

Booklet No. \_\_\_\_\_ of \_\_\_\_\_ (in use)

## Symptom Control Prescription Drugs and Administration Record (with Palliative Care Advice)

Surname	Forenames	Mr. Mrs. Miss. Ms.	Date of Birth
Address		Own G.P.	NHS No.
		Practice Name	
		Tel. No. of Practice	
Tel. No.	District Nurse Teams		
Specialist Palliative Care Nurse Mon-Fri 9am - 5pm	Day (8am-5pm)	Tel:	
East Cheshire: 01625 663177 / Lung Team: 01625 661997	Out of Hours (5pm-8am)	Tel:	
Central: see District Nurse contact details opposite	<b>Drug Sensitivities &amp; Allergies</b>		
24 Hour Hospice Advice Line			
St. Luke's: 01606 555489			
or East Cheshire Hospice: 01625 666999			

### List of Patient's CONTROLLED DRUGS NOT administered by DISTRICT NURSE

Name of Drug	Dosage	Frequency	Route	Usually administered by

### Review of the Blue Booklet should be within 3 months or sooner if clinically indicated

Reviewed on (date) _____	Name	
	Signature	
	Registration No.	
Reviewed on (date) _____	Name	
	Signature	
	Registration No.	

#### Doctor/Prescriber

- All doctors/prescribers must complete the prescribers signature and printed name for each drug prescribed **within** the booklet.
- Use approved NAMES, BLOCK LETTERS, Metric Dosage (opioids by mg/microgram) & English instructions. **Avoid abbreviations.**
- Rewrite CHANGES in drug therapy.  
**Do not alter existing instructions**  
**- Always use black ink.**
- DISCONTINUE a drug by drawing a line through the prescribed item. Enter the date of cancellation and your initials.

#### Nurse

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

**Update EPaCCS record and complete  
End of Life documentation**

# “When Required” Symptom Control Medicines Requiring Nurse Administration

Where dose range is given usually start at lowest dose. See last two pages for further advice.

					Date	Date	Date	Date	Date
Drug	<b>MORPHINE</b> If alternative opioid req'd - prescribe below				Time (24hr. clock)				
Notes / Indication	Usually 2-4 hrly Pain / Dyspnoea				Dose				
Dose range	Route	Frequency	Max Dose over 24hr	Nurse Signature					
<input type="text"/> TO <input type="text"/>	<b>SC</b>	(See notes) <b>2-4 Hourly PRN</b>	<b>6 doses</b>	Nurse Name					
Prescriber Signature	Print Name	Date		Nurse Signature					
				Nurse Name					
				Drug stock record updated (please ✓)					
Drug	<b>LEVOMEPRMAZINE</b>				Time (24hr. clock)				
Notes / Indication	Usual Max Dose 25mg/ 24hrs for nausea and 50mg/ 24hrs for agitation to include Syringe Pump content				Dose				
Dose range	Route	Frequency	Max Dose over 24hr	Nurse Signature					
<input type="text"/> TO <input type="text"/>	<b>SC</b>	<b>4 Hourly PRN</b>	<b>See Above</b>	Nurse Name					
Prescriber Signature	Print Name	Date		Nurse Signature					
				Nurse Name					
				Drug stock record updated (please ✓)					
Drug	<b>MIDAZOLAM</b>				Time (24hr. clock)				
Notes / Indication	Usual Max Dose 60mg/24hr to include syringe Pump content				Dose				
Dose range	Route	Frequency	Max Dose over 24hr	Nurse Signature					
<input type="text"/> TO <input type="text"/>	<b>SC</b>	<b>2-4 Hourly PRN</b>	<b>6 doses</b>	Nurse Name					
Prescriber Signature	Print Name	Date		Nurse Signature					
				Nurse Name					
				Drug stock record updated (please ✓)					
Drug	<b>GLYCOPYRRONIUM</b>				Time (24hr. clock)				
Notes / Indication	Usual Max Dose 1200 micrograms/24hr Excessive Resp Tract Secretions to include Syringe Pump content				Dose				
Dose	Route	Frequency	Max Dose over 24hr	Nurse Signature					
<b>200 microgram</b>	<b>SC</b>	<b>2-4 Hourly PRN</b>	<b>See above</b>	Nurse Name					
Prescriber Signature	Print Name	Date		Nurse Signature					
				Nurse Name					
				Drug stock record updated (please ✓)					
Drug (Diluent)	<b>WATER FOR INJECTION</b>				Time (24hr. clock)				
Notes / Indication	Dilute/reconstitute injections (including diamorphine)				Dose				
Dose range	Route	Frequency		Nurse Signature					
<b>1 - 2 ml</b>	<b>SC</b>	<i>when required</i>		Nurse Name					
Prescriber Signature	Print Name	Date		Nurse Signature					
				Nurse Name					
				Drug stock record updated (please ✓)					

					Date	Date	Date	Date
Time (24hr. clock)								
Dose								
Nurse Signature								
Nurse Name								
Nurse Signature								
Nurse Name								
Drug stock record updated (please ✓)								
Time (24hr. clock)								
Dose								
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Drug stock record updated (please ✓)								
Time (24hr. clock)								
Dose								
Nurse Signature								
Nurse Name								
Nurse Signature								
Nurse Name								
Drug stock record updated (please ✓)								



# Additional "When Required" Symptom Control Medicines Requiring Nurse Administration

Where dose range is given usually start at lowest dose

					Date	Date	Date	Date	Date
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				
Drug					Time (24hr. clock)				
Notes / Indication					Dose				
Dose range [ ] TO [ ]		Route	Frequency	Max Dose over 24hr	Nurse Signature Nurse Name				
Prescriber Signature		Print Name		Date	Nurse Signature Nurse Name				
					Drug stock record updated (please ✓)				

	Date	Date	Date	Date
Time (24hr. clock)				
Dose				
Nurse Signature Nurse Name				
Nurse Signature Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature Nurse Name				
Nurse Signature Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature Nurse Name				
Nurse Signature Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature Nurse Name				
Nurse Signature Nurse Name				
Drug stock record updated (please ✓)				



# Syringe Pump Medicines

Check compatibility, when prescribing multiple drugs in one syringe pump

Opioid Patch in Situ: Yes / No. If yes, state type and dose \_\_\_\_\_

It is best practice to prescribe the contents of a syringe pump at the time of need. If prescribed in advance (e.g. before a weekend where there is real potential for further deterioration) PRIOR to starting the pump, there must be a review of symptom relief and doses given. If the patient's needs have changed, contact the prescriber if possible or seek specialist advice.

Where dose range is given usually start at lowest dose				Date	Date	Date	Date	Date
Drug (Diluent)	WATER FOR INJECTION			Time (24hr. clock)				
Notes / Indication - Dilute/reconstitute injections				Dose				
Dose Up to 20ml	Route SC	Frequency Over 24 hours		Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Line Change Y/N (follow Trust/Area policy)	Pump 1	Pump 2						
Syringe Pump Rate	Pump 1	Pump 2						
Syringe Pump site checked and documented Y/N	Pump 1	Pump 2						
Document Battery %	Pump 1	Pump 2						
Keypad Locked? Y/N	Pump 1	Pump 2						

Syringe Pump Serial No.	Date Serviced

	Date	Date	Date	Date
Time (24hr. clock)				
Dose				
Nurse Signature				
Nurse Name				
Nurse Signature				
Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature				
Nurse Name				
Nurse Signature				
Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
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Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature				
Nurse Name				
Nurse Signature				
Nurse Name				
Drug stock record updated (please ✓)				



