

Guidance for the Management of Symptoms in Adults in the Last Days of Life

This guidance provides recommendations to healthcare professionals on managing commonly experienced symptoms at the end of life.

The focus of this guidance is on administration by subcutaneous (SC) injection and SC syringe pump over 24 hours, recognising that the dying person may be unable to take or tolerate oral medicines. It includes the management of the following five symptoms:

Pain

Breathlessness

Nausea and vomiting

Anxiety, delirium and agitation

Noisy respiratory secretions

When it is recognised that a person may be entering the last days of life:

- Review their current medicines.
- Stop any prescribed medicines not providing symptomatic benefit or that may cause harm.
- Discuss and agree any medication changes with the dying person and those important to them (as appropriate).

Anticipatory prescribing by the subcutaneous route to cover the five symptoms above ensures a supply of medicines are available to relieve symptoms as soon as they occur.

- These recommendations are a GUIDE, and should be used as such. They may differ from other recommendations but have been chosen to reflect expert opinion, best evidence and safety.
- Users are advised to monitor patients carefully for side effects and response to treatment. Responsibility for the use of these recommendations lies with the healthcare professional(s) managing each patient.
- When prescribing, **always start with the lowest dose** in the range specified in this guide.
- Seek specialist advice in moderate to severe renal or hepatic impairment or those with complex needs.
- Consider the non-pharmacological management of symptoms at the end of life.

Further information is available from your Specialist Palliative Care Team, the Palliative Adult Network Guidelines (PANG) Book 2016 and at www.book.pallcare.info

Opioid Conversions Tables

- Refer also to HSC Guidance “Northern Ireland guidelines on converting doses of opioid analgesics for adult use 2018”.

Table 1. Opioid Conversions

PO (Oral) to PO
Oral Morphine to Oral Oxycodone - Divide by 2 Eg. 30mg Oral Morphine = 15mg Oral Oxycodone
Oral Codeine / Dihydrocodeine / Tramadol to Oral Morphine - Divide by 10 Eg. 240mg Oral Codeine = 24mg Oral Morphine
PO (Oral) to SC (Subcutaneous)
Oral Morphine to SC Morphine - Divide by 2 Eg. 30mg Oral Morphine = 15mg SC Morphine
Oral Morphine to SC Diamorphine - Divide by 3 Eg. 30mg Oral Morphine = 10mg SC Diamorphine
Oral Oxycodone to SC Oxycodone - Divide by 2 Eg. 10mg Oral Oxycodone = 5mg SC Oxycodone
Oral Morphine to SC Alfentanil - Divide by 30 Eg. 30mg Oral Morphine = 1mg SC Alfentanil
Alfentanil may be used in patients with severe renal impairment; seek specialist advice when necessary
SC (Subcutaneous) to SC
SC Morphine to SC Diamorphine – Divide by 1.5 Eg. 15mg SC Morphine = 10mg SC Diamorphine
SC Morphine to SC Oxycodone – Divide by 2 E.g. 20mg SC Morphine = 10mg SC Oxycodone Note this may differ from other available conversions

Table 2. Transdermal Patch Conversions

Fentanyl Patch eg. Mezolar®, Durogesic® Replace patch every 3 DAYS	
Fentanyl Patch (micrograms/hr)	Oral Morphine Dose over 24 hours (mg)
12	30-59
25	60-89
37	90-119
50	120-149
62	150-179
75	180-239
100	240-299
125	300-359
150	360-419
175	420-479
200	480-539
Buprenorphine Patch eg. Butec®, BuTrans® Replace patch every 7 DAYS	
Patch Strength (micrograms per hr)	Oral Morphine Dose over 24 hours (mg)
5	~10 - 12
10	~20 - 24
20	~40 - 48

Pain

Patient does not have pain or pain controlled by current prescription
(patient unable to take oral analgesia)

