

# **PALLIATIVE CARE PAIN & SYMPTOM CONTROL GUIDELINES FOR ADULTS**

**FOR STAFF PROVIDING  
GENERALIST PALLIATIVE CARE**

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Greater Manchester and Eastern Cheshire  
Strategic Clinical Networks

**Fifth edition**



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# INTRODUCTION

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This is the fifth edition of the Greater Manchester and Eastern Cheshire Strategic Clinical Networks Palliative Care Pain and Symptom Control Guidelines. The level of detail provided is designed to meet the needs of generalist staff caring for palliative care patients in all settings i.e. hospital, community and care homes. Those working in Specialist Palliative Care are advised to consult the Palliative Care Formulary 6th Edition (PCF6) and local specialist guidelines for more detailed symptom management information.

The guidelines cover the management of particular symptoms and situations which palliative care patients may experience, as well as end of life care for patients with an advanced progressive illness. They should be used in conjunction with other national and regional formularies and guidelines, for example:

- British National Formulary (BNF).
- Greater Manchester Medicines Management Group Formulary or Central and Eastern Cheshire Medicines Management Team Formulary.
- Relevant National Institute for Health and Care Excellence (NICE) guidance.

# GENERAL PRINCIPLES OF SYMPTOM MANAGEMENT IN PALLIATIVE CARE

Good palliative care is not just about supporting someone in the last months, days and hours of life, but about enhancing the quality of life for patients and those close to them at every stage of the disease process from diagnosis onwards. A palliative care approach should be considered alongside active disease management from an early stage in the disease process. Palliative care focuses on the person, not the disease, and applies a holistic approach to meeting the physical, practical, functional, social, emotional and spiritual needs of patients and carers facing progressive illness and bereavement.

The guidelines provide information about the general approach to managing a symptom or situation. **However, management must be individualised according to the needs of the particular patient.**

## Effective symptom management includes:

- **Evaluation** – e.g. the cause of the symptom, its impact on the patient's life and the treatments tried already.
- **Explanation** – to the patient and those close to them about the cause of the symptom and options for treating it.
- **Management** – individualised to the particular patient. Treat any reversible causes, use non-drug treatments where available, keep drug treatment as simple as possible, seek advice when necessary.
- **Monitoring** – review the impact of treatment regularly, paying attention to detail.

(Ref: *Scottish Palliative Care Guidelines, Symptom Management in Advanced Cancer*)

## SEEKING SPECIALIST ADVICE

Throughout the guidelines there are numerous recommendations to seek specialist advice. For advice or further information, please contact your local hospice or Specialist Palliative Care Team.

## Use of medications outside their marketing authorisation (formerly known as product licence).

Many drugs are used in palliative care outside their marketing authorisation at the prescriber's discretion. The inclusion of a drug, dose or treatment in these guidelines does not absolve the prescriber of their personal responsibility in providing treatment that they are confident with, can justify and that is tailored to the individual patient. For details of authorised indications see the current BNF.

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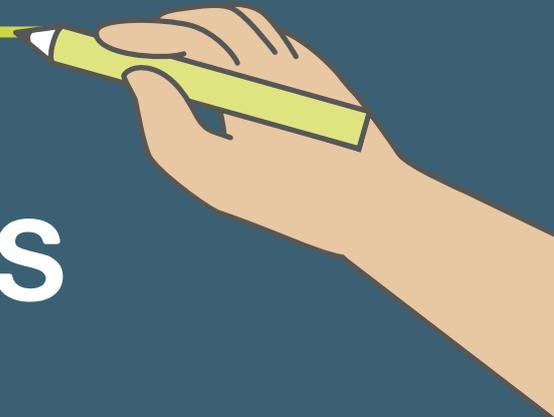
**Acknowledgements:** All colleagues working in Specialist Palliative Care who have contributed to previous editions of the guidance.



# SECTION 1

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# SPECIFIC SYMPTOMS



# PAIN

## 1. Pain assessment

- Good assessment is vital for effective management.
- Many palliative care patients have more than one pain.
- Assess each pain separately and if possible identify the likely cause of the pain.
- Pain may be constant or intermittent (breakthrough pain).

### Ask about:

- site and radiation - a body diagram can help
- character - a list of descriptive words may help
- onset, intensity and severity - a rating scale can help e.g. a numerical score where 0 = no pain and 10 = severe/overwhelming or a simple verbal rating scale – none/mild/moderate/severe
- timing and duration
- exacerbating factors
- relieving factors, including medication
- effect on function, sleep and mood
- response to previous medication and treatment
- associated symptoms.
- Consider using a structured pain assessment tool to record the patient's pain.
- Examine the patient to try and determine the cause of the pain(s), e.g. abnormal sensation, tender hepatomegaly.
- Assess the impact of the pain on the patient and family. Consider if other factors, such as emotional, psychological or spiritual distress, are having an effect on pain perception.
- Consider appropriate investigations to try and determine the cause of the pain.

### Common causes of pain

- **Disease related:** direct invasion by cancer, distension of an organ, pressure on surrounding structures:
  - bone pain: worse on pressure or stressing bone or weight bearing
  - nerve pain: burning, shooting, tingling, jagging, altered sensation, dermatomal distribution
  - spinal cord compression: back or spinal pain in a radicular “band-like” pattern
  - liver pain: hepatomegaly, right upper quadrant tenderness, referred pain in shoulder tip
  - raised intracranial pressure: headache, nausea or both, often worse in the morning or with lying down
  - colic: intermittent cramping pain. Consider bowel obstruction, bladder spasm.
- **Treatment-related:** chemotherapy neuropathy, constipation due to opioids, radiation-induced mucositis.
- **Debility:** pressure sores, severe cachexia, oral candidiasis.
- **Other unrelated illnesses:** arthritis, osteoporosis, vascular disease, gastritis.

(Ref: *Scottish Palliative Care Guidelines*)

**Table 1: Common types of pain in palliative care patients and suggested management**

Pain	Examples	Character	Initial management	Adjuvants	Consider
<b>Deep somatic</b>	Bone metastases	Gnawing, aching. Worse on moving or weight bearing	WHO Ladder	NSAIDs gabapentin	Radiotherapy surgery; bisphosphonate
<b>Visceral</b>	Liver, lung, bowel	Sharp ache or deep, throbbing. Worse on bending or breathing.	WHO Ladder	Corticosteroid NSAIDs	Nerve Block; Surgery
<b>Neuro-pathic</b>	Nerve compression; Nerve damage; Bone metastases	Burning, shooting; sensory disturbance in affected area	WHO Ladder	Tricyclic antidepressant e.g. amitriptyline; anti-epileptic e.g. gabapentin/ pregabalin; SNRI e.g. duloxetine; Corticosteroid	Radiotherapy; TENS/PENS; Nerve block; Topical capsaicin
<b>Smooth muscle spasm</b>	Bowel obstruction; Bladder spasm	Deep, twisting, colicky (waves)	May be sensitive to opioid - variable	Anticholinergic - e.g. hyoscine butylbromide for bowel colic	Surgical relief of obstruction

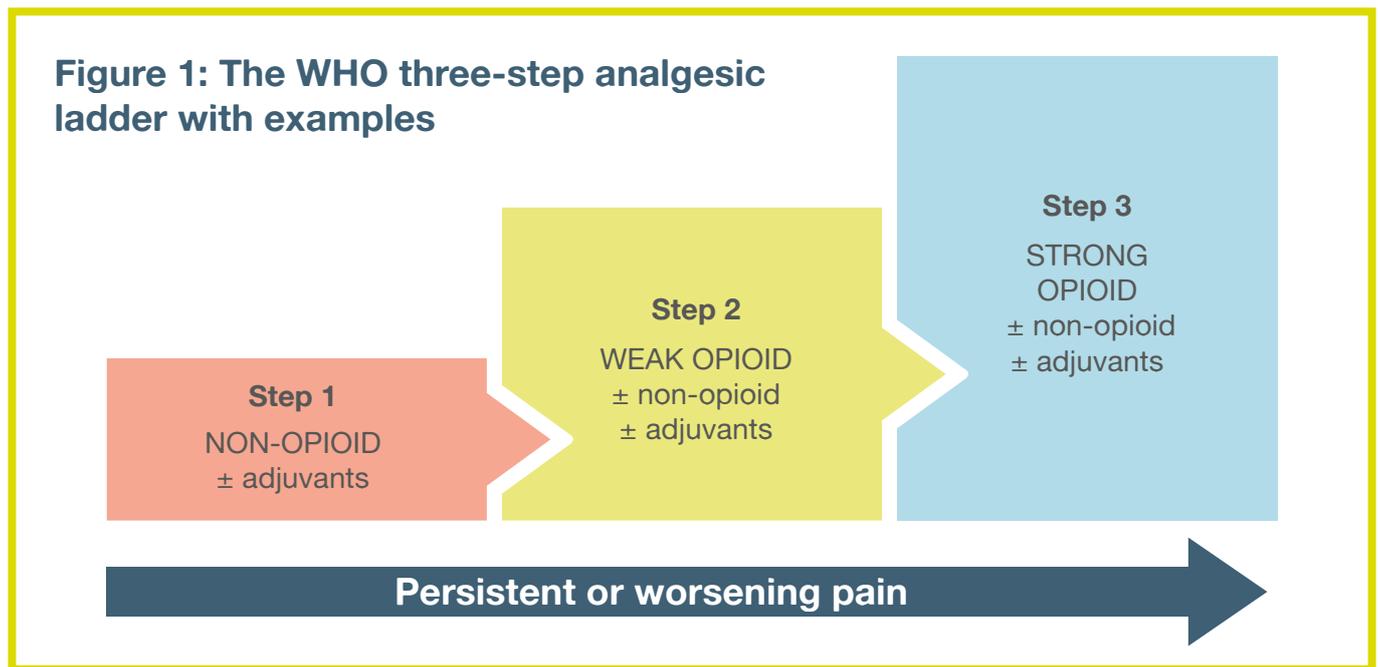
## 2. Pain management – general points

- Set realistic goals, e.g. pain-free overnight/at rest/on movement.
- Give patients and those close to them information and instructions about the pain and its management. Encourage them to take an active role in managing the pain.
- Review pain control regularly.
- Manage patient expectations regarding optimal pain management, as it may not be achievable for them to be pain-free at all times.
- Consider checking renal and liver function before initiating analgesics, if no recent blood results are available.

### 3. Pain management - the WHO Analgesic Ladder

(Ref: WHO Guidelines for the Pharmacological and Radiotherapeutic Management of Cancer Pain In Adults and Adolescents, 2018)

- The WHO analgesic ladder provides a **general guide** to pain management based on pain severity. However, it does not replace the need for individualised management based on careful assessment of an individual patient’s pain.



**Table 2: Example of use of the WHO analgesic ladder**

Patient on no analgesics - mild pain

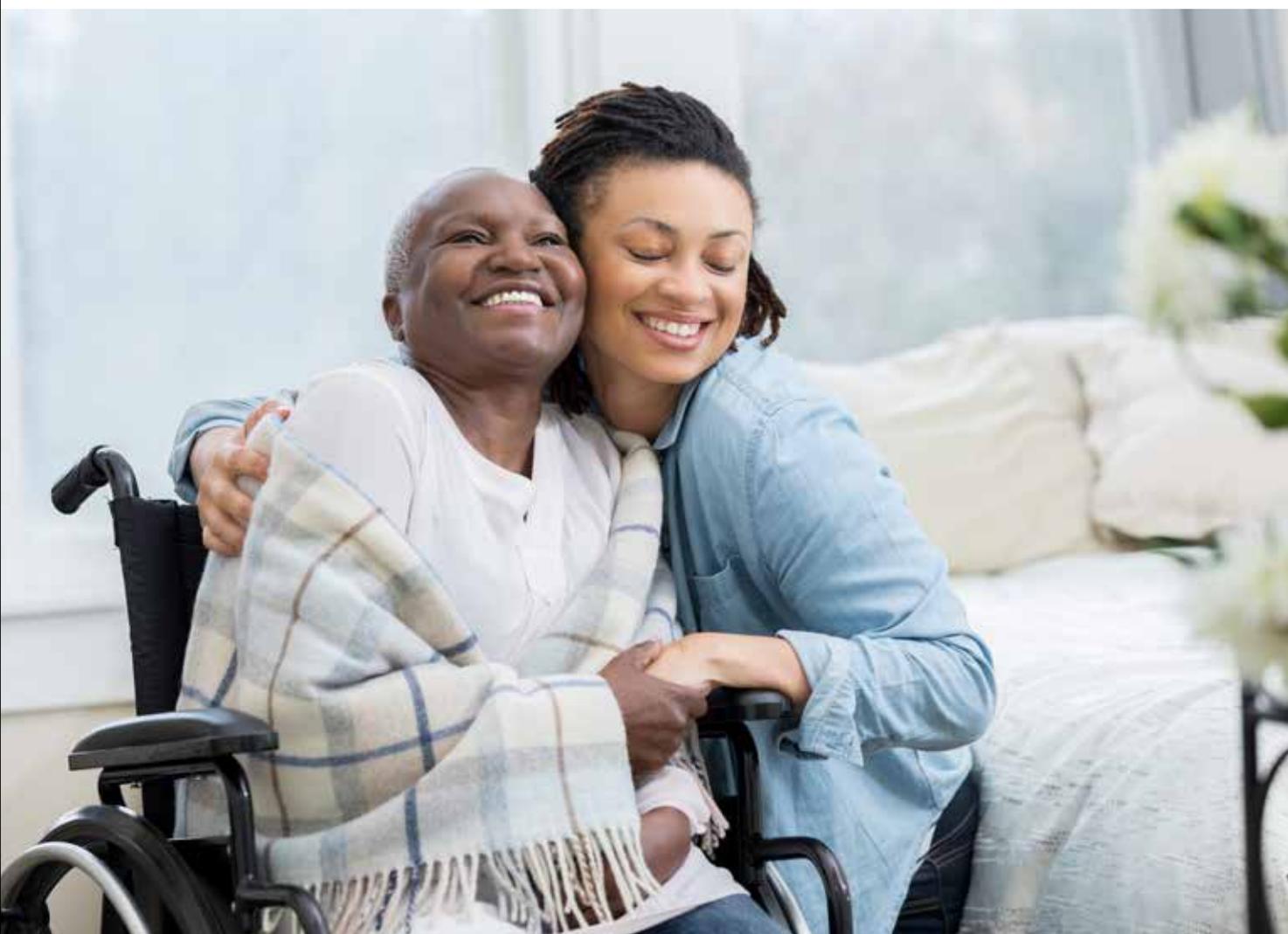
Example - Step 1	Example - Step 2	Example - Step 3
Start <b>regular</b> paracetamol <ul style="list-style-type: none"> <li>■ usual dose 1g four times a day, but dose reduction is advisable in many palliative care patients (see details below)</li> </ul> <b>and/or</b> NSAID e.g. ibuprofen, naproxen or celecoxib	If pain is persistent or worsening <ul style="list-style-type: none"> <li>■ stop paracetamol if not helping pain</li> <li>■ start codeine 30-60mg four times a day <b>regularly</b></li> </ul> (Step 2 may be omitted – see details below)	On maximum paracetamol and codeine, persistent or worsening pain <ul style="list-style-type: none"> <li>■ stop paracetamol if not helping pain</li> <li>■ <u>stop codeine</u></li> <li>■ commence strong opioid e.g. oral morphine (see details below)</li> </ul>

**Choice of initial analgesic should take into account the cause and severity of pain**

- For mild pain start at step 1.
- For moderate pain start at step 2 or step 3 (See section below re weak opioids).
- For severe pain, start at step 3.

**Table 3: Principles of analgesic use**

<b>By mouth</b>	Whenever possible, analgesics should be given by mouth.
<b>By the clock</b>	Doses of analgesic should be given at the appropriate regular time intervals, depending on the preparation and its duration of action.
<b>For the individual</b>	Management of an individual patient's pain requires careful assessment and a decision about appropriate treatment options.
<b>With attention to detail</b>	The first and last doses of the day should be linked to the patient's waking time and bedtime. Ideally, the patient's analgesic medicine regimen should be written out in full for patients and their families to work from and should include the names of the medicines, reasons for use, dosage and dosing intervals. Patients should be warned about possible adverse effects of each of the medicines they are being given.



## WHO Analgesic Ladder Step 1 – Non-opioids

### (i) Paracetamol (Ref PCF6)

- **Usual dosing** – For patients without risk factors for paracetamol hepatotoxicity, the standard regimen is 1g four times a day.
- **For patients with more than one hepatic risk factor (old age, weight less than 50kg, poor nutritional status, fasting/anorexia, chronic alcohol use)** – reduced dose of 500mg four times a day, increased if necessary to a maximum of 3g per day in divided doses, is advisable.
- **For patients with severe renal impairment (eGFR<10ml/min)** – reduce dose (maximum 3g/24hrs) (Ref PCF6). For further guidance see section on [Symptom Management in patients with Renal Impairment](#) ↗

### (ii) NSAIDs

NSAIDs are particularly useful when there is an inflammatory component to the pain. Options include:

- Ibuprofen 200-400mg three times a day.
- Naproxen 250-500mg twice daily may also be used.
- Celecoxib 100mg twice daily, increased if necessary to 200mg twice daily (Ref: PCF6).

For further guidance see section on [Adjuvant Analgesics](#) ↗

## WHO Analgesic Ladder Step 2 - Weak Opioids (Ref PCF6)

There is no pharmacological need for weak opioids and moving directly from a non-opioid to a strong opioid is increasingly preferred in palliative care. Morphine (or an alternative strong opioid) at low doses generally provides quicker and better relief from cancer pain than weak opioids.

If considering prescribing a weak opioid, be aware that:

- Codeine has to be converted to morphine in the body to achieve an analgesic effect. Poor metabolisers of codeine may not experience analgesia. Ultrarapid metabolisers may experience toxicity.
- Dihydrocodeine is an active substance so its effect is not dependent on metabolism.

[Also see Table 42 - Dose conversions of weak opioids to oral morphine](#) ↗

## WHO Analgesic Ladder Step 3 – Strong Opioids

**Morphine** is the strong opioid of choice for management of moderate to severe pain in palliative care patients, based on familiarity, availability and cost. The oral route is preferred as long as the patient has no problems with swallowing or absorption.

Other strong opioids are used mostly when:

- Morphine is not readily available.
- The patient has unacceptable side effects with morphine.
- The transdermal route is preferable.
- [The patient has severe renal impairment](#) ↗

(Ref: NICE Guideline CG140 Palliative care for adults: strong opioids for pain relief, PCF6)

## Factors to consider before prescribing strong opioids (Ref: PCF6)

There are generally no absolute contraindications to the use of strong opioids in palliative care patients with advanced progressive disease, provided the dose is titrated carefully against the patient's pain. However, for palliative care patients with a longer prognosis, the potential side effects of long-term opioids and their limited effectiveness in chronic pain should be taken into consideration when deciding whether a strong opioid is the best treatment option. [See Box 2 - Management of long-term pain in palliative care patients](#) <sup>↗</sup>

Due to reports of serious incidents and the potential for toxicity with strong opioids, diligent prescribing, dispensing, administration, monitoring and counselling is required to reduce the risk of error and/or confusion, particularly between:

- Immediate-release and modified-release products.
- Products with different durations of action, e.g. 12-hourly vs 24-hourly modified-release products, 7-day vs 3- or 4-day transdermal patches.
- Products with both low and high strength concentrates, e.g. oral solutions, injections.
- products with different bioavailabilities that are not interchangeable.

### Information to be given to patients and carers

- When considering starting strong opioids, ask the patient and their carers about any concerns they may have about opioids e.g. addiction, tolerance, side effects, or fears that treatment implies the final stages of life.

### Provide verbal and written information including:

- When and why strong opioids are used to treat pain.
- How effective they are likely to be.
- Taking strong opioids for background and breakthrough pain, addressing:
  - how, when and how often to take strong opioids
  - how long pain relief should last.
- Side effects and signs of toxicity.
- Safe storage.
- Follow-up and further prescribing.
- Information about who to contact out of hours, particularly during initiation of treatment.
- Information on strong opioids and driving (see *Box 1 below*).

### Box 1 - Driving whilst taking strong opioids

- Drivers are liable to prosecution if driving when impaired by drugs such as strong opioids, whether prescribed or illicit.
- Warn patients not to drive when starting or titrating strong opioids and other potentially sedating medications, or after taking a dose of strong opioid for breakthrough pain.
- Patients may drive when taking these medications once a stable dose is achieved, as long as they are not affected by drowsiness and not impaired by the disease itself.
- The police use roadside tests to look for illicit use of strong opioids and other drugs which may impair driving performance. **Advise patients to carry evidence to confirm that the medicines have been prescribed for them e.g. a repeat prescription.** (Ref: PCF6)
- See [www.gov.uk/drug-driving-law](http://www.gov.uk/drug-driving-law) for further information.

## Box 2 - Management of long-term pain in palliative care patients

1. Some patients with a palliative diagnosis have a long prognosis and may have pain for a number of years. For such patients, consideration must be given to the potential long-term side effects of any treatments they may be given.
2. There is particular concern about the use of opioids for chronic pain. The clinical evidence shows limited effectiveness and patient safety concerns due to the risks associated with long-term use of opioids such as fractures and falls, endocrine abnormalities, immunomodulation, opioid induced hyperalgesia and dependence.
3. Based on the clinical evidence Public Health England and the Faculty of Pain Medicine have advised:
  - Opioids are very good analgesics for acute pain and for pain at the end of life but there is little evidence that they are helpful for long term pain.
  - A small proportion of people may obtain good pain relief with opioids in the long term if the dose can be kept low and especially if use is intermittent (however it is difficult to identify these people at the point of initiation).
  - The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg/day, but there is no increased benefit.
  - If a patient is using opioids but is still in pain, the opioids are not effective and should be discontinued, even if no other treatment is available.
  - Chronic pain is very complex and if patients have refractory and disabling symptoms, particularly if they are on high opioid doses, a very detailed assessment of the many emotional influences on their pain is essential.
3. Drug treatments:
  - Should be reserved for when non-pharmacological therapies alone have failed.
  - Should be given on a trial basis initially.
  - Should only be continued with good objective evidence of improved function (not just pain perception).
4. The BNF advises that the prescriber has three main responsibilities:
  - To avoid creating dependence by introducing drugs to patients without sufficient reason.
  - To see that the patient does not gradually increase the dose of a drug, given for good medical reasons, to the point where dependence becomes more likely.
  - To avoid being used as an unwitting source of supply for addicts and being vigilant to methods for obtaining medicines.

For further guidance, refer to the GMMMG Opioid Prescribing for Chronic Pain Resource Pack <http://gmmmg.nhs.uk/docs/guidance/Final-Opioid-Resource-Pack-Approved-CSB-August-2018.pdf> or seek specialist advice.

**Commencing oral morphine** (Ref: PCF6)

- Patients can be started on either an immediate-release or a modified-release preparation.
- ALWAYS prescribe an immediate-release morphine preparation for breakthrough pain when prescribing regular morphine.
- The starting dose should usually be calculated to give a greater analgesic effect than the medication already in use, taking into account individual circumstances.
- The patient must be monitored closely, including for side effects. [See section on Management of opioid side effects](#)
- Always prescribe laxatives alongside strong opioids (usually a stimulant laxative unless contra-indicated).
- Depending on individual circumstances, an antiemetic should be prescribed for regular or p.r.n. use.

**Table 4 - Morphine preparations and recommended frequency**

Generic morphine	Dose intervals	Morphine brand names
<b>Immediate-release oral morphine</b> 10mg/5ml solution; 10mg, 20mg, 50mg tablets	4 hourly	<p>Refer to BNF for brands currently available.</p> <p><b>In Primary Care</b> – prescribe morphine preparations by brand name as modified-release preparations have different release characteristics and patient familiarity with one brand is important in ensuring safety. (Ref: GMMMG Generic Prescribing Guidelines v.1)</p> <p><b>In hospitals and hospices</b> – generic prescribing may be required if the unit does not stock the brand which the patient usually takes.</p>
<b>Immediate-release morphine concentrated oral solution*</b> 20mg/ml (only on specialist advice)	4 hourly	
<b>Modified-release oral morphine (12 hourly preparations)</b> 5mg, 10mg, 15mg, 30mg, 60mg, 100mg, 200mg tablets; 10mg, 30mg, 60mg, 100mg, 200mg capsules; 20mg, 30mg, 60mg, 100mg, 200mg granules	12 hourly	
<b>Modified-release oral morphine (24 hourly preparation)</b> 30mg, 60mg, 90mg, 120mg, 150mg capsules	24 hourly	
<b>Morphine injection</b> 1mg/ml, 10mg/ml, 15mg/ml, 30mg/ml*	4 hourly as breakthrough dose or over 24 hours subcutaneously via syringe pump	

\*NB. Concentrated preparations of morphine **must be used with caution**, as there are significant risks of overdose if a concentrate product is used in error for a normal strength product.

### Suggested starting doses of oral morphine

- **Patient opioid-naïve (except in frail/elderly/renal impairment)** – start oral morphine 5mg immediate-release 4 hourly or modified-release 15mg 12 hourly.
- **Patient opioid-naïve and frail/elderly** – start oral morphine 2.5mg immediate-release 4 hourly.
- **Patient previously receiving a regular weak opioid** (e.g. codeine 240mg/24h or equivalent – [see Appendix 1 – Opioid Conversion charts](#) <sup>↗</sup>) - start oral morphine 10mg immediate-release 4 hourly or modified-release 20–30mg 12 hourly, but less if suspected to be a poor metaboliser of codeine. In frail/elderly - use a lower starting dose of 5mg immediate-release 4 hourly or modified-release 10-15mg 12 hourly.
- **Patient with severe renal impairment** – morphine should be avoided if possible and an alternative strong opioid used instead - [see section on Symptom Management in Patients with Renal Impairment](#) <sup>↗</sup>

### Box 3 - Management of breakthrough pain

Breakthrough pain may occur either as a result of a predictable event (incident pain) e.g. on movement, or spontaneously without predictable precipitating factors. Some breakthrough pains are short-lived and resolve spontaneously, in which case the patient may not need to take breakthrough analgesia.

#### (i) Management of breakthrough pain other than incident pain

- An immediate-release strong opioid should be prescribed 2-4 hourly when required, up to a maximum of 6 doses in 24 hours. Where possible, the regular and “when required” opioid should be the same drug, e.g. morphine modified-release and immediate-release.
- Doses are typically 1/10 to 1/6 of the total daily regular dose, **but as with the regular dose, there is need to consider individual variation.**

#### Example – calculation of p.r.n. dose based on 1/6 of regular 24 hour dose

- Patient is taking morphine modified-release 30mg twice a day - the “when required” dose is 60 divided by 6 = 10mg 4 hourly when required.
- The “when required” dose should usually be increased when the regular dose is increased. If 3 or more “when required” doses are needed per day, consider a review of pain management. Seek specialist advice if necessary.

#### (ii) Management of incident pain

- Where possible, a predictable painful activity should be timed to coincide with the peak plasma concentration after a regular or “when required” dose of morphine. For example, a dose of immediate-release strong opioid could be given at least 30 minutes before the precipitant of the pain. If this is not effective, consider seeking specialist advice regarding alternative methods for managing incident pain.

### Titrating oral morphine dose

- When adjusting the dose of morphine, use of “when required” doses should be taken into account.
- Check with the patient that the morphine is effective before increasing the dose.
- Increments should not exceed 33-50% every 24 hours.

### Examples of dose titration

- Immediate-release oral morphine: 5→7.5→10→15mg 4 hourly.
- Modified-release oral morphine: 10→15→20→30mg twice a day.
- Upward titration of the dose of morphine should stop when either the pain is relieved or unacceptable side effects occur. In the latter case, switching to an [alternative strong opioid should be considered](#) (see page 19).
- If the patient was commenced on regular immediate-release morphine, once pain control is achieved consider conversion to modified-release morphine at the same 24-hour total dose.
- Consider seeking specialist advice if:
  - The dose of morphine has been titrated three times without achieving pain control.
  - The patient requires three or more “when required” doses per day.
  - The total daily dose of oral morphine exceeds 120mg over 24 hours.
  - The patient is experiencing unacceptable side effects.

### When the oral route is not available (e.g. patient is vomiting or unable to swallow)

- **If analgesic requirements are stable** - consider initiating transdermal patches. See sections on [Buprenorphine](#) and [Fentanyl](#).
- **If analgesic requirements are unstable** - consider initiating subcutaneous opioids (see below)  
(Ref: NICE Guideline CG140 Palliative care for adults: strong opioids for pain relief)  
**SEEK SPECIALIST ADVICE IF NECESSARY**

### Initiating subcutaneous opioids

- **Morphine is recommended as the first line strong opioid for subcutaneous use for patients, except for patients who have been taking oral oxycodone or those with severe renal impairment.**
- If patient has constant pain, prescribe morphine as regular 4 hourly SC injections or as a 24-hour continuous infusion via a syringe pump.

### Conversion from oral to SC morphine:

- Oral morphine 5mg ≈ SC morphine 2.5mg.
- However, wide inter-individual variation exists and each patient should be assessed on an individual basis. [See Appendix 1 – Opioid Conversion Charts for further information about strong opioid conversions](#).
- Breakthrough doses of 1/10 to 1/6 of the regular 24-hour dose of opioid should be prescribed 2-4 hourly SC when required.

## 4. Alternative Strong Opioids

When morphine cannot be used, alternative strong opioids commonly used in palliative care include:

- Oxycodone (oral or subcutaneous).
- Buprenorphine (transdermal).
- Fentanyl (transdermal).