# Additional Syringe Pump Medicines

				Date	Date	Date	Date	Date
Drug (Diluent)				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
Prescriber Signature		Print Name	Date	Nurse Name				
				Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
Prescriber Signature		Print Name	Date	Nurse Name				
				Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
Prescriber Signature		Print Name	Date	Nurse Name				
				Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
Prescriber Signature		Print Name	Date	Nurse Name				
				Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Notes / Indication				Dose				
Dose	Route SC	Frequency Over 24 hours		Nurse Signature				
Prescriber Signature		Print Name	Date	Nurse Name				
				Nurse Signature				
				Nurse Name				
				Drug stock record updated (please ✓)				
Line Change Y/N (follow Trust/Area policy)				Pump 1				
				Pump 2				
Syringe Pump Rate				Pump 1				
				Pump 2				
Syringe Pump site checked and documented Y/N				Pump 1				
				Pump 2				
Document Battery %				Pump 1				
				Pump 2				
Keypad Locked? Y/N				Pump 1				
				Pump 2				

	Date	Date	Date	Date
Time (24hr. clock)				
Dose				
Nurse Signature				
Nurse Name				
Nurse Signature				
Nurse Name				
Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature				
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Drug stock record updated (please ✓)				
Time (24hr. clock)				
Dose				
Nurse Signature				
Nurse Name				
Nurse Signature				
Nurse Name				
Drug stock record updated (please ✓)				





# Regular Symptom Control Medicines Requiring Nurse Administration (Excluding Syringe Pumps)

for example: S/C Dexamethasone or Fentanyl patch

				Date	Date	Date	Date	Date
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				
Drug				Time (24hr. clock)				
Note				Dose				
Dose	Route	Frequency		Nurse Signature				
				Nurse Name				
				Nurse Signature				
				Nurse Name				
Prescriber Signature	Print Name	Date		Drug stock record updated (please ✓)				

	Date	Date	Date	Date	Date	Date	Date	Date
Time (24hr. clock)								
Dose								
Nurse Signature								
Nurse Name								
Nurse Signature								
Nurse Name								
Drug stock record updated (please ✓)								
Time (24hr. clock)								
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Drug stock record updated (please ✓)								
Time (24hr. clock)								
Dose								
Nurse Signature								
Nurse Name								
Nurse Signature								
Nurse Name								
Drug stock record updated (please ✓)								





**Drug Stock Record - Community Staff Only**  
Please note that each drug and strength of drug needs to be in a separate table

Drug, Formulation and Strength											
Date	Time (24 hr clock)	Stock received	Stock used	Amount wasted (if applicable)	Batch number & exp date	Total stock left	Confirm nurse admin section signed (please ✓)	Name and signature			

Drug, Formulation and Strength											
Date	Time (24 hr clock)	Stock received	Stock used	Amount wasted (if applicable)	Batch number & exp date	Total stock left	Confirm nurse admin section signed (please ✓)	Name and signature			

**Opioid Conversion Charts (note: - rounded to nearest convenient doses)**

\* CSCI = Continuous Subcutaneous Infusion

Route	Morphine mg				Oxycodone mg				Diamorphine mg		Alfentanil mg
	Oral		SC		Oral		SC		SC		SC
	24hr total	4 hrly	CSCI 24hr*	4 hrly	24hr total	4 hrly	CSCI 24hr*	4 hrly	CSCI 24hr*	4 hrly	CSCI 24hr*
Dose	20	2.5	10	1.25	10	1.25	5	0.5			
	30	5	15	2.5	15	2.5	10	2.5	10	2.5	1
	60	10	30	5	30	5	20	5	20	5	2
	90	15	45	7.5	45	7.5	30	5	30	5	3
	120	20	60	10	60	10	40	5	40	5	4
	150	25	75	12.5	75	12.5	50	7.5	50	7.5	5
	180	30	90	15	90	15	60	10	60	10	6
	240	40	120	20	120	20	80	15	80	15	8
	360	60	180	30	180	30	120	20	120	20	12
	480	80	240	40	240	40	160	25	160	25	16
	600	100	300	50	300	50	200	30	200	30	20
	800	130	400	65	400	65	260	40	260	40	26
	1000	160	500	80	500	80	330	60	330	60	33
	1200	200	600	100	600	100	400	70	400	70	40

Anything over 360mg oral morphine or equivalent over 24 hours requires specialist advice.  
Alfentanil- For Specialist Advice Only

This table does **not** indicate incremental steps. Increases should not exceed 30-50% in a 24 hour period as indicated by *when required* doses given.

**Conversion factors:**

- From **oral morphine** to **SC morphine** - divide by 2
- From **oral morphine** to **SC diamorphine** - divide by 3
- From **oral morphine** to **oral oxycodone** - divide by 2
- From **oral oxycodone** to **SC oxycodone** - divide by 1.5
- From **oral tramadol/codeine/dihydrocodeine** to **oral morphine** - divide by 10

Dose of oral morphine over 24hrs (mg)	Fentanyl Transdermal (microgram/hr)
30	12
60	25
90	37
120	50
150	62
180	75
240	100
300	125
360	150
420	175
480	200
540	225
600	250
660	275
720	300

Anything over 360mg oral morphine or equivalent over 24 hours requires specialist advice.

This advice is for converting patients on stable oral opioid doses to the transdermal route.

For patients who are unstable/new to opioids, different conversion ratios may be more appropriate. Please seek specialist advice.

Conversion factors and charts from Greater Manchester Strategic Clinical Network Palliative Care Plan and Symptom Control Guidelines- Last revised November 2019 - 5th edition, Clinical Practice Summary for Palliative Care Symptoms-North West Coast Strategic Clinical Network- 2017 and Palliative Care Formulary- Edition 7.

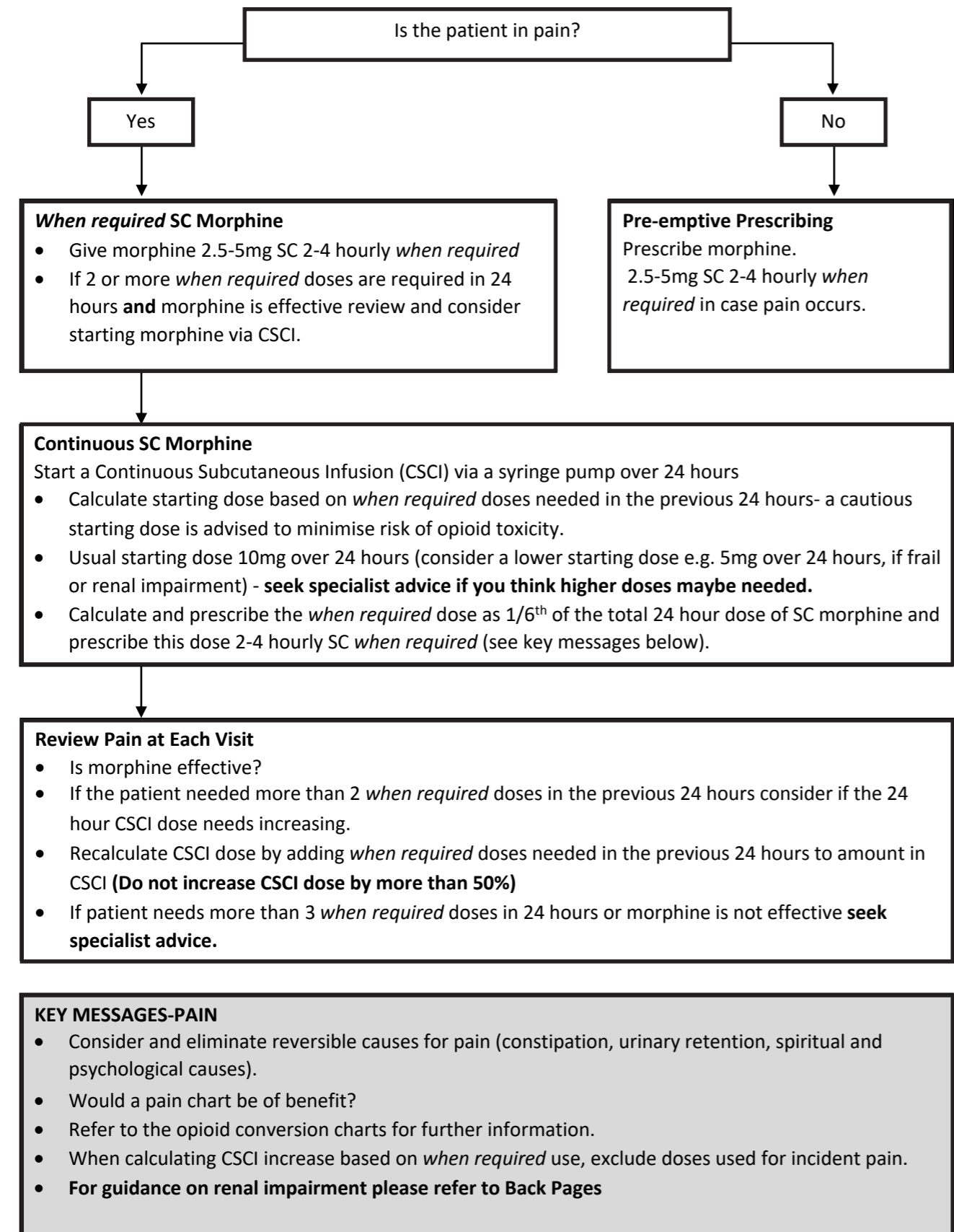
**Please Note:** - these are guidelines only and other publications may vary.

