Royal Cornwall Hospitals NHS Trust

Syringe Driver Prescribing - Mobile Guideline Summary

Click here for the full Clinical Guideline

Appendix 3. Prescribing Prompts

Please see next page for **Rapid Reference Guide** to subcutaneous prescribing in the last days of life. A companion guide to the Cornwall and Isles of Scilly (IoS) Anticipatory Prescribing Guidance (CHA 3602)

Rapid Reference Guide to Subcutaneous Prescribing in the Last Days of Life

A companion guidance to the Cornwall and Isles of Scilly (IoS) Anticipatory Prescribing Guidance (CHA 3602)

For patients in the last days of life subcutaneous (SC) medication for symptom relief should be prescribed pre-emptively for use when oral medication is no longer appropriate. It should include as required (PRN) medication to manage symptoms people *may* experience (pain, breathlessness, nausea/vomiting, agitation, and respiratory secretions). The Cornwall and IoS Anticipatory prescribing guidance (APG) provides suggested starting doses. These doses should be adjusted to account for the needs of the individual patient. Medicines for symptom control should only be administered if indicated. For best practice a syringe driver should only be prescribed following a clinical review with consideration given to reversible causes of deterioration, associated symptoms, and evaluation of PRN medications. Always consult the conversion chart when switching between opioids. When prescribing for patients with an eGFR <30 mL/min consult the Renal anticipatory prescribing guidance.

Recommendations for symptom management

- Patients should be assessed regularly according to their symptoms and the guidance specific to their care setting.
- Assess and document the effectiveness of any intervention. Review prescribing at least daily.
- For opioid naive patients use the APG PRN starting doses for guidance.
- For rapid symptom control initially titrate with PRN subcutaneous medications. Using PRN dosing initially helps to inform any future syringe driver dose.
- For patients prescribed a regular opioid calculate the PRN dose at one sixth (1/6th) of the usual 24 hour opioid dose.
- A patient specific range may be acceptable for each PRN medication i.e.. 2.5 to 5mg Morphine
- Patients with severe uncontrolled symptoms e.g. breathlessness in acute respiratory distress, may require a repeat dose at a shorter time interval of 30 minutes (*specialiast advice*).
- If 2 or more subcutaneous PRN doses have been required in the previous 24 hours and/or symptoms persist, consider starting a syringe driver.

Syringe Driver management and associated PRN dosing

- When initiating a syringe driver, any dose ranges should be patient specific with a view to the lowest dose required to achieve symptom relief.
- For patients requiring a syringe driver for continuous symptom relief at the outset, consider the APG starting doses. Consider a lower starting dose for frail and elderly patients and those with co-morbidities.
- The starting opioid dose of a syringe driver should take into consideration any previous regular oral dose, plus any additional PRN doses required over the previous 24 hours.
- A single starting dose should be prescribed for each medication. It may be appropriate to add a *set incremental increase* with a maximum dose.
- A syringe driver takes 4 to 6 hours to take effect. Patients with existing symptoms will require concurrent PRN dosing.
- If a syringe driver has been authorised and prescribed in advance for anticipated rapid clinical deteriorating, but has not yet been commenced, the prescription should be reviewed within 7 to 10 days of the initial authorisation.
- When increasing the syringe driver dose, review the PRN doses to ensure that an adequate dose range is prescribed.
- Syringe driver opioid dose increases should not generally exceed 30 to 50% of the total previous dose.
- Repeat PRN doses may be administered using a device such as a Saf T intima according to local guidance. PRN doses should **not** be administered via the syringe driver port.
- Water for injection is the diluent of choice for most commonly used anticipatory medications.
- The mixing of medicines in a single syringe driver is supported by compatibility data. If more than 3 medications are required, or where there is any doubt regarding suitability or compatibility, consult the PallCare Matters resource.

If frequent prn doses are needed, or if symptoms remain uncontrolled, seek Specialist palliative care advice

- Always consider non-pharmacological interventions for symptom relief.
- Ensure that the patient and family know what medication is being given and why.
- Ensure that the potential adverse effects are known to the patient and family.
- Explain to the patient and family about the purpose of the syringe driver administration.

Prescribing advice:

- Palliative Care Advice Line: 01736 757707 - 24 hours a day, 7 days a week.
- RCHT Hospital Specialist Palliative Care Team: bleep 3055, 7 days 8am-4pm.
- Community Specialist Palliative Care Team: 01208 251300, 7 days 9.00am-5.00pm.
- RCHT Medicine Information: 01872 252587, 8.30am -5pm Monday – Friday.
- RCHT 24 hour on-call pharmacist (out of hours supply issues only) 01872 252000.
- St Luke's Hospice 01752 401172.

Prescribing resources:

- End of life resources for health professionals - NHS Cornwall and Isles of Scilly
- For dose conversion and syringe driver compatibility consult the PallCare Matters resource.

PAIN

Opioid naïve patients	Patients taking a regular opioid
➢ Unless otherwise indicated Morphine is the first line opioid of choice. ➢ The lowest dose should always be selected to achieve effective symptom relief ie Morphine 2.5 mg up to hourly as required.	➢ Patients taking regular oral opioids who are no longer able to swallow usually require this to be converted to continous subcutaneous infusion. ➢ A subcutaneous dose of Morphine is calculated at **half the usual oral dose.** For example 60 mg of oral morphine daily = 30mg of morphine SC over 24 hours. ➢ A prn dose of opioid is usually calculated at 1/6th of the 24 hour dose. ie a patient receiving 30mg of morphine/24 hours will require a prn morphine dose of 5mg. Any increase in the syringe driver dose will require a recalculation of the prn dose.

BREATHLESSNESS	THINK
➢ Low dose opioids provide safe and effective symptom relief e.g. Morphine 2.5mg. ➢ The aim is to reduce respiratory rate and provide comfort.	➢ Counting the respiratory rate can help when assessing breathlessness. ➢ Fan therapy may provide symptom relief.

AGITATION/DISTRESS	THINK
➢ Midazolam is first line where anxiety is contributing to agitation. ➢ Consider Haloperidol where confusion is contributing to agitation.	➢ Consider reversible causes ie. Urinary retention. ➢ Seek calm and quiet. ➢ Is it pain?

NAUSEA/VOMITING	THINK
➢ Continue any effective oral anti-emetics via syringe driver at an equivalent dose e.g. Haloperidol 1.5mg orally = Haloperidol 1.5mg SC/24 hours. ➢ Consider the cause of the nausea to determine the choice of anti-emetic.	➢ Haloperidol, Metoclopramide, Levomepromazine-avoid in Parkinson's disease or Lewy body dementia. ➢ Metoclopramide-avoid in bowel obstruction or colic.

RESPIRATORY SECRETIONS	THINK
➢ Reassure the family. ➢ Reposition patient. ➢ Medication is most effectively used preventatively. Use early if indicated.	➢ Anticholinergic medications have equivalent efficacy. ➢ Hyoscine hydrobromide is sedating.

TRANSDERMAL PATCHES

- An existing Fentanyl or Buprenorphine patch should be continued. Change the transdermal patch at the prescribed interval (*remove the old one*).
- Use the conversion chart to calculate the 24 hour oral morphine equivalent dose. Use this to calculate the PRN dose (1/6th of the 24 hour dose).
- Where >2 PRN doses in 24 hours are required, consider initiating a syringe driver in addition to the existing patch. Re-calculate the PRN dose at 1/6th of the combined 24 hour opioid dose.

THINK – What's reversible? What are they taking? Was it effective? What's the cause? Start low – Go slow