**NB. The transdermal route is only suitable if analgesic requirements are stable.**

### Box 4 - Opioid switching

Explicit guidance on switching opioids is difficult because both the reasons for switching and the patient's circumstances differ.

Conversion ratios are an approximate guide only. Many variables will affect the conversion e.g. age, renal/hepatic function, concurrent medication, comorbidity, duration of opioid treatment, pharmacokinetics of drugs.

Consider a dose reduction of 50% when switching between opioids especially if

- Patient is on a high dose of opioid (e.g. morphine dose  $\geq 1\text{g}/24\text{h}$  or equivalent).
- Opioid dose has been escalated rapidly.
- Patient is frail or elderly.
- Patient is experiencing side effects from the current opioid.

In such circumstances, “when required” doses can be used to make up any deficit while re-titrating to a satisfactory dose of the new opioid.

**SEEK SPECIALIST ADVICE on the most appropriate alternative strong opioid and the appropriate conversion ratio.**

**[See Appendix 1 – Opioid Conversion Charts](#)** <sup>↗</sup> for further information.

## Oxycodone

- Oxycodone is a strong opioid with similar properties to morphine.
- It is licensed for moderate to severe pain in patients with cancer and post-operative pain and for the treatment of severe pain requiring the use of a strong opioid.

### Place in therapy

- Moderate to severe pain with unacceptable level of side effects with morphine.
- Breakthrough medication for patients using fentanyl or buprenorphine patches who have experienced an unacceptable level of side effects with morphine.

### Cautions

- Use cautiously in mild-moderate renal impairment, avoid in severe renal impairment.
- Use cautiously in mild hepatic impairment, avoid if possible in moderate to severe hepatic impairment.

**Table 5 – Oxycodone preparations and recommended frequency**

Generic oxycodone	Dose intervals	Oxycodone brands
<b>Immediate-release oral oxycodone</b> 5mg/5ml liquid, 5mg, 10mg, 20mg capsules	4 hourly	Refer to BNF for brands currently available.  <b>In Primary Care</b> – prescribe oxycodone preparations by brand name as modified-release preparations have different release characteristics and patient familiarity with one brand is important in ensuring safety. (Ref: GMMM Generic Prescribing Guidelines v.1)  <b>In hospitals and hospices</b> – generic prescribing may be required if the unit does not stock the brand which the patient usually takes.
<b>Immediate-release oxycodone concentrated oral solution</b> 10mg/ml* (only on specialist advice)	4 hourly	
<b>Modified-release oral oxycodone preparations</b> 5mg, 10mg, 15mg, 20mg, 30mg, 40mg, 60mg, 80mg, 120mg tablets	12 hourly	
<b>Oxycodone injection</b> 10mg/1ml, 1ml & 2ml ampoules	4 hourly as breakthrough dose or over 24 hours subcutaneously via syringe pump	
<b>Concentrated oxycodone injection</b> 50mg/ml, 1ml ampoules* (only on specialist advice)	4 hourly as breakthrough dose or over 24 hours subcutaneously via syringe pump	

\*NB. Concentrated preparations of oxycodone **must be used with caution**, as there are significant risks of overdose if a concentrate product is used in error for a normal strength product. (Ref: CQC/NHS England. Safer Use of Controlled Drugs – Preventing Harm from Oral Oxycodone Medicines, 2013)

## Dosing

- **If the patient is opioid naïve**, start either:
    - **Regular** immediate-release oxycodone liquid 1mg- 2.5mg 4 hourly
    - **OR** modified-release oxycodone tablets 5mg twice a day.
  - **If switching from an alternative strong opioid to oxycodone** – [see Box 4 – Opioid switching](#) and [Appendix 1 – Opioid Conversion Charts](#). **SEEK SPECIALIST ADVICE IF REQUIRED.**
  - **NOTE:** Oxycodone is approximately twice as potent as morphine when given orally (e.g. Oral oxycodone 10mg is approximately equivalent to oral morphine 20mg).
  - Immediate-release oxycodone liquid should be prescribed for breakthrough pain at 1/10-1/6 of the total daily regular dose, 2-4 hourly when required. [See Box 3 – Management of breakthrough pain for further guidance](#).
- Example – calculation of “when required” dose based on 1/6 of regular 24 hour dose:**
- Patient is taking oxycodone modified-release capsules 15mg twice a day - the “when required” dose is 30 divided by 6 = 5mg 4 hourly when required.

## Titration oral oxycodone dose

- When adjusting the dose of oxycodone, use of “when required” doses should be taken into account.
- Check with the patient that the oxycodone is effective before increasing the dose.
- Increments should not exceed 33-50% every 24 hours.
- **Examples of dose titration**
  - Immediate-release oral oxycodone: 5→7.5→10→15mg 4 hourly
  - Modified-release oral oxycodone: 10→15→20→30mg twice a day.
- Upward titration of the dose of oxycodone should stop when either the pain is relieved or unacceptable side effects occur. In the latter case, switching to an alternative strong opioid should be considered.
- If the patient was commenced on regular immediate-release oxycodone, once pain control is achieved consider conversion to modified-release oxycodone at the same 24-hour total dose.
- **Consider seeking specialist advice if:**
  - The dose of oxycodone has been titrated three times without achieving pain control.
  - The patient requires three or more “when required” doses per day.
  - The total daily dose of oral oxycodone exceeds 60mg over 24 hours.
  - The patient is experiencing unacceptable side effects.

## Buprenorphine

- Although buprenorphine has both opioid agonist and antagonist properties, analgesic effects are generally similar to morphine.
- Constipation may be less severe.
- Only transdermal preparations of buprenorphine are recommended for routine use in palliative care.

### Place in therapy

- Unacceptable level of side effects with morphine.
- Severe renal impairment (no centrally active metabolites).
- Tablet phobia or poor compliance with oral medication.
- Oral route is inappropriate.

### Cautions

- Patches not suitable for acute pain or rapidly changing pain because of the time it takes to reach therapeutic levels. Only use for chronic stable pain.

### Dosing

There are multiple preparations of transdermal buprenorphine available varying in strength and length of action.

## Table 6 – Buprenorphine preparations and recommended frequency of patch change

Frequency of patch change	Strengths available
7-day patch	5, 10, 15, 20 micrograms/hour
4-day patch	35, 52.5, 70 micrograms/hour
3-day patch	35, 52.5, 70 micrograms/hour

- **If the patient is opioid-naïve** - commence a low patch strength i.e. buprenorphine 5-10 micrograms/hour (equivalent to morphine 12-24mg/24hours).

- **For patients who are switching from an alternative opioid** - refer to [Box 4 – Opioid Switching](#) and [Appendix 1 – Opioid Conversion Charts](#).
- **Breakthrough analgesia** - For patients using transdermal buprenorphine, either immediate-release morphine or immediate-release oxycodone may be used for the management of breakthrough pain. The preferred choice will depend on a number of factors - see [Box 3 – Management of breakthrough pain](#) and [Appendix 1 – Opioid Conversion Charts](#). **CONSIDER SEEKING SPECIALIST ADVICE.**

### Titrating buprenorphine patch dose

- Wait at least 72 hours after starting a buprenorphine patch or increasing the patch strength before adjusting the dose. If after this time the patient needs 2 or more “when required” doses of analgesia for breakthrough pain the dose can be increased to the next strength patch.
- **Consider seeking specialist advice if:**
  - The dose of buprenorphine has been titrated three times without achieving pain control.
  - The patient requires three or more “when required” doses per day.
  - The patient is on a buprenorphine patch above 52.5 micrograms/hour.
  - The patient is experiencing unacceptable side effects.

### If switching from a buprenorphine patch to an alternative strong opioid

- Note that on removal of the patch significant blood concentrations of buprenorphine persist for at least 24 hours, therefore do not commence an alternative long acting opioid medication for at least 12 hours. **SEEK SPECIALIST ADVICE IF REQUIRED.**

### Management of patients with a buprenorphine patch in the last days and hours of life

- It is usual practice to leave the buprenorphine patch in place in the management of patients in the last days and hours of life – see [Pain Algorithm 4: Patient using fentanyl or buprenorphine patches becomes unable to swallow](#) and **SEEK SPECIALIST ADVICE.**

## Fentanyl

- Fentanyl is a strong opioid analgesic that is approximately 100 to 150 times more potent than oral morphine.
- Constipation is less severe than with other strong opioids.
- Better tolerated in renal impairment.
- Available as transdermal patches.
- Other formulations are also available e.g. transmucosal and parenteral preparations, but these are **ONLY TO BE PRESCRIBED ON SPECIALIST ADVICE.**

### Place in therapy

- Unacceptable level of side effects with morphine.
- Severe renal impairment (no centrally active metabolites).
- Tablet phobia or poor compliance with oral medication.
- Oral route is inappropriate.

### Cautions

- Patches not suitable for acute pain or rapidly changing pain because of the time it takes to reach therapeutic levels (12 – 24 hours). Only use for chronic stable pain.
- Not suitable for opioid naïve patients. Consider buprenorphine patches as alternative.
- Be aware of the potency of fentanyl in comparison with other opioids – a 25 microgram/hour fentanyl patch is equivalent to about 60mg of oral morphine per 24 hours. **Check the dose carefully.**

### Dosing

There are multiple brands of transdermal fentanyl available – refer to BNF for details.

**Table 7 – Transdermal fentanyl preparations and recommended frequency of patch change**

Frequency of patch change	Strengths available
Usually every 72 hours, though on specialist advice some patients may require patch changes every 48 hours (Ref: <i>Scottish Palliative Care Guidelines</i> )	12, 25, 37.5, 50, 75, 100 micrograms/hour

- **If the patient is opioid-naïve** – fentanyl patches are not generally recommended as a first-line strong opioid. Consider buprenorphine patches for opioid naïve patients requiring transdermal strong opioid.
- **For patients who are switching from an alternative opioid** – refer to [Box 4 – Opioid Switching](#) and [Appendix 1 – Opioid Conversion Charts](#).
- Approximately 10% of patients previously taking regular morphine may experience withdrawal symptoms after changing to fentanyl giving symptoms of shivering, restlessness and bowel cramps. Pain control is not affected and the symptoms can be managed initially with breakthrough doses of immediate release strong opioid. **SEEK SPECIALIST ADVICE IF SYMPTOMS PERSIST.**
- As fentanyl causes less constipation than morphine or oxycodone, if a switch to fentanyl is made consider halving the dose of laxatives and then adjust further according to need.
- **Breakthrough pain** – For patients using transdermal fentanyl, either immediate-release morphine or immediate-release oxycodone may be used for the management of breakthrough pain. The preferred choice will depend on a number of factors - see [Box 3 – Management of breakthrough pain](#) and [Appendix 1 – Opioid Conversion Charts](#). **CONSIDER SEEKING SPECIALIST ADVICE.**

## Box 5 – Fentanyl Safety Concerns

There have been several safety alerts highlighting the risk of unintentional opioid toxicity and overdose of fentanyl, due to inappropriate dosing or accidental exposure.

### Overdose Risk

- Inappropriate strength of fentanyl patches prescribed in opioid naïve patients.
- Failure to remove an old fentanyl patch before applying a new one.
- Exposure of the patch application site to a heat source (e.g. hot bath, hot water bottle, electric blanket, heating pad etc) or increased body temperature (e.g. fever).

### Accidental exposure

- Poorly affixed fentanyl patches transferring to another person.
- Children applying improperly disposed patches to their body, believing the patches to be stickers or plasters.

### Advice for healthcare professionals:

- Always fully inform patients and their caregivers about directions for safe use for fentanyl patches, including the importance of:
  - not exceeding the prescribed dose
  - following the correct frequency of patch application, avoiding touching the adhesive side of patches, and washing hands after application
  - not cutting patches
  - avoiding exposure of patches to heat including via hot water (bath, shower)
  - ensuring that old patches are removed before applying a new one
  - storing patches (including used ones) safely, out of the sight and reach of children
  - disposing of them in a way which minimises accidental exposure to the drug, by folding the patch so the adhesive side adheres to itself and then placing it back in the original sachet. It can then be placed in household waste.
- Ensure that patients and caregivers are aware of the signs and symptoms of fentanyl overdose and advise them to seek medical attention immediately (by dialling 999 and requesting an ambulance) if overdose is suspected.
- In patients who experience serious adverse events, remove patches immediately and monitor for up to 24 hours after patch removal.

Ref: MHRA (Oct 2018). *Transdermal fentanyl patches: life-threatening and fatal opioid toxicity from accidental exposure, particularly in children* <https://www.gov.uk/drug-safety-update/transdermal-fentanyl-patches-life-threatening-and-fatal-opioid-toxicity-from-accidental-exposure-particularly-in-children>

### Titrating fentanyl patch dose

- Wait at least 48 hours after starting a fentanyl patch or increasing the patch strength before adjusting the dose. If after this time the patient needs 2 or more “when required” doses of analgesia for breakthrough pain the dose can be increased by 12 to 25 micrograms/hour.
- **Consider seeking specialist advice if:**
  - The dose of fentanyl patch has been titrated three times without achieving pain control.
  - The patient requires three or more “when required” doses per day.
  - The patient is on a fentanyl patch above 50 micrograms/hour.
  - The patient is experiencing unacceptable side effects.

### If switching from a fentanyl patch to an alternative strong opioid

- Note that on removal of the patch significant blood concentrations of fentanyl persist for at least 24 hours, therefore do not commence an alternative long acting opioid medication for at least 12 hours. **SEEK SPECIALIST ADVICE IF REQUIRED.**

### Management of patients with a fentanyl patch in the last days and hours of life

- It is usual practice to leave the fentanyl patch in place in the management of patients in the last days and hours of life – [see Pain Algorithm 4: Patient using fentanyl or buprenorphine patches becomes unable to swallow](#)  and **SEEK SPECIALIST ADVICE.**



## 5. Management of Opioid Side Effects

- If side effects are intractable and reducing the patient's quality of life or limiting analgesic titration, consider changing to an alternative opioid. **SEEK SPECIALIST ADVICE.**
- If toxicity develops on a previously tolerated opioid dose, consider precipitating factors e.g. renal impairment, other biochemical abnormalities, sepsis or drug interactions.
  - Ensure the patient is well-hydrated.
  - Investigate for possible causes and treat as appropriate.
  - If pain is controlled, reduce the opioid dose by a third.
  - If pain is not controlled, **SEEK SPECIALIST ADVICE.**

**Table 8 – Management of opioid side effects**

Side effect	Management
<b>Constipation (very common)</b>	Prevent by prescribing concurrent laxative (give a stimulant laxative first line unless contra-indicated, add a softener if necessary ( <a href="#">see Constipation section of guidance</a> )).
<b>Nausea and vomiting</b>	Prescribe either haloperidol 500 micrograms to 1.5mg at night OR metoclopramide 10mg three times a day. Prescribe for 5 days then stop if asymptomatic. Symptoms often improve after 5-7 days. If symptoms persist despite an antiemetic, consider other possible causes before switching to another opioid.
<b>Drowsiness</b>	Warn patients that drowsiness and poor concentration may occur at start of therapy, and when dose is increased, but usually reduces after a few days.
<b>Delirium</b>	Decrease dose if possible; consider adjuvant analgesic or alternative opioid. If symptoms persist, start haloperidol 500 micrograms at night PO/SC. This can be increased gradually if necessary – maximum 10mg/24 hours ( <a href="#">see Delirium section of guidance</a> )).
<b>Myoclonus</b>	Decrease dose if possible; if this dose of opioid is essential consider a benzodiazepine e.g. diazepam 2-5mg PO three times a day when required/ midazolam 2.5mg SC 4 hourly when required.
<b>Hallucinations</b>	Decrease dose if possible; consider adjuvant analgesic or alternative opioid.
<b>Dry mouth (very common)</b>	Inform patient and advise good oral hygiene ( <a href="#">see Oral Care section of guidance</a> )).
<b>Respiratory depression</b>	Unlikely to occur if opioids used and monitored correctly. Naloxone may be required <b>only if severe respiratory depression with reduced conscious level &amp;/ or hypoxia.</b> ( <a href="#">See section on management of respiratory depression</a> )).

## 6. Use of naloxone for the management of respiratory depression caused by prescribed therapeutic use of opioids

Ref: PCF6 Quick Clinical Guide: Reversal of opioid induced respiratory depression, Scottish Palliative Care Guidelines

- Respiratory depression is uncommon if opioid doses are titrated carefully.
- If a patient on strong opioids becomes drowsy, consider whether this may be due to a cause other than the opioid e.g. deterioration of their illness/dying, or metabolic changes such as hypercalcaemia or uraemia.
- In patients receiving opioids for pain relief, traditional IV doses of naloxone (e.g. 400 micrograms stat) should only be used in immediately life-threatening situations (i.e. unconscious patient with minimal or no respiratory effort.)
- In other circumstances, careful titration using lower doses of naloxone (e.g. 20-100 micrograms IV) should be used to avoid a severe acute withdrawal syndrome, severe pain and hyperalgesia.
- Due to higher affinity and prolonged receptor binding of buprenorphine, higher doses of naloxone must be used - consider seeking specialist toxicology advice.

### See Table 9 – Management of respiratory depression caused by strong opioids ↗

#### Administering naloxone in care settings where there is no immediate access to the IV route.

- Naloxone may be administered intramuscularly (IM) when IV access is not immediately available.
- Onset of naloxone IM is 2-5 minutes (onset of naloxone IV is 1-2 minutes).
- 100 micrograms naloxone IM should be given and repeated after five minutes if there is no improvement with the first dose.
- An IV line should be sited as soon as possible.

#### Ongoing treatment for patients who have required naloxone

- After the last dose of naloxone, monitor level of consciousness and respiratory rate every 15min for 2h, then hourly for 6h after immediate-release opioid or hourly for 12h after modified-release opioid.

- Further boluses of naloxone may be required because naloxone is shorter-acting than morphine and other opioids – **SEEK SPECIALIST ADVICE.**
- **Review opioid regimen**
  - Consider possible causes for the opioid toxicity e.g. excessive dosing, drug interactions, reduced elimination due to renal impairment.
  - Wait until there is a **sustained improvement in consciousness and respiratory rate** before restarting a lower dose of opioid.

#### Seeking further advice

24 hour advice can be obtained from the National Poisons Information Service, 0344 892 0111

**Table 9 – Management of respiratory depression caused by strong opioids**

Situation	Respiratory rate (RR) (breaths/min), conscious level & oxygen saturation (SaO <sub>2</sub> )	Recommended action(s)	Points to consider
<b>Mild respiratory depression</b>	RR ≥ 8 AND easily rousable, SaO <sub>2</sub> at baseline level	Monitor respiratory rate and SaO <sub>2</sub> Watch and wait	For patients in the community, consider admission to hospital if they cannot be monitored closely in their current setting.  Consider omitting or reducing the next regular dose of opioid.
<b>Severe but not immediately life-threatening respiratory depression</b>	RR < 8 AND/OR difficult to rouse, AND/OR SaO <sub>2</sub> below baseline level	Assess Airway/Breathing/Circulation  Administer oxygen if necessary to maintain SaO <sub>2</sub> >95%  <b>Give naloxone</b> 100 micrograms IV every 2 mins until RR ≥ 8. Lower doses of naloxone e.g. 20 micrograms IV are sometimes used.  Titrate dose against level of respiratory function, (i.e. to achieve a respiratory rate ≥8 breaths/min and no cyanosis) <b>and</b> level of consciousness (i.e. patient easily rousable; they do not have to be fully alert).	For patients in the community, <b>URGENT</b> admission to hospital is required.  Omit the next regular dose of opioid. Following review of opioid regimen, restart lower dose once conscious level has maintained improvement and respiratory rate is satisfactory. <b>SEEK SPECIALIST ADVICE IF NECESSARY.</b>
<b>Immediately life-threatening respiratory depression</b>	Minimal respiratory effort and patient unconscious	Assess Airway/Breathing/Circulation  Administer oxygen if necessary to maintain SaO <sub>2</sub> >95%  Give naloxone, administering each dose over 30 seconds. Assess after 1 minute and, if no response, move to next dose: Start with 400microgram IV →800microgram →800microgram →2-4mg. If no response to 2-4mg, consider alternative diagnosis.	For patients in the community, <b>URGENT</b> admission to hospital is required.  Omit the next regular dose of opioid. Following review of opioid regimen, restart lower dose once conscious level has maintained improvement and respiratory rate is satisfactory. <b>SEEK SPECIALIST ADVICE IF NECESSARY.</b>

If the combination of parameters of respiratory rate, conscious level or SaO<sub>2</sub> are not covered by advice above, then use clinical judgement – **SEEK SPECIALIST ADVICE**

## 7. Adjuvant Analgesics

**Table 10 – Adjuvant analgesics**

(Ref: PCF6, GMMMG Neuropathic Pain Guideline) <http://gmmmg.nhs.uk/docs/guidance/GMMMG%20Neuropathic%20Pain%20Guidance%20March%202014.pdf> 

Also see [Table 36 – Adjuvant analgesics in renal impairment](#) 

Drug	Use	Comments
<b>1st line: Tricyclic antidepressant</b>		
<ul style="list-style-type: none"> <li>Amitriptyline 10-75 mg at night. Start at 10mg; increase to 25mg after 3-7 days, and then by 25mg increments every 1-2 weeks, as tolerated and required.</li> </ul>	<p>Neuropathic pain May be combined with antiepileptic if either alone is only partially effective.</p>	<p>Onset of action may be less than a week in neuropathic pain. Helps sleep. Contraindicated in patients with history of arrhythmias; use with caution in other cardiovascular diseases. Monitor for side effects (See BNF). If helpful but poorly tolerated, consider duloxetine (see below).</p>
<b>2nd line: Antiepileptic</b>		
<ul style="list-style-type: none"> <li>Gabapentin 300mg daily titrated to 300mg three times a day initially.</li> <li>Then by 300mg steps every 3-7 days up to 1200mg three times a day maximum.</li> </ul>	<p>Neuropathic pain May be combined with tricyclic antidepressant if either alone is only partially effective.</p>	<p>Dose increases may be limited by side effects (e.g. sedation, dizziness). <b>In renal impairment and frailer patients - use lower starting dose (e.g. 100mg) and slower titration by 100mg steps rather than 300mg; CONSIDER SEEKING SPECIALIST ADVICE.</b> N.B. Risk of abuse, now a Schedule 3 controlled drug.</p>
<ul style="list-style-type: none"> <li>Pregabalin 75mg twice daily. If necessary increase by 75mg twice a day at intervals of 3 to 7 days, up to a maximum of 300mg twice a day.</li> </ul>	<p>Only use if gabapentin effective but not tolerated due to side effects.</p>	<p>Titration may be limited by side effects (e.g. sedation, dizziness) Consider commencing lower doses e.g. 25mg twice daily in patients with renal impairment, concurrent opioids and frailer patients. Increase in 25mg twice daily increments every 3-7 days. N.B. Risk of abuse, now a Schedule 3 controlled drug.</p>

**3rd line:** If partial response to either tricyclic or antiepileptic, then consider **combination** of tricyclic and antiepileptic (Ref: PCF6).

**4th line: Serotonin-noradrenaline reuptake inhibitor (SNRI)**

- Duloxetine 30mg daily - increase by 30mg steps every 2 weeks, max 120mg daily

Neuropathic pain and/or anxiety disorder

May be considered when other treatments have failed or not been tolerated, or as an alternative to gabapentin/pregabalin in patients with a history of substance misuse, particularly in a prison setting.

## Other options for specific causes of neuropathic pain

Drug	Use	Comments
<b>Corticosteroids</b>		
<ul style="list-style-type: none"> <li>■ Dexamethasone 8-16mg a day PO in 1-2 doses</li> <li>■ <b>Give in the morning to avoid sleep disturbance</b></li> <li>■ Dexamethasone is 7 times more potent than prednisolone.</li> </ul>	<p>To decrease peri-tumour oedema e.g.</p> <ul style="list-style-type: none"> <li>■ Nerve compression.</li> <li>■ ↑ intracranial pressure</li> <li>■ Spinal cord compression</li> <li>■ Organ infiltration.</li> </ul>	<p>Dose will depend on specific cause – <a href="#">see Table 33 – Corticosteroid use for the management of specific symptoms</a>.</p> <p>May also increase appetite, affect mood.</p> <p>Prescribe gastroprotection (e.g. a PPI) unless contra-indicated.</p> <ul style="list-style-type: none"> <li>■ Stop if no response after 7 days</li> <li>■ Review and reduce dose every 3-7 days to avoid side effects.</li> <li>■ Check blood glucose for 3 days initially then weekly.</li> </ul> <p>(Ref: PCF6; End of Life Diabetes Clinical Care Recommendations 3rd edition, March 2018)</p>

**NSAIDs**

<ul style="list-style-type: none"> <li>■ Ibuprofen 200-400mg three times a day or naproxen 250-500mg twice daily</li> <li>■ <b>Note: GI side effects and thrombosis risk are less with lower doses than higher doses</b></li> </ul>	<p>Bone pain/ soft tissue infiltration</p>	<p>Prescribe gastroprotection (e.g. a PPI) unless contra-indicated.</p> <ul style="list-style-type: none"> <li>■ Should respond within 1 week - stop if no improvement.</li> <li>■ Monitor for side effects.</li> </ul>
<ul style="list-style-type: none"> <li>■ COX-2 inhibitors e.g. Celecoxib 100mg twice daily, increased if necessary to 200mg twice daily</li> </ul>		<p>For high GI risk patients, prescribe gastroprotection (e.g. a PPI) unless contra-indicated.</p> <ul style="list-style-type: none"> <li>■ Should respond within 1 week - stop if no improvement.</li> <li>■ Monitor for side effects.</li> </ul>

**See Appendix 3 for analgesics to be initiated by Specialist Palliative Care only <sup>Ⓔ</sup>.**

**Other approaches to pain management (consider seeking specialist advice)**

- Radiotherapy/chemotherapy/hormone therapy.
- Transcutaneous electrical nerve stimulation (TENS).
- Massage.
- Relaxation.
- Psychological support.
- Neural blockade/epidural/intrathecal analgesia. Neuro-destructive blocks e.g. intrathecal alcohol/phenol, cordotomy.

# NAUSEA AND VOMITING

Approximately 30-40% of patients with advanced cancer have nausea and/or vomiting.

## Assessment

- Review history, recent investigations and medication.
- Examination - look for underlying causes and likely physiological mechanisms.
- Investigations - only if outcome will affect management.

**Table 11 - Management of reversible/treatable causes of nausea and vomiting**

Cause	Specific management
Drugs – e.g. opioids, PPIs, NSAIDs, SSRIs, antibiotics, iron, digoxin	Stop or find alternative unless essential
Uncontrolled pain	Analgesia - non-oral route until vomiting settles
Anxiety	Determine fears; explain; anxiolytic – e.g. lorazepam
Cough	Cough suppressant
Urinary retention	Catheterise
Constipation	Laxatives
Liver metastases	Corticosteroids; anticancer treatment
Raised intracranial pressure	Corticosteroids (e.g. dexamethasone)
Electrolyte disturbances	Correct if possible and appropriate
Hypercalcaemia	Rehydration and intravenous bisphosphonate
Uraemia – hydronephrosis	Urinary diversion or stent
Oral/oesophageal candidosis	Antifungal (fluconazole, nystatin, miconazole)
Infection (respiratory, UTI)	Antibiotic
Gastritis	Stop irritant drug if possible; add PPI
Bowel obstruction	See separate section below

## Management

- Assess most likely cause(s) of symptom; may be more than one.
- Underlying cause may be apparent in 20-30% of cases.
- Remove or treat reversible cause(s) if identified.
- If vomiting or severe nausea, use a non-oral route for symptom control until nausea & vomiting is controlled.
- Avoid triggers (e.g. food smells); aim for small frequent meals.

## Antiemetic Therapy

- Decide most likely **cause**, and prescribe appropriate antiemetic regularly and p.r.n. (See below **Table 12 – Management of specific causes of nausea and vomiting** and [Table 13 - Antiemetics](#) <sup>Ⓔ</sup>).

- Reassess daily.
- Titrate dose as needed.
- If no response, reassess cause
  - **If likely cause is unchanged** - consider alternative route of administration, alternative antiemetic or broad-spectrum antiemetic.
  - **If likely cause has changed** - try appropriate antiemetic for that cause.
  - May need combinations of antiemetic therapy.
- If symptoms still not improving **SEEK SPECIALIST ADVICE.**
- For patients with renal impairment, [see Table 37 – Antiemetics in renal impairment](#) <sup>Ⓔ</sup>.