There is debate around exact conversion ratios and expert clinical advice is readily available for clinicians to consult if required in individual circumstances. When making conversions always use caution in considering dose choices between opioids.

Dose of oral morphine over 24hrs (mg)	Buprenorphine Transdermal (microgram/hr)
12	5 (7 day patch)
24	10 (7 day patch)
36	15 (7 day patch)
48	20 (7 day patch)
84	35 (4 day patch)
126	52.5 (4 day patch)
168	70 (4 day patch)
252	105 (70+35) (4 day patch)

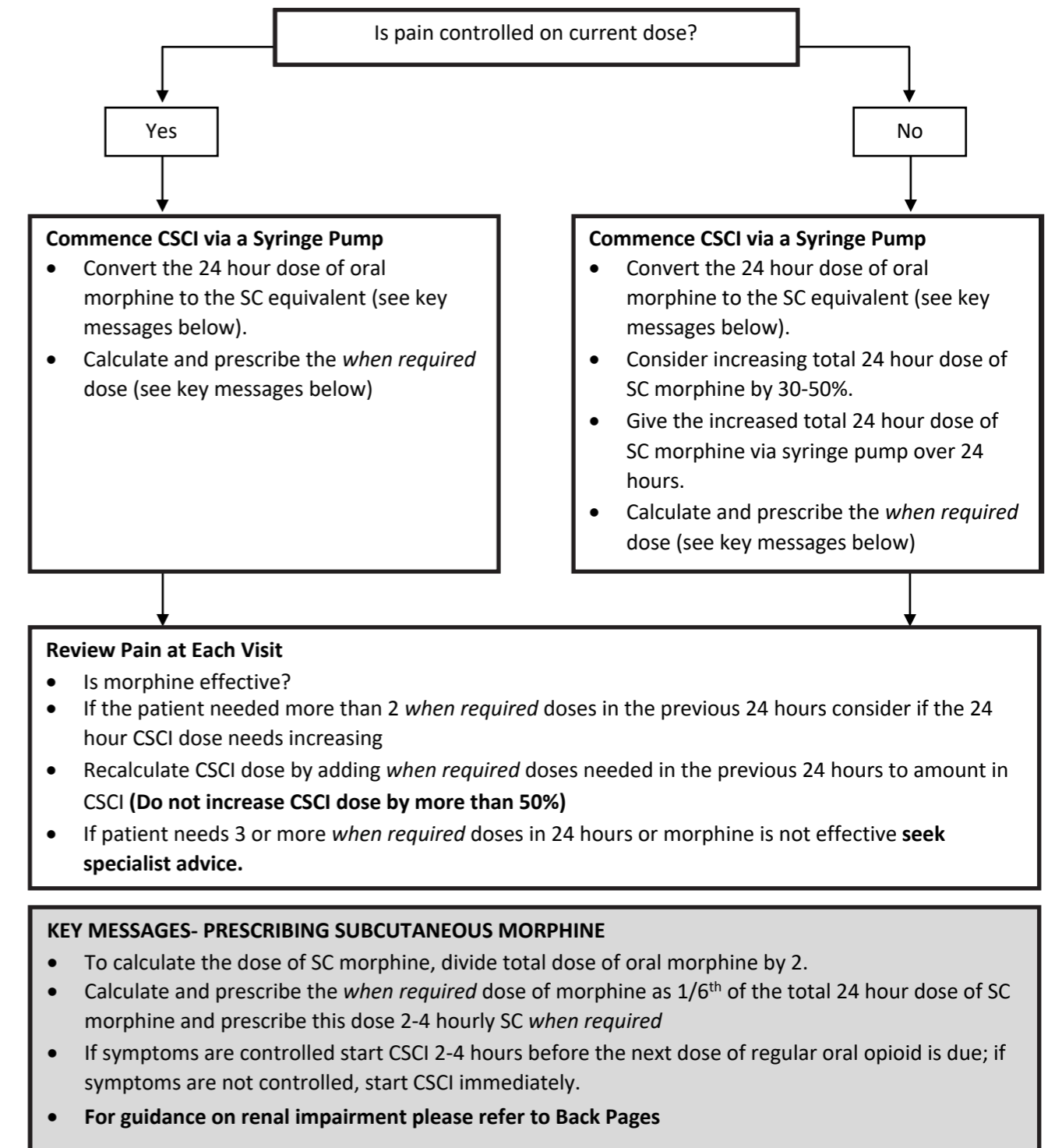
**PAIN**  
(In end of life patients unable to take oral medication)  
**PATIENT NOT ALREADY ON REGULAR STRONG OPIOIDS BECOMES UNABLE TO SWALLOW**  
(e.g. no regular morphine, oxycodone or fentanyl)

If the patient is known to be intolerant to morphine or morphine not effective, **SEEK SPECIALIST ADVICE**



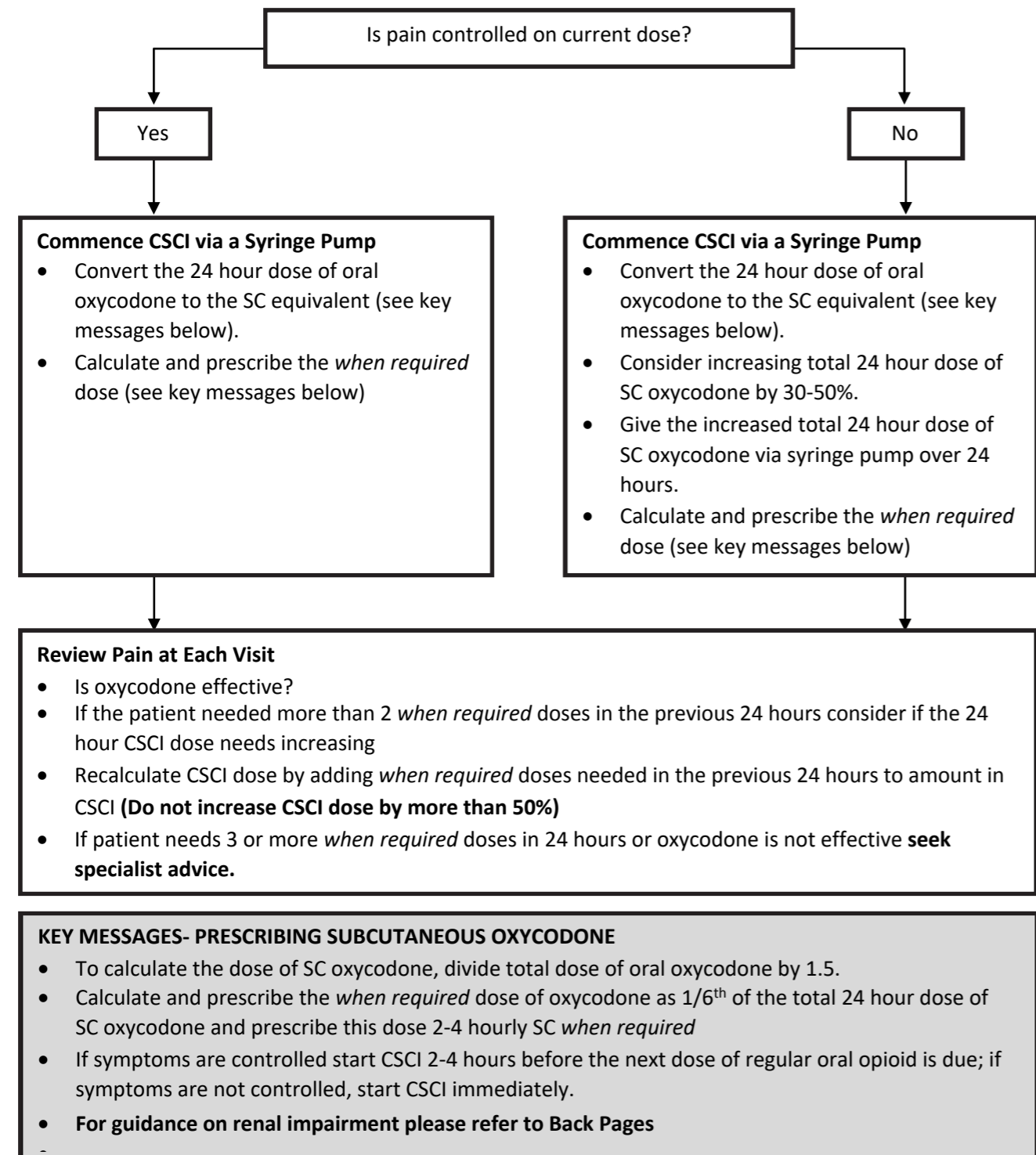
**PAIN**  
(In end of life patients unable to take oral medication)  
**PATIENT TAKING REGULAR ORAL MORPHINE BECOMES UNABLE TO SWALLOW**

