

SYRINGE DRIVER USE

Consider its use if the patient is **unable to swallow** or has **nausea/vomiting**, also in the **terminal stages**.
Use a **20 ml or 30 ml luer lock syringe**. **USE WATER FOR INJECTION AS THE DILUENT**.

Commonly Used Syringe Driver Drugs are:

- DIAMORPHINE** - for pain known or likely to be opioid sensitive - may accumulate in Renal failure.
- If previously on morphine, take **total 24hr dose of oral morphine** and **divide by 3** to **calculate total amount of diamorphine to be used in syringe driver over 24 hour period**.
 - If **not** previously on an opioid, start at 10-20mg over 24 hours.
 - **Vials available as 5, 10, 30 & 100mg pack sizes 5. + 500mg.**

- OXYCODONE** - can be used as an alternative for diamorphine.
- To calculate SC dose of oxycodone from oral dose - use two thirds of the oral dose.
 - If breakthrough dose > 20mg prescribe diamorphine as oxycodone injection may be painful.
 - **Vials 10mg/ml - 1ml & 2ml amps - pack size 5.**

- HALOPERIDOL** - for nausea due to medication, renal/liver failure, or if cause unknown; also antipsychotic.
- Dose range: for nausea **2.5 to 10mg** over 24 hours; for delirium **5 to 30mg** over 24 hours.
 - **Vials 5mg/ml - 1 ml amp - pack size 5.**

- CYCLIZINE** - nausea due to intra-abdominal disease, cough or brain tumour. Avoid in severe heart failure.
- Dose range **100 to 200mg** over 24 hours (may be up to **300mg** over 24 hours - seek advice).
 - May crystallize (goes cloudy) in high doses in combination with other drugs.
 - **Vials 50mg/ml - 1 ml amp - pack size 5.**

- LEVOMEPRMAZINE (Nozinan)** - if above fail, and/or for terminal agitation/delirium.
- Dose range **6.25 to 25mg** over 24 hours (antiemetic); **25 to 150mg** over 24 hours (terminal agitation).
 - Make as dilute as possible (use a **20 or 30ml** syringe).
 - **Vials 25mg/ml - 1 ml amp - pack size 10.**

- MIDAZOLAM (Hypnovel)** - **First Line** sedative for terminal agitation; anticonvulsant properties, including myoclonus.
- dose range **10 to 80mg** over 24 hours; may be as high as **120mg** over 24 hours (seek advice).
 - **Vials 5mg/ml - 2 ml amp - pack size 10.**

- GLYCOPYRRONIUM** for moist, noisy breathing in the terminal stages.
- Dose range **400 to 1200 micrograms** over 24 hours.
 - **Vials 200 microgram/ml - 1 ml & 3 ml amps - pack size 10.**
 - Could use **HYOSCINE BUTYLBROMIDE** as alternative - **60 to 120mg over 24 hours**.
 - **Vials 20mg/ml - 1 ml amp - pack size 10.**

WATER for INJECTIONS - prescribe **10ml amps - pack size 10**. This should be prescribed by GP.

Transdermal drug

- FENTANYL (Durogesic)** patch - for pain control. **Not started in terminal phase**.
- **25 microgram/hour** patch is roughly equivalent to **60 to 90mg oral morphine** per day.
 - Patch changed **every 72 hours (3 days)**. Occasionally, this needs to be reduced to **every 48 hours**.
 - Breakthrough analgesia is **5mg diamorphine subcutaneously** for every 25mcg/hr of fentanyl.
 - If pain worsening during terminal phase, **CONTINUE FENTANYL AND ADD DIAMORPHINE IN SYRINGE DRIVER**.

“As Needed” drugs. All can be given subcutaneously

THE SIX DRUGS SHOULD BE AVAILABLE IN THE PATIENT’S HOME AND PRESCRIBED IN THE DOSES STATED EXCEPT THE DIAMORPHINE RANGE WHICH WILL NEED TO BE CALCULATED

- **DIAMORPHINE** - use **one sixth of total 24 hour diamorphine dose**, usually 2 to 4 hourly.
- **LEVOMEPRMAZINE** - **6.25 to 12.5mg** (nausea), **12.5 to 25mg** (delirium), 3 hourly.
- **MIDAZOLAM (Hypnovel)** - stat dose for restlessness (which may be caused by pain, positional discomfort, urinary retention or constipation) is **2.5 to 10mg**, 3 hourly. **For sedation during haemorrhage, Midazolam 10mg may need to be repeated at 30 minute intervals. Note** there is a **special buccal preparation** which can be **given by carers**.
- **GLYCOPYRRONIUM** - 200 to 400 micrograms, 3 hourly. If **not** avaiable, use **HYOSCINE BUTYLBROMIDE** AS 20mg stat dose repeated 3 hourly.
- **HALOPERIDOL** - **1.5mg to 5mg** - For nausea.
- **CYCLIZINE** up to **4x a day** for nausea.

Advice from specialist palliative care service (Monday-Friday 9-5) telephone (East) 01625 663177. (Central) 01606 551246.

For more information see “palliative care section” at the front of the British National formulary (BNF). Informa-tion about drug combinations can be found at the back of the PCT syringe driver guidelines.

For out of hours advice please contact either East Cheshire Hospice Staff 01625 666999 or St Lukes Hospice 01606 551246.



Cheshire East Community Health

Booklet No.

NHS No.