**Table 12 – Management of specific causes of nausea and vomiting**

Cause	Type of antiemetic	Drug (see Table 13 for dosing & further guidance)
Gastritis, gastric stasis or functional bowel obstruction (peristaltic failure)	Prokinetic	Metoclopramide
Chemical cause e.g. opioids, hypercalcaemia, renal impairment	Antiemetic acting principally in chemoreceptor trigger zone	Haloperidol
Vestibular symptoms	Antiemetic acting principally in vestibular centre and vomiting centre	Cyclizine
Raised intracranial pressure	Antiemetic acting principally in vestibular centre and vomiting centre	Cyclizine in conjunction with dexamethasone
Multifactorial/unknown/refractory	Broad spectrum	Levomepromazine

Ref: PCF6 Quick Clinical Guide: Nausea and Vomiting, Scottish Palliative Care Guidelines

**Table 13 – Antiemetics (Based on info from PCF6 drug monographs and BNF)**

Drug	Main action of drug	Suggested dose & route	Recommended use/comments
<b>FIRST LINE</b>			
<b>Cyclizine † ‡</b>	Antihistamine Antimuscarinic Action at vestibular system and vomiting centre	Oral – 50mg twice a day to three times a day & 50mg when required (max dose 200mg/24h) ..... SC - 75-150 mg/24h by CSCI & 25-50mg 4-6 hourly when required (max dose 200mg/24h)	Cerebral irritation; vertigo; visceral distortion/obstruction; oropharyngeal irritation PO bioavailability is 50%, so PO:SC conversion ratio is 2:1 May be <b>added to</b> haloperidol Constipating; delays gastric emptying
<b>Haloperidol*</b>	Dopamine antagonist acts at chemoreceptor trigger zone	Oral – 500 micrograms - 1.5mg at night & 500micrograms 2 hourly when required, maximum dose 5mg/24h (higher doses may be used - seek specialist advice) ..... SC – 500 micrograms - 1.5mg at night or CSCI & 500micrograms 2 hourly when required, maximum dose 5mg/24h (higher doses may be used – seek specialist advice)	Biochemical disturbance (drug, metabolic, toxic) May be <b>added to</b> cyclizine
<b>Metoclopramide* †</b>	Dopamine antagonist & prokinetic Acts at chemoreceptor trigger zone & GI tract	Oral - 10mg three times a day (higher doses may be used under specialist advice) ..... SC - 30mg/24h by CSCI (higher doses may be used – seek specialist advice)	Gastric stasis, reflux, delayed gastric emptying NB. MHRA alert (2013) limiting dose and duration of use does not apply to palliative care <a href="https://bnf.nice.org.uk/drug/metoclopramide-hydrochloride.html#importantSafetyInformations">https://bnf.nice.org.uk/drug/metoclopramide-hydrochloride.html#importantSafetyInformations</a>  Risk of acute dystonic reaction, especially in young women. Avoid in mechanical bowel obstruction, colic

Drug	Main action of drug	Suggested dose & route	Recommended use/ comments
<b>SECOND LINE</b>			
<b>Levomepromazine*</b>	Broad spectrum anti-emetic Dopamine, histamine, muscarinic antagonist (not prokinetic)	Oral – 6.25mg-25mg at night & 6.25mg 2 hourly when required (max 25mg/24 hours) Can be given in divided doses Note can be sedative in higher doses; seek specialist advice ..... SC – 5mg-25mg at night or by CSCI	<b>Replaces</b> previous antiemetic Usually second-line - may be used earlier if sedation is not a problem or is desirable ( <b>more likely</b> in doses $\geq$ 25mg/24h) <i>Caution – epilepsy (lowered seizure threshold)</i>
<b>Ondansetron (or other 5HT<sub>3</sub> antagonist, doses differ)</b>	5HT <sub>3</sub> antagonists	Oral - 4-8mg twice daily (higher doses may be used – seek specialist advice) ..... Rectal - 16mg once daily ..... SC - 16mg/24h by CSCI (higher doses may be used – seek specialist advice)	Mainly in chemotherapy, post-operatively Adjuvant in renal failure, gastric irritation or biochemical stimulus <b>Add to</b> previous antiemetic Note – profoundly constipating
<b>Dexamethasone</b>	Reduces inflammatory response, ? central effect	Oral - 8-16mg each morning or 2 divided doses ..... SC – 6.6mg-13.2mg each morning or 2 divided doses ( <b>use 3.3mg/ml strength</b> )	Adjuvant antiemetic; cerebral oedema; liver metastases <b>Add to</b> previous antiemetic <b>See Corticosteroid section</b> <a href="#">↗</a>

\* - In Parkinson's syndromes, domperidone may be used in place of dopamine antagonists.  
 † Note - avoid adding cyclizine or other antimuscarinic drugs to metoclopramide, as they inhibit its prokinetic action.  
 ‡ - Cyclizine, like other antimuscarinic drugs, may aggravate heart failure and should be avoided in those at risk.

# GASTRO-INTESTINAL OBSTRUCTION

Occurs in approximately 3% of all cancer patients; more frequent complication if advanced intra-abdominal cancer (e.g. colon -10%; ovary -25%).

Site of obstruction is small bowel in 50%; large bowel in 30%; both in 20%.

**Table 14 - Common causes of intestinal obstruction**

Mechanical	Functional
Cancer	Autonomic nerve damage
Constipation	Drugs – opioids, anticholinergics
Bowel wall infiltration	Postoperative
Stricture formation	Metabolic - hypokalaemia; hypercalcaemia
Extrinsic compression	Radiation fibrosis

Intestinal obstruction has mechanical or functional cause(s) – often more than one.

- Degree of obstruction may be partial or complete.
- Onset may be over hours or days; initial intermittent symptoms may worsen and become continuous, or may resolve spontaneously (usually temporarily).

## Assessment/Signs and symptoms of bowel obstruction

- Nausea and vomiting (earlier and more profuse in higher obstruction)
- Pain due to abdominal colic or tumour itself
- Abdominal distension (especially distal obstruction)
- Altered bowel habit (from constipation to diarrhoea due to overflow)

- Bowel sounds (from absent to hyperactive and audible)
- Radiology - if needed to distinguish faecal impaction, constipation and ascites.
- Rarely an emergency - take time to discuss situation with patient and family to allow them to make an informed choice about management.

## Management

- Bowel obstruction may be reversible in some patients
- For all patients - consider whether surgery may be appropriate, [see Table 15 – Assessing whether surgery may be appropriate](#).
- If surgery is not appropriate, [see Table 16 - Medical management of gastro-intestinal obstruction symptoms](#).

**Table 15 – Assessing whether surgery may be appropriate**

Consider if:	Poor surgical outcome likely if:	Surgery is likely contra-indicated if:
<ul style="list-style-type: none"> <li>patient willing</li> <li>discrete and easily reversible mechanical cause of obstruction</li> <li>prognosis &gt;12 weeks if treated</li> </ul>	<ul style="list-style-type: none"> <li>previous abdominal radiotherapy</li> <li>small intestinal obstruction; multiple sites</li> <li>extensive disease</li> <li>poor condition</li> <li>cachexia</li> <li>poor mobility</li> </ul>	<ul style="list-style-type: none"> <li>carcinomatosis peritonei</li> <li>findings suggest intervention is futile</li> <li>poor physical condition</li> <li>short prognosis &lt;12 weeks</li> </ul>

**Table 16 - Medical management of gastro-intestinal obstruction symptoms**

**SEEK SPECIALIST ADVICE** if patient is not responding or the situation is complex.

Treatment to try and resolve the obstruction	
<b>Corticosteroids</b>	<ul style="list-style-type: none"> <li>Consider dexamethasone 8-16mg oral or 6.6-13.2mg SC daily (using 3.3mg/ml injection) if no contra-indications.</li> <li>If no improvement after 5-7 days, or adverse side effects present, then stop steroids.</li> <li>If improvement shown, reduce steroid dose gradually as symptoms allow.</li> </ul>
Management of nausea +/- vomiting 	
<b>Functional or partial obstruction</b>	<ul style="list-style-type: none"> <li>Metoclopramide: 30mg/24h by CSCI (higher doses may be used on specialist advice)</li> <li>Contraindicated in complete bowel obstruction</li> <li>Stop if precipitates colic; use antiemetics below</li> </ul>
<b>Complete obstruction</b>	<p><b>Use either:</b></p> <ul style="list-style-type: none"> <li>Cyclizine 75-150 mg/24h by CSCI &amp; 25-50mg SC 4-6 hourly when required, maximum dose 200mg/24h)</li> <li>Haloperidol 500 micrograms-1.5mg SC at night or by CSCI &amp; 500micrograms SC 2 hourly when required, maximum dose 5mg/24h</li> </ul> <p><b>Or</b> use cyclizine &amp; haloperidol in combination</p> <p><b>Or</b> substitute both with SC levomepromazine 5mg-25mg at night &amp; 5mg SC 2 hourly when required, maximum dose 25mg/24 hours</p>
<b>Persistent/high volume vomiting</b>	<b>SEEK SPECIALIST ADVICE</b>

## Management of other symptoms

### Heartburn/acid reflux

Consider SC ranitidine (specialist prescribing)

### Constipation precipitating obstruction

- Docusate sodium – maximum licensed dose is 500mg/day, but up to 200mg three times a day orally may be used (Ref PCF6)
- Consider macrogols if impaction
- Laxatives risk inducing colic – ensure hyoscine butylbromide injection is available if needed
- Avoid stimulant, bulk or fermenting laxatives e.g. lactulose

### Abdominal pain

- Follow pain control guidelines, using non-oral route

### Abdominal colic

- Hyoscine butylbromide 60-120mg/24h by CSCI then **SEEK SPECIALIST ADVICE**
- Stop prokinetic drugs; bulk-forming, osmotic or stimulant laxatives

### Hydration

- Assess need for IV or SC fluids on an individual patient basis
- Many are not dehydrated
- May still absorb oral fluid above level of obstruction.
- SC fluid can be given up to 1-2L/24h

### Dietary intake

- Allow low residue food and drink
- Parenteral nutrition generally has no role in patients with limited options for anti-cancer treatment or poor performance status (Ref: PCF6). However, it may be appropriate in selected cases with longer prognosis - multidisciplinary team decision.

**Note** – Higher doses of some drugs above may be used – **SEEK SPECIALIST ADVICE.**

## Nasogastric intubation

- Do not use nasogastric (NG) tube for obstruction in patients with advanced illness **routinely**.
- May be considered for decompression of upper gastrointestinal (GI) tract if surgery is being considered, or faeculent vomiting which is responding poorly to drug treatment.
- Prolonged NG aspiration with IV fluids is not recommended as it rarely gives sustained relief. Use medical measures described above.

## Venting percutaneous gastrostomy

- May be considered for symptom relief in patients whose vomiting is not relieved by pharmacological means, though risk of blockage.

## Ongoing Management

- Review treatment at least daily.
- If the obstruction does not resolve, the aim should be to:
  - Control pain and nausea.
  - Minimize vomiting as far as possible.
  - Permit sufficient oral fluids to maintain hydration.
- Discharge home, or management at home, requires careful planning.



# CONSTIPATION

## Causes to consider

- Drug induced – review medication;
- Dehydration - review diuretics and fluid intake.
- Reduced mobility – e.g. patient may not be able to get to the toilet; lack of privacy.
- Altered dietary intake - review.
- Hypercalcaemia – (see Palliative Care Emergencies section of guidance page 49).
- Neurological (e.g. metastatic spinal cord compression, see page 52; autonomic neuropathy).
- Gastro-intestinal obstruction – [See section on gastrointestinal obstruction](#) <sup>Ⓔ</sup>.

## Assessment

- History – past and present bowel habit, including use of laxatives and date of last bowel action; current medication; other causative factors.
- Abdominal palpation and auscultation, digital rectal examination.
- Investigations - if needed for treatment, e.g. abdominal x-ray; check calcium levels.
- **For intractable constipation, SEEK SPECIALIST ADVICE.**

## Management

- Prevention is the best management of constipation.
- Generally, all patients prescribed an opioid should also be prescribed a stimulant laxative, with the aim of achieving a regular bowel movement without straining every 1–3 days.
- Encourage a good oral fluid & dietary intake, including fruit and fruit juice. The NHS.UK website provides guidance on increasing fibre intake <https://www.nhs.uk/live-well/eat-well/how-to-get-more-fibre-into-your-diet/> <sup>Ⓔ</sup>.
- Use oral laxatives first line.
- About one third of palliative care patients need rectal measures, either because of failed oral treatment or electively (e.g. frail bedbound patients, patients with paralysis) (Ref: PCF6).
- Rectal measures should be avoided, where possible, in patients who are neutropenic or thrombocytopenic, because of the risk, respectively, of infection or bleeding (Ref: PCF6).

**Table 17 – Pharmacological Management of Constipation**

Clinical Situation	Agent type and examples	Comments
<b>Soft bulky stools - low colonic activity</b>	<p><b>Oral stimulant laxatives:</b>                      Bisacodyl 5mg at night increasing to 20mg at night.                      Senna 15mg at night increasing to 30mg twice a day.                      Sodium picosulfate liquid 5-10mg at night increasing to 30mg daily.</p>	<p>Start with low dose and titrate.                      May cause abdominal cramp.                      Suppositories also available.</p>
<b>Colon full, no colic</b>	<p><b>Stimulant ± softening agent</b> – e.g. senna + docusate sodium.</p>	<p>Docusate sodium oral solution may cause a bitter aftertaste or burning sensation, minimised by drinking plenty of water after taking.</p>
<b>Colon full and colic present</b>	<p><b>Macrogols e.g Movicol®, Laxido®</b>                      1 sachet in 125ml water once daily, increase to 2-3 sachets per day.</p>	<p>Require adequate oral fluids to be effective.</p>
<b>Hard dry faeces</b>	<p><b>Softening agents</b> – docusate sodium up to 500mg/day available as capsules or oral solution.                      Arachis oil enema (avoid if known nut allergy).</p>	<p>Useful in sub-acute obstruction.                      Higher doses may stimulate peristalsis.</p>
<b>Hard faeces - full rectum, colon</b>	<p><b>Stimulant plus softener</b>, e.g. bisacodyl tablets or senna tablets/liquid plus docusate sodium.</p> <p>.....</p> <p>2nd line – Macrogols (e.g. Movicol®, Laxido®) 2-3 sachets/day.</p> <p>.....</p> <p>3rd line - Glycerol 4g suppository and Bisacodyl 10mg suppository                      If ineffective - Sodium Citrate enema</p>	<p>Require adequate oral fluids to be effective.</p>
<b>Faecal impaction</b>	<p>Arachis oil retention enema (<b>avoid if known nut allergy</b>) ± phosphate enema</p> <p>.....</p> <p>2nd line – Macrogols (e.g. Movicol®, Laxido®) 8 sachets dissolved in 1 Litre of water taken over less than 6hours                      Repeat for up to 3 days.</p>	<p>Warm before use.                      Give arachis oil at night, followed by phosphate enema in the morning.</p> <p>.....</p> <p>Keep dissolved solution in a refrigerator for maximum of 6 hours.                      Limit to 2 sachets/h in heart failure.</p>

**For opioid-induced constipation resistant to the above methods – SEEK SPECIALIST ADVICE.**  
**N.B. In paraplegic patients - it is essential that a regular bowel regimen is established.** A common pattern is use of a stimulant laxative with defaecation assisted by suppositories or enema, to find a balance that avoids either faecal incontinence or impaction.

# DIARRHOEA

Increase in the frequency of defecation and/or fluidity of the faeces.

Prevalence: 4% of patients with advanced cancer.

## Assessment and management

- Establish cause - usually evident from history.
- Review diet (note some gastrostomy feeds can cause diarrhoea). Seek dietitian advice if required.
- Review medication.
- Clinical assessment includes a rectal examination and inspection of the stool.
- Exclude:
  - Infective cause.
  - Constipation/faecal impaction with overflow - a plain abdominal x-ray if overflow may help if suspected. **Treat as for constipation** (see page 40).
- Other investigations may be appropriate if the results will significantly affect management.
- If the patient is in the last days of life, treat symptomatically but do not investigate.

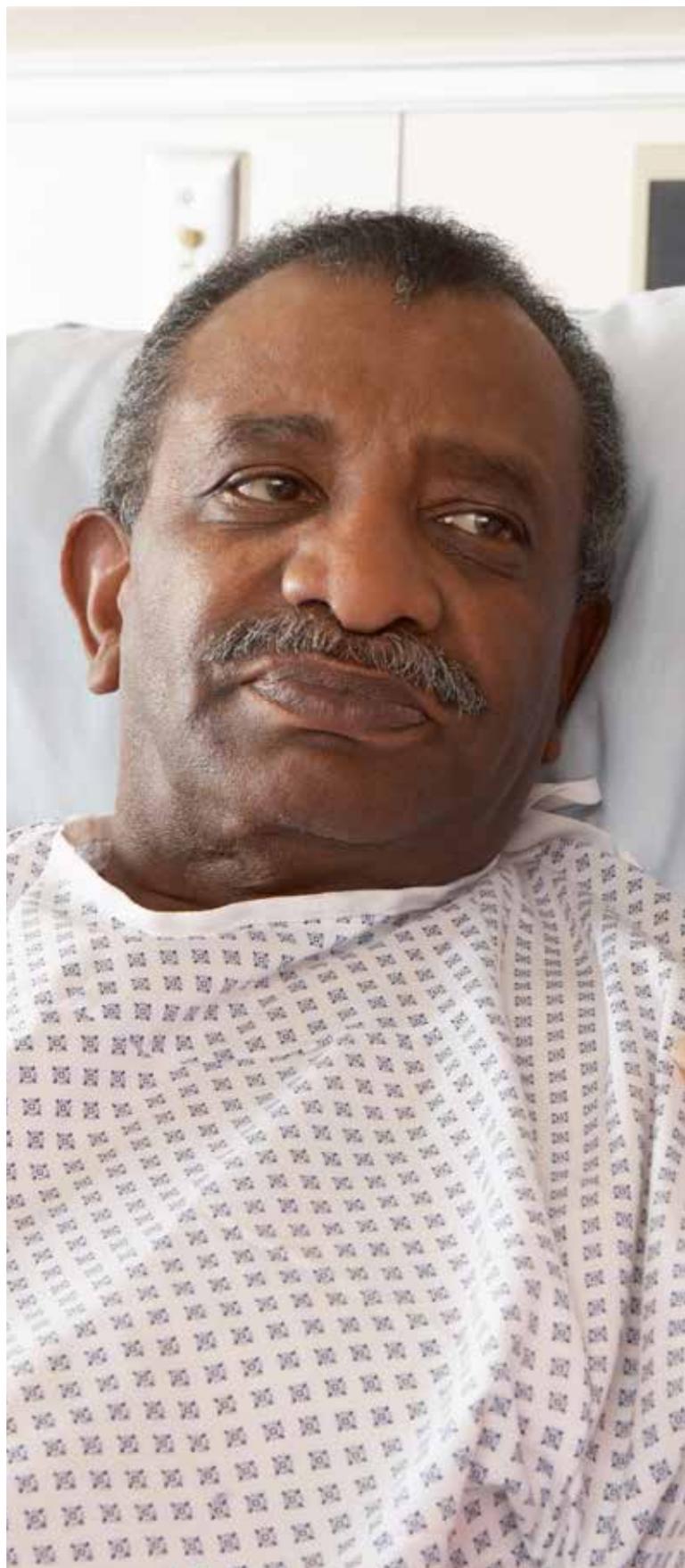
**Table 18 – Management of diarrhoea according to cause**

Cause	Management
Drugs - e.g. laxatives, magnesium antacids, PPI, NSAID	Review medication and stop if possible
Antibiotics - altered bowel flora	Stop antibiotic if possible Stool sample to exclude Clostridium difficile
Infection	Fluid and electrolyte support Stool sample for culture - treat with appropriate drug for identified bacteria
Overflow (constipation, partial obstruction)	Identify. Treat underlying constipation. Soften stool if partial obstruction. Avoid <b>specifically</b> constipating treatments
Acute radiation enteritis	Seek oncology advice
Chemotherapy	Seek oncology advice
Secretory diarrhoea (e.g. AIDS, tumour, fistula)	Seek oncology advice
Surgical resection (stomach, ileal, colon), bile salt diarrhoea	Colestyramine (on specialist advice)
Steatorrhoea	Pancreatic enzyme +/- PPI (reduces gastric acid destruction of enzymes)

## Use of loperamide and codeine for diarrhoea

- Give loperamide 2mg after each loose stool. Maximum dose is 16mg a day.
- If not controlling diarrhoea, rapidly change to 2mg four times a day.
- This can be increased to 4mg four times a day if required.
- Substitute codeine 30mg four times a day orally if ineffective.
- Thereafter consider a combination of loperamide + codeine and seek specialist advice.

*Ref: Scottish Palliative Care Guidelines*



# FATIGUE

## Causes to consider

- Fatigue could be a consequence of underlying disease process (e.g. cancer) or as a consequence of treatment (e.g. chemotherapy, radiotherapy).
- Other causes of fatigue include:
  - Anaemia – consider blood transfusion if appropriate.
  - Dehydration – consider IV/SC hydration.
  - Pain – optimise pain control.
  - Iatrogenic: opioids, benzodiazepines, post chemotherapy.
  - Poor nutrition: consider dietician referral, build up drinks.
  - Depression – consider antidepressants.
  - Endocrine abnormalities: Addison's disease (consider steroid replacement) and hypogonadism (consider testosterone replacement where appropriate. Consult with an endocrinologist).
- Fatigue is often a combination of reversible and irreversible causes.

## Management

- Initial management of fatigue should be to consider reversible causes.

## Non-pharmacological management

- Paced exercise: individual programme of moderate aerobic exercise –fast walking, swimming, cycling.
- Cognitive behavioural therapy.
- Mindfulness programme.
- Acupuncture.

## Pharmacological management

- Corticosteroids: Reduces effect of pro-inflammatory cytokines and improves general feeling of wellbeing.
  - Dose: dexamethasone 4-8mg orally once daily in the morning for a maximum of 14 days.
  - Note that use can result in various side effects e.g. steroid induced diabetes, fluid retention. On long-term use, steroids may cause proximal myopathy. [See Corticosteroids section for more details](#) .

# ANOREXIA

## Definition

- Reduced desire to eat.
- Loss or absence of appetite.

## Causes

- Paraneoplastic effect of cancer.
- Impaired gastric emptying.
- Medication - e.g. opioids, NSRIs.
- Poor oral hygiene, candidosis.
- Altered taste or smell.
- Anxiety, depression, delirium.
- Any of the causes of nausea.

## Management of cancer-related anorexia

- Treat reversible causes.
- Explanation - an effect of the cancer itself.
- Listen to fears and anxieties of patient and family/carers - failure to eat can cause fear and conflict.
- Dietary advice.
  - Eat energy rich foods such as full fat milk, yoghurt and spreads.
  - Food fortification e.g. add cream to soups, butter to vegetables etc.
  - Encourage snacking and more frequent small portions rather than large meals.
  - Advise carers to avoid offering excessive amounts of food.
- Consider asking for dietician advice unless prognosis is short.

## Pharmacological management

**Corticosteroid** e.g. Short-term improvement of appetite. Rapid effect but tends to decrease after 3–4 weeks. May also help to reduce **nausea**, improve energy and general feeling of wellbeing.

- Consider need for gastric protection.
- Dexamethasone - 2-6mg orally once daily in the morning; assess after one week.
  - if beneficial, continue - reduce weekly to lowest effective dose.
  - if no benefit after 1 week, then stop.
  - side effects: fluid retention, candidosis, myopathy, insomnia, gastritis and steroid-induced diabetes. [See Corticosteroids section for more details](#) <sup>ⓘ</sup>.

## Prokinetic

- If impaired gastric emptying suspected, metoclopramide 10mg three times a day.

**SEEK SPECIALIST ADVICE IF NO RESPONSE TO ABOVE MEASURES.**

# BREATHLESSNESS

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Breathlessness is common in patients with advanced disease, and tends to become more common and severe in the last few weeks of life.

**Note:** The guidance in this section does **NOT** apply if breathlessness is caused by respiratory depression. [Refer to section on Use of naloxone for the management of respiratory depression caused by prescribed therapeutic use of opioids](#).

## Breathlessness/Dyspnoea definition

- An unpleasant subjective sensation that does not always correlate with the clinical pathology.
- The patient's distress indicates the severity.
- The causes of breathlessness are usually multi-factorial: physical, psychological, social and spiritual factors all contribute to this subjective sensation.

- It is important to recognise and treat potentially reversible causes of breathlessness.

## Assessment

- History and clinical examination
- Investigations e.g. chest x-ray
- Management will be dependent on clinical diagnosis.

## Management

- Treat reversible causes
- Non-pharmacological measures
- Drug treatments

**Table 19 – Management of potentially treatable causes of breathlessness**

Cause	Consider
Cardiac failure and pulmonary oedema	Diuretics/ACE inhibitors/nitrates/opioids
Pneumonia	Antibiotics where appropriate
Bronchospasm	Bronchodilators ± steroids
Anaemia	Transfusion – treat symptoms rather than haemoglobin level
Pulmonary embolism	Anticoagulation
Anxiety	Psychological support, anxiolytics
Superior vena cava obstruction	Consider high dose steroid - <a href="#">see Palliative Care Emergencies section</a> Refer to oncologist for radiotherapy/chemotherapy Stent
Tracheal/bronchial obstruction from malignancy	Consider referral to oncologist for radiotherapy or referral for stenting
Lung metastases	Consider referral to oncologist for radiotherapy/chemotherapy
Pleural effusion Pericardial effusion Ascites	Consider drainage procedures

**Non-pharmacological management of breathlessness**

- Reassurance and explanation
- Distraction and relaxation techniques
- Positioning of patient to aid breathing
- Increase air movement – fan/open window
- Physiotherapy – decrease respiratory secretions and breathing exercises
- Occupational therapy- modify activities of daily living to help with symptoms
- Establish the meaning of the breathlessness for the patient and explore fears
- Psychological support – to reduce distress of anxiety and depression.

**Pharmacological management of breathlessness**

**(i) Opioids**

Decrease perception of breathlessness, decrease anxiety and decrease pain.

**Opioid naïve patient**

- Oral morphine immediate-release 2.5 – 5 mg four hourly when required for breathlessness
- Titrate according to response
- If patient requires more than 2 doses in 24 hours, consider use of a long-acting opioid.

### Patient already taking regular strong opioid for pain

- For breathlessness use an additional “when required” dose of strong opioid which is in the range of 25-100% of the 4-hourly strong opioid dose, depending on severity of breathlessness.
- For example, if patient is on oral morphine modified-release 30mg twice a day for pain – the dose range for oral morphine immediate-release dose for breathlessness is 2.5 -10mg when required.
- Titrate according to response.
- Consider increasing the regular dose by a maximum of 25-50% if “when required” doses are beneficial.

**Note:** Use with caution in patients with type 2 respiratory failure.

### (ii) Benzodiazepines

Benzodiazepines do not relieve breathlessness per se but do have a role when anxiety exacerbates breathlessness. For patients with anxiety who have a prognosis of more than 4 weeks, an SSRI should be considered. A benzodiazepine may be used to alleviate symptoms whilst awaiting the effect of an SSRI, or if prognosis is less than 4 weeks.

**Note:** Unless the patient is imminently dying, benzodiazepines are contra-indicated in acute severe pulmonary insufficiency, untreated sleep apnoea syndrome, severe hepatic impairment and myasthenia gravis.

They should be used with caution in patients with type 2 respiratory failure.

[See Anxiety section for further guidance, including drug dosages](#).

### (iii) Corticosteroids

May reduce inflammatory oedema.

**Table 20 – Use of steroids for management of specific causes of breathlessness**

Indication	24-hour dexamethasone dose (oral)
<a href="#">Superior vena cava obstruction</a> (see page 69)	16 mg
Stridor	8 -16 mg
Lymphangitis carcinomatosis Post-radiotherapy Bronchospasm	8 mg

### Review treatment with corticosteroids after 5 days.

- If symptoms have improved, reduce dose gradually to the lowest effective dose.
- If no improvement in symptoms, stop or reduce steroid to previous maintenance dose.
- If patient has taken steroids for less than 3 weeks this can be done abruptly.
- If steroids taken for more than 3 weeks reduce dose gradually and stop.

[See section on Corticosteroids for further details](#).

### (iv) Oxygen therapy

- The evidence for efficacy is limited. Oxygen therapy may help dyspnoeic patients who are hypoxic (SaO<sub>2</sub> < 92%) at rest or who become so on exertion. It may help other dyspnoeic patients due to facial or nasal cooling effect, in which case a handheld fan will have the same effect.
- Consider a trial of oxygen for hypoxic patients (SaO<sub>2</sub> <92%) and those where saturation measurements are not available. Discontinue unless of clear benefit.