If the patient is taking **ORAL OXYCODONE** follow Pain Algorithm for 'PATIENT TAKING REGULAR ORAL OXYCODONE BECOMES UNABLE TO SWALLOW' when commencing a continuous subcutaneous infusion



**PAIN**  
(In end of life patients unable to take oral medication)  
**PATIENT TAKING REGULAR ORAL OXYCODONE BECOMES UNABLE TO SWALLOW**

If the patient is taking **ORAL MORPHINE** follow Pain Algorithm for 'PATIENT TAKING REGULAR ORAL MORPHINE BECOMES UNABLE TO SWALLOW' when commencing a continuous subcutaneous infusion



**PAIN**  
(In end of life patients unable to take oral medication)  
**PATIENT USING FENTANYL OR BUPRENORPHINE PATCHES BECOMES UNABLE TO SWALLOW**

**IMPORTANT DO NOT REMOVE CURRENT FENTANYL OR BUPRENORPHINE PATCHES. CONTINUE PRESCRIPTION, CHANGING PATCHES AS PRESCRIBED.**

**Pre-emptive Prescribing**

- Calculate and prescribe SC opioid for pain 2-4 hourly *when required* in case pain occurs
- If patient has been taking an oral opioid for breakthrough pain, the same drug should be prescribed SC
- Calculate dose or consult conversion chart as a guide to determine the *when required* dose of SC opioid that is relevant for the strength of patch

**If pain not controlled or if needing more than 2 *when required* doses over 24 hours, consider a syringe pump in addition to the patch- Seek Specialist Palliative Care advice.**

**For guidance on renal impairment please refer to Back Pages**

When calculating the *when required* dose, include the equivalent opioid dose of the patch – see worked example\*

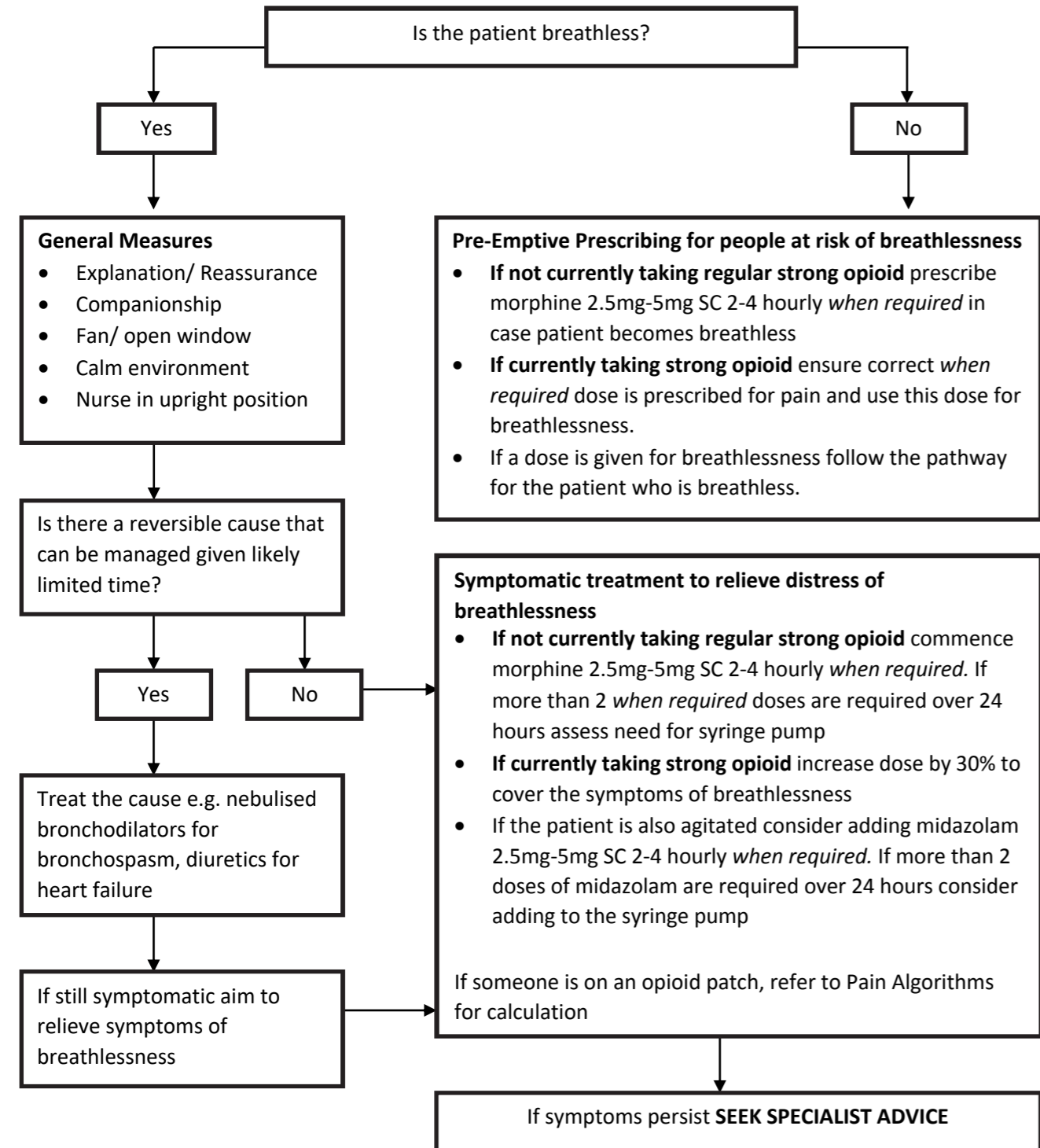
**WORKED EXAMPLE**  
Patient with a fentanyl 25mg/hr patch in situ- equivalent to 30mg of SC morphine/24 hrs. Patient also prescribed 10mg morphine orally *when required* and has 3 doses in the past 24hrs. 30mg of oral morphine is equivalent to 15mg SC morphine/24hrs.

Do not stop fentanyl patch and continue to reapply at the same dose. To account for *when required* doses, prescribe a syringe pump with 15mg of morphine SC over 24 hours (the total *when required* doses received) in addition to the patch.

