an increase is appropriate.

The ranges are suggestions and allow two dose increases of 30% to 50% if needed e.g. range is 20mg-45mg Initial dose 20mg/24hours 1st dose increase could be to 30mg/24 hours (50% increase) 2nd dose increase could be to 40mg/24hours (30% increase).

When increasing the dose of a drug within the prescribed range practitioners need to be mindful of the other drugs in the infusion. Care must be taken when increasing the dose of more than one drug in the syringe driver because of the potential additive effects e.g. increased drowsiness.

Opioid syringe pump drug prescribing

It is generally acceptable practice that when an increase in analgesia is required to increase the opioid dose by 30-50%. If a dose increase of greater than 50% appears to be indicated then contact the LCH Palliative Care Leads or Specialist Palliative Care Teams for advice and document rationale for dosage increase in clinical notes.

The recommended quantities allow for 72 hours of medication with two dose increases.

Current oral morphine dose in 24 hours	Subcutaneous Diamorphine			Subcutaneous Morphine Sulphate		
	Starting dose over 24 hours	Dose range over 24 hours	Guide to number & concentration of ampoules	Starting dose over 24 hours	Dose range over 24 hours	Guide to number & concentration of ampoules
Opioid naïve	5mg	5-10mg	5mg x 5	5mg	5-10mg	10mg/1ml x 5
10mg	5mg	5-15mg	10mg x 5	5mg	5-20mg	10mg/1ml x 5
20mg	7.5mg	7.5-20mg	10mg x 5	10mg	10-25mg	10mg/1ml x5
30mg	10mg	10-30mg	10mg x 10	15mg	15-40mg	30mg/1ml x 5
40mg	15mg	15-30mg	10mg x 10	20mg	20-45mg	30mg/1ml x 5
60mg	20mg	20-45mg	10mg x 10	30mg	30-60mg	30mg/1ml x 5
80mg	30mg	30-60mg	30mg x 5	40mg	40-80mg	30mg/1ml x 10
120mg	40mg	40-80mg	30mg x 10	60mg	60-100mg	30mg/1ml x 10
160mg	50mg	50-90mg	30mg x 10	80mg	80-130mg	30mg/1ml x 15

Current oral oxycodone dose in 24 hours	Subcutaneous oxycodone		
	Starting dose over 24 hours	Dose range over 24 hours	Guide to number & concentration of ampoules
Opioid naïve	Seek specialist care advice		
10mg	5mg	5-20mg	10mg/1ml x 5
20mg	10mg	10-25mg	20mg/2ml x5
30mg	15mg	15-40mg	20mg/2ml x 5
40mg	20mg	20-45mg	20mg/2ml x 10
60mg	30mg	30-60mg	20mg/2ml x 10
80mg	40mg	40-80mg	20mg/2ml x 10
120mg	60mg	60-100mg	20mg/2ml x 15
160mg	80mg	80-130mg	20mg/2ml x 20

Non opioid syringe driver drug prescribing

Drug	Indication	Ampoule Size	Suggest dose range in 24 hours	Comments	Suggested number of ampoules
Midazolam	Agitation ¹	10mg/2mls	10-30mg	Ensure reversible causes of agitation are addressed. Start at 10mg unless the patient has required 10mg or more of midazolam PRN in the proceeding 24 hours or is extremely agitated or was previously on oral benzodiazepines	5-10
Midazolam	Seizures (patients who have had convulsions and/or are on an oral anticonvulsant for seizures)	10mg/2mls	20-60mg	Start at 20mg or 30mg and increase if necessary. Contact Specialist Palliative Care Teams if advice required on which starting dose to choose	10 -15
Hyoscine butylbromide	Secretions / death rattle or colic	20mg/ml	60-120mg	Start at 60mg and increase if secretions or colic remain problematic.	10
Levomepromazine	Nausea	25mg/ml	6.25-12.5mg	Start at 6.25mg unless the patient has required 2 or more SC PRN doses in the proceeding 24 hours or was on more than 12.5mg orally in 24 hours	5
Levomepromazine	Agitation ¹	25mg/ml	Seek Specialist Palliative Care advice		
Haloperidol	Nausea	5mg/ml	1.5-5mg	Generally start at 1.5mg in 24 hours unless the patient was on a higher dose orally.	5
Haloperidol	Delirium	5mg/ml	Seek specialist palliative care advice		
Metoclopramide	Nausea and vomiting due to gastric stasis or bowel obstruction without colic	10mg/2mls	30-60mg	Only use if nausea or vomiting has been controlled by metoclopramide prior to last days of life. If so convert the oral dose to SC (1:1 conversion)	10

¹ For agitation suggest start with midazolam and increase the dose. If patient not responding please seek specialist palliative care advice.

Ampoule size information for injectable medicines

Medication	Ampoule sizes available
Diamorphine hydrochloride	Dry powder: 5mg, 10mg, 30mg, 100mg, 500mg
Morphine sulphate Where possible minimize number of strengths available in each patient's home to minimize risk of errors	10mg/1ml, 30mg/ml usual strengths 15mg/1ml, 20mg/1ml 20mg/2ml, 30mg/2ml, 40mg/2ml, 60mg/2ml
Oxycodone hydrochloride	10mg/1ml, 20mg/2ml, 50mg/1ml
Midazolam Other preparations are available, however, their use should be restricted to minimise the risk of unintended overdose	10 mg/2ml
Hyoscine hydrobromide	400micrograms/1ml, 600micrograms/1ml
Hyoscine butylbromide	20mg/1ml
Levomepromazine hydrochloride	25mg/1ml
Cyclizine lactate	50mg/1ml
Haloperidol	5mg/1ml
Metoclopramide	10mg/2ml

Produced in partnership with Leeds Community Healthcare NHS Trust, The Leeds Teaching Hospitals NHS Trust, St Gemma's Hospice and Sue Ryder Wheatfield's Hospice.

Publication date
04/2022

Review date
04/2025



Leeds Palliative
Care Network