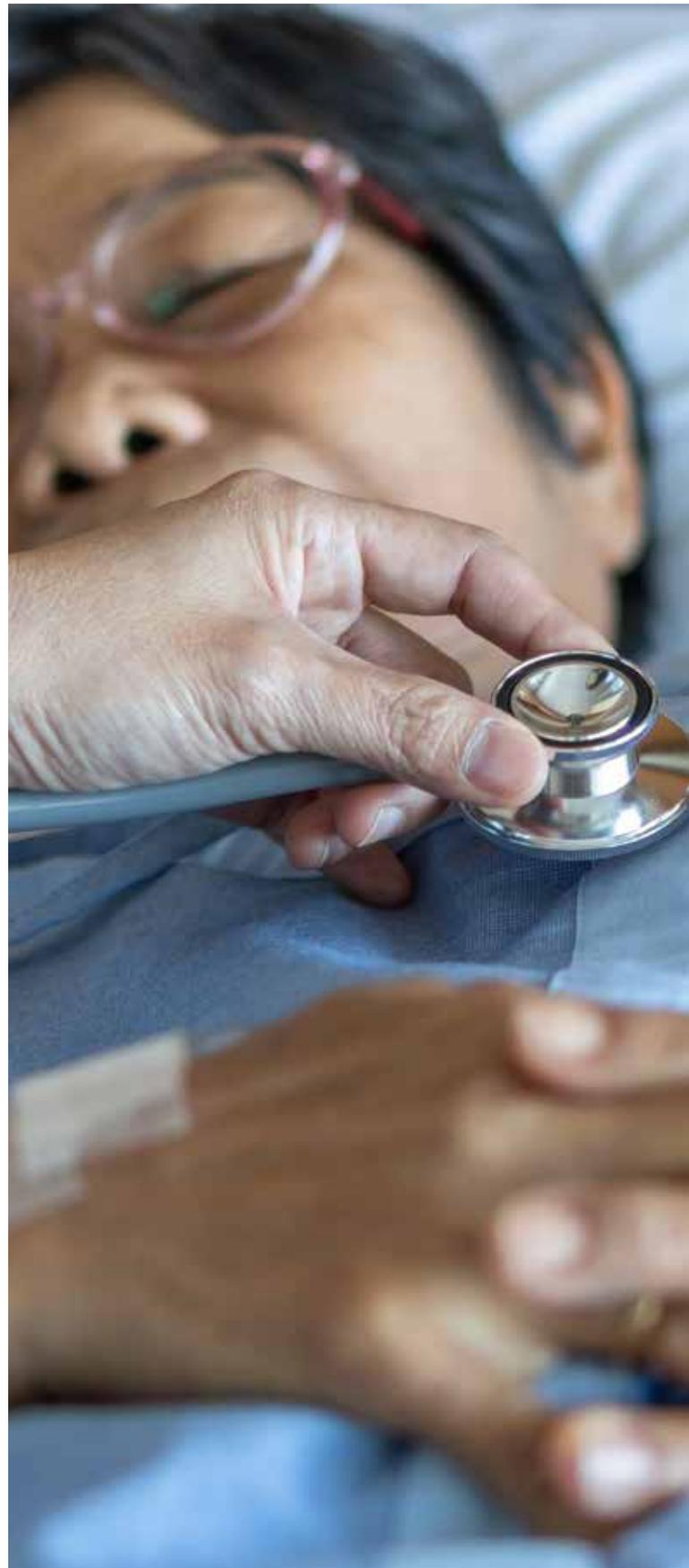
- For patients with COPD who are chronically hypoxic – do not use more than 28% oxygen.
- Oxygen therapy may lead to limited mobility, barrier to communication, inconvenience and cost implications; alternative therapies should be offered.
- Safety implications must also be considered e.g. fire risk from smoking (including e-cigarettes) or other heat sources such as radiators, matches or lit candles.
- Seek guidance from Community Oxygen Service and respiratory physicians, and follow local guidelines

**(v) Nebulised medications**

**Table 21 - Nebulised medications**

Drug	Dose	Comments
<b>Sodium chloride 0.9% nebuliser solution</b>	5 ml when required or 4 hourly	Hydrating agent for viscous secretions
<b>Salbutamol nebulers</b>	2.5 - 5 mg when required or 4 hourly	Bronchodilator

**Monitor the first dose for adverse effects. Stop after 3 days if no response.**



# COUGH

- Assessment as to the likely causes(s) and purpose of the cough is essential.
- May be cancer-related/treatment-related or due to other diseases.
- Cough may serve a physiological purpose and therefore where possible expectoration/physiotherapy should be encouraged.

## Management

- Treat specific causes. **See Below Table 22 – Management of specific causes of cough.**
- Consider pharmacological management if cough is persistent and treatment of underlying cause is not possible. [See Table 23 – Pharmacological management of cough](#).

**Table 22 – Management of specific causes of cough**

Cause	Management
<b>Malignancy related</b>	Consider referral to oncologist for radiotherapy/chemotherapy/laser therapy. Consider corticosteroids
<b>Treatment related</b>	Medication review e.g. ACE inhibitor induced cough
<b>Cardiac failure and pulmonary oedema</b>	Diuretics/ACE inhibitors
<b>Pneumonia</b>	Antibiotics if appropriate
<b>Asthma</b>	Bronchodilators +/- steroids
<b>COPD</b>	Bronchodilators/steroids. To reduce sputum viscosity: Carbocisteine - see below
<b>Infection</b>	Physiotherapy/nebulised sodium chloride 0.9%/antibiotics. Maintain hydration
<b>Recurrent laryngeal nerve palsy</b>	Consider referral to an Ear, Nose and Throat (ENT) specialist
<b>Pleural effusion</b>	Drainage procedures

**Table 23 - Pharmacological management of cough**

Cause	Dose	Comments
<b>Simple linctus (NB. Not in GM formulary)</b>	5ml 3-4 times a day	Locally soothing demulcent action Some antitussive effect
<b>Codeine linctus 15mg/5ml (NB. Not in GM formulary)</b>	15-30 mg 3-4 times a day	If patient is already taking strong opioid for pain there is no rationale for using codeine linctus. Use “when required” dose of strong opioid to treat cough (the “when required”) dose is usually 1/6 of total daily dose of strong opioid)
<b>Morphine oral solution</b>	2.5-5 mg 4 hourly	Use if opioid naive
<b>Morphine oral solution</b>	5-10 mg 4 hourly	Use this dose if patient has already been taking codeine linctus but found it to be ineffective
<b>Carbocisteine</b>	750 mg three times a day, reducing to twice a day	Reduces sputum viscosity
<b>Sodium chloride 0.9%</b>	2.5 ml nebulised 4 hourly when required	Helps expectoration, useful if it is a wet cough

**In the event of acute infection it may not be advisable to use cough suppressants.**

# RESPIRATORY SECRETIONS

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Excess respiratory secretions are common in patients near the end of life. They are caused by fluid pooling in the upper airways, arising from one or more sources:

- Saliva (most common)
- Bronchial mucosa (e.g. inflammation/infection)
- Pulmonary oedema
- Gastric reflux

## Management

- If the patient is semiconscious or unconscious they are not usually troubled by the secretions. Explanation to family members is important as they may find the secretions distressing, particularly if the patient has noisy rattling breathing.
- Position the patient semi-prone, to encourage postural drainage, unless the secretions are caused by pulmonary oedema or gastric reflux, when the patient should be more upright.
- Suction of the upper airway is usually reserved for unconscious patients, as it can otherwise be distressing.

**See Algorithm 6: Are troublesome respiratory tract secretions present** [↗](#) and **Table 40 – Antisecretory drugs in renal impairment** [↗](#) for further guidance.

(Ref: PCF6)

# ORAL PROBLEMS

Oral problems are common in palliative care patients. Careful assessment and early intervention are vital in order to optimise patient comfort and prevent more serious problems and complications.

## Assessment

The mouth should be assessed carefully on a daily basis. Features of a healthy mouth include:

- The mouth is clean and moist with saliva
- The gums, tongue and cheeks are healthy and pink
- No holes in the teeth or broken fillings
- Dentures are clean and fit well
- No mouth ulcers or undiagnosed red or white patches

## Preventative management

- Teeth and tongue should be cleaned at least twice daily for about 2 minutes with a small/medium head toothbrush and fluoride toothpaste. Any excess toothpaste should be spat out, but the mouth **should not** be rinsed with water immediately after brushing as this washes away the remaining toothpaste and reduces its protective effects.
- Dentures should be removed twice daily, cleaned with a brush and rinsed with water. They should be soaked overnight in water, or using the patient's usual solution (check product instructions as some solutions should be used for 15 minutes only). After soaking, the dentures should be cleaned with a brush again.
- Adequate oral fluid intake should be encouraged.
- Lips should be moisturised sparingly with lip balm. (If oxygen therapy in place, then a water soluble lubricant should be used).
- Diagnose and manage secondary oral infection.

## Management of oral problems

Management will depend on the nature and cause of the problem. [See Table 24 – Management of oral problems](#).

## References and further guidance:

Mouth Care Matters [http://www.mouthcarematters.hee.nhs.uk/wp-content/uploads/2016/10/MCM-GUIDE-2016\\_100pp\\_OCT-16\\_v121.pdf](http://www.mouthcarematters.hee.nhs.uk/wp-content/uploads/2016/10/MCM-GUIDE-2016_100pp_OCT-16_v121.pdf)

NHS.UK How to keep your teeth clean <https://www.nhs.uk/live-well/healthy-body/how-to-keep-your-teeth-clean/>

Mouth care guidance and support in cancer and palliative care 3rd edition <http://www.ukomic.co.uk/documents/UKOMiC-Guidelines-3rd-Edition.pdf>

Ref: What should be considered when choosing or prescribing saliva substitutes? UKMI (May 2017) [https://www.sps.nhs.uk/wp-content/uploads/2017/11/UKMI\\_QA\\_Saliva-Substitutes\\_update\\_May-2017-1.pdf](https://www.sps.nhs.uk/wp-content/uploads/2017/11/UKMI_QA_Saliva-Substitutes_update_May-2017-1.pdf)

Table 24 – Management of oral problems

Problem	Management
<b>Aphthous ulcers</b>	<ul style="list-style-type: none"> <li>■ Hydrocortisone oromucosal tablet 2.5mg four times a day for up to 5 days. Allow tablet to dissolve at site of ulcer.</li> <li>■ Topical analgesic gels – choline salicylate 8.7% oral gel e.g. Bonjela® or local anaesthetic (e.g. lidocaine ointment 5%)</li> <li>■ Antiseptic mouthwash, e.g. chlorhexidine gluconate 0.2%, may help prevent or treat secondary infection</li> </ul>
<b>Viral ulcers</b>	<ul style="list-style-type: none"> <li>■ Aciclovir 200 mg 5 times a day for 5 days</li> <li>■ Topical gels (see above)</li> </ul>
<b>Malignant ulcers</b>	<ul style="list-style-type: none"> <li>■ Consider antibiotic</li> </ul>
<b>Radiation stomatitis</b>	<ul style="list-style-type: none"> <li>■ Benzydamine 0.15% mouthwash or spray</li> <li>■ Consider applying a mucosal protectant gel e.g. Episil®, Gelclair®, Oralife®, MuGard®</li> <li>■ Paracetamol 1g up to 4 times a day (<b>see page 13 regarding when dose reduction may be required</b>) <sup>⚡</sup></li> <li>■ Opioid analgesics if above inadequate</li> <li>■ Seek advice from Oncology team if necessary</li> </ul>
<b>Gingivitis</b>	<ul style="list-style-type: none"> <li>■ Metronidazole 200 mg three times a day orally for 3 days</li> <li>■ Antiseptic mouthwash – e.g. chlorhexidine gluconate 0.2% mouthwash (<b>NB. See notes below</b>)</li> </ul>
<b>Dry mouth</b>	<ul style="list-style-type: none"> <li>■ Review medications (opioids, antimuscarinics)</li> <li>■ Increase oral fluid intake</li> <li>■ Saliva substitutes/moisturising agents – refer to BNF and GMMMG Formulary for full range of products available <ul style="list-style-type: none"> <li>● Avoid acidic saliva products in dentate patients <ul style="list-style-type: none"> <li>– AS Saliva Orthana® oral spray &amp; lozenges &amp; Biotene Oralbalance® gel are neutral pH,</li> <li>– Glandosane® spray and Salivix® pastilles are acidic*</li> </ul> </li> <li>● Be aware that some saliva substitutes are porcine in origin <ul style="list-style-type: none"> <li>– Biotene Oralbalance® gel and Glandosane® spray <b>do not</b> contain animal-derived ingredients</li> <li>– AS Saliva Orthana® &amp; Salivix® <b>do</b> contain animal-derived ingredients*</li> </ul> </li> <li>● These products can only be prescribed on the NHS in line with ACBS criteria (i.e. for patients suffering from dry mouth as a result of having (or having undergone) radiotherapy, or sicca syndrome). For other patients these preparations can be purchased over-the-counter.</li> </ul> </li> <li>■ Boiled sweets, ice cubes, sugar free chewing gum</li> <li>■ Consider sodium chloride 0.9% mouthwashes/sprays/nebulisers</li> <li>■ Pilocarpine - seek specialist advice <ul style="list-style-type: none"> <li>● Avoid in those with a lack of salivary function</li> </ul> </li> </ul>

<b>Coated tongue</b>	<ul style="list-style-type: none"> <li>■ Chewing pineapple chunks</li> <li>■ Brushing tongue with soft toothbrush</li> </ul>
<b>Fungal infection</b>	<ul style="list-style-type: none"> <li>■ Nystatin oral suspension 100,000 units/ml 1 ml – 5 ml four times a day for 7 days. Hold in mouth for 1 min and then swallowed. Use after meals and at bedtime. Note, nystatin has a topical effect. The higher doses are unlicensed and will require enough quantity to be issued to cover at least a 7-day supply e.g. approx. 150ml.</li> <li>■ Fluconazole 50mg daily for 7 days (14 days if dentures worn). Fluconazole 150mg as a single dose can be used if prognosis is short. (note reduce dose by 50% if eGFR &lt; 50 ml/min). Fluconazole suspension is significantly more expensive than capsules.</li> <li>■ Miconazole 20mg/1g oral gel - see BNF</li> <li>■ NB. Fluconazole and miconazole are enzyme inhibitors. There is a risk of interactions with many drugs e.g. fentanyl, buprenorphine. Seek specialist advice</li> <li>■ Review and reassess treatment after 5 – 7 days. If recurrent please seek specialist microbiological advice.</li> <li>■ Dentures should be soaked overnight in a weak chlorine solution (e.g. ® Milton Sterilising Fluid)</li> </ul>
<b>Bacterial infection</b>	<ul style="list-style-type: none"> <li>■ Consider the use of antibiotics</li> </ul>
<b>Dry Lips</b>	<ul style="list-style-type: none"> <li>■ Yellow/white soft paraffin or normal lip salve <ul style="list-style-type: none"> <li>• Contraindicated if patient having radiotherapy to head and neck</li> </ul> </li> <li>■ If Oxygen therapy in place, then water soluble lubricant should be used</li> </ul>

## Guidance regarding use of Chlorhexidine (Ref: PCF6)

- There is a risk of an anaphylactic reaction in patients with a history of chlorhexidine allergy. Check the labels and instructions for use to establish if products contain chlorhexidine prior to use on patients with a known allergy. See <https://assets.publishing.service.gov.uk/media/5485abd7e5274a4290000281/con197920.pdf> 
- Chlorhexidine is inactivated by some toothpastes. Wait 30 minutes after using toothpaste before using chlorhexidine.
- Chlorhexidine inactivates nystatin. If using both, leave at least 30 minutes after chlorhexidine before using nystatin.
- Chlorhexidine mouthwash may contain alcohol. This may cause discomfort. Try diluting with water or use alcohol free product. (Ref: PCF6)

# HICCUPS

Hiccups lasting more than 48 hours are not uncommon in patients with advanced disease and can be very distressing and exhausting. They can affect a patient's daily living and social functioning.

## Assessment

- Careful assessment is required to identify the cause.
- Consider severity, duration and impact on a patient's quality of life.
- Causes include:
  - Gastric stasis and distension (the most common cause).
  - Gastro-oesophageal reflux.
  - Metabolic disturbances (for example uraemia, hypercalcaemia, magnesium deficiency).
  - Infection.
  - Irritation of diaphragm or phrenic nerve.
  - Hepatic disease/hepatomegaly.
  - Cerebral causes (for example tumour, metastases) .
  - Damage to phrenic nerve over its course from skull to diaphragm, for example shingles, pressure from mediastinal tumour.

## Management of Hiccups

- Hiccups often stop spontaneously. Treatment is only required if hiccups are persistent and causing the patient discomfort and distress.
- Try simple physical manoeuvres initially and those that have worked previously.

## Non-pharmacological management

- Simple measures or 'home remedies' can be effective. These include:
  - Sipping iced water or swallowing crushed ice.
  - Breathing into a paper bag, particularly if the patient is hyperventilating.
  - Interrupting normal breathing, for example holding breath.
  - Drinking from the wrong/opposite side of a cup.
  - Rubbing the soft palate with a swab to stimulate the nasopharynx.
- Acupuncture may be effective.

## Pharmacological management

- Most studies of treatments for hiccups are small and of low quality and suggestions for drug treatment options are made cautiously.

**[See Table 25 – Pharmacological management of hiccups](#)** <sup>Ⓔ</sup>.

**Table 25 – Pharmacological management of hiccups**

Cause	Specific management
<b>Gastric distension +/- gastro-oesophageal reflux</b>	<ul style="list-style-type: none"> <li>■ Peppermint water 10ml when required.</li> <li>■ Metoclopramide 10mg three times a day (do not use metoclopramide concurrently with peppermint water as opposing action).</li> <li>■ Antiflatulent e.g. Simeticone.</li> <li>■ PPI.</li> </ul>
<b>Diaphragmatic or phrenic nerve irritation</b>	<ul style="list-style-type: none"> <li>■ Baclofen – seek specialist advice.</li> <li>■ Antiepileptic – e.g. gabapentin – <b>SEEK SPECIALIST ADVICE.</b></li> <li>■ Nifedipine – <b>SEEK SPECIALIST ADVICE.</b></li> <li>■ Midazolam – <b>SEEK SPECIALIST ADVICE.</b></li> </ul>
<b>Systemic causes e.g. biochemical, infection</b>	<ul style="list-style-type: none"> <li>■ Treat underlying cause.</li> <li>■ Haloperidol 500 micrograms to 1mg tds orally.</li> <li>■ Midazolam – <b>SEEK SPECIALIST ADVICE.</b></li> </ul>
<b>CNS tumour Meningeal: infiltration by cancer</b>	<ul style="list-style-type: none"> <li>■ Antiepileptic – e.g. gabapentin – <b>SEEK SPECIALIST ADVICE.</b></li> <li>■ Baclofen – <b>SEEK SPECIALIST ADVICE.</b></li> </ul>
<b>Hepatic, mediastinal or cerebral compression/irritation by disease/tumour</b>	<ul style="list-style-type: none"> <li>■ Dexamethasone oral 4-8mg in the morning may reduce compression/irritation.</li> <li>■ Stop if no benefit after a week.</li> <li>■ If beneficial gradually reduce dose.</li> </ul>

Ref: PCF6, Scottish Palliative Care Guidelines

# DELIRIUM AND CONFUSION

## Definition

- Delirium is characterised by 4 core features:
  - Disturbance of consciousness and attention.
  - Change in cognition, perception and psychomotor behaviour.
  - Develops over a short period of time and fluctuates during the day.
  - Is the direct consequence of a general medical condition, drug withdrawal or intoxication.
- Delirium can have an acute or sub-acute onset (sub-acute seen commonly in the elderly) and should be distinguished from dementia.
- Validated tools to detect delirium include the 4AT and the CAM.

## Types of delirium

- **Hyperactive delirium** – predominantly restless and agitated.
- **Hypoactive delirium** – predominantly drowsy and inactive. Delirium is often overlooked and the symptoms may be mistaken for depression or dementia.
- **Mixed motor type** – with evidence of both hyperactive and hypoactive symptoms in the past 24 hours.

Ref: BMJ 2017; 357 doi: <https://www.bmj.com/content/357/bmj.j2047> 

- Delirium can be a great source of distress to patients and carers and is associated with higher mortality.
- Identification and treatment of the underlying cause is vital.
- Causes of delirium can be multi-factorial so assessment is essential.

- Use of the mnemonic PINCHME is helpful in remembering the possible reversible causes of delirium (Pain/Infection/Nutrition/Constipation/Hydration & hypoxia/Medication & Metabolic/Environment).

## Non-Pharmacological management

- Provide environmental and personal orientation. This may be helped by the presence of a family member or trusted friend.
- Manage patient in a quiet well-lit room.
- Support and correct any sensory deprivation (use of glasses/hearing aids etc).
- Ensure continuity of care by avoiding any potential disruptive interventions – e.g. moving patient to different bed or ward.
- Maintain hydration.
- Hallucinations, vivid dreams and misperceptions may reflect unresolved fears and anxieties: facilitated discussion may be necessary.
- Reassure relatives and carers that the patient's confusion is secondary to a physical condition and provide information about how they can best help the person – e.g. see information at <https://www.rcpsych.ac.uk/mental-health/problems-disorders/delirium>  and video at <https://www.youtube.com/watch?v=BPfZgBmcQB8&feature=youtu.be> 

**Table 26 – Pharmacological management of underlying causes of delirium**

Cause	Treatment
<p><b>Drug related:</b></p> <ul style="list-style-type: none"> <li>■ Opioids</li> <li>■ Corticosteroids</li> <li>■ Sedatives</li> <li>■ Antimuscarinics that cross the blood/brain barrier</li> </ul>	<p>Reduce or stop suspected medication as appropriate or switch to suitable alternative.</p>
<p><b>Withdrawal:</b> e.g. alcohol, nicotine, benzodiazepines, opioids</p>	<p>May be appropriate to allow the patient to continue to use responsible agent. Nicotine patches may be useful.</p>
<p><b>Metabolic:</b></p> <ul style="list-style-type: none"> <li>■ Respiratory failure</li> <li>■ Liver failure</li> <li>■ Renal failure</li> <li>■ Hypoglycaemia/hyperglycaemia</li> <li>■ Hypercalcaemia</li> <li>■ Adrenal, thyroid or pituitary dysfunction</li> <li>■ Infection</li> <li>■ Nutrition</li> </ul>	<p>Treat any reversible causes if possible. Consider oxygen see Respiratory Symptoms section of guidance. <b><u>See Palliative Care Emergencies section of guidance</u></b> <a href="#">↗</a></p>
<p><b>Raised Intracranial Pressure:</b></p>	<p>Dexamethasone 8 - 16mg daily or 6.6-13.2mg SC (using 3.3mg/ml strength) for one week, and then reduce over 2-4 weeks to lowest dose which maintains benefit. (If treated with radiotherapy, steroids should be continued until one-week post treatment, and then reduced as above). Consider trial of dose increase if symptoms recur.</p>
<p><b>Other:</b></p> <ul style="list-style-type: none"> <li>■ Circulatory (dehydration, shock, anaemia)</li> <li>■ Pain</li> <li>■ Constipation</li> <li>■ Urinary retention</li> <li>■ Sleep</li> <li>■ Environment</li> </ul>	<p>Treat reversible causes if possible and appropriate (e.g. IV fluids, transfusion)</p> <ul style="list-style-type: none"> <li>■ <b><u>See Pain section of guidance</u></b> <a href="#">↗</a></li> <li>■ <b><u>See Constipation section of guidance</u></b> <a href="#">↗</a></li> </ul> <p>Catheterise if patient able to comply</p>

## Pharmacological management of symptoms

- The evidence for the role of antipsychotics in managing delirium symptoms is variable - **only use if symptoms are marked, persistent, and causing distress to the patient and non-pharmacological interventions have not worked** (Ref: PCF6).
- SIGN guidelines 157 conclude that whilst the evidence to support the use of pharmacological treatment is insufficient, expert opinion supports a role for medications in specific situations such as those with intractable distress or where safety of the patient or others is compromised.
- Regular review is imperative as sedative drugs may exacerbate symptoms.
- Use a step-wise approach to drug dosages.

**Table 27 – Pharmacological management of delirium symptoms**

Situation	Management
<b>Delirium where sedation undesirable</b>	Start with haloperidol 500 micrograms at night. This can be increased gradually if necessary – maximum 10mg/24 hours (Ref: PCF6) Consider a benzodiazepine if alcohol withdrawal is suspected.
<b>Agitated delirium where sedation would be beneficial</b>	Olanzapine 2.5mg -5mg once or twice daily (less sedating than levomepromazine) Levomepromazine 12.5 – 25 mg 6-8 hourly orally or SC. If two or more doses given in 24 hours, please <b>SEEK SPECIALIST ADVICE</b>
<b>Acutely disturbed, violent or aggressive; at risk to themselves or others</b>	Haloperidol 1.5- 5 mg SC or IM repeat as needed after 20-30 min - <b>SEEK ADVICE FROM MENTAL HEALTH CRISIS TEAM</b>

**Avoid antipsychotic drugs for people with conditions such as Parkinson's disease or dementia with Lewy bodies.**

### References:

- NICE Clinical Guideline CG103 (2010) Delirium: prevention, diagnosis and management <https://www.nice.org.uk/guidance/cg103> 
- SIGN guidelines 157 - Risk reduction and management of delirium <https://www.sign.ac.uk/assets/sign157.pdf> 

# ANXIETY IN ADVANCED ILLNESS

People with life-limiting illnesses may suffer general anxiety or panic for a number of reasons including uncertainty about the future, separation from loved ones, financial, work and social worries as well as unrelieved pain or other symptoms.

Anxiety may be new to the individual, but is commoner in patients with pre-existing anxiety disorders, such as generalised anxiety disorder or panic disorder.

## Symptoms and signs of anxiety may be due to or exaggerated by organic problems such as:

- Hypoxia.
- Sepsis.
- Medications (e.g. antipsychotics; SSRIs; steroids).
- Drug or substance withdrawal (e.g. benzodiazepines/opioids/nicotine/alcohol).
- Metabolic causes (e.g. hypoglycaemia/thyrotoxicosis).
- Poorly controlled pain/other symptoms.
- Dementia.

## Management

- The severity of the underlying disease and the overall prognosis guides management decisions.
- Treat contributing factors such as pain and other symptoms, hypoxia, sepsis etc.
- If prognosis >4 weeks, use non-pharmacological measures and follow NICE guideline CG113 for management of generalised anxiety disorder and panic disorder <https://www.nice.org.uk/guidance/cg113> <sup>↗</sup>
- If prognosis <4 weeks, some non-pharmacological measures can still be helpful, but use of benzodiazepines may also be considered particularly if anxiety is severe.

## Non-pharmacological measures

- Acknowledge and discuss anxiety and specific fears as well as patient's own views and understanding - important first step.
- Distraction.
- Relaxation Techniques.
- Counselling.
- Cognitive behavioural therapy (CBT).
- Consider involvement of local psychological or psychiatric services.
- Self-help (e.g. "bibliotherapy" - use of written material).
- Support groups.
- Day Hospice if appropriate.
- Assess how family is coping and if any communication problems are amplifying the anxiety or provoking feelings of isolation.

## Pharmacological Management

- [See Table 28 – Pharmacological management of anxiety – prognosis less than 4 weeks](#) <sup>↗</sup>

[Table 29 – Pharmacological management of anxiety – prognosis more than 4 weeks](#) <sup>↗</sup>

[Table 39 – Benzodiazepines in renal impairment](#) <sup>↗</sup>

**Table 28 – Pharmacological management of anxiety – prognosis less than 4 weeks**

Drug	Dose	Comments	Pharmacokinetics
<b>Lorazepam*</b>	500 micrograms – 1mg orally or sublingually twice daily and p.r.n.  Maximum dose 4mg in 24 hours. <b>In elderly/ debilitated</b> – maximum dose 2mg.	<ul style="list-style-type: none"> <li>• 1mg tablets are scored</li> <li>• Sublingual route is unlicensed – one study suggested more rapid absorption sublingual than PO but others have found no difference. Thus, it is likely that the amount of lorazepam absorbed sublingually is variable and formulation-dependent. The patient must have a sufficiently moist mouth for sublingual absorption to occur.</li> <li>• Note only some brands of lorazepam tablet will dissolve easily when placed under the tongue, so need to specify manufacturer on the prescription e.g. Genus, PVL or TEVA brands.</li> </ul>	Tmax 2.5h (PO or SL) Half-life = 10 – 20h
<b>Diazepam*</b>	2mg three times a day, increased if necessary to 15-30mg in divided doses.  <b>In elderly/ debilitated</b> – 1mg three times a day, increased if necessary to 7.5-15mg daily in divided doses.	<ul style="list-style-type: none"> <li>• Long acting.</li> </ul>	Tmax 0.5-1.5h (PO) Half-life = 25-50h; active metabolite up to 200h
<b>Midazolam*</b>	2.5 - 5 mg SC 1 hourly p.r.n.  If symptoms persist, seek specialist advice.	<ul style="list-style-type: none"> <li>• If oral route not available.</li> <li>• Rapid onset, short acting.</li> <li>• If multiple doses are required then consider administration via 24-hour CSCI at a starting dose of 5-10mg.</li> </ul>	Tmax 0.5h (SC) Half-life = 1-4 h

**\*Note:** Older patients are more sensitive to the effects of benzodiazepines. Benzodiazepines can cause physical and psychological dependence. Short term use only for 2-4 weeks. Benzodiazepines with long half-lives accumulate when given repeatedly and undesirable effects may manifest only after several days or weeks. *Ref: BNF, PCF6*

**Table 29 – Pharmacological management of anxiety – prognosis more than 4 weeks**

Medication	Comment
<p>SSRI e.g. Sertraline 25mg once daily (see BNF for titration)</p> <p>If sertraline is ineffective switch to alternative SSRI or SNRI</p> <p>If SSRI or SNRI not tolerated, consider pregabalin – BNF advises starting dose of 150mg daily in 2-3 divided doses. May need to start at lower dose in elderly/debilitated e.g. 25mg twice daily.</p>	<p>Ref: NICE guideline CG113 for management of generalised anxiety disorder and panic disorder <a href="https://www.nice.org.uk/guidance/cg113">https://www.nice.org.uk/guidance/cg113</a> </p>



# DEPRESSION

Depression is common in a palliative care setting and is under-recognised. Estimates of the prevalence of depression vary, but it is probable that at least 25% of patients with advanced illness will develop a significant mood disorder.

It is important to note that:

- Untreated depression may increase the impact of existing symptoms and reduce the effectiveness of usual interventions.
- Physical consequences of life-limiting illnesses can mimic symptoms of depression.

## Screening for depression

Screening for depression should be undertaken in all settings using questions such as:

- “During the last month, have you often been bothered by feeling down, depressed or hopeless?”
- “During the last month, have you often been bothered by having little interest or pleasure in doing things?”
- Sensitively ask about the risk of suicide or self-harm

## Management

- Explore the patient’s understanding of his/her illness
- Address and treat current causes of physical and psychological distress
- **If prognosis less than 4 weeks - SEEK SPECIALIST ADVICE.**
- **If prognosis more than 4 weeks -** see Box 6 (opposite) – Non-pharmacological management of depression and [Table 30 – Pharmacological management of depression – prognosis more than 4 weeks for summaries of management options](#) <sup>Ⓔ</sup>. See NICE guideline CG90

Depression in adults: recognition and management <https://www.nice.org.uk/guidance/cg90> <sup>Ⓔ</sup> for more details.