To calculate the NEW *when required* dose, add the equivalent amount of SC morphine in the patch and the amount within the syringe pump together to give a total of 45mg SC morphine. Divide this total amount by 6 to give 7.5mg SC morphine as the *when required* dose.

## BREATHLESSNESS

(In end of life patients unable to take oral medication)

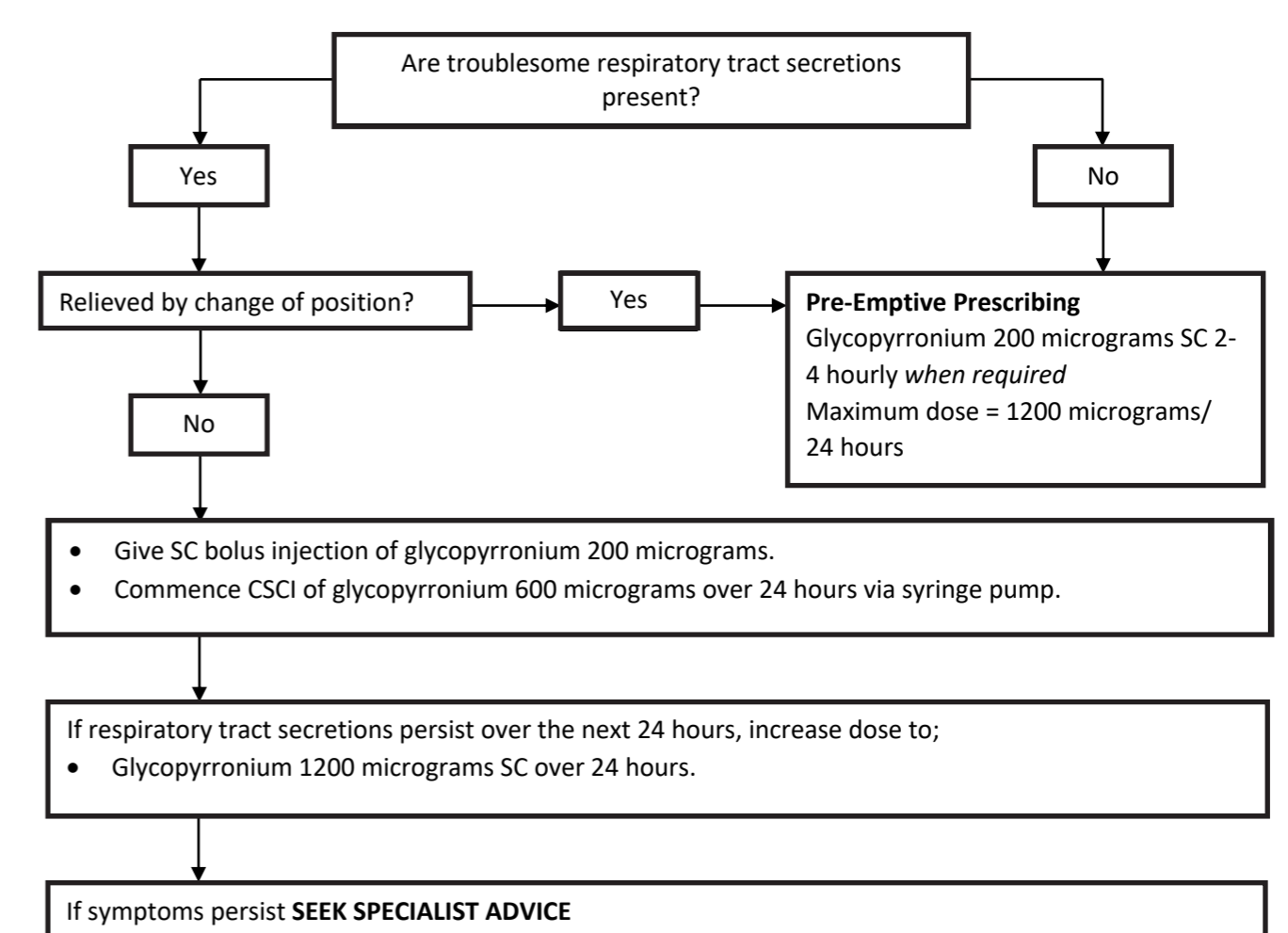


### KEY MESSAGES- BREATHLESSNESS

- Treatment for reversible causes of breathlessness include; bronchodilators, diuretics and antibiotics
- Simple measures such as a calm environment, a fan or open window can be just as effective as medication
- If 3 or more *when required* doses are required within 8 hours seek specialist advice
- **For guidance on renal impairment please refer to Back Pages**

## EXCESSIVE RESPIRATORY TRACT SECRETIONS

(In end of life patients unable to take oral medication)

