

INFORMATION

New Syringe Driver Chart



A new chart designed specifically for prescribing medication to be administered in a syringe driver is being piloted in Selby & York locality

Why the change?

The new chart incorporates many new safety features to reduce the potential for error

- Information is contained on the front of each chart for both prescriber and nurses to help
 - Prescribing, monitoring, observations & administration.
- A monitoring record on the chart to ensure the syringe driver is functioning correctly.
- A checklist for reference in the event of syringe driver failure.
- Limited space to prescribe regular medications to promote
 - Rationalisation of drugs used for patients on the Liverpool Care Pathway for the dying patient (LCP).

So, what's new?

Guidance for prescribers is available on the front of each chart.

This includes advice for prescribing, documenting calculations in medical notes and calculating prn opiate dose ranges.

Information for prescribers

- Prescribe approved name of drug entered in **Capitals**

Cancel Drugs

- **Discontinue prescriptions by clearly crossing through the whole prescription, with the date discontinued & signature.**
- **Do not alter an existing prescription always rewrite a new syringe driver prescription in a new box.**
- Check for allergies

Opiates

- Prescriptions for opiates & CDs must be prescribed in words and figures. **CDs now include Midazolam & Phenobarbitone**
- Use whole numbers. **Do not use decimals.**
- Dose calculations must be documented in the medical notes
- **Remember** to prescribe medications for subcutaneous use on the PRN (when required) chart
- The **PRN opiate** dose ranges should reflect the syringe driver dose (one sixth of the 24 hour dose of **opiate**)
- The **PRN opiate** dose should also take into consideration whether a patient has a **Fentanyl patch in situ.**
- Calculate the increased **opiate** dose requirements for the next syringe driver based on the number of additional prn doses over the previous 24 hours (providing the pain is opiate sensitive)

Diluents

- **Generally use water for injection.**
- Never use 0.9% saline with Cyclizine as it will crystallise

Use 0.9% normal saline for

- Levomepromazine by itself
- Syringe driver combinations containing Octreotide, Methadone, Ketorolac or Ketamine

Syringes

- Usually use 10ml & 20ml syringes but occasionally 30ml syringes may be required.

**Guidance for nurses is available on the front of each chart.
This includes advice for administering the medication and monitoring patients for signs of opiate induced toxicity.**

Information for nurses

- Use IV 3000 or similar clear dressing over the infusion site
- Patients with syringe drivers should be checked either 12 or 24 hourly in a patient's home
- If the patient requires additional medication (analgesic/sedative/antiemetic etc) give a subcutaneous dose of the appropriate drug, as prescribed on the **PRN** section of the drug chart.
- **NB** each non-opiate drug has a 24hour maximum.
- If you are giving **opiates** (e.g. morphine, diamorphine, oxycodone, alfentanil) to a patient who has not had one before, or to a patient who has had a dose increase observe for signs of:
 - **Drowsiness** ■ **Confusion/hallucinations** ■ **Nausea / vomiting** ■ **Reduced respiratory rate** ■ **Twitching**
- Observe patients closely and report any symptoms you are concerned about, to the GP. The drug may need to be discontinued, reduced or changed to a **different opiate.**
- In exceptional cases Naloxone may be required to reverse opiate side effects

Ensure that this information is read and understood before prescribing or administering any medication to patients using a syringe driver

The Prescription Record

Drug(s)	Dose (CDs to be prescribed in words & figures)	S/D set up Date, Time, Sign
1. CYCLIZINE	150mg	12/10/09 10.30 <i>A Nurse</i>
2. MORPHINE	20mg (TWENTY milligrams)	
3.		13/10/09 10.00 <i>A Nurse</i>
4.		

Space allocated for up to 3 drugs in the syringe driver. A fourth may be considered if advised by the palliative care team

Set up signature

- This will usually be signed by the **nurse** setting up the syringe driver

Guidance on prescribing opiates is provided on front page of syringe driver chart.