- Refer to a mental health specialist if treatment-resistant, recurrent symptoms, atypical or psychotic depression and/or significant risk of suicide

### Box 6 - Non-pharmacological management of depression

- Distraction
- Relaxation
- Sleep and anxiety management advice
- Complementary therapies
- Hospice day therapy
- Guided self-help
- Specific psychological treatments including cognitive behavioural therapy (CBT)
- Exercise

**Table 30 – Pharmacological management of depression - prognosis more than 4 weeks**

Drug	Comments
<p><b>Selective serotonin reuptake inhibitors (SSRIs)</b>                      e.g.                      Sertraline 50-200mg once daily                      Citalopram 10-40mg once daily (20mg maximum in patients over 65 years)</p>	<ul style="list-style-type: none"> <li>• Recommended by NICE in routine care</li> <li>• Useful for mixed anxiety and depressive disorders</li> <li>• May provoke anxiety “flare” (manage with benzodiazepines as needed)</li> <li>• <b>Note SSRIs have many interactions with commonly used medication - see BNF</b></li> <li>• Incidence of sexual dysfunction &lt;10%</li> </ul>
<p><b>Mirtazapine</b>                      15-45 mg at night</p>	<ul style="list-style-type: none"> <li>• Response rate equivalent to other antidepressants (70%)</li> <li>• Rapid onset of action (one to two weeks)</li> <li>• May increase appetite</li> <li>• Does not cause nausea and vomiting</li> <li>• Causes sedation at low dose so given at night.</li> <li>• Not associated with cardiac toxicity or sexual dysfunction</li> </ul>
<p><b>Duloxetine</b>                      60mg once daily. (Higher doses may be used on specialist advice)</p>	<ul style="list-style-type: none"> <li>• May be beneficial if also has neuropathic pain.</li> <li>• Incidence of sexual dysfunction (30%)</li> </ul>
<p><b>Venlafaxine</b>                      75mg daily, increased if necessary up to 300mg daily. (Higher doses may be used on specialist advice)</p>	<ul style="list-style-type: none"> <li>• <b>Note venlafaxine has several cautions and contra-indications - see BNF and NICE guideline CG90: Depression in adults: recognition and management</b></li> </ul>

For patients with renal impairment see [Table 38 – Antidepressants in renal impairment](#) 

# INSOMNIA

## Assessment

- Assess the person's beliefs about what they regard as normal sleep and the impact of insomnia on their activities and quality of life.
- Ask about duration of insomnia and any possible contributing factors.

## Management

- Correct contributory factors where possible** e.g. pain, delirium, depression, anxiety, obstructive sleep apnoea.

## Non-pharmacological measures

- Establish fixed times for going to bed and waking up.
- Try to relax before going to bed.
- Maintain a comfortable sleeping environment – not too hot, cold, noisy or bright.
- Avoid napping during the day.

- Avoid caffeine, nicotine and alcohol within 6 hours of going to bed.
- Consider complete elimination of caffeine from the diet.
- Avoid exercise within 4 hours of bedtime (although exercise earlier in the day is beneficial).
- Avoid eating a heavy meal late at night.
- Avoid watching or checking the clock throughout the night.
- If unable to sleep, don't lie there worrying about it. Get up (if possible), do something relaxing until feeling sleepy again, then go back to bed.

## Pharmacological management

- If symptoms are severe, a Z-drug or benzodiazepine with short half-life may be used. **See Table 31 below – Pharmacological management of insomnia.** Duration of use should not usually exceed 4 weeks.

**Table 31 – Pharmacological management of insomnia**

Drug	Standard dose	Dose – elderly/frail	Half-life	Comments
Zolpidem	10mg at night	5mg at night	2 hours	Cost effective options
Zopiclone	7.5mg at night	3.75mg at night	3.5 hours	Cost effective options
Temazepam	10-20mg at night	10mg at night	8-15 hours	Controlled drug prescription requirements apply
Lorazepam	Not recommended due to length of half-life		10-20 hours	

# PALLIATIVE CARE EMERGENCIES

## NEUTROPENIC SEPSIS

This is a life-threatening event and needs urgent treatment irrespective of life expectancy

### Presentation

- Consider in any patient who has had recent chemotherapy who is deteriorating, especially if it is unexpected.
- Occurrence most likely 7-10 days after treatment, but can be up to one-month post treatment.
- Early signs – flu-like symptoms, temperature of 38°C or above, rigors.
- Late signs – anxiety, confusion, cold and clammy, hypotension, tachycardia, diarrhoea.

- Remember – NSAIDs and paracetamol affect temperature, so may mask condition/sepsis if patient is taking these.

### Management

- If condition suspected, **DO NOT DELAY**. Patient needs urgent treatment in hospital with IV fluids and IV antibiotics – liaise with Acute Oncology team.

## HYPERCALCAEMIA

### Definition

- Corrected serum calcium >2.7mmol/L (some variation between laboratories).

### Presentation

- Common in cancer of breast, myeloma, lung, head and neck, kidney, thyroid and cervix.
- May develop insidiously.
- Severity of symptoms are related to speed of rise of calcium.

### Symptoms

- Common symptoms include malaise, weakness, anorexia, thirst, nausea, constipation and polyuria. **There should be a low threshold for checking calcium levels in patients with these symptoms.**

- Symptoms in more severe hypercalcaemia include vomiting, ileus, delirium, seizures, drowsiness and coma.
- Pain can be precipitated or exacerbated by hypercalcaemia.

### Investigations

- Onset of symptoms raising clinical suspicion should be investigated. Blood should be checked for urea and electrolytes (U&Es), estimated glomerular filtration rate (eGFR), liver function tests (LFTs) and corrected calcium.

## Management/Treatment

### In Primary Care - SEEK SPECIALIST ADVICE

#### Points to consider prior to treatment

- First episode or long interval since previous episode.
- Patient reports good quality of life prior to episode.
- Multidisciplinary team expectation is that treatment will have durable effect - may not be appropriate if prognosis is very poor – **SEEK SPECIALIST ADVICE.**
- Patient is willing and able to have intravenous treatment and blood tests.

#### If calcium < 3mmol/L and patient asymptomatic:

- Check urea, electrolytes, creatinine, eGFR.
- Review medications e.g. those that impact on renal function especially diuretics/vitamins/supplements containing calcium/ACE inhibitors.

- Correct dehydration - IV fluids 0.9% sodium chloride, 2-3 Litres/24h or ensure equivalent adequate oral fluid intake.
- Recheck after 24 hours and treat if calcium level rising.

#### If patient symptomatic & calcium <3mmol/L, or calcium >3mmol/L

- Review medications e.g. those that impact on renal function especially diuretics/vitamins/supplements containing calcium.
- Treat with IV fluids 0.9% sodium chloride 2-4 L/24h. The amount and rate of hydration depends on renal function, calcium level and cardiovascular status.
- Administer IV bisphosphonate: EITHER pamidronate disodium OR zoledronic acid (according to local guidelines/BNF/SPC) – **do not give both.**
- If eGFR <30 ml/min do not give bisphosphonate **SEEK SPECIALIST ADVICE.**

**Table 32 – Onset and duration of effect of bisphosphonates**

	Pamidronate disodium	Zoledronic acid
Onset of effect	< 3 days	< 4 days
Maximum effect	5-7 days	4-7 days
Duration of effect	2.5 weeks	4 weeks

#### Monitor for Recurrence:

- If symptoms persist repeat calcium levels and renal function after 7 days. Re-treat with bisphosphonate if clinically indicated.
- If serum calcium refractory to treatment seek specialist advice.
- Repeat bisphosphonate infusion every 3-4 weeks if symptoms recur.
- Check plasma calcium concentration and renal function before each dose.

## SUPERIOR VENA CAVA OBSTRUCTION (SVCO)

- Compression/invasion or thrombosis of superior vena cava due to tumour or nodal mass within mediastinum
- Commonest causes (95%) – lung cancer, non-Hodgkin lymphoma

### Symptoms and signs of SVCO

- Swelling of face, neck, arms.
- Headache.
- Dizziness.
- CNS depression.
- Seizures.
- Dyspnoea.
- Dilated veins – neck, trunk, arms.
- Hoarse voice.
- Stridor.

### Outcome

Placement of an endovenous stent offers the most rapid and effective initial symptomatic relief. Overall prognosis in patients with SVCO is poor. Without treatment, SVCO may cause death within a few days. Even with treatment, one year survival is only 17%. (Ref: *Palliative Adult Network Guidelines, 2016*).

### Management

Admit the patient to hospital if they are in the community, unless they are in the last days of life, in which case **SEEK SPECIALIST ADVICE**.

#### (i) Immediate management

- Sit patient up.
- Administer oxygen if hypoxic.
- Dexamethasone 16mg oral/13.2mg SC once daily.
- Consider Furosemide 40mg IV or oral.

#### (ii) Seek specialist oncological advice re ongoing management

- Endovenous stent.
- Thrombolysis if stent blocked by thrombus.
- Radiotherapy and/or chemotherapy may be offered depending on primary tumour site/histology.

## METASTATIC SPINAL CORD COMPRESSION (MSCC)

The Greater Manchester Cancer Services MSCC pathway and Network Guidance on the assessment and management of MSCC is available at:

[www.christie.nhs.uk/services/i-to-q/metastatic-spinal-cord-compression-mscc/information-for-professionals](http://www.christie.nhs.uk/services/i-to-q/metastatic-spinal-cord-compression-mscc/information-for-professionals) 

- Affects 5-10% of patients with cancer.
- Spinal metastases: most common in prostate, lung, and breast cancer and myeloma.
- Catastrophic event – aim is to prevent establishment of paresis.
- Symptoms may be vague, there should be a high index of suspicion.
- Patients with cancer and neurological signs or symptoms of spinal cord compression should be treated as an oncological emergency.

### Symptoms

- Back/Spinal Pain:
  - may radiate in a radicular ‘band-like’ pattern
  - progressive or unremitting
  - may be worse on coughing or straining
  - may be nocturnal pain preventing sleep
  - may not be present.
- Nerve root pain in limbs.
- Weakness of limbs (out of proportion to general condition of patient).
- Difficulty walking.
- Sensory changes – tingling, numbness, “my legs don’t belong to me”.
- Difficulty passing urine – usually a late presentation.
- Constipation or faecal incontinence.

### Signs

- Localised spinal tenderness.
- Weakness of limbs.
- Reflexes - absent/increased
  - extensor plantars
  - clonus may be present.

- Altered sensation – look for a sensory level.
- Distended bladder.

### Management/Treatment

- **Commence high dose steroids immediately if there is clinical suspicion of MSCC**, even if diagnosis not confirmed
  - Dexamethasone 16mg stat dose oral or 13.2mg IV or SC (using 3.3mg/ml strength)
  - Then continue dexamethasone 8mg bd or 16mg once daily orally until either MSCC has been excluded, surgery has been completed or radiotherapy has been started
  - For patients undergoing radiotherapy, maintain on 8mg PO each morning until completion of treatment
  - Taper (and discontinue) over 1-2 weeks after completion of radiotherapy or surgery. If there is neurological deterioration during the dose reduction, the dose should be increased again to the previous satisfactory dose, and maintained at that level for a further 2 weeks before attempting to taper the dose again. (Ref: PCF6).

- Consider starting a PPI alongside high dose steroid treatment.
- Urgent MRI of whole spine scan (within 24 hours).
- Urgent same day referral to the Network MSCC coordinator or out of hours contact the Christie Hotline (Christie Hospital, 0161 446 3658, <https://www.christie.nhs.uk/services/i-to-q/metastatic-spinal-cord-compression-mscc/> <sup>o</sup> for advice re. radiotherapy and/or chemotherapy.
- The Network MSCC coordinator (or oncology team out of hours) may advise referral for specialist spinal opinion for possible surgical decompression if:
  - No underlying diagnosis has been made
  - There are limited levels of spinal cord compression on imaging
  - Minor neurological impairment is present
  - There is progressive weakness despite previous radiotherapy at this level
  - Evidence of spinal instability and estimated life expectancy of at least six months with general condition suitable for general anaesthesia and surgery

- Immobilisation is recommended for patients with symptoms and signs suggestive of spinal instability and spinal cord compression until stability is confirmed.

### Aims of Treatment

- The earlier treatment is commenced the greater chance of preventing permanent paralysis, loss of bowel and bladder control, devastating loss of independence and quality of life and markedly reduced survival
- Maximisation of recovery of neurological function
- Local tumour control
- Pain control
- Improve spinal stability
- Good communication with patient and family
- Good nursing care, pressure area care, psychological support and rehabilitation.

## CAUDA EQUINA COMPRESSION – Lumbar Spine below L1

### Presentation

- Lumbar pain with loss of power in lower limbs and loss of sphincter control.

### Symptoms/Signs

- Weakness of legs, loss of lower limb tendon reflexes, sciatic pain, urinary hesitancy and peri-anal numbness.

### Cause

Spinal metastases, breast, prostate, lung cancer and myeloma most common.

### Treatment

As for spinal cord compression - give high dose dexamethasone 16mg stat dose orally or 13.2mg IV or SC (using 3.3mg/ml strength), followed by radiotherapy.

### Recurrence

Consider steroids as above.

## CATASTROPHIC HAEMORRHAGE

- Catastrophic haemorrhage can be a frightening experience for both patients and carers, though this can be minimised by good anticipatory planning.
- Bleeding may be frank or occult.
- It may be a terminal event in both advanced cancer and non-malignant disease.

### Types of haemorrhage

- Haemoptysis.
- Haematemesis.
- Rectal/vaginal haemorrhage.
- Melaena.
- Haematuria.
- Surface bleeding.
- Nose bleed.
- Oesophageal varices.

### Signs and symptoms

- Visible bleeding.
- Hypotension.
- Cool extremities.
- Anxiety.

### Anticipatory management for patients at high risk of catastrophic haemorrhage

- Plan ahead where possible.
- Consider whether admission for urgent blood transfusion, IV fluids etc. would be appropriate if a bleed was to occur.
- Develop a proposed management plan, ideally discussed with patient and/or family and staff.
- Record management plan in case notes and communicate this to all team members.
- Provide dark coloured towels to disguise blood loss.

### Pharmacological management

- Anticipatory prescribing of an anxiolytic (midazolam 5-10mg IV, IM, buccal or sublingual (*Ref: PCF6*)).
- The subcutaneous route should not be used in catastrophic bleeds due to peripheral shut down and therefore unpredictable absorption of the medication.
- For patients in the community, consider training a family member in the use of buccal or sublingual midazolam (Note: buccal or sublingual route is not appropriate if a large amount of blood is likely to come out of the mouth).
- **Note:** If the patient has a massive haemorrhage and is clearly dying, support and non pharmacological interventions are more important until help arrives than trying to give sedative medication; the patient will usually lose consciousness rapidly and may be frightened especially if left alone.

### Catastrophic bleed

- Manage as per anticipatory plan.
- Keep patient warm and **ensure they are not left alone.**
- Use anxiolytic as needed if the patient is distressed.
- Support the patient and family.

## Further care

- **If bleeding stops** - consider whether there is a risk of further haemorrhage. Further management will depend on overall clinical status and discussion with patient and family in relation to whether acute interventions are appropriate.
- **If bleeding continues at a slower rate** – consider whether any interventions to try and stop the bleeding are appropriate. It may be necessary to commence and continue an infusion of anxiolytic (midazolam) if the patient is in the last hours of life.
- **Following a catastrophic haemorrhage**
  - Offer support and debriefing to family and team members – may need to be ongoing for a period of time after the event.
  - Dispose of clinical waste appropriately.

*Ref: PCF6, Scottish Palliative Care Guidelines*



## CORTICOSTEROIDS

Corticosteroids are used extensively in palliative care. **Dexamethasone** is the preferred choice due to its relatively high anti-inflammatory potency and lower incidence of fluid retention and biochemical disturbance.

- Whilst highly effective they should be used with caution and be constantly monitored to prevent avoidable complications.
- Standard starting doses for the different indications are not well established and doses given below are for guidance only and need to be tailored according to the individual patient's overall condition.
- Give corticosteroids as a single dose in the morning, or as a divided dose in the morning and at lunchtime, to minimise risk of insomnia.
- Clinical response must be reviewed within 7 days.
- Titrate down to minimum effective dose as soon as is possible.

**Table 33 – Corticosteroid use for the management of specific symptoms**

Indication	Suggested starting dose/usage
<b>Anorexia</b> 	Dexamethasone - 2-6mg orally once daily in the morning; assess after one week <ul style="list-style-type: none"> <li>■ If beneficial, continue - reduce weekly to lowest effective dose.</li> <li>■ If no benefit after 1 week, then stop.</li> </ul> Although enhanced effect can still be present at 4 weeks, short courses are recommended to reduce risk of side effects.
<b>Adjuvant analgesic</b> 	For cancer-related pain (e.g. liver capsule pain, nerve compression): <ul style="list-style-type: none"> <li>■ Dexamethasone 8-16mg a day orally in 1-2 doses.</li> </ul>
<b>Antiemetic</b> 	For chemotherapy-induced nausea and vomiting: follow Oncology guidelines. Refractory nausea and vomiting: <ul style="list-style-type: none"> <li>■ Dexamethasone 8-16mg orally OR 6.6mg-13.2mg each morning or 2 divided doses (use 3.3.mg/ml strength).</li> </ul>
<b>Obstructive syndromes</b>	E.g. bowel obstruction, upper airways compression, SVCO, lymphangitis carcinomatosa: <ul style="list-style-type: none"> <li>■ Dexamethasone 8 - 16mg orally or 6.6mg-13.2mg each morning or 2 divided doses (use 3.3.mg/ml strength)</li> </ul>

**Spinal cord compression** 

- Dexamethasone 16mg stat dose oral or 13.2mg IV or SC (using 3.3mg/ml strength)
- Then continue dexamethasone 8mg bd or 16mg once daily orally until either metastatic spinal cord compression has been excluded, surgery has been completed or radiotherapy has been started
- For patients undergoing radiotherapy, maintain on 8mg PO each morning until completion of treatment
- Taper (and discontinue) over 1-2 weeks after completion of radiotherapy or surgery. If there is neurological deterioration during the dose reduction, the dose should be increased again to the previous satisfactory dose, and maintained at that level for a further 2 weeks before attempting to taper the dose again. (Ref: PCF6)

**Raised intracranial pressure**

Dexamethasone 8 - 16mg daily or 6.6-13.2mg SC (using 3.3mg/ml strength) for one week, and then reduce over 2-4 weeks to lowest dose which maintains benefit. (If treated with radiotherapy, steroids should be continued until one-week post treatment, and then reduced as above). Consider trial of dose increase if symptoms recur.

**Box 7 – Equivalent doses of corticosteroids****Conversion between dexamethasone and prednisolone:**

Dexamethasone 1mg is approximately equivalent to Prednisolone 7.5mg.

**Conversion between oral and SC dexamethasone:**

Traditionally conversion from oral to SC dexamethasone was made on a 1:1 basis.

The injectable formulations now contain either dexamethasone 3.3mg/ml or 3.8mg/ml. Using a 1:1 conversion results in complex dose calculations and unnecessary waste. Therefore, as the dose of dexamethasone is titrated to effect it can be considered that 4mg orally is equivalent to 3.3mg/ml or 3.8mg/ml injection.

**Table 34 - Adverse effects of corticosteroids**

Adverse effect	Comments
<b>Glucose metabolism</b>	Steroids can increase blood glucose levels. All patients on steroids should have regular blood glucose checks – follow local guidance if available.
<b>Insomnia</b>	Give corticosteroids as a single dose in the morning, or as a divided dose in the morning and at lunchtime, to minimise risk of insomnia.
<b>Dyspepsia</b>	Give after food. Co-prescribe PPI if history of peptic ulcer disease or patient also taking aspirin, NSAIDs, SSRIs or is anticoagulated.
<b>Psychiatric disturbance</b>	e.g. depression, mania, psychosis, delirium
<b>Change in appearance</b>	“Moon face”, truncal obesity, effect on body image
<b>Musculoskeletal problems</b>	Proximal myopathy, osteoporosis, avascular bone necrosis
<b>Increased susceptibility to infection</b>	Especially oral/pharyngeal candidosis - examine mouth regularly
<b>Skin changes</b>	Thinning, bruising, acne, impaired wound healing
<b>Other</b>	Hypertension, oedema, pancreatitis

### Monitoring and stopping treatment

- Use the lowest effective dose for the shortest period of time.
- Close careful monitoring is essential.
- Rapid withdrawal of a corticosteroid may result in a corticosteroid withdrawal syndrome. This may cause an array of symptoms and signs similar to pseudorheumatism (myalgia, arthralgia, malaise, rhinitis, conjunctivitis, painful itchy skin nodules, weight loss and pyrexia) and/or a hypo-adrenal crisis (malaise, profound weakness, hypotension).
- Corticosteroids may be stopped without tapering the dose if total treatment duration of less than 3 weeks AND daily dexamethasone dose of 4mg or less AND symptoms unlikely to relapse.
- **Gradual dose reduction is advisable if any of the following:**
  - Risk of recurrent severe symptoms.
  - 3 or more weeks treatment.
  - Daily dose of more than 4mg dexamethasone for more than one week.
  - Had a second dose in the evening.
  - Repeated courses of steroids.
  - Taking a short course of steroids within a year of stopping long-term treatment.
  - Other possible causes of adrenal suppression.

- Reduce daily dose gradually to dexamethasone 4mg/day according to symptoms, then more slowly by 1 - 2mg weekly. The patient must be reviewed regularly and the dose increased if symptoms worsen.
- If physiological stress, e.g. from infection, trauma, surgery, occurs within 1 week of stopping the corticosteroid, additional corticosteroid cover should be prescribed to compensate for adrenal suppression.

**Steroid treatment card: Patients on systemic steroids for more than 3 weeks must be given a steroid card.**

### **Steroids in last days of life**

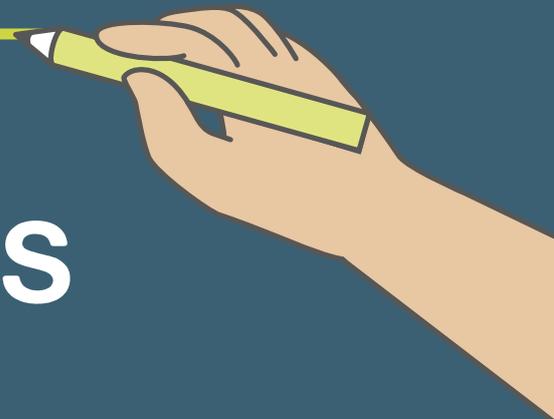
- For ongoing symptom control, continue at the most convenient SC dose.
- If recent and/or low oral dose prescription for appetite stimulation, discontinue.

*Ref: PCF6; North West Coast Strategic Clinical Networks (August 2017) Clinical Practice Summary, Lancashire and South Cumbria Consensus Guidance on managing Palliative Care Symptoms.*



# SECTION 2

## SPECIFIC SITUATIONS



# SYMPTOM MANAGEMENT IN PATIENTS WITH RENAL IMPAIRMENT

(Reference PCF6 & [www.renaldrugdatabase.com](http://www.renaldrugdatabase.com) )

This section gives general guidance about prescribing in patients with renal impairment. Caution is required and a low threshold for seeking specialist advice is advised if the estimated glomerular filtration rate (eGFR) <30ml/min.

Be aware that the eGFR does not take into account body weight. In patients of low body weight the eGFR may overestimate renal function which can potentially lead to drug overdosing.

Patients with renal impairment may have increased central nervous system (CNS) sensitivity therefore use low starting doses and titrate all medicines cautiously.

For patients on haemodialysis or peritoneal dialysis – **SEEK SPECIALIST ADVICE.**

## Analgesics

1. **Paracetamol** at standard doses is safe in mild-moderate renal impairment, but dose should be reduced in severe renal impairment (Max 3g/24hrs if eGFR<10ml/min).
2. **Non-steroidal anti-inflammatory drugs (NSAIDs)** should be avoided if possible, unless a patient is already on dialysis. If an NSAID is prescribed, the lowest effective dose should be used and renal function should be re-checked within 5-7 days of starting the drug. If the renal function deteriorates, consider risk versus benefit ratio.
3. **Opioids** should be used cautiously if eGFR<30ml/min. Monitor for signs of opioid toxicity which may include reduced respiratory rate, hallucinations, myoclonic jerks, drowsiness and confusion.

Use of an unfamiliar opioid may present risks. Therefore, it may be safer to use a familiar opioid cautiously rather than switching to a renally safer alternative that the prescriber and those administering it are unfamiliar with.

## Consider

- Will there be any issues with obtaining a supply? (e.g. will it be in stock at a community pharmacy?)
- How easy will it be to administer? (e.g. will the patient be able to self-administer or will health care professionals need to be involved?)
- How familiar is the prescriber with management of dose, titration and adverse effects?

**Table 35 – Strong opioids in renal impairment**

Drug	Accumulation risk	Dose
<b>Morphine</b>	Active metabolites may accumulate	<p>Avoid if possible, but if have to use then adjust starting dose according to eGFR:</p> <p>eGFR 20-50mL/min: 75% of normal dose.</p> <p>eGFR 10-20mL/min: Use small doses (50% of dose), eg. 2.5-5mg and extended dosing intervals. Titrate according to response.</p> <p>eGFR &lt;10mL/min: Use small doses. Eg.1.25-2.5mg and extended dosing intervals. Titrate according to the response.</p> <p>Avoid slow release oral preparations as any side effects may be prolonged.</p>
<b>Oxycodone</b>	Active metabolites may accumulate	<p>eGFR 20-50mL/min: Start with 75% of dose. Titrate dose as in normal renal function.</p> <p>eGFR 10-20mL/min: Start with 75% of dose. Titrate dose as in normal renal function.</p> <p>eGFR &lt;10mL/min: Start with small doses e.g. 50% of dose.</p> <p>Has been used in CKD 5 patients; start with lowest dose and gradually increase dose according to response.</p>
<b>Buprenorphine patch</b>	No active metabolites Possible accumulation of parent drug	Use normal dose.
<b>Fentanyl patch</b>	No active metabolites Possible accumulation of parent drug	<p>eGFR 10-50ml/min – start at 75% of normal dose, titrate according to response.</p> <p>eGFR &lt;10ml/min – start at 50% of normal dose, titrate according to response.</p>

Ref: <https://www.sps.nhs.uk/articles/which-opioids-can-be-used-in-renal-impairment/> 

**Table 36 – Adjuvant analgesics in renal impairment**

Drug	Accumulation risk	Dose
<b>Amitriptyline</b>	Possible accumulation	Use with caution
<b>Gabapentin</b>	Parent drug may accumulate	See <a href="http://www.medicines.org.uk">www.medicines.org.uk</a> <sup>8</sup> for dose guidance
<b>Pregabalin</b>	Parent drug may accumulate	See <a href="http://www.medicines.org.uk">www.medicines.org.uk</a> <sup>8</sup> for dose guidance
<b>Duloxetine</b>	Accumulation of parent drug	Avoid if possible. Contraindicated if eGFR<30ml/min.

## Antiemetics

- For all antiemetics use low starting doses and titrate cautiously. Patients are likely to have increased cerebral sensitivity.
- In general, all antiemetics commonly used in palliative care can be used cautiously at low doses in severe renal impairment. Therefore, choose the most appropriate antiemetic according to cause of nausea/vomiting and effectiveness.

**Table 37 – Antiemetics in renal impairment**

Drug	Accumulation risk	Dose
<b>Cyclizine</b>	No active metabolite	Start low dose, titrate cautiously
<b>Haloperidol</b>	Possible accumulation of parent drug or active metabolite in severe renal impairment	Start low dose, titrate cautiously
<b>Levomepromazine</b>	Possible accumulation of active metabolite	Start low dose, titrate cautiously
<b>Metoclopramide</b>	Possible accumulation in severe renal impairment	Start low dose, titrate cautiously
<b>Ondansetron</b>	No active metabolite	Use at normal dose

## Antidepressants

- For all antidepressants start at low dose and titrate cautiously.
- In renal impairment there may be increased sensitivity to drugs acting on central nervous system (CNS).

**Table 38 – Antidepressants in renal impairment**

Drug	Accumulation risk	Dose
<b>Sertraline</b>	No active metabolite	Start with 25mg daily, titrate cautiously
<b>Citalopram</b>	Active metabolites	Use with caution in severe renal impairment, increased risk of QT prolongation, titrate cautiously
<b>Mirtazapine</b>	Active metabolites and parent drug may accumulate	Avoid if possible

## Benzodiazepines

- Uraemia may cause or contribute to agitation in the dying phase.
- Consider use of haloperidol if patient suffering from delirium rather than agitation/anxiety

**Table 39 – Benzodiazepines in renal impairment**

Drug	Accumulation risk	Dose
<b>Lorazepam</b>	No active metabolite Does not accumulate	Use low starting dose and titrate cautiously
<b>Clonazepam</b>	Possible accumulation	Use low starting dose and titrate cautiously
<b>Midazolam</b>	Possible accumulation	Use low starting dose and titrate cautiously

## Antisecretory drugs

**Table 40 – Antisecretory drugs in renal impairment**

Drug	Accumulation risk	Dose
<b>Hyoscine butylbromide</b>	No active metabolite Does not accumulate	Use normal dose
<b>Glycopyrronium</b>	Active metabolite may accumulate	Reduce dose by 50%



# MANAGEMENT OF DIABETES AT THE END OF LIFE

Management will vary depending on whether the patient is in the last months, weeks or days of life.