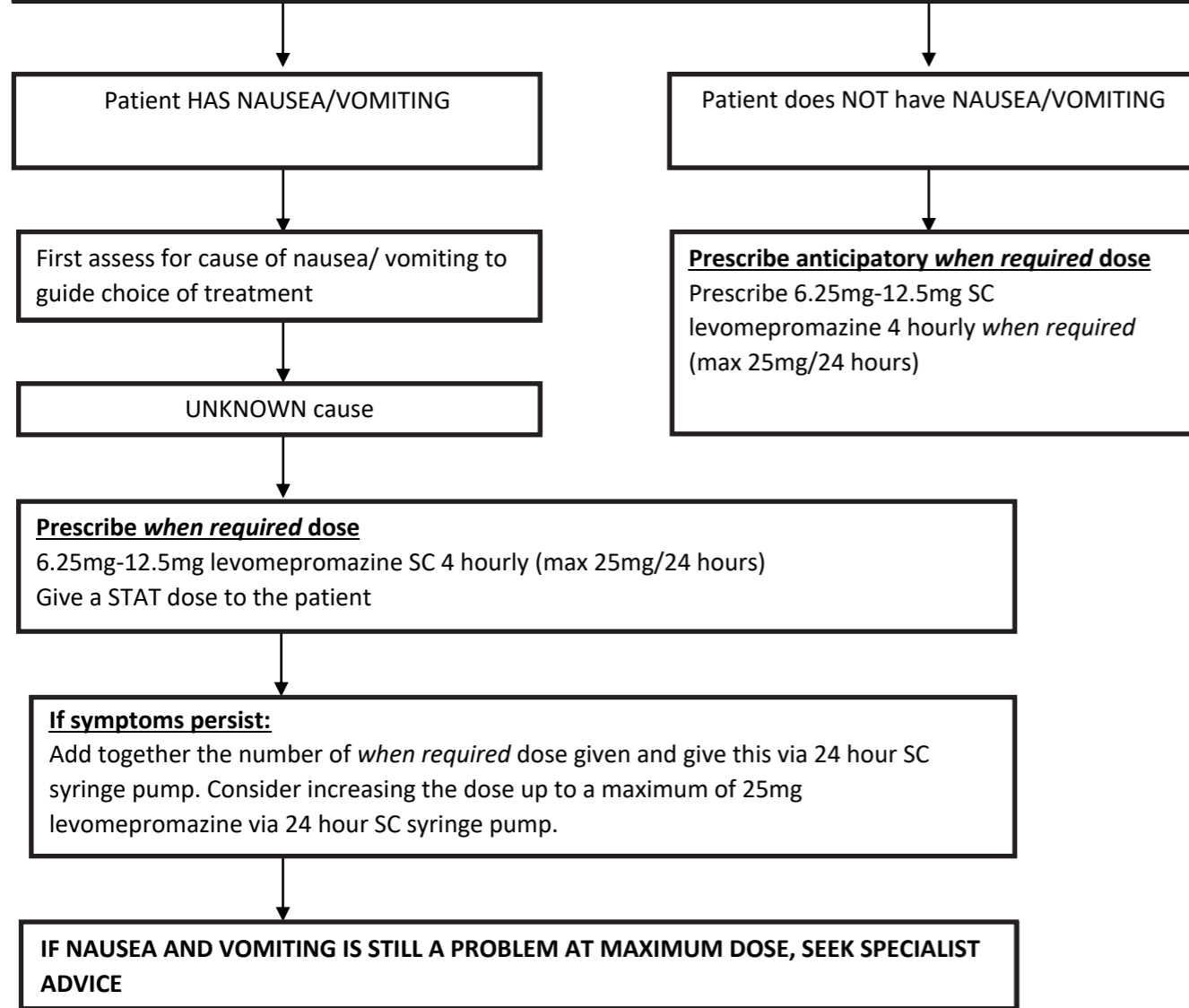


### KEY MESSAGES-TROUBLESOME REPIRATORY SECRETIONS

- Treatment must be commenced at **onset** of secretions. Medication will prevent new secretions being produced but will not remove secretions already present
- If there is a delay in commencing a syringe pump when appropriate, administer regular glycopyrronium 200 micrograms 2-4 hourly until syringe pump available
- Alternative antimuscarinic drugs can be used according to local guidelines, e.g. hyoscine butylbromide (Buscopan®) 20mg SC 2-4 hourly *when required* and/or 60-120mg CSCI over 24 hours
- Troublesome respiratory secretions maybe most upsetting for family and those close to the patient. Discussions of these symptoms with them is important
- Palliative treatment with antibiotics maybe appropriate if they are likely to help reduce purulent secretions and increase the comfort of the patient
- A conscious patient treated with these drugs will be aware of an uncomfortably dry mouth



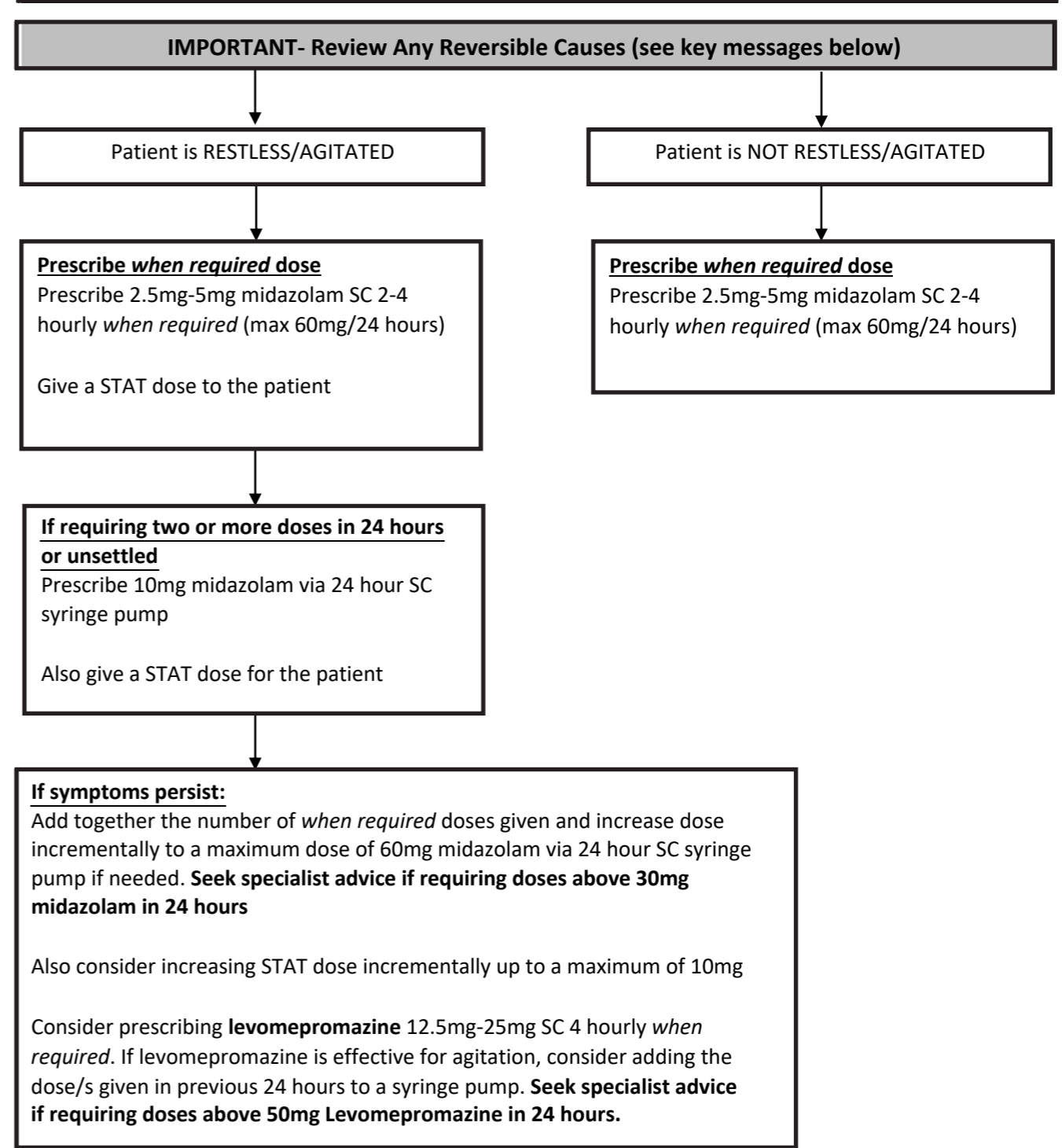
**NAUSEA & VOMITING**  
(In end of life patients unable to take oral medication)



**KEY MESSAGES- NAUSEA AND VOMITING**

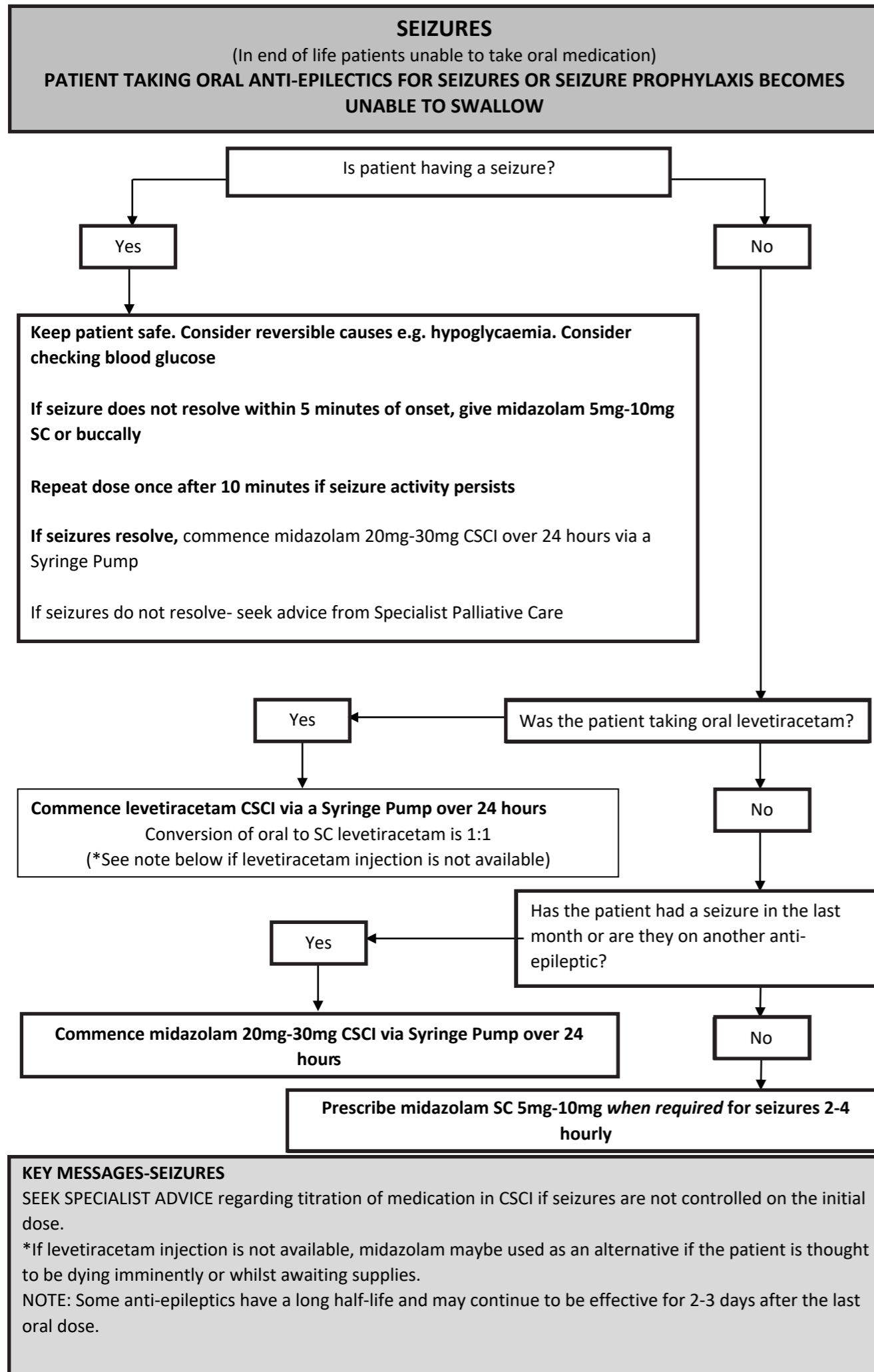
- **If cause of nausea and vomiting is known-** Use back pages of Blue Booklet or local palliative care guidelines to aid choice of antiemetic based upon likely cause. Prescribe *when required* doses of suitable SC antiemetic as per guidelines. Give a STAT dose to the patient
- **If cause of nausea and vomiting is known and if symptoms persist-** Add together the number of *when required* doses given and give this via 24 hour SC syringe pump. Consider increasing the dose in the pump up to the recommended maximum. Consider additional or alternative antiemetic if limited benefit from initial choice of antiemetic. Seek specialist advice as needed
- If current antiemetic is effective covert this to the SC route using back pages as guidance. If it is not effective or the patient is not on regular antiemetic then prescribe the anticipatory levomepromazine and continue with the algorithm
- If nausea and vomiting still a problem at maximum dose seek specialist advise