<p>No analgesia prescribed or PRN analgesia.</p> <p style="text-align: center;">↓</p> <p>Anticipatory prescribing</p> <p>Prescribe Morphine Sulfate 2mg – 5mg SC 2-4hourly PRN</p> <p style="text-align: center;">AND</p> <p>Review after 24 hours. If patient has required 2 or more doses consider prescribing up to this total of Morphine Sulfate dose by SC syringe pump over 24 hours.</p> <p>In moderate/severe renal or hepatic impairment consider an alternative opioid.</p>	<p>Already on regular “weak” opioid (max dose) e.g. Co-codamol 30/500, Tramadol</p> <p style="text-align: center;">↓</p> <p>Stop current oral analgesia.</p> <p style="text-align: center;">AND</p> <p>Prescribe Morphine Sulfate 10mg-15mg by SC syringe pump over 24hrs.</p> <p style="text-align: center;">AND</p> <p>Prescribe Morphine Sulfate 2mg SC 2-4hourly PRN for breakthrough pain*</p>	<p>Already on Oral Morphine Sulfate or other opioid (see Table 1)</p> <p style="text-align: center;">↓</p> <p>Use conversion Table 1 to change from total daily oral Morphine Sulfate to SC Morphine Sulfate or other opioid. Prescribe by SC syringe pump over 24 hours.</p> <p style="text-align: center;">AND</p> <p>Prescribe breakthrough analgesia* i.e. divide total Morphine Sulfate or other opioid dose by 6 and give 2-4 hourly PRN</p>	<p>Already on Fentanyl or Buprenorphine patch (See Table 2)</p> <p style="text-align: center;">↓</p> <p>Continue prescribing patch</p> <p style="text-align: center;">AND</p> <p>Use conversion Table 2 and prescribe SC Morphine Sulfate for breakthrough pain* 2-4 hourly.</p>
---	--	---	--

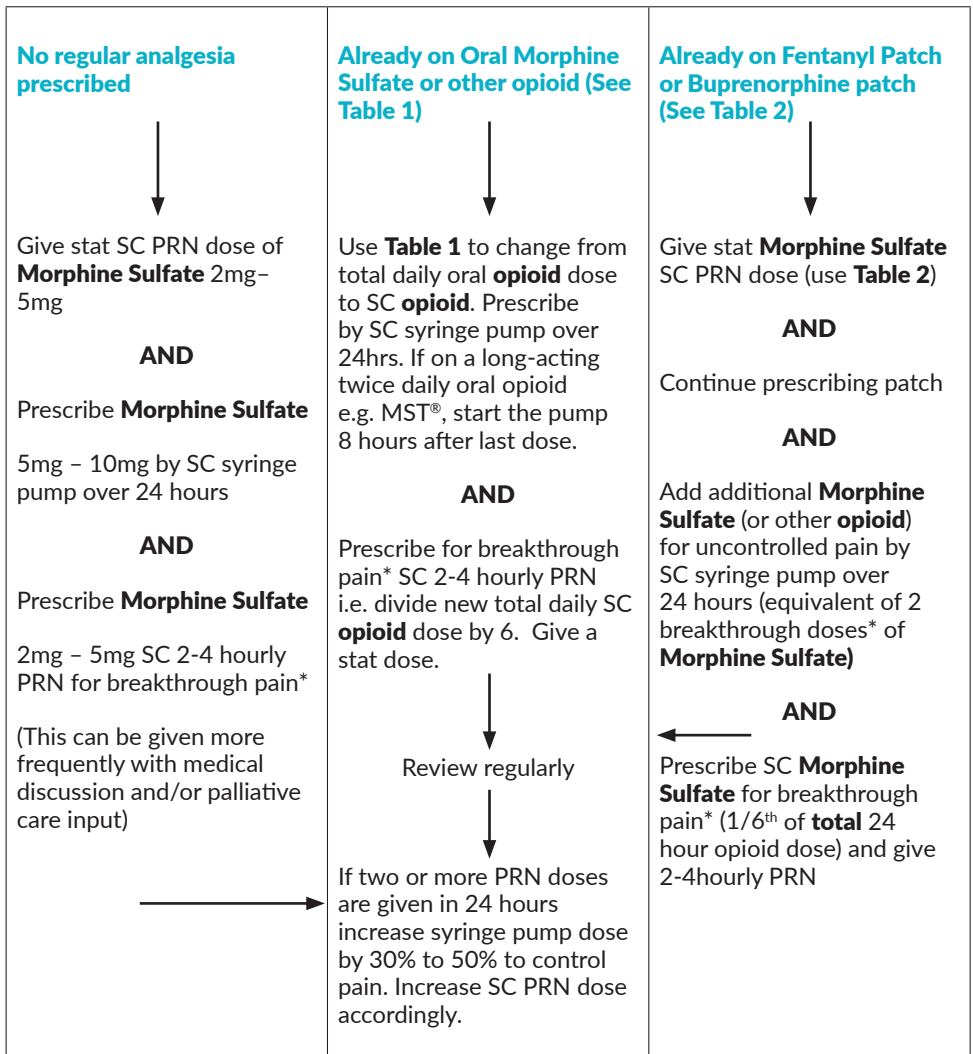
- **Morphine Sulfate** is the first line choice of strong opioid in non-specialist settings.