## Managing diabetes in the last months of life

Refer to the detailed guidance in the End of Life Diabetes Clinical Care Recommendations 3rd edition (March 2018)

[www.diabetes.org.uk/professionals/position-statements-reports/diagnosis-ongoing-management-monitoring/end-of-life-care](http://www.diabetes.org.uk/professionals/position-statements-reports/diagnosis-ongoing-management-monitoring/end-of-life-care) 

## Managing diabetes in the last weeks of life

Explore with the individual and those important to them about changing the approach to diabetes management, including:

- The aim of management – avoiding hypoglycaemia rather than avoiding longer term complications due to hyperglycaemia.
- The value or otherwise of continuing to monitor blood glucose readings.
- The method and frequency of checking blood glucose levels.
- The type of management – tablets and/or insulin.

Devise a management plan with the patient and those important to them. Ensure the local diabetes specialist team are involved if the patient remains on insulin. Aim to:

- Keep invasive tests to a minimum.
- Be alert to symptoms that may be due to hypo or hyperglycaemia and have appropriate medication/interventions available to address these if they develop.

## Aim for a target blood glucose reading of 6-15mmol/L.

*Ref: North West Coast Strategic Clinical Networks Clinical Practice Summary: Guidance on consensus approaches to managing Palliative Care Symptoms.*

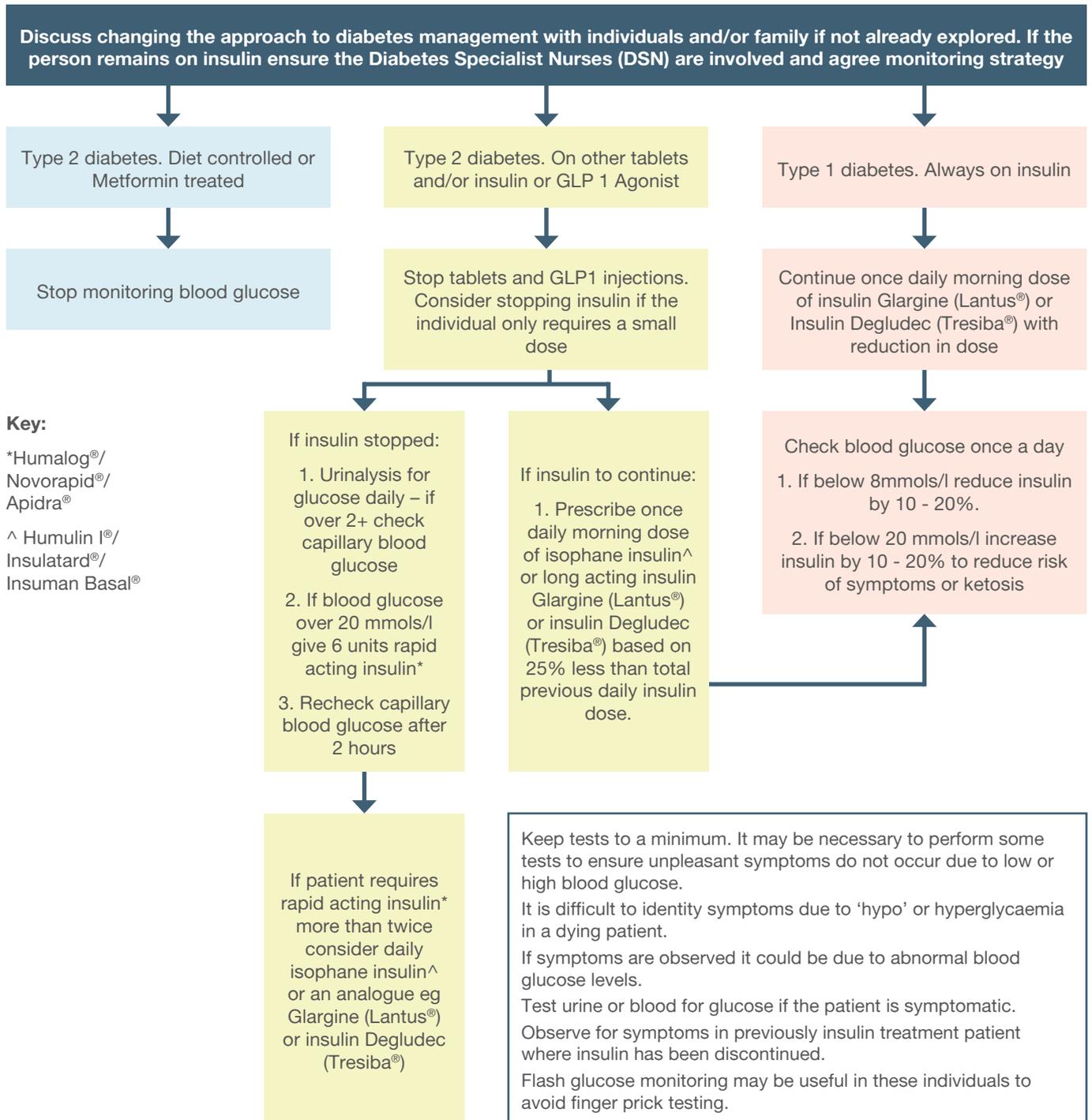
## Managing diabetes in the last days of life

[Follow Figure 2 – Management of Diabetes algorithm for the last days of life](#) 

Seek advice from the local diabetes specialist team if required.

## Figure 2 – Management of Diabetes

### Algorithm for the last days of life



Extracted from End of Life Diabetes Care Clinical Care recommendations/Diabetes UK March 2018

**NOTE:** Although this algorithm taken from the End of Life Diabetes Care Clinical Care Recommendations includes insulin Degludec as an alternative to insulin Glargine, the former is only recommended for restricted use across GM, so **insulin Glargine should be used**.

# MANAGEMENT OF IMPLANTABLE CARDIOVERTER DEFIBRILLATORS (ICDS) IN THE LAST WEEKS AND DAYS OF LIFE

An implantable cardioverter defibrillator (ICD) is a small device that is placed in the chest or abdomen and links to the heart. It uses electrical pulses or shocks to help control life-threatening arrhythmias. Patients with an ICD in situ sometimes develop end-stage heart failure or another life limiting condition, in which case a stage may be reached when it is no longer medically appropriate for the device to be used.

It is important, wherever possible, to plan ahead and discuss with patients, and those important to them, whether to deactivate the ICD.

- In general, maintaining an ICD in active defibrillation mode is inappropriate if a patient has an active DNACPR order.
- However, it is possible that a competent patient may decline a full resuscitation attempt because of the loss of dignity this could involve, but they may decide to keep their ICD active.
- **If the ICD is to be kept active, consider obtaining a ring magnet from the local Cardiology department** so the ICD can be deactivated when the patient is dying. See section [What to do if a patient is dying and their implantable defibrillator is still switched on for further guidance](#) <sup>↗</sup>

## Triggers for conversations around switching off an ICD

- refractory symptoms despite optimal therapy
- at least three hospital admissions with decompensation in less than six months
- deteriorating physical function
- cardiac cachexia
- resistant hyponatraemia
- serum albumin of less than 25g/L
- have been experiencing multiple shocks
- comorbidity with a poor prognosis, such as terminal cancer.

There is an information leaflet for patients and carers regarding deactivating the shock function of an ICD towards the end of life at <https://www.bhf.org.uk/information-support/publications/living-with-a-heart-condition/deactivating-the-shock-function-of-an-implantable-cardioverter-defibrillator-towards-the-end-of-life> <sup>↗</sup>

## Decisions regarding switching off an ICD

When a patient is heading towards the end of their life, if time allows, it can be arranged with the Cardiology department at the local acute hospital for the defibrillator to be switched off in anticipation of the last hours of life. This generally needs to be done in normal working hours.

Turning off the defibrillator means that the patient will not be shocked should they have a ventricular tachyarrhythmia. If it is a combined defibrillator and pacemaker device, the pacemaker will continue to function, as it is only the defibrillator component that is turned off.

## What to do if a patient is dying and their implantable defibrillator is still switched on

If a patient dies with their defibrillator functioning, it will repeatedly shock during the periods of ventricular tachyarrhythmia (VT or VF) that may precede asystole in a dying heart. This can be distressing to the patient, family and staff. There is also a risk of shock to anyone touching the patient.

If urgent deactivation by a cardiac physiologist using a programmer cannot be arranged immediately, the ICD can be deactivated (after discussion and careful consideration of its consequences) by taping a **ring magnet** securely on the skin overlying the device.

**Suitable magnets are available from local Cardiology Departments.**

With the magnet in situ, there is no risk of shock to anyone touching the patient, e.g. family, or during normal nursing cares, but you should not attempt to remove the defibrillator.

## What to do after a patient has died

The magnet should be left in place for ONE HOUR after the patient has died, and the magnet can then be removed without the risk of shock TO THE PATIENT OR STAFF.

If a patient dies with a functioning defibrillator in situ, it needs to be turned off before it is removed. The local cardiology centre will need to be contacted to do this.

It is necessary for the device to be removed after death regardless of what happens to the body after death. It is essential that the undertakers are informed that a device is still in situ when the body is moved. It is essential that the device is removed if the body is cremated.

Ref: <https://www.bhf.org.uk/informationsupport/publications/healthcare-and-innovations/deactivation-of-implantable-cardioverter-defibrillators-towards-the-end-of-the-life> 

# SYMPTOM MANAGEMENT IN PATIENTS WITH ADVANCED DEMENTIA

A prognostic indicator tool may be helpful to assess whether a patient is in the end of life stage e.g. Gold Standards Framework Proactive Identification Guidance <https://www.goldstandardsframework.org.uk/cd-content/uploads/files/PIG/NEW%20PIG%20-%20%20%202020.1.17%20KT%20vs17.pdf>

## General Assessment

- A comprehensive, holistic assessment is an essential cornerstone in meeting an individual's needs and managing their symptoms effectively. The following considerations are particularly important when assessing a person with dementia:
- Is the individual able to self-report symptoms including pain?
- Involve other people who know the individual. This may include family members, professional carers and other clinicians. This is vital for understanding the person's 'normal state' so that changes in behaviour can be identified & understood in context to help identify underlying cause (e.g. breakthrough pain) in apparently distressed individuals.
- Consider using "This Is Me" [www.alzheimers.org.uk/get-support/publications-factsheets/this-is-me](http://www.alzheimers.org.uk/get-support/publications-factsheets/this-is-me) or similar to ensure individual's history and preferences are recorded and shared with staff.
- Use supportive communication strategies: ask short questions and allow additional response time; use gestures; minimise distractions and external noise; address any sensory impairments; seek confirmation of

any assumptions made; consider use of first language.

- Is the person compliant with medication?
- Consider sub-type of dementia (where known) as this may affect presentation of symptoms and management.
- Consider the carer's needs including their support needs and coping strategies.

## Assessment of Mental Capacity

- Does the individual have capacity to consent (with support) to examination/investigation/taking medications?
- Undertake formal assessment of mental capacity and hold best interests meeting if necessary.

## Assessment of Distress and Pain

- People with dementia may not report their pain so it is always important to ask them.
- They may not associate their experience with the word pain, so use alternative words such as aching, hurting, sore, and uncomfortable.
- Focus on current pain and ensure assessment is made during both periods of activity and of rest.

- Visual tools in the form of rating scales (numerical rating scale, verbal rating scale, pain thermometer), body diagram, descriptive words and pictures may support people with communication difficulties to self-report their pain.
- When a person is not able to accurately report how they feel, observing their behaviour can indicate when they are distressed.
- The following behaviours are likely to be a sign of distress which may be an indication of pain, discomfort or an emotional need: Agitation, walking around more than usual, withdrawal, night-time waking, not eating/drinking or any behaviour that signals a change from the person's normal behaviour.
- Knowing about a person, their routines, habits and life story and the context in which the distressed behaviour occurs, can help to distinguish pain and other causes of distress such as hunger, anxiety, boredom.
- If a person is unable to say whether they have pain it is important to look to rule out other potential causes of distress before assuming it is pain.

There are several tools available to support pain assessment in people with dementia, including **PAIN-AD** <https://geriatricpain.org/assessment/cognitively-impaired/painad/pain-assessment-advanced-dementia-painad-tool> <sup>↗</sup> this link is broken will send update

- and **Abbey Pain Scale** [http://prc.coh.org/PainNOA/Abbey\\_Tool.pdf](http://prc.coh.org/PainNOA/Abbey_Tool.pdf) <sup>↗</sup>
- When using these tools, watch for over-identification of pain. Is distress due to another cause?
- **Disability Distress Assessment Tool** helps healthcare professionals and carers record a person's behaviour and recognise signs they are distressed. It also has a clinical decision check list to help determine the possible cause of their distress [http://prc.coh.org/PainNOA/Dis%20DAT\\_Tool.pdf](http://prc.coh.org/PainNOA/Dis%20DAT_Tool.pdf) <sup>↗</sup>

## Medication use – general considerations

- Consider non-drug management options first.
  - Optimise current medications: consider concordance, patient specific factors, consider use of compliance aid e.g. Doseette box.
  - People with dementia are particularly vulnerable to the side effects of drugs that exacerbate confusion e.g. anticholinergics, amitriptyline. The Anticholinergic Burden Calculator <http://www.acbcalc.com/> <sup>↗</sup> can be used to assess the anticholinergic burden of existing medications and to aid decision making about alternatives with a lower anticholinergic burden.
  - In Parkinson's Dementia and Lewy Body Dementia, be aware of side effects of dopamine agonists (confusion, hallucinations and delusions).
  - Use oral medication as first line wherever possible.
  - If the person is unhappy taking oral medications, consider:
    - switching from tablets to syrup/liquids
    - giving tablets with jam/yoghurt
    - oro-dispersible preparations
    - change to a once daily/slow release preparation if available.
- Liaise with pharmacist. NB. Administration of covert medication for patients who lack capacity will require a best interest decision.
- Prioritise essential medications (in dying phase, symptom management is the priority).
  - If necessary, subcutaneous injections can be given regularly or when required.
  - Consider a syringe pump if the person needs regular subcutaneous medication, but if they are likely to move about and forget to carry/take the syringe pump or to pull at the infusion line, continuing with regular injections may be more appropriate.

## Pain Management

- Identify and, where possible, treat any contributing causes e.g. constipation, pressure sores.
- If unclear if patient has pain, consider a trial of regular analgesia.
- Start with regular paracetamol, consider stronger analgesia if necessary.
- Consider topical preparations such as non-steroidal anti-inflammatory gels and non-pharmacological measures such as heat pads and warm baths for mild-moderate localised pain in acute and chronic musculoskeletal conditions such as arthritis.
- If unable to swallow oral medications and patient thought to be in the last months of life but not obviously in last days of life, the transdermal route may be considered ([Pain Management section re transdermal preparations](#) <sup>↗</sup>).

## Eating and Swallowing Problems

- Nutritional problems, loss of appetite, swallowing problems and weight loss are common issues in dementia, especially as the severity of illness increases.
- Overall there is no conclusive evidence that tube feeding provides benefit for people with advanced dementia, either in terms of prolonging life or improving quality of life for people with dementia. <https://www.ncbi.nlm.nih.gov/pubmed/19370678> <sup>↗</sup>
- NICE recommends that tube feeding should not normally be used for people living with severe dementia, unless the reasons for the person's problems with eating, drinking or swallowing are treatable and it's expected that they will be able to start eating and drinking normally afterwards.

Ref: NICE Decision Aid Enteral (tube) feeding for people living with severe dementia (2018) <https://www.nice.org.uk/guidance/ng97/resources/enteral-tube-feeding-for-people-living-with-severe-dementia-patient-decision-aid-pdf-4852697007> <sup>↗</sup>

- Exclude reversible causes for not eating e.g. thrush.
- Ensure good mouth care.
- Consider if appropriate to refer to Speech and Language Therapist for assessment.
- Consider mental capacity with all feeding decisions and if the patient lacks capacity a best interest decision would need to be made .
- For those with swallowing difficulties comfort feeding small amounts of appropriately thickened fluids/soft food may provide enjoyment of eating and result in perceived alleviation of hunger or thirst (risk feeding).

## Nausea and Vomiting/Constipation

- Follow the general guidance for managing these symptoms – [see Nausea and Vomiting](#) <sup>↗</sup> and [Constipation sections](#) <sup>↗</sup>

## Agitation, aggression, distress and psychosis

- Neuropsychiatric symptoms are nearly universal in dementia and agitation is among the most distressing for patients and family carers.
- Consider specific causes e.g. pain, side effect of medication, emotional, activity (e.g. dressing) or environment (e.g. lighting, unfamiliar surroundings).
- Address where possible by person-centred non-drug approaches.

## Antipsychotics

- Low-strength antipsychotics have historically been prescribed to treat behavioural and psychological symptoms associated with dementia (BPSD) but produce only limited benefits and are associated with an increased risk of stroke and mortality, as well as other serious adverse events such as sedation, extrapyramidal side effects, dehydration, falls, chest infections and accelerated cognitive decline.

- NICE Guideline 97 “Dementia: assessment, management and support for people living with dementia and their carers” (June 2018) <https://www.nice.org.uk/guidance/ng97/chapter/Recommendations#managing-non-cognitive-symptoms> <sup>↗</sup> recommends that antipsychotics should only be used for people who are living with dementia who are either at risk of harming themselves or others, or experiencing agitation, hallucinations or delusions which are causing them severe distress.
- Before starting antipsychotics, discuss the benefits and harms with the person and their family members or carers (as appropriate). Consider using a decision aid to support this discussion e.g. NICE patient decision aid on **antipsychotic medicines for treating agitation, aggression and distress in people living with dementia**. The antipsychotic should be used at the lowest dose that helps the person, and for the shortest possible time. Stop if there is no clear ongoing benefit after discussion with the patient and their family members or carers (as appropriate).
- **Antipsychotics should be avoided if possible in Lewy Body dementia** as these patients are more prone to severe side effects.

## Delirium

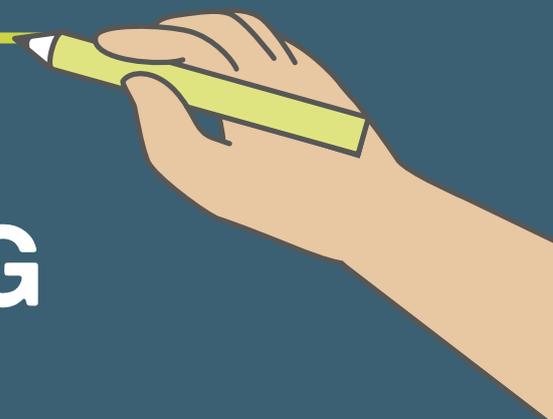
- Delirium is extremely common in patients with advanced dementia. [See Delirium section](#) <sup>↗</sup>
- Non-pharmacological management is the mainstay of treatment.
- **Avoid antipsychotics in Lewy Body Dementia if at all possible** – they can have marked adverse effects which may not recover with cessation of the drug.

## References

- NICE Guideline 97 “Dementia: assessment, management and support for people living with dementia and their carers” (June 2018) <https://www.nice.org.uk/guidance/ng97/chapter/Recommendations> <sup>↗</sup>
- GMMMG Low Strength Antipsychotic Prescribing in Dementia: A GP Resource Pack (2015) <http://gmmmg.nhs.uk/docs/guidance/GMMMG-Antipsychotics-in-dementia-GP-resource-pack-FINAL.pdf#search=%22dementia%22> <sup>↗</sup>
- NHS Yorkshire and Humber Clinical Networks Guidelines for Healthcare Professionals: Symptom Management in End of Life Care for People with Dementia.
- North West Coast Strategic Clinical Network Palliative Care Guidelines in Dementia 2nd edition, Version 3.9 – March 2018.

# SECTION 3

## CARE OF THE DYING



## PRIORITIES OF CARE FOR THE DYING PERSON

- Recognition that the person may be dying and entering the last days and hours of life.
- Sensitive communication between staff and the dying person and those identified as important to them.
- Involve the person and those identified as important to them in decisions about treatment and care to the extent that the dying person wants.
- Support the needs of families and others identified as important to the person including any questions or concerns they may have.
- Senior responsible clinician to agree an holistic individual plan of care including symptom control to be delivered.
- Individualised care should be supported by the “Strategic Clinical Network (SCN) Principles of Care and Support for the dying patient”, an individualised plan of care for the dying person (where available) as well as the NHS England Leadership Alliance Priorities for Care of the Dying.



# SYMPTOM MANAGEMENT

Symptoms which may occur in the last days and hours of life include:

- Pain.
- Nausea and vomiting.
- Respiratory – secretions, dyspnoea, stridor.
- Psycho-neurological – anxiety, panic, convulsions, delirium and terminal restlessness/agitation.
- Urinary incontinence/retention.
- Sweating.
- Haemorrhage.

## General principles of symptom management at the end of life

- Identification and regular review of symptoms is essential.
- Symptom control must be tailored for the individual. Reversible causes for any symptom must be assessed and managed effectively when considering prescribing or administering symptom-specific medications.
- All medications, including the prescribing of anticipatory medications must:
  - Be targeted at specific symptoms
  - Be prescribed with a clinical rationale for the starting dose
  - Have their purpose, use and side effects explained to the dying person and (with the consent of the patient) those close to them if possible
  - Symptom control using prescribed medications should be reviewed regularly and adjusted as needed for the individual.

## Anticipatory prescribing

- Anticipatory prescribing is designed to enable prompt symptom relief at whatever time the patient develops distressing symptoms. It is based on the premise that although each patient is an individual, many symptoms which may develop during the palliative period can be predicted and measures put in place so these can be addressed quickly and effectively if they do occur.

NICE Guideline Care of Dying Adults in the Last Days of Life <https://www.nice.org.uk/guidance/ng31> <sup>6</sup> gives the following recommendations about anticipatory prescribing:

- Use an individualised approach to prescribing anticipatory medicines for people who are likely to need symptom control in the last days of life.
- Specify the indications for use and the dosage of any medicines prescribed.

- Assess what medicines the person might need to manage symptoms likely to occur during their last days of life, such as:
  - Agitation
  - Anxiety
  - Breathlessness
  - Nausea and vomiting
  - Troublesome respiratory secretions
  - Pain.
- Discuss any prescribing needs with the dying person, those important to them and the multi-professional team.
- Ensure that suitable anticipatory medicines and routes are prescribed as early as possible. Review these medicines as the dying person's needs change.
- When deciding which anticipatory medicines to offer take into account:
  - the likelihood of specific symptoms occurring
  - the benefits and harms of prescribing or administering medicines
  - the benefits and harms of not prescribing or administering medicines
  - the possible risk of the person suddenly deteriorating (for example, catastrophic haemorrhage or seizures) for which urgent symptom control may be needed
- the place of care and the time it would take to obtain medicines.
- Before anticipatory medicines are administered, review the dying person's individual symptoms and adjust the individualised care plan and prescriptions as necessary.
- If anticipatory medicines are administered:
  - Monitor for benefits and any side effects at least daily, and give feedback to the lead healthcare professional
  - Adjust the individualised care plan and prescription as necessary.
- The BMA has also produced guidance designed to help GPs with their prescribing in this important field <https://www.bma.org.uk/advice/employment/gp-practices/service-provision/prescribing/focus-on-anticipatory-prescribing-for-end-of-life-care> 

# MAINTAINING HYDRATION

Nutrition and hydration are often emotive topics for families and patients when approaching the end of life. There is need for ongoing sensitive discussions about goals of care and realistic expectations of treatment.

NICE Guideline Care of Dying Adults in the Last Days of Life gives the following recommendations about maintaining hydration: <https://www.nice.org.uk/guidance/ng31> 

1. Support the dying person to drink if they wish to and are able to. Check for any difficulties, such as swallowing problems or risk of aspiration. Discuss the risks and benefits of continuing to drink, with the dying person, and those involved in the dying person's care.
2. Offer frequent care of the mouth and lips to the dying person, and include the management of dry mouth in their care plan, if needed. Offer the person the following, as needed:
  - help with cleaning their teeth or dentures, if they would like
  - frequent sips of fluid.
3. Encourage people important to the dying person to help with mouth and lip care or giving drinks, if they wish to. Provide any necessary aids and give them advice on giving drinks safely.
4. Assess, preferably daily, the dying person's hydration status, and review the possible need for starting clinically assisted hydration, respecting the person's wishes and preferences.
5. Discuss the risks and benefits of clinically assisted hydration with the dying person and those important to them. Advise them that, for someone who is in the last days of life:
  - clinically assisted hydration may relieve distressing symptoms or signs related to dehydration, but may cause other problems. [See recommendation 9](#) 
  - it is uncertain if giving clinically assisted hydration will prolong life or extend the dying process
  - it is uncertain if not giving clinically assisted hydration will hasten death.
6. Ensure that any concerns raised by the dying person or those important to them are addressed before starting clinically assisted hydration.

7. When considering clinically assisted hydration for a dying person, use an individualised approach and take into account:
  - whether they have expressed a preference for or against clinically assisted hydration, or have any cultural, spiritual or religious beliefs that might affect this documented in an advance statement or advance decision to refuse treatment
  - their level of consciousness
  - any swallowing difficulties
  - their level of thirst
  - the risk of pulmonary oedema
  - whether even temporary recovery is possible.
8. Consider a therapeutic trial of clinically assisted hydration if the person has distressing symptoms or signs that could be associated with dehydration, such as thirst or delirium, and oral hydration is inadequate.
9. For people being started on clinically assisted hydration:
  - Monitor at least every 12 hours for changes in the symptoms or signs of dehydration, and for any evidence of benefit or harm.
  - Continue with clinically assisted hydration if there are signs of clinical benefit.
  - Reduce or stop clinically assisted hydration if there are signs of possible harm to the dying person, such as fluid overload, or if they no longer want it.
10. For people already dependent on clinically assisted hydration (enteral or parenteral) before the last days of life:
  - Review the risks and benefits of continuing clinically assisted hydration with the person and those important to them.

- Consider whether to continue, reduce or stop clinically assisted hydration as the person nears death.

**Table 41 - Potential indications and complications of clinically assisted hydration at the end of life**

Potential indications	Potential complications
Symptomatic dehydration	Line discomfort/infection
Thirst (may be unrelated to fluid status)	Fluid overload
Reversible renal impairment	Worsening secretions
Opioid toxicity	Increased symptom burden as a result of the above
Excess sedation	Family/patient distress
Family/patient distress	

Clinically assisted hydration may be given either SC or IV. SC fluids usually involve less discomfort and have fewer potential adverse effects than the IV route. However, SC fluids should not be used for severe dehydration and may be difficult to administer in people with widespread oedema. Isotonic or hypotonic solutions only should be used (e.g. 0.9% sodium chloride). Rate of infusion will vary by patient, but is usually around 1 litre of fluid per 24 hours.

There may be practical difficulties when considering clinically assisted hydration in the community setting. Equipment and training may be required. Refer to local guidelines and policies.

# SYRINGE PUMPS

## Definition

The syringe pump is a portable battery-operated device used to give medication continuously via the subcutaneous route, usually over a 24-hour period. A number of pumps are available, although the most commonly used pump across Greater Manchester and Cheshire is the T34 ambulatory syringe pump (please check your locality guidelines).

Previously the T34 syringe pump has been referred to as the McKinley T34; this is now part of CME Medical and is referred to as the T34 ambulatory syringe pump.

**NB. The recommended battery for the T34 syringe pump is Duracell® brand 9-volt (6LR61) battery.**

In palliative care, the delivery of medication via the continuous subcutaneous route is useful when the oral route is inappropriate such as;

- Dysphagia
- Intractable nausea +/- vomiting
- Malabsorption
- Inability to administer medication via oral route i.e. head/neck cancers
- Intestinal obstruction
- Profound weakness/cachexia
- Unconsciousness
- Patient choice e.g. aversion to oral medication; dislike of alternative routes (e.g. rectal)
- Care in the last days and hours of life

For most drugs, this method of administration is unlicensed.

However, other routes of administration may be useful and limit the need for a syringe pump e.g. rectal, transdermal and sublingual. Furthermore, **pain control is no better via the subcutaneous route than the oral route if the patient is able to swallow and absorb the drug(s).**

## It is important to consider the following:

- If the subcutaneous route is not available, can the drug(s) be given by another route
  - Rectal (e.g. NSAID)
  - Sublingual (e.g. lorazepam)
  - Transdermal (e.g. fentanyl).
- Whether the drug can be given as a once daily injection (e.g. dexamethasone, haloperidol, levomepromazine).
- It is best to avoid giving several 'once' daily injections subcutaneously. However, consider this as an alternative or if this is the patient's choice.
- Drugs are generally more bioavailable by injection than orally. This means that the dose of drug given via the syringe pump is likely to be lower than the dose previously given orally.
- Syringe pumps can take a variety of syringe sizes. The minimum recommended size is 20ml. Dilute the mixture to the maximum volume the syringe pump will take to minimise problems with site irritation. See local policies for recommendations relating to the volumes that can be accommodated in different size syringes.
- It takes a few hours before the drugs are sufficiently absorbed for an effect to be seen. If symptoms are controlled start the syringe pump 1-2 hours before the effect of medications are due to wear off. If symptoms are uncontrolled, set up the syringe pump immediately. It may be necessary to cover the 'lag time' with a stat subcutaneous dose of the relevant drug if a delay would be unacceptable for symptom control.
- Protect the contents of the syringe from light with a holster.

## Care in the last days or hours of life

- If a patient is well symptom controlled using other routes of administration these can be maintained in the dying phase, a syringe pump does not have to be set up as a matter of routine.
- In the last days of life, it is recommended to leave transdermal fentanyl or buprenorphine patches in situ (continuing to change as prescribed) with additional analgesia administered SC.
- Avoid inserting the cannula in:
  - Oedematous subcutaneous tissue.
  - Very restless/confused patients.
  - Excessive bleeding and a lack of clotting (bleeding diathesis). However, if a patient's platelet count is low, subcutaneous injections are less likely to cause bleeding than intramuscular injections. Please check with the medical team.