**RESTLESSNESS & AGITATION**  
(In end of life patients unable to take oral medication)



**KEY MESSAGES- RESTLESSNESS AND AGITATION**

- Document that reversible causes of agitation have been considered (pain, constipation, urinary retention, overheating, infection and nicotine withdrawal) and manage as appropriate
- Where possible address physical, psychological, spiritual and environmental (e.g. light and noise) factors
- **Note:** Be aware of the risk of paradoxical agitation with midazolam. This is more common at higher doses. Seek specialist advice
- **For guidance on renal impairment please refer to Back Pages**



**Starting Dose Guidance for Adults in the Last Days of Life**

<p><b>It is recommended that anticipatory medications are available at home for patients with an estimated prognosis of less than 3 months. <u>Prescribe 10 ampoules each of:</u> an opioid, midazolam, an antiemetic, glycopyrronium and water for injection 10ml (diluent).</b></p>	
<p><b>PAIN</b> Please seek specialist advice if concerned re opiate toxicity</p>	<p><b>MORPHINE</b> 1<sup>st</sup> line <b>USE:</b> ANALGESIA/DYSPNOEA <b>SC DOSING:</b> If opioid naïve; 2.5mg-5mg 2-4hourly when required or 10mg over 24 hours via a syringe pump (consider a lower starting dose e.g. 5mg over 24 hours, if frail or renal impairment). <b>PRESCRIBING INFORMATION:</b> Max bolus at 1 site=60mg/2ml, therefore doses of greater than 360mg in a syringe pump may require switch to diamorphine. Available as: 10mg/ml, 15mg/ml, 30mg/ml all 1ml size amps. Pack size 10. <b>OXYCODONE</b> 2<sup>nd</sup> line (if morphine allergy or eGFR &lt;30ml/min) <b>USE:</b> ANALGESIA/DYSPNOEA <b>SC DOSING:</b> If opioid naïve; 2.5mg 2-4hourly when required or 5-10mg over 24 hours via syringe pump. <b>COMPATIBILITY ISSUES (not exhaustive):</b> At higher concentrations may be incompatible with cyclizine. <b>PRESCRIBING INFORMATION</b> Available as: 10mg/1ml, 20mg/2ml, 50mg/1ml amps. Pack size 5.</p>
<p><b>NAUSEA &amp; VOMITING</b> First determine the cause of the nausea to guide prescribing choice</p>	<p><b>DIAMORPHINE</b> 2<sup>nd</sup> line (if volume of morphine unsuitable for administration) <b>USE:</b> ANALGESIA/DYSPNOEA <b>SC DOSING:</b> if opioid naïve; 2.5mg 2-4hourly when required or 5-10mg over 24 hours via syringe pump. <b>COMPATIBILITY ISSUES (not exhaustive):</b> At higher concentrations may be incompatible with cyclizine. <b>PRESCRIBING INFORMATION</b> Available as: 5mg, 10mg, 30mg, 100mg, 500mg amps. Pack size 5. Due to high solubility may be dissolved in small volumes of water for injection. <b>LEVOMEPRIMAZINE</b> 1<sup>st</sup> line if unknown cause <b>USE:</b> NAUSEA &amp; VOMITING. Useful as broad-spectrum or if sedation is desired. <b>SC DOSING:</b> 6.25mg-12.5mg 4 hourly when required or 6.25mg over 24 hours via syringe pump. Max 25mg over 24 hours. Seek specialist advice if requiring higher doses <b>USE:</b> TERMINAL AGITATION (2<sup>nd</sup> line after midazolam - NB if myoclonus present start with midazolam). <b>SC DOSING:</b> starting dose 12.5mg-25mg 4 hourly when required. Maintain with 50-200mg over 24 hours via a syringe pump. Seek specialist advice if requiring doses above 50mg Levomepromazine in 24 hours. <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Caution in Parkinson's disease, epilepsy (can lower seizure threshold) and Lewy Body Dementia. Caution in ambulant patients as can cause sedation/postural hypotension. <b>COMPATIBILITY ISSUES (not exhaustive):</b> Can turn purple in UV light – discard. To reduce likelihood of inflammatory reaction at the skin infusion site, dilute CSCI to the largest practical volume and consider the use of Sodium Chloride 0.9% as the diluent. <b>PRESCRIBING INFORMATION:</b> 12.5mg orally approx. equal to 6.25mg subcutaneously. Prescribe as: 25mg/1ml amps. Pack size 10. Can give in syringe pump over 24hours or as a once daily at night SC dose.</p>
	<p><b>CYCLIZINE</b> <b>USE:</b> NAUSEA &amp; VOMITING. Useful for cerebral irritation, vertigo, raised intracranial pressure. <b>SC DOSING:</b> 50mg 4 hourly max three times a day when required or 100mg-150mg over 24 hours via syringe pump. Max 150mg over 24 hours (or 200mg to include 150mg in a 24 hour syringe pump plus a stat dose of 50mg). <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Caution in severe CCF (consider an alternative choice). <b>COMPATIBILITY ISSUES (not exhaustive):</b> Dilute to maximum volume with water for injection. Incompatible with sodium chloride. At usual doses incompatible with hyoscine butylbromide. May be incompatible at higher concentrations with alfentanil, diamorphine and oxycodone (check references before prescribing). <b>PRESCRIBING INFORMATION:</b> Constipating. Prescribe as: 50mg/1ml amps. Pack size 5.</p>
	<p><b>HALOPERIDOL</b> <b>USE:</b> NAUSEA &amp; VOMITING Useful for biochemical disturbance (drug, metabolic, toxic) / AGITATED DELIRIUM <b>SC DOSING:</b> starting dose 0.5mg-1.5mg 4 hourly when required or 1.5mg-5mg over 24 hours via syringe pump (usual max total dose in 24 hours is 5mg, seek specialist advice if requiring up to 10mg). <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Avoid in Parkinson's disease. Caution in epilepsy (can lower seizure threshold). <b>PRESCRIBING INFORMATION:</b> Can give in syringe pump over 24 hours or as once daily SC dose. Prescribe: 5mg/1ml amps. Pack size 5 or 10.</p>
	<p><b>METOCLOPRAMIDE</b> <b>USE:</b> NAUSEA &amp; VOMITING Useful for gastric stasis, reflux, "squashed stomach", ascites. <b>SC DOSING:</b> starting dose 10mg 6 hourly (max three times a day) when required or 30mg above 24 hours via syringe pump. Usual max total dose in 24 hours is 60mg. Seek specialist advice if dose above 30mg over 24 hours. <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Avoid in GI obstruction, perforation or haemorrhage, history of neuroleptic syndrome or metoclopramide-induced tardive dyskinesia, epilepsy, Parkinson's, caution in age &lt;20years. Risk of extrapyramidal side-effects. <b>PRESCRIBING INFORMATION:</b> Max bolus at 1 site = 10mg/2ml. Prescribe as: 10mg/2ml amps. Pack size 10.</p>