Recommended strengths and pack size to prescribe	
Morphine Sulfate 10mg/ml injection	Pack of 10
Morphine Sulfate 30mg/ml injection	Pack of 10

* Breakthrough analgesia is usually worked out as 1/6th of the total 24 hour opioid dose, but can also be given as 1/10th of the total 24 hour opioid dose. Refer to BNF “Prescribing in Palliative Care” section.

Pain

Patient currently experiencing pain
(patient unable to take oral analgesia)



* Breakthrough analgesia is usually worked out as 1/6th of the total 24 hour opioid dose, but can also be given as 1/10th of the total 24 hour opioid dose. Refer to BNF “Prescribing in Palliative Care” section.

Nausea and Vomiting

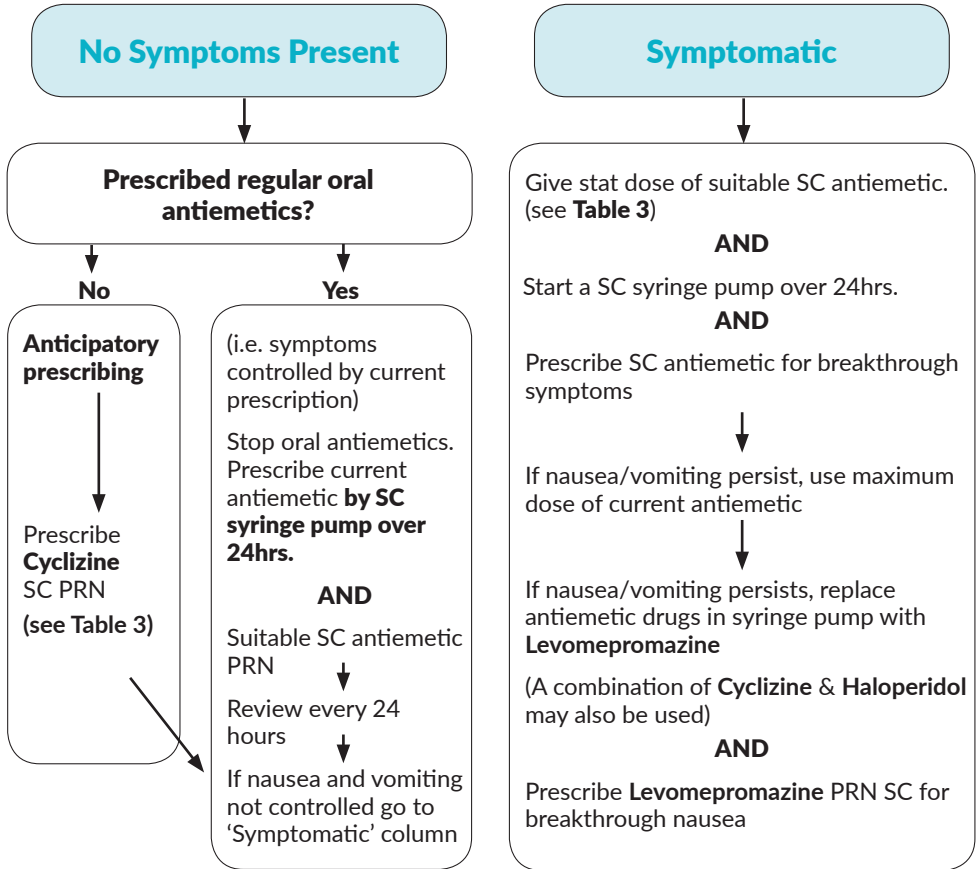
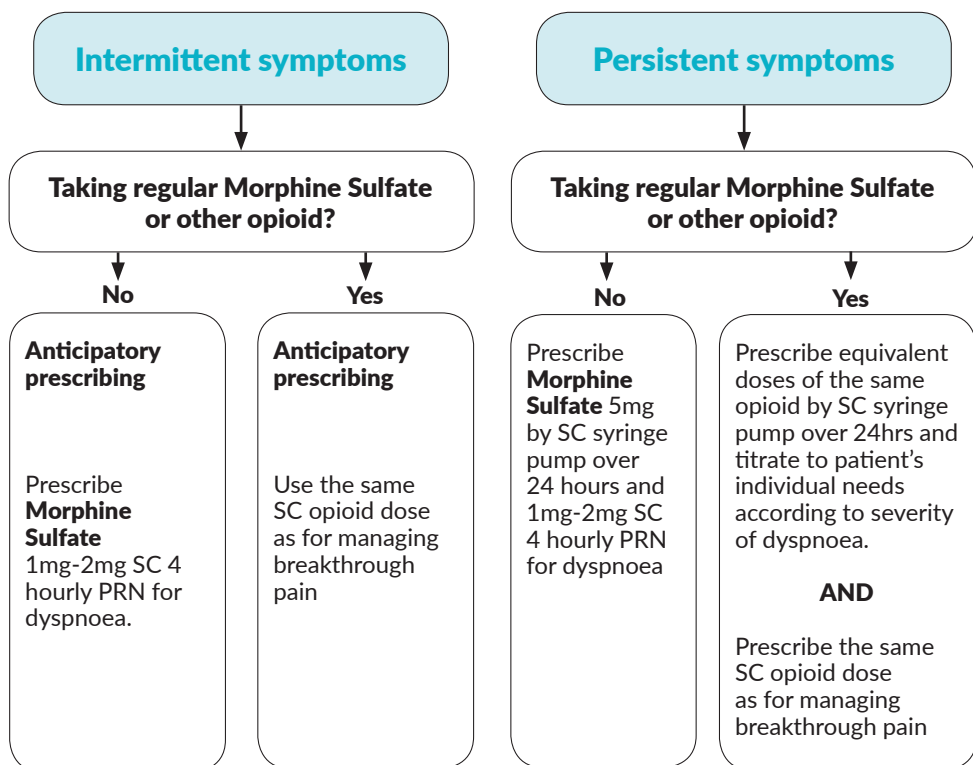


Table 3. Choice of Antiemetic**Lower doses are indicated in severe renal or hepatic impairment**

	Drug	Indications for Use	SC stat PRN dose	SC 24 hour dose	Strength and Pack size
1st line	Cyclizine	Non-specific nausea & vomiting Mechanical bowel obstruction. Raised intracranial pressure	50mg every 8 hours PRN	100mg - 150mg	50mg injection Pack of 5
	Haloperidol	Chemical/ Metabolic causes.	500 micrograms - 1mg every 6 - 8 hours PRN	1.5mg *	5mg/ml injection Pack of 10
	Metoclopramide	Partial mechanical bowel obstruction Gastric stasis (Prokinetic antiemetic - discontinue if colic develops).	10mg every 6 - 8 hours PRN (max TDS)	30mg *	10mg/2ml injection Pack of 10
2nd line	Levomepromazine	Broad spectrum antiemetic Sedation at high doses	5mg every 4 - 6 hours PRN	5mg - 25mg	25mg/ml injection Pack of 10
3rd line	Ondansetron	Intractable vomiting due to chemical, abdominal and cerebral causes when above approaches fail	4mg - 8mg every 6 - 8 hours PRN	8mg - 24mg	4mg or 8mg injection Pack of 5
*Higher doses may be used in specialist practice.					