## Advantages of using a syringe pump

- Continuous infusion avoids peaks and troughs in plasma drug level.
- Avoids repeated injections.
- The syringe is generally replenished daily.
- Independence and mobility maintained as the pump is light weight and can be worn in a holster.
- Control of multiple symptoms with a combination of drugs.

## Disadvantages

- Irritation or erythema and swelling at the cannula site which may interfere with the rate and absorption.
- May be seen as a 'terminal' event by the patient and carers.
- Lack of reliable compatibility data for some mixtures.
- Possible infection.



## Drug compatibility

- It is common practice to administer 2 or 3 drugs in the same syringe. Drug compatibility should be checked for all combinations of drugs mixed in one syringe.
- A predictor of drug compatibility is pH. The majority of drugs given by syringe pump are acidic. Alkaline drugs include dexamethasone, diclofenac, ketorolac and phenobarbital. Consequently, combinations involving these drugs tend to be incompatible and separate infusions are usually recommended.
- For most drug combinations, water for injection is the suggested diluent, as there is less chance of precipitation.
- Generally, incompatible drugs cause precipitation and thus cloudiness in the syringe. Do not use if this happens. Change both the syringe and the giving set.
- Some drugs are not suitable for subcutaneous injection as they are irritant to the skin; e.g. diazepam, prochlorperazine, chlorpromazine.

## For more information on compatibility of drugs via CSCI:

[www.palliativedrugs.com](http://www.palliativedrugs.com) <sup>↗</sup> (requires registration) or <http://book.pallcare.info/index.php?op=plugin&src=sdrivers> <sup>↗</sup>

## Good practice regarding syringe pumps:

- Before setting up the syringe pump explain to the patient and carer/family:
  - The reason for using this route and method
  - How the device works
  - Advantages and possible disadvantages.
- All staff should receive training and be familiar with their local syringe pump before using.
- Follow local protocol for use.
- All syringe pumps in use should be serviced regularly; see local guidelines.
- After use all syringe pumps should be cleaned and decontaminated as per local guidelines.
- When prescribing the drugs to be placed in the syringe pump, ensure that the correct subcutaneous breakthrough doses are prescribed (i.e. for analgesia 1/6 of the total 24-hour dose of opioid).
- Label the syringe with the list of drugs, date and time the syringe pump is commenced.
- Use of a designated syringe pump chart which includes a monitoring section can prompt checks that the syringe pump is functioning properly (Note: Some areas have a combined prescription and monitoring chart for syringe pumps).
- Checks should include the remaining volume, site condition, rate setting and appearance of the contents of the syringe.
- If the site becomes inflamed or painful, review contents of syringe and re-site using a fresh cannula.
- Site irritation may be reduced by diluting the drugs in a greater volume of diluent or using sodium chloride 0.9% as the diluent or substituting a plastic cannula.
- Assess symptom control and adjust the prescription at appropriate intervals.
- Some patients are able to revert from a syringe pump to oral/transdermal medication. When this seems possible, convert the drugs sequentially rather than all at once.

**Always follow your local policies and guidelines for managing the syringe pump**

# ALGORITHMS FOR SYMPTOM MANAGEMENT IN THE LAST DAYS OF LIFE

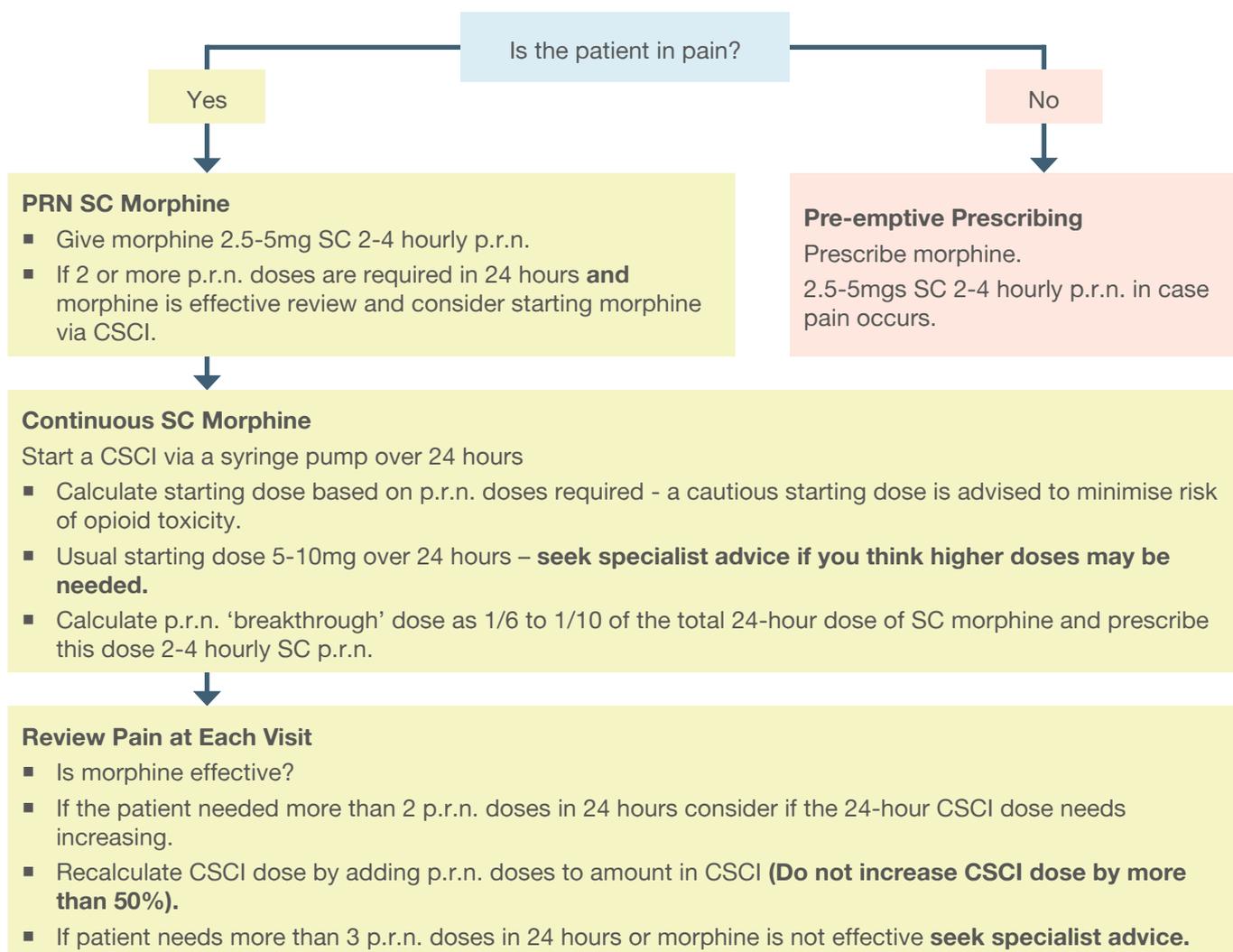
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- The following algorithms give a general guide to managing symptoms in the last days of life.
- It is recognised that many organisations and localities across the region have developed their own local guidelines, tailored specifically for their needs. **Local guidelines should be followed where available and management must be individualised according to the needs of the specific patient.**
- Please note that there are **four separate algorithms** for managing pain in different circumstances:
  - **Algorithm 1** [↗](#) – Patient not already on strong opioids who becomes unable to swallow
  - **Algorithm 2** [↗](#) – Patient taking regular oral morphine who becomes unable to swallow
  - **Algorithm 3** [↗](#) – Patient taking regular oral oxycodone who becomes unable to swallow
  - **Algorithm 4** [↗](#) – Patient using fentanyl or buprenorphine patches who becomes unable to swallow
- Algorithms 5 to 8 give guidance for managing symptoms other than pain:
  - **Algorithm 5** [↗](#) – Terminal restlessness and/or agitation
  - **Algorithm 6** [↗](#) – Respiratory tract secretions
  - **Algorithm 7** [↗](#) – Breathlessness
  - **Algorithm 8** [↗](#) – Nausea and/or vomiting
- **Algorithm 9** [↗](#) gives guidance on managing a patient who is taking anti-epileptics for seizures (including prophylaxis) who becomes unable to swallow

## PAIN ALGORITHM 1

**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**



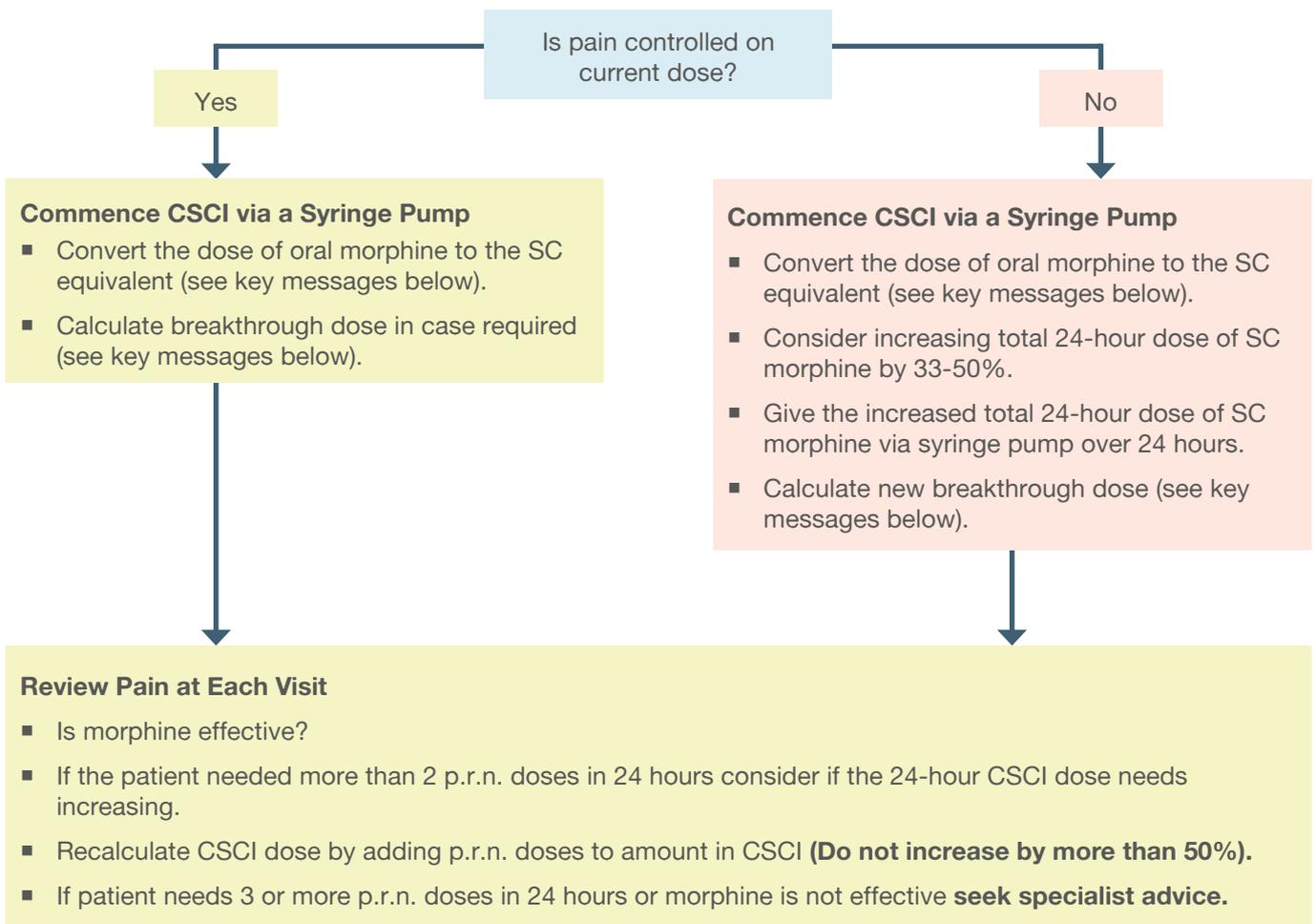
### KEY MESSAGES – PAIN

- Consider and eliminate reversible causes for pain (constipation, urinary retention, spiritual and psychological causes).
- Would a pain chart be of benefit?
- Refer to the opioid conversion charts [Appendix 1](#) for information.
- When calculating CSCI increase based on prn use, exclude doses used for incident pain.
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE.**

## PAIN ALGORITHM 2

### PATIENT TAKING REGULAR ORAL MORPHINE BECOMES UNABLE TO SWALLOW

If the patient is taking **ORAL OXYCODONE** follow algorithm 3 when commencing a continuous subcutaneous infusion



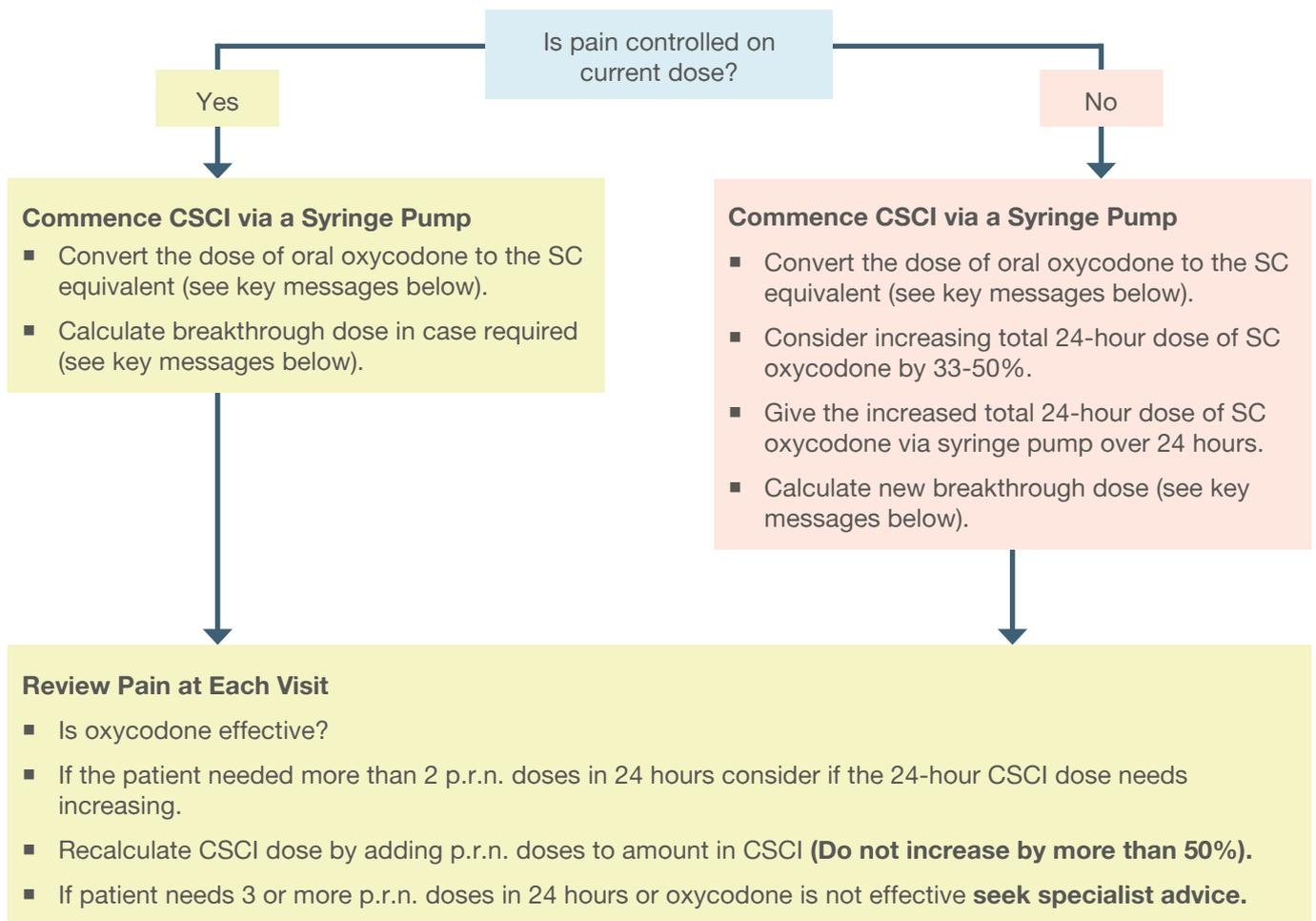
#### KEY MESSAGES - PRESCRIBING SUBCUTANEOUS MORPHINE

- To calculate the dose of SC morphine, divide total dose of oral morphine by 2.
- Calculate the breakthrough dose of morphine as 1/6 to 1/10 of the total 24-hour dose of SC morphine and prescribe this dose 2-4 hourly SC p.r.n.
- If symptoms are controlled start CSCI 2-4 hours before the next dose of regular oral opioid is due; if symptoms are not controlled, start CSCI immediately.
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE**.

## PAIN ALGORITHM 3

### PATIENT TAKING REGULAR ORAL OXYCODONE BECOMES UNABLE TO SWALLOW

If the patient is taking **ORAL MORPHINE** follow algorithm 2 when commencing a continuous subcutaneous infusion



#### KEY MESSAGES - PRESCRIBING SUBCUTANEOUS OXYCODONE

- To calculate the dose of SC oxycodone, divide total dose of oral oxycodone by 1.5.
- Calculate the breakthrough dose of oxycodone as 1/6 to 1/10 of the total 24-hour dose of SC oxycodone and prescribe this dose 2-4 hourly SC p.r.n.
- If symptoms are controlled start CSCI 2-4 hours before the next dose of regular oral opioid is due; if symptoms are not controlled, start CSCI immediately.
- If eGFR < 30 ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE**.

## PAIN ALGORITHM 4

### PATIENT USING FENTANYL OR BUPRENORPHINE PATCHES BECOMES UNABLE TO SWALLOW

#### IMPORTANT

CONTINUE CURRENT FENTANYL OR BUPRENORPHINE PATCH PRESCRIPTION, CHANGING PATCHES AS PRESCRIBED

#### Pre-Emptive Prescribing

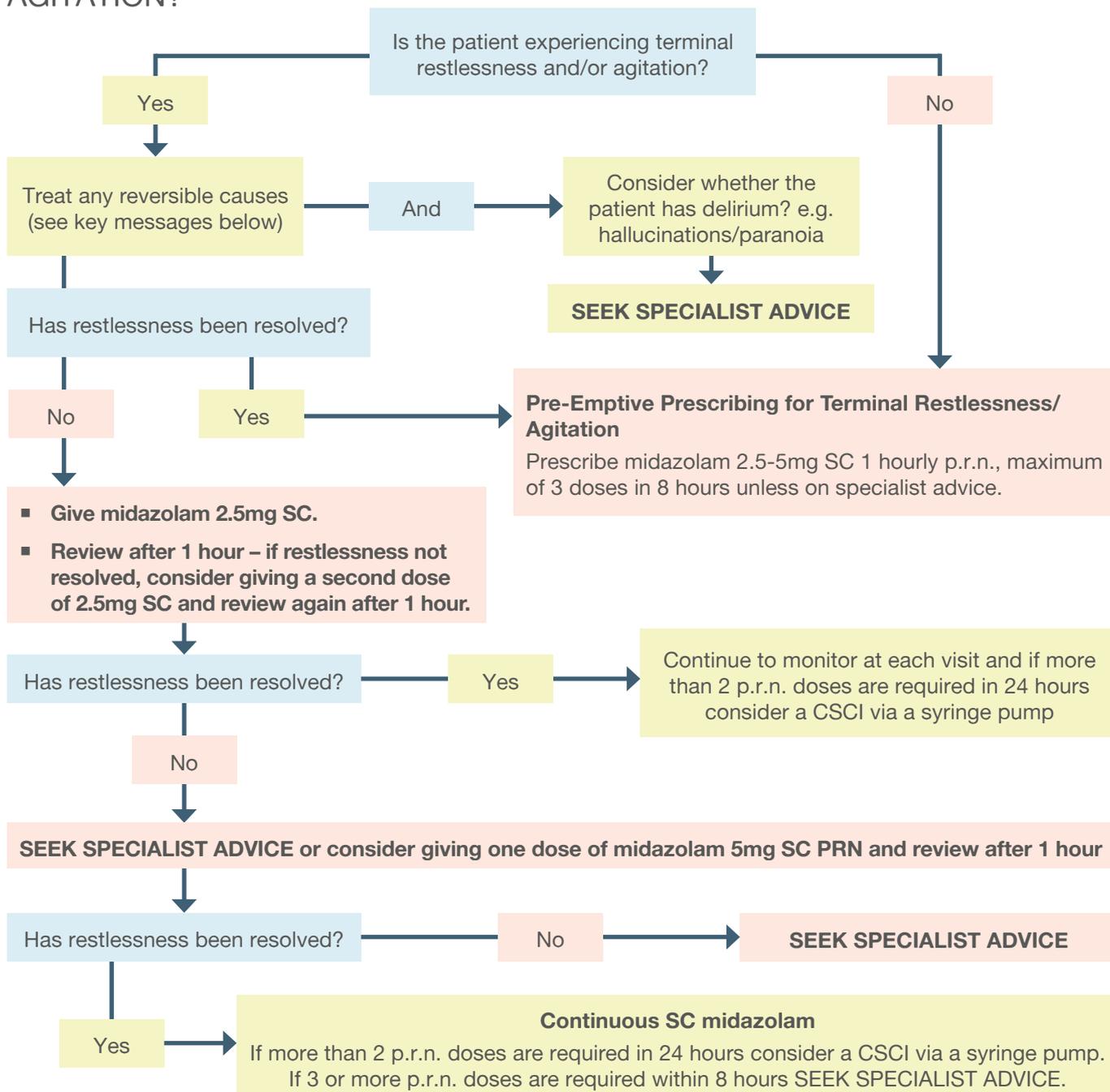
- Prescribe SC opioid for breakthrough pain 2-4 hourly p.r.n in case pain occurs.
- If patient has been taking an oral opioid for breakthrough pain, the same drug should usually be prescribed SC.
- Calculate dose or consult conversion chart ([Appendix 1](#)) as a guide for the p.r.n. dose of SC opioid that is relevant for the strength of patch.

If pain not controlled or if needing more than 2 p.r.n doses over 24 hours, consider a CSCI in addition to the patch - seek Specialist Palliative Care advice.

If eGFR<30ml/min, SEEK SPECIALIST PALLIATIVE CARE ADVICE.

## ALGORITHM 5

IS THE PATIENT EXPERIENCING **TERMINAL RESTLESSNESS AND/OR AGITATION?**

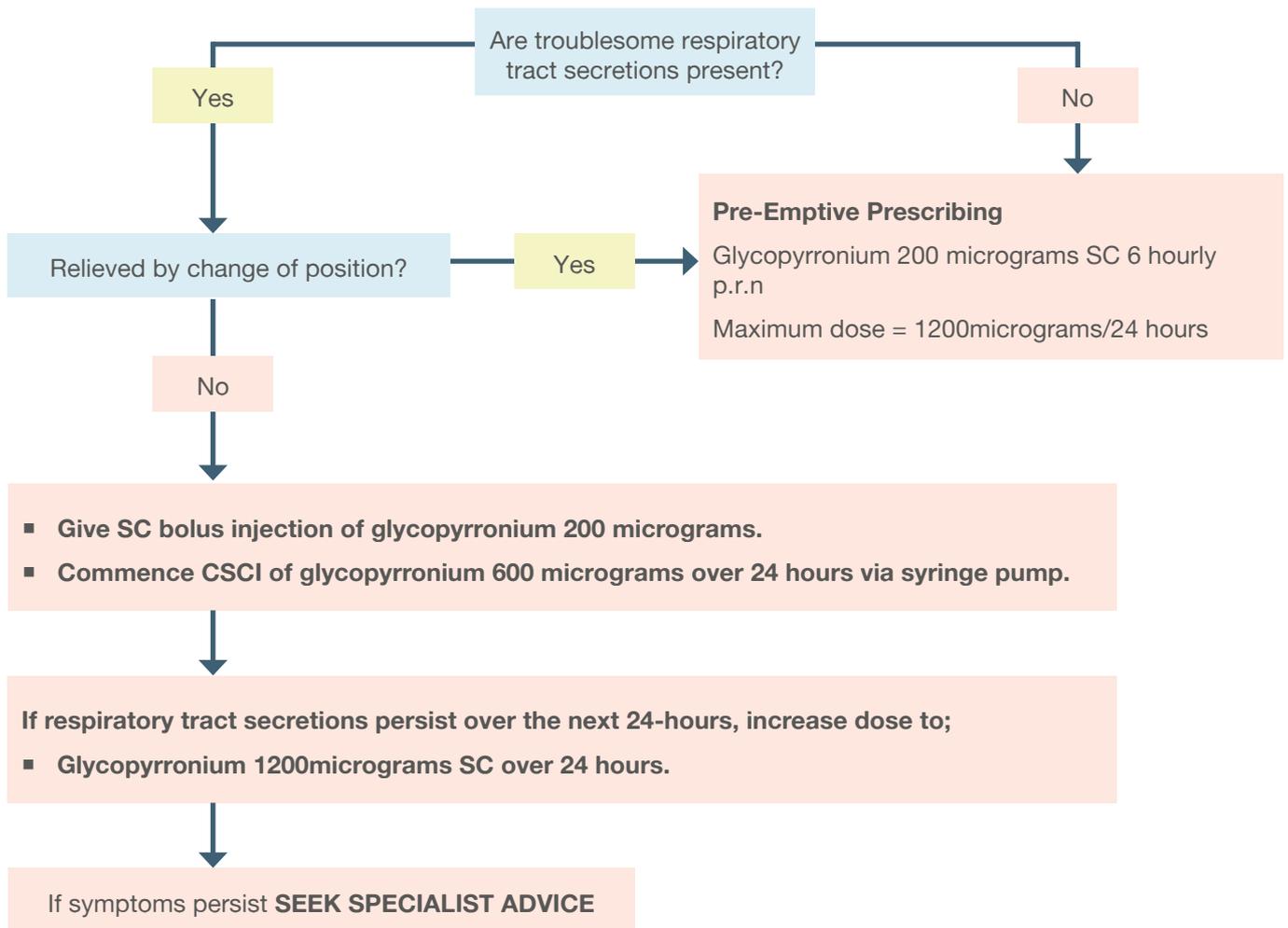


### KEY MESSAGES – TERMINAL RESTLESSNESS AND AGITATION

- Document that reversible causes of agitation have been considered (pain, constipation, urinary retention, overheating, infection, nicotine withdrawal, high calcium levels)
- If requiring 3 or more p.r.n doses within 8 hours seek urgent specialist advice
- Consider adding any p.r.n doses given in previous 24 hours to syringe pump dose
- The p.r.n dose of midazolam should be the amount in the syringe pump divided by 6
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE**

## ALGORITHM 6

### ARE TROUBLESOME RESPIRATORY TRACT SECRETIONS PRESENT?

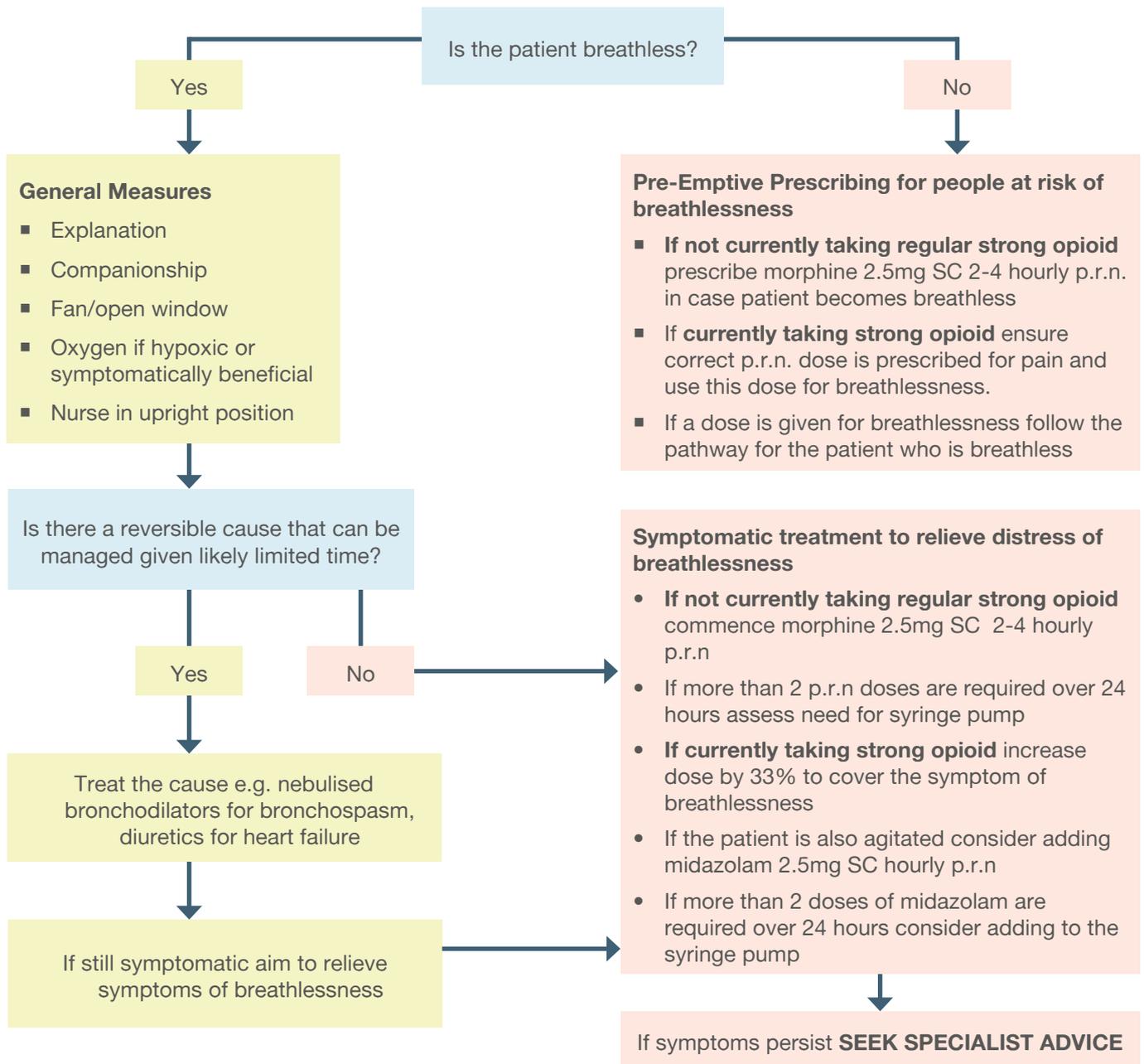


#### KEY MESSAGES – TROUBLESOME RESPIRATORY SECRETIONS

- 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 200micrograms 6 hourly until syringe pump available.
- Alternative antimuscarinic drugs can be used according to local guidelines, e.g. hyoscine butylbromide (Buscopan®) 20mg SC 4 hourly p.r.n., 60-120mg CSCI or hyoscine hydrobromide 400micrograms SC 4 hourly p.r.n, 1.2mg – 2.4mg CSCI over 24 hours
- Troublesome respiratory secretions may be most upsetting for family and those close to the patient. Discussion of these symptoms with them is important.
- Palliative treatment with antibiotics may be appropriate if they are likely to help reduce purulent secretions and increase the comfort of the patient
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE.**