Controlled Drug / Syringe Driver Prescription and Administration Record

Surname	Forenames	Mr. Mrs. Miss.	Date of Birth
Address	Own G.P.		
	Practice Name		
	Tel. No. of Practice		
Tel. No.	Named District Nurse		
	Drug Sensitivites		
Macmillan Nurse	Contact Number Macmillan Nurse		
24 Hour Hospice Advice Line St. Lukes: 01606 551246	24 Hour Hospice Advice Line East Cheshire Hospice: 01625 666999		

List of Patient’s CONTROLLED DRUGS NOT administered by DISTRICT NURSES / CECH Staff

Name of Drug	Dosage	Frequency	Route	Usually administered by

Syringe Driver Serial No.	Date Serviced	Record Weekly Battery Changes	
		Driver 1 / Date	Driver 2 / Date

Doctor Prescriber

- 1 Use approved NAMES, BLOCK LETTERS, Metric Dosage (opioids by mg/mcg) & English instructions. **Avoid abbreviations.**
- 2 Prescribe CHANGES in drug therapy on a NEW PRESCRIPTION line. **Do not alter existing instructions.**
- 3 DISCONTINUE a drug by drawing a line through the prescription. Enter the date of cancellation and your initials.
- 4 ALL PRESCRIPTIONS SHOULD BE REVIEWED REGULARLY.

Nurse

- 1 CHECK the entries in each section before administration of the drug(s).
- 2 The nurse giving the drug MUST complete the ADMINISTRATION RECORD and sign, after the drugs have been administered.
- 3 Ensure all drugs are signed and prescribed by a doctor.

Syringe Driver

Transdermal / Oral Medication

Where dose range given start at lowest dose

			Date	Date	Date	Date	Date
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Drug			Time (24hr. clock)				
Note			Dose				
Dose	Route	Frequency	Nurses Signature				
Doctors Signature		Date	Nurses Signature				
Line Change Y/N			Driver 1 Driver 2				
Syringe Driver Rate							
Site - Syringe Driver 1							
Site - Syringe Driver 2							

Conversion Chart

Table 33 Converting from Oral Morphine to Fentanyl Transdermal Patches

24-hrly morphine dose (mg)	Fentanyl Transdermal (microgram/h)	Oral short-acting morphine breakthrough dose
60 - 90	25	15
90 - 134	37	20
135 - 189	50	30
190 - 224	62	35
225 - 314	75	45
315 - 404	100	60
405 - 494	125	75
495 - 584	150	90
585 - 674	175	105
675 - 764	200	120
765 - 854	225	135
855 - 944	250	150
945 - 1034	275	165
1035 - 1124	300	180

In the case of end of life, patients who are established on transdermal patch and have increasing pain control issues refer to ICP (integrated care pathway) information on symptom control guidelines.

Drug Stock Record

Please note that each drug and strength of drug needs to be in a separate table

Controlled Drug and Strength						
Date	Time	New Stock	Total Stock	Batch No. Exp. Date	Signature	

	Date	Date	Date	Date	Date	Date	Date	Date
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								

PRN or Statutory dose

PRN or Statutory dose				Date	Date	Date	Date	Date
Note 2 hourly (longer in renal failure)			Time (24hr. clock)					
Drug	DIAMORPHINE		Dose					
Dose range	Route SC	Frequency Usually 2 to 4 Hourly	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note Usual Max Dosage(15mg/24hr)			Time (24hr. clock)					
Drug	HALOPERIDOL		Dose					
Dose 1.5 to 5mg	Route SC	Frequency 3 Hourly	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note Maximum Dose (200mg/24hr) to include Syringe Driver content			Time (24hr. clock)					
Drug	CYCLIZINE		Dose					
Dose 50mg	Route SC	Frequency 4/6 Hrly - 200 MG/Day	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note Usual Max Dosage(75mg/24hr)			Time (24hr. clock)					
Drug	LEVOMEPRMAZINE		Dose					
Dose 6.25 to 25mg	Route SC	Frequency 3 Hourly	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note Usual Max Dosage(120mg/24hr) dose range 2.5 to 30mg (30mg for catastrophic event only)			Time (24hr. clock)					
Drug	MIDAZOLAM		Dose					
Dose range	Route SC	Frequency 3 Hourly	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note Usual Max Dosage(1200mcg/24hr)			Time (24hr. clock)					
Drug	GLYCOPYRRONIUM		Dose					
Dose 200 to 400 Micro gram	Route SC	Frequency 3 Hourly	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Note			Time (24hr. clock)					
Drug	WATER FOR INJECTIONS		Dose					
Dose	Route SC	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					

Drug Stock Record

[illegible][illegible]

Drug Stock Record

Please note that each drug and strength of drug needs to be in a separate table

[illegible][illegible]

	Date	Date	Date	Date
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				
Time (24hr. clock)				
Dose				
Nurses Signature				
Nurses Signature				

Drug Stock Record

Please note that each drug and strength of drug needs to be in a separate table

Controlled Drug and Strength						
Date	Time	New Stock	Total Stock	Batch No. Exp. Date	Signature	

	Date	Date	Date	Date	Date	Date	Date	Date
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								

Additional Drugs

				Date	Date	Date	Date	Date
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					
Drug			Time (24hr. clock)					
Note			Dose					
Dose	Route	Frequency	Nurses Signature					
Doctors Signature		Date	Nurses Signature					

	Date	Date	Date	Date	Date	Date	Date	Date
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								
Time (24hr. clock)								
Dose								
Nurses Signature								
Nurses Signature								