Breathlessness



- For patients on other opioids use Table 1 for opioid conversions and use guidance as above
- For patients who are conscious and can tolerate oral medicines consider oral opioid in a dose equivalent to the SC doses recommended above.
- Oxygen is only indicated for patients who are hypoxic.

If patient is breathless AND anxious, consider:

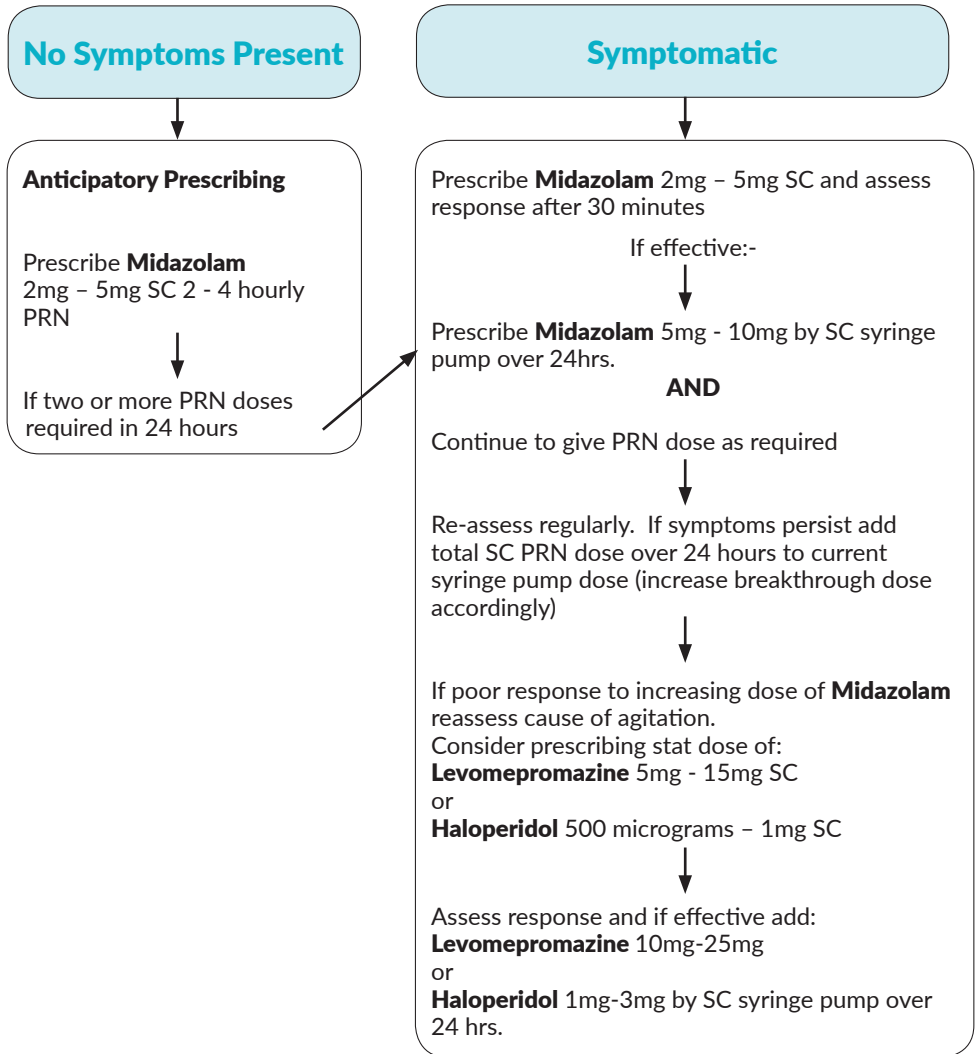
Midazolam 2mg SC PRN and/or **Midazolam** 5mg-10mg via SC syringe pump over 24 hours. If tolerating oral medicines consider **Lorazepam** tablets 500 micrograms sublingually 4-6 hourly PRN.