<p><b>AGITATION</b> NB Levomepromazine can also be used – see above</p>	<p><b>MIDAZOLAM</b></p>	<p><b>USE:</b> AGITATION/RESTLESSNESS (1st line) or DYSPNOEA (2ND Line). <b>SC DOSING:</b> starting dose 2.5mg-5mg 2-4 hourly when required or 10mg over 24 hours via syringe pump. Max 5mg-10mg when required or 60mg over 24 hours via syringe pump. Consider adding anti-psychotic drug before increasing above 30mg over 24 hours. Seek specialist advice if requiring higher doses. Paradoxical agitation/aggression may occur at higher doses. <b>USE:</b> CATASTROPHIC TERMINAL EVENT e.g. HAEMORRHAGE DOSING: IM or buccal route (more effective than S/C route) 5mg-10mg titrated to requirements. Max 30mg per episode. Prescribe if patient at risk. <b>PRESCRIBING INFORMATION:</b> Max bolus dose at one site = 10mg/2ml. Prescribe as: 10mg/2ml amps. Pack size 10.</p>
<p><b>EXCESSIVE RESPIRATORY TRACT SECRETIONS</b></p>	<p><b>GLYCOPYRRONIUM</b></p>	<p><b>USE:</b> EXCESSIVE RESPIRATORY TRACT SECRETIONS (1st line)/anti-spasmodic <b>SC DOSING:</b> 200 microgram 2-4 hourly when required or start 600 microgram over 24 hours via syringe pump. Max 1200 microgram over 24 hours. <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Caution in CCF/IHD/tachycardia (infusion via syringe pump preferable to bolus doses) <b>PRESCRIBING INFORMATION:</b> Available as 200mcg/1ml amps, 600mcg/3ml amps. Pack size 10.</p>
	<p><b>HYOSCINE BUTYLBROMIDE</b></p>	<p><b>USE:</b> EXCESSIVE RESPIRATORY TRACT SECRETIONS (2nd line if glycopyrronium unavailable). <b>SC DOSING:</b> 20mg 2-4 hourly when required or start 60mg over 24 hours via syringe pump. Max 120mg over 24 hours. <b>CONTRAINDICATIONS &amp; DOSE ADJUSTMENTS:</b> Caution in CCF/IHD/tachycardia (infusion via syringe pump preferable to bolus doses). <b>COMPATIBILITY ISSUES: (not exhaustive):</b> At normal doses incompatible with cyclizine. <b>PRESCRIBING INFORMATION:</b> Prescribe as 20mg/1ml amps. Pack size 10.</p>
<p><b>SEIZURES</b></p>	<p><b>LEVETIRACETAM</b></p>	<p><b>USE:</b> ANTI-CONVULSANT. <b>SC DOSING:</b> if already prescribed oral levetiracetam &amp; now unable to swallow, commence levetiracetam via a syringe pump over 24 hours. Conversion of oral to SC dose is 1:1 (see seizure algorithm) <b>PRESCRIBING INFORMATION:</b> Use separate syringe pump. Dilute with WFI or sodium chloride 0.9%. Prescribe as: 500mg/5mls. Pack size 10.</p>
	<p><b>MIDAZOLAM</b></p>	<p><b>USE:</b> ANTI-CONVULSANT. <b>SC DOSING:</b> Starting dose 5-10mg when required &amp; 20-30mg over 24 hours via syringe pump. Maximum 60mg/24hrs. Seek specialist advice if requiring higher doses. <b>PRESCRIBING INFORMATION:</b> Max bolus at 1 site = 10mg/2ml. Prescribe as 10mg/2ml amps. Pack size 10.</p>
<p><b>FURTHER INFORMATION</b> Consider need for specialist input in severe liver and renal impairment</p>	<p><b>SYRINGE PUMP</b></p>	<p><b>PRESCRIBING INFORMATION:</b> Consider if the patient is unable to swallow or has nausea/vomiting. It is best practice to prescribe at point of need. Always prescribe a DILUENT. Use water for injection 1st line. 10ml amps. Pack size 10. Sodium Chloride 0.9% is less irritant but may be incompatible with some drugs e.g. cyclizine or diamorphine. Maximum volumes in syringe pump: If using a McKinley T34 or Bodyguard T: approx. 17mls in a 20ml luer lock syringe or approx. 22mls in a 30 ml luer lock syringe. Patients on transdermal opioids: Continue to use and change patch as before, adding only the additional analgesia required to the syringe pump. Take both patch and syringe pump into account when calculating breakthrough doses. <b>COMPATIBILITY ISSUES:</b> For further information contact local hospital's medicines information dept or 24 hour hospice advice line.</p>
	<p><b>RENAL DYSFUNCTION</b> (If eGFR known)</p>	<p><b>MORPHINE/DIAMORPHINE:</b> If eGFR 30-50ml/min use 75% of normal starting dose or oxycodone may be better tolerated. If eGFR &lt;30ml/min suggest oxycodone or opioid with no active metabolite e.g. alfentanil (seek specialist advice). <b>OXYCODONE:</b> eGFR 10-50ml/min use 75% of normal starting dose e.g. 1-2mg 4 hourly when required. If eGFR &lt; 10ml/min use 50% of normal starting dose or opioid with no active metabolite e.g. alfentanil (seek specialist advice). <b>LEVOMEPRIMAZINE:</b> eGFR &lt;10ml/min use lower starting dose e.g. 5mg at night, lower doses e.g. 2.5-3mg may be sufficient. <b>HALOPERIDOL:</b> eGFR &lt;10ml/min use lower starting dose e.g. 0.5mg-1mg. <b>MIDAZOLAM:</b> eGFR &lt; 10ml/min use lower starting dose e.g. 2.5mg, monitor for accumulation</p>
	<p><b>LIVER DYSFUNCTION</b> Indicators of severe: Bilirubin&gt;100µmol/L Encephalopathy Ascites Raised INR/PT</p>	<p><b>MORPHINE/DIAMORPHINE:</b> mild: use lower starting dose, moderate/severe: use lower starting dose and increase dosing interval. <b>OXYCODONE:</b> mild: use lower starting doses e.g. 1-2mg 4 hourly when required, moderate/severe: avoid if possible. <b>LEVOMEPRIMAZINE AND HALOPERIDOL:</b> use lower starting doses and titrate slowly. <b>METOCLOPRAMIDE:</b> severe: start with 5mg twice daily, recommended maximum of 10mg twice daily. <b>MIDAZOLAM:</b> start with low dose e.g. 2.5mg, monitor for accumulation</p>
<p><b>Further advice:</b> See contact details on front page. To access further information/guidance go to the ePaige website <a href="http://www.cheshire-epaige.nhs.uk">www.cheshire-epaige.nhs.uk</a> List of pharmacies out of hours who stock palliative medicines can be found on <a href="https://cpcw.org.uk/cheshire-east/pall-care/">https://cpcw.org.uk/cheshire-east/pall-care/</a> and <a href="https://cpcw.org.uk/cwac/pc-cwac/">https://cpcw.org.uk/cwac/pc-cwac/</a></p>		