* Prescriptions for opiates must be prescribed in words and figures. Use whole numbers. Do not use decimals.

Diluent (For directions read front sheet)	Route	Duration	Setting / Rate (in mm)
Water for injection	SC	24 hours	2mm/hr
Date 12/10/09	Prescriber Signature <i>A Doctor or A Prescriber</i>		

Rate

- Set at 2mm/hr to run over 24 hours
- "If blue set it at 2"
- Set at 4mm/hr to run over 12 hours

A space is provided to document the diluent used in the syringe driver and must be completed before administration.

Prescriber signature
The person who **prescribes** medication for the syringe driver must **sign & date** the prescription chart.

Duration of the syringe driver must be documented on the prescription chart.

Diluents

- Generally use water for injection (WFI)
- Never use 0.9% saline with Cyclizine as it will crystallise

Use 0.9% normal saline for

- Levomepromazine by itself
- Syringe driver combinations containing Octreotide, Methadone, Ketorolac or Ketamine

Syringes
Usually 10 or 20mL
*30mL syringes may be needed if

- large volumes of drugs in syringe
- high doses of Oxycodone.

Syringe Driver Record and Monitoring Chart

Syringe driver checklist		
Date & Time of S/D check	13/10/09	
Date of battery inserted	Yes	
Syringe size	10ml	
Syringe labelled	Yes or No	Yes
Is indicator light flashing?	Yes or No	Yes
Are the drugs in syringe clear?	Yes or N	Yes
Rate of infusion in mm		2mm/hr
Rate set correctly ?	Yes or No	Yes
Volume left in syringe at S/D change		48mm
Site of Infusion		R arm
Signs of inflammation	Yes or No	No
Print Name		A.NURSE
Signature		<i>A. Nurse</i>

This section must be completed each time a syringe driver is set up.

Document:

- Date & time of SD check
- Battery inserted
- Indicator light flashing
- Syringe size
- Syringe labelled
- Site of infusion
- Rate of infusion in mm
- Rate set correctly
- Volume left in syringe
- Signs of inflammation
- Check drugs in syringe clear
- Nurse's name & signature

This checklist should be filled in each time the Syringe driver is checked

Rate set

- always check the rate is correct

Guidance for checking is available at the bottom of the Monitoring Chart. If the driver is found not working correctly, refer to the advice within this section.

Is the syringe driver working ?	<ul style="list-style-type: none"> • check battery • When was battery changed? • check start button • check set up 	<p>What is the current rate setting ?</p> <p>Is S/D running on time?</p>	<ul style="list-style-type: none"> • too fast - check rate setting and calculation • too slow – check battery • check tubing for kinking • check site for blocked cannula or inflammation 	Check patient for symptoms	<ul style="list-style-type: none"> • if required give PRN dose of the appropriate drug as prescribed on the PRN section of the chart
Syringe contents	<ul style="list-style-type: none"> • check drugs in syringe are clear – no crystallisation 	Infusion Site	check appearance for inflammation, irritation, induration or infection	Check connections	check syringe / tubing connected

A check on the syringe driver must be made at least daily and documented appropriately on the chart.

FOR ACTION NOW

Nurses must ensure that:

- Information provided on the front of each chart is understood and that the guidance is followed.
- Syringe driver checks are adhered to and documented on the syringe driver chart.
- A syringe driver is only set up by nursing staff who have had the appropriate training.

Prescribers must ensure that:

- the new chart is used for prescribing syringe drivers.
- patients on the Liverpool Care Pathway (LCP), are referred to the LCP documentation and syringe driver policy.
- prescriptions for opiates are prescribed in words and figures.
- prescriptions for other medications are rationalised for patients on the LCP.

NB Morphine accumulates in renal failure. For patients with a GFR <30mL/min,

- Alfentanil
- Oxycodone

**are the preferred alternative s/c opiates to use
Please consult the alternative opiate chart**