Recommended strengths and pack size to prescribe

Morphine Sulfate 10mg/ml injection	Pack of 10
Midazolam 10mg/2ml injection	Pack of 10. Preferred strength to use in palliative care to provide low volume SC injections
Lorazepam 1mg tablets	Pack of 28. Annotate 'Genus brand' as this preparation dissolves more easily sublingually than other brands

Anxiety, Delirium and Agitation

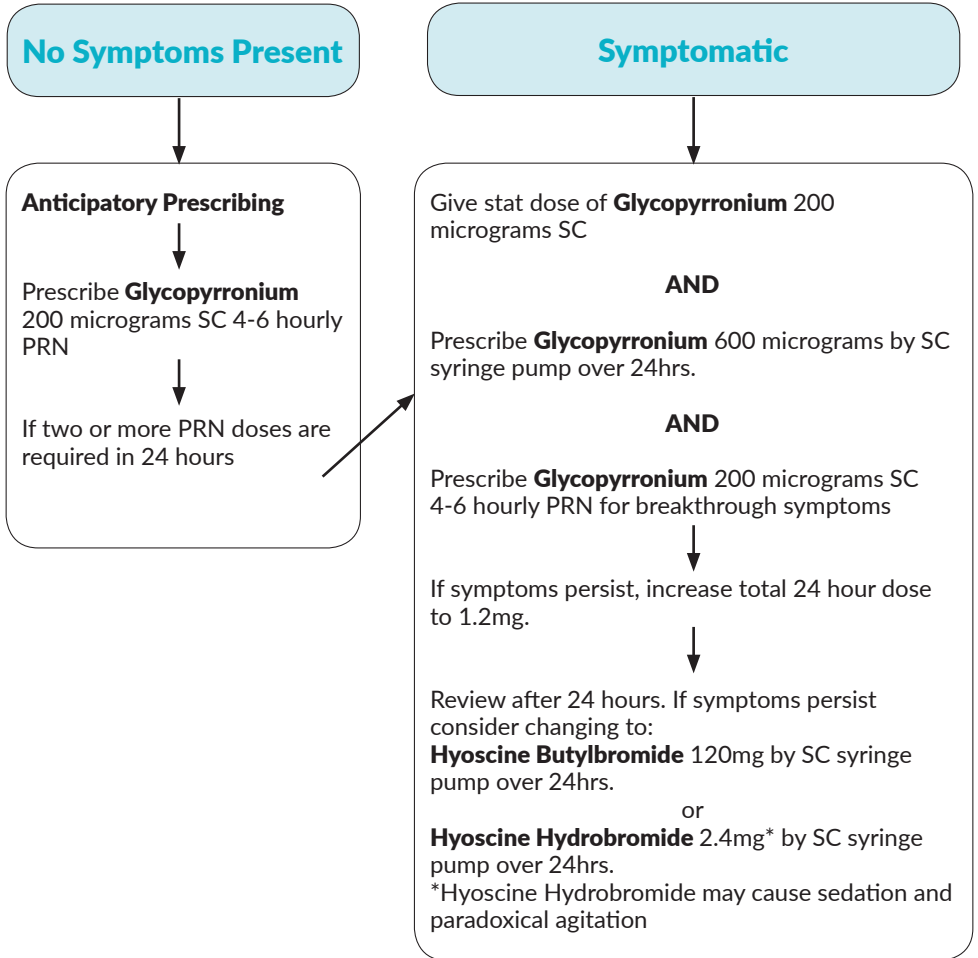
Assess the patient first to exclude potentially reversible and treatable causes such as pain, drug withdrawal including nicotine, urinary retention or severe constipation.



Recommended strengths and pack size to prescribe	
Midazolam 10mg/2ml injection	Pack of 10. Preferred strength to use in palliative care to provide low volume SC injections
Levomepromazine 25mg/ml injection	Pack of 10
Haloperidol 5mg/ml injection	Pack of 10

Noisy Respiratory Secretions

Review the use of intravenous or subcutaneous fluids and decrease or discontinue if appropriate.



Recommended strengths and pack size to prescribe	
Glycopyrronium Bromide 200 micrograms/ml injection	Pack of 10
Hyoscine Butylbromide 20mg/ml injection	Pack of 10
Hyoscine Hydrobromide 400 micrograms/ml injection	Pack of 10