## ALGORITHM 7

### IS THE PATIENT BREATHLESS?

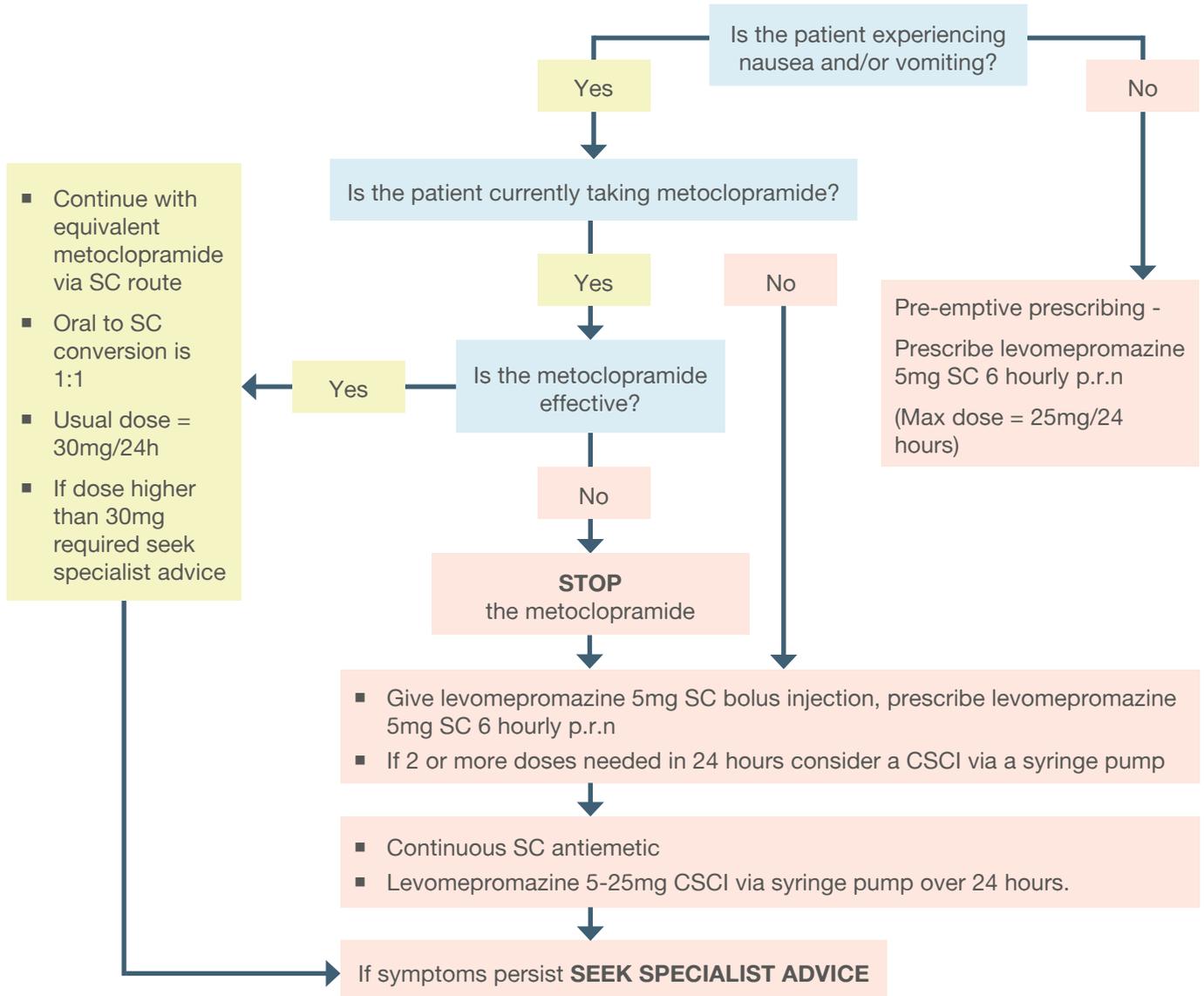


#### KEY MESSAGES – BREATHLESSNESS

- 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 p.r.n doses are required within 8 hours seek specialist advice
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE**

## ALGORITHM 8

### IS THE PATIENT EXPERIENCING NAUSEA AND/OR VOMITING?

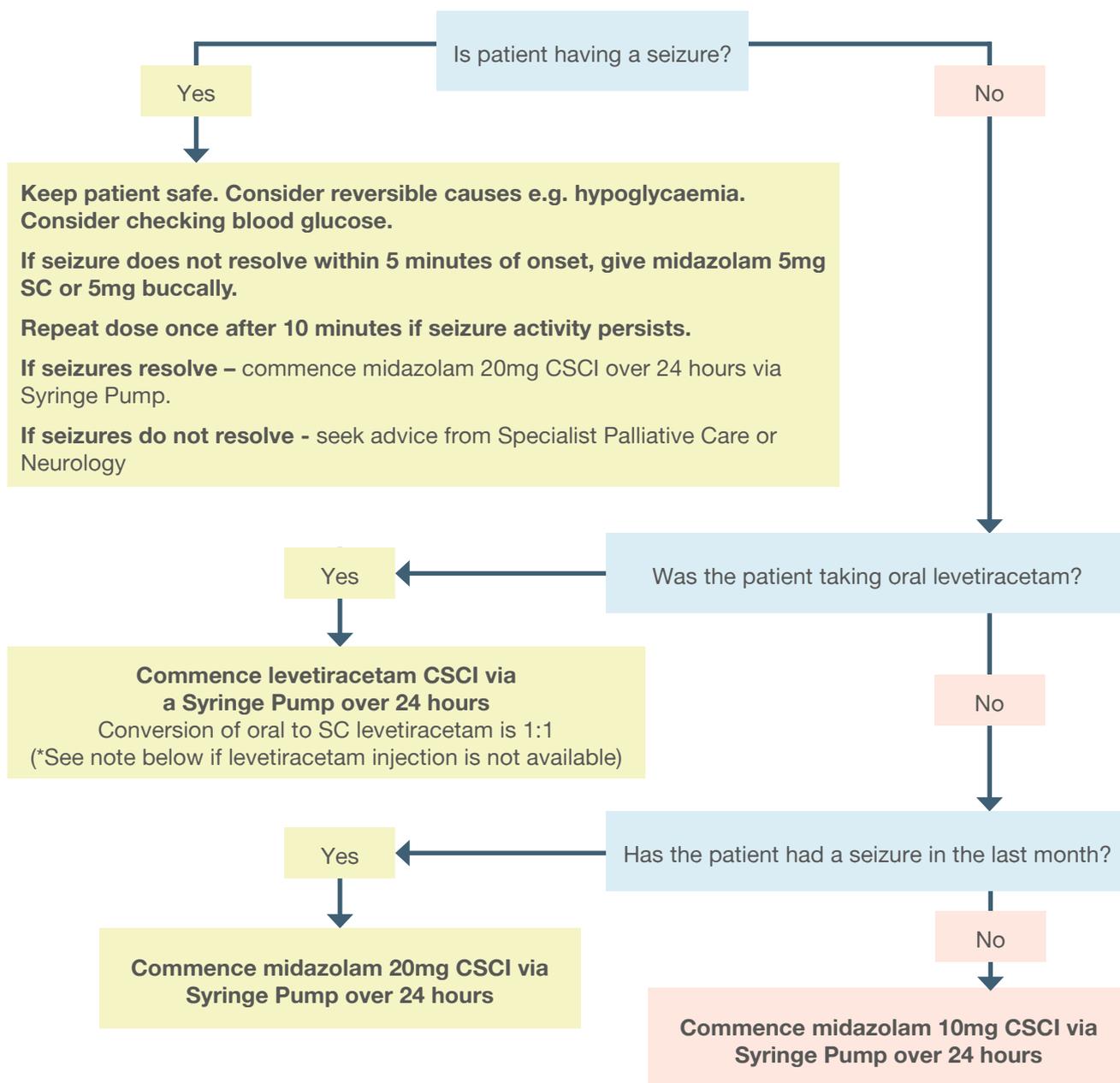


#### KEY MESSAGES – NAUSEA AND VOMITING

- Patients with complete bowel obstruction and nausea or vomiting should not receive metoclopramide
- Alternative antiemetics may be prescribed according to local guidelines, e.g. cyclizine 50mg SC 8 hourly p.r.n. or 150mg by CSCI over 24 hours (not recommended in heart failure, use water for injection if diluent needed); or haloperidol 500micrograms – 1.5mg stat, 1.5 – 5mg CSCI
- Metoclopramide and cyclizine should not be prescribed simultaneously
- For patients with Parkinsonism or Parkinson’s Disease seek specialist advice
- Simple measures such as treating constipation and keeping the patient away from strong food smells may also help
- If eGFR<30ml/min, **SEEK SPECIALIST PALLIATIVE CARE ADVICE**

## ALGORITHM 9

### PATIENT TAKING ORAL ANTI-EPILEPTICS FOR SEIZURES OR SEIZURE PROPHYLAXIS BECOMES UNABLE TO SWALLOW



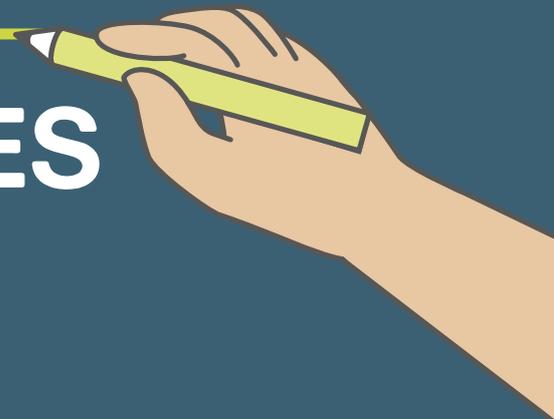
**SEEK SPECIALIST ADVICE** regarding titration of medication in CSCI if seizures are not controlled on the initial dose.

\*If levetiracetam injection is not available, midazolam may be used as an alternative if the patient is thought to be dying imminently or whilst awaiting supplies.

**Note:** Some anti-epileptics have a long half-life and may continue to be effective for 2-3 days after the last oral dose. **SEEK SPECIALIST ADVICE** if the patient is likely to die within the next 24 hours, as it may not be necessary to commence a CSCI, unless they have a history of recent seizures.

# SECTION 4

# APPENDICES



# APPENDIX 1 - OPIOID CONVERSION CHARTS

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*Ref: PCF6, BNF*

- The conversion tables below act as a guide but **consideration must be given to the wide inter-individual variation that exists.**
- Each patient should be assessed on an individual basis.
- Be cautious when converting between different opioids.
- Consider a dose reduction when switching opioids, particularly if the switch is being made because of opioid toxicity.
- Breakthrough p.r.n doses within these charts are based on 1/6 of the total regular daily dose of opioid, but the dose required by an individual may vary between 1/6 and 1/10.

**Table 42 - Dose conversions of weak opioids to oral morphine**

Drug	Conversion	Maximum dose in 24 hours (mg)	Approximate oral morphine equivalent in 24 hours (mg)
Codeine	To obtain equivalent oral morphine dose divide by 10	240	24
Dihydrocodeine		240	24
Tramadol		400	40

**Table 43 - Recommended strong opioid dose conversion ratios**

Convert from	Convert to	Calculation
Oral morphine	SC morphine	Divide by 2
	Oral oxycodone	Divide by 2
	SC oxycodone	Divide by 3
Oral oxycodone	SC oxycodone	Divide by 1.5*
	SC morphine	Equivalent
SC morphine	SC oxycodone	Divide by 1.5

**\*Note:** The UK manufacturer recommends a conversion ratio for oral:SC oxycodone of 2:1. However, PCF6 advises that this may be too conservative for some patients as mean oral bioavailability is 75%. A conversion ratio of 1.5:1 has therefore been recommended in the GMEC SCN Palliative Care Pain and Symptom Management Guidelines since 2015, but it is acknowledged that some centres prefer to use 2:1.

## Table 44 - Opioid Conversion Chart – Morphine and Oxycodone

The following chart provides guidance for the following circumstances:

- Calculating 4 hourly breakthrough doses for oral or SC morphine and oral or SC oxycodone, according to total 24 hour dose
- Converting between oral morphine and SC morphine
- Converting between oral morphine and oral oxycodone
- Converting between SC morphine and SC oxycodone
- Converting between oral oxycodone and SC oxycodone

Route	Morphine (mg)				Oxycodone (mg)			
	Oral		SC		Oral		SC	
Frequency	24h total	4 hourly	CSCI	4 hourly	24h total	4 hourly	CSCI	4 hourly
	m/r	p.r.n	24h	p.r.n	m/r	p.r.n	24h	p.r.n
Dose	20	2.5	10	1.25	10	1.25	5	0.5
	30	5	15	2.5	15*	2.5	10	1.25
	60	10	30	5	30	5	20	2.5
	90	15	45	7.5	45*	7.5	30	5
	120	20	60	10	60	10	40	5
	150	25	75	12.5	75*	12.5	50	7.5
	180	30	90	15	90	15	60	10
	240	40	120	20	120	20	80	15

\*See paragraph 3 below

### Notes:

1. Doses are based on the conversion ratios given in [Table 43 - Recommended strong opioid dose conversion ratios](#), but these are only a guide and **individual assessment, monitoring and titration is essential**.
2. Where feasible, suggested doses have been rounded to provide a dose which can be administered easily. However, when converting from oral m/r morphine to oral m/r oxycodone, please note that some of the doses for m/r oxycodone based on the recommended conversion ratio do not correspond to available formulations. These doses are marked \* and will need to be rounded either up or down, according to the individual circumstances.  
**Prescribers should seek specialist advice if unsure about the appropriate dose to use.**
3. The table does not indicate incremental steps – **dose increases are normally 33-50% steps**.
4. SC volumes more than 2ml are uncomfortable; note: oxycodone injection is available as 10mg/ml or 50mg/ml; morphine is 30mg/ml; consider using alternative opioid or 2 injection sites per p.r.n. dose if injection volume is more than 2ml.

**Table 45 - Converting from oral codeine or oral morphine to transdermal buprenorphine**

Oral codeine dose (mg/24hours)	Oral morphine dose (mg/24 hours)	Buprenorphine patch strength (microgram/hr)	Suggested 4 hourly p.r.n dose of oral morphine (mg)	Suggested 4 hourly p.r.n dose of oral oxycodone (mg)
		7-day patch		
120	12	5*	2	1
240	24	10	5	2.5
	48	20	7.5 - 10	3.75 - 5
		3- or 4- day patch		
	84	35	15	7.5
	126	52.5	20	10
	168	70	30	15

\*For patients on 7-day buprenorphine patch 5 microgram/h, p.r.n. codeine may be adequate

**Table 46 - Converting from strong opioid regimes to buprenorphine patches**

Strong opioid	When to apply first patch	Comments
<b>Immediate-release strong opioid</b>	Apply patch Continue regular 4 hourly immediate release strong opioid for 12 hours	
<b>Modified-release strong opioid (12 hourly)</b>	Apply patch at same time as last dose of modified release strong opioid	Prescribe immediate release strong opioid for 'breakthrough' pain 2-4 hourly when required.
<b>Modified-release strong opioid (24 hourly)</b>	Apply patch 12 hours after last dose of modified release strong opioid	<b>Table 45</b> ↗ Converting from oral codeine or oral morphine to transdermal buprenorphine.
<b>Continuous subcutaneous infusion over 24 hours (CSCI)</b>	Apply patch – discontinue CSCI 12 hours after application of patch	

## Commencing fentanyl patches and conversion charts

- Fentanyl patches are not recommended for patients who are opioid naïve
- Consider buprenorphine patches for opioid naïve patients requiring transdermal strong opioid.

**Table 47 – Conversion from oral morphine or oral oxycodone to transdermal fentanyl**

Oral morphine dose over 24 hours (mg)	Oral morphine breakthrough dose 4 hourly when required (mg)	Transdermal fentanyl dose (micrograms/hour)	Oral oxycodone dose over 24 hours (mg)	Oral oxycodone breakthrough dose 4 hourly when required (mg)
30	5	12	15*	2.5
60	10	25	30	5
90	15	37	45*	7.5
120	20	50	60	10
150	25	62	75*	12.5
180	30	75	90	15
240	40	100	120	20

\* See notes on Table 44 - Opioid Conversion Chart – Morphine and Oxycodone. These doses for m/r oxycodone do not correspond to available formulations and will need to be rounded either up or down, according to the individual circumstances.

**Table 48 - Converting from strong opioid regimes to fentanyl patches**

Strong opioid	When to apply first patch	Comments
<b>Immediate-release strong opioid</b>	Apply patch Continue regular 4 hourly immediate release strong opioid for 12 hours	Prescribe immediate-release strong opioid for breakthrough pain 2-4 hourly when required  <b>Table 47</b> ↗ Conversion from oral morphine or oral oxycodone to transdermal fentanyl
<b>Modified-release strong opioid (12 hourly)</b>	Apply patch at same time as last dose of modified release strong opioid	
<b>Modified-release strong opioid (24 hourly)</b>	Apply patch 12 hours after last dose of modified release strong opioid	
<b>Continuous subcutaneous infusion over 24 hours (CSCI)</b>	Apply patch – discontinue CSCI 8-12 hours after application of patch	

# APPENDIX 2 - GENERAL PRINCIPLES AND RESPONSIBILITIES WHEN ASKING FOR ADVICE ABOUT PALLIATIVE CARE PATIENTS

## Asking for advice from a Specialist Palliative Care telephone helpline

Being prepared with as much information as possible will help both you and the person giving you advice to get the best out of the process. Before you pick up the phone think about the information you have, what additional information may be needed and where that might be found.

Remember that the person giving advice is unlikely to know the patient and will be relying heavily on your clinical assessment. It is important that, whenever possible, you see the patient and take a history from them in person before seeking advice. Ideally, seek advice whilst with the patient as this means that questions can be clarified with them immediately. Where this is not possible, ensure that you have up to date contact information on the patient and their carers so issues can be clarified quickly, if needed.

The person giving advice will only be able to offer a limited number of options, which will be aimed at holding a situation until the patient can be reviewed by their own caring team or a member of the specialist palliative care team.

## Framework to help you ask for advice effectively

Setting	
Hello, I am	State name and role and where you work clearly.
I am calling about	State name of patient and their location.
I am seeing this patient because	State in what capacity you are seeing the patient e.g. on call doctor asked to see the patient by family.
I would like	State clearly what you want – advice, discussion, clarification, admission, urgent review etc.
Background/Objective Assessment	
Patient has	State diagnosis.
Patient's condition	State what has changed – condition, new symptom and the time frame for this change.

<p><b>They have the following</b></p>	<p>State the key issue(s) you need help with – e.g. they are in severe pain despite having three doses of breakthrough pain medication.</p> <p>State a summary of your clinical assessment – I am worried that they may have bone metastases.</p> <p>State what their observations are (if relevant).</p>
<p><b>Relevant Factors</b></p>	
<p><b>I am concerned because</b></p>	<p>State what patient’s previous condition was reported to be, e.g. pain free and alert.</p> <p>List the reasons why you need help, such as pain relief is not working, pain has suddenly got worse, family are really distressed and panicking etc.</p>
<p><b>I have already done</b></p>	<p>State what measures you have already started, e.g. I have given an antiemetic.</p> <p>Any other factors that you feel may play a part in any management plan e.g. the elderly wife feels exhausted.</p>
<p><b>If you are not clear what is going on, and/or uncertain about potential causes, say so clearly</b></p> <p><b>Also give a clear indication of how worried you are by using phrases such as:</b></p>	<p>I am not sure what the problem is.</p> <p>I am not sure why this is happening now.</p> <p>I am not sure what would be the appropriate thing to do.</p> <p>I am very worried.</p> <p>I am concerned.</p> <p>I just want to check that</p>
<p><b>Recommendations</b></p>	
<p><b>I wondered if</b></p>	<p>State clearly if you want confirmation of your proposed management plan or if you want more detailed advice.</p>
<p><b>I was planning to</b></p>	<p>Check if a plan is appropriate;</p> <p>“Would be OK to give a fourth breakthrough – the last one was two hours ago?”</p> <p>“I do not think this family will cope – would it be appropriate to admit?”</p>
<p><b>Follow Up</b></p>	
<p><b>What if advice does not work</b></p>	<p>As the caller, state clearly your follow up plans;</p> <p>“I will ring the patient back in an hour to see if things have improved.”</p> <p>If you are going off duty, ensure there is a plan as to how the outcome of the advice will be followed up.</p>
<p><b>What will happen next day?</b></p>	<p>As the caller clearly state what you will do to follow up on the management plan and what, if anything, you expect from the specialist palliative care team.</p>

## Summary

Summarise what has been discussed and the plan highlighting what you are going to do and what you expect the person giving advice to do (e.g. hand over the issue to the relevant person the next working day).

Double check drug names and doses if specific advice has been given around these. If you do not understand or lack confidence to follow advice say so.

Either the person giving the advice or the person receiving advice should ensure that a summary of the advice is read back as a double check that what has been proposed is understood by both parties.

Even at this stage do not be frightened to say if you are unclear about something or you are concerned about the effect of the advice. If needed, suggest that you phone back once you have checked out your concerns with a colleague etc.

If you remain unsure, say so and suggest what you would feel able to do.

Write clearly in the patient's notes the outcome of the phone call and what should be done if the plan does not hold the situation. Sign, time and date the entry.

**ALWAYS ENSURE THAT THE PATIENT IS REVIEWED TO CHECK THE IMPACT OF THE ADVICE GIVEN. IF THE PATIENT IS NOT SETTLED, ASK FOR MORE ADVICE.**

*Ref: North West Coast Strategic Clinical Networks Palliative and End of Life Care Guidance: Seeking Palliative Care Advice and Key Features of Common End of Life Diseases, September 2017*



# APPENDIX 3: SPECIALIST MEDICATION PRESCRIBING IN PALLIATIVE AND SUPPORTIVE CARE

Patients with specialist palliative and supportive care needs may be prescribed drugs that are unfamiliar to non-specialist prescribers. The Greater Manchester and Eastern Cheshire Strategic Clinical Networks document <https://www.england.nhs.uk/north-west/wp-content/uploads/sites/48/2019/03/Specialist-Medication-Proforma.pdf> provides a framework for good practice, and guidance on clinical responsibility for secondary and tertiary care when planning discharge or prescribing for outpatients.

'When clinical and/or prescribing responsibility for a patient is transferred from secondary to primary care, the primary care prescriber should have the appropriate competence to prescribe the necessary medicines. Therefore, it is essential that the transfer of care involving medicines that a primary care prescriber would not normally be familiar with, should not take place without the sharing of information with the primary care prescriber and their mutual agreement to the transfer of care'.

EL (91)127 "Responsibility for prescribing between Hospitals and GPs", DH

Prescribers should follow their local formulary guidance when deciding which medication, it is appropriate to prescribe in Primary Care and local Specialist Palliative Care. Specialist Palliative Care and Tertiary Care should familiarise themselves with individual locality formularies when deciding which medications are appropriate to prescribe or recommend in outpatients or those patients who will be discharged into the community.

It is recommended that the list of medications below should only be initiated by specialist supportive and palliative care teams/hospices when prescribed for individuals with supportive and palliative care needs.

## Specialist Medication List

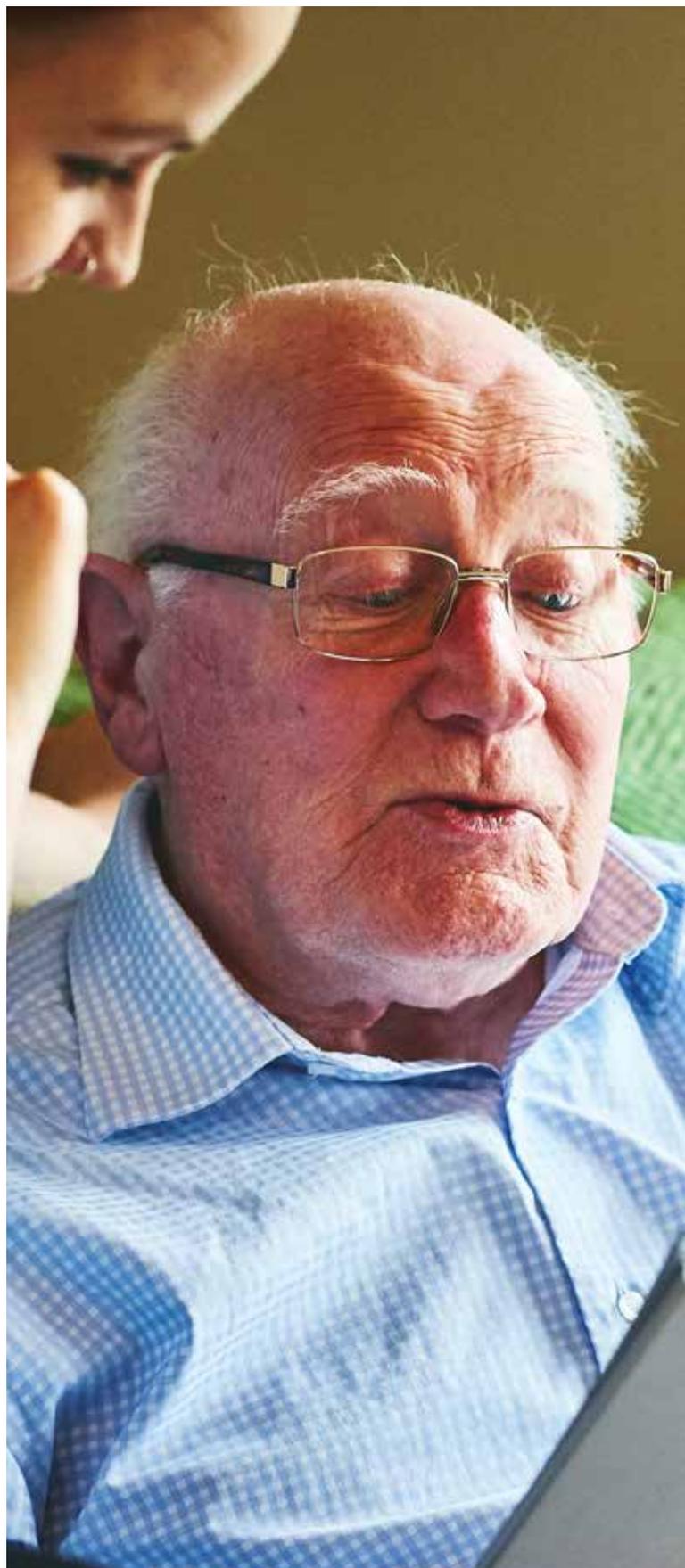
- Ketamine
- Methadone
- Alfentanil
- Octreotide (Greater Manchester Medicines Management Group RED status – only specialist clinician prescribed)
- Methylalntrexone
- Naloxegol
- Tapentadol
- Ketorolac
- Clonazepam (subcutaneously)
- Transmucosal release Fentanyl preparations
- Lidocaine plasters
- Oxycodone and naloxone combination products

**NB.** For further advice on which medicines should be initiated by specialists, please consult the **GM RAG list**.

## Prescribing Specialist Medication – Responsibilities of Specialist Palliative Care

- To provide information, discuss and agree treatment with the patient.
- To provide a specific patient information leaflet, when available.
- To initiate treatment and titrate specialist medication.
- In circumstances of prescribing specialist medication, a direct conversation should take place between the specialist and the patient's GP.
- Agreement should be reached before the prescription issued or patient discharged into the community.
- To clarify where the patient can obtain an ongoing supply of medication and liaise with the community pharmacist.
- To communicate in writing with patient's GP and local Specialist Palliative Care Team so that both are aware of the patient in advance of the discharge or outpatient medication being initiated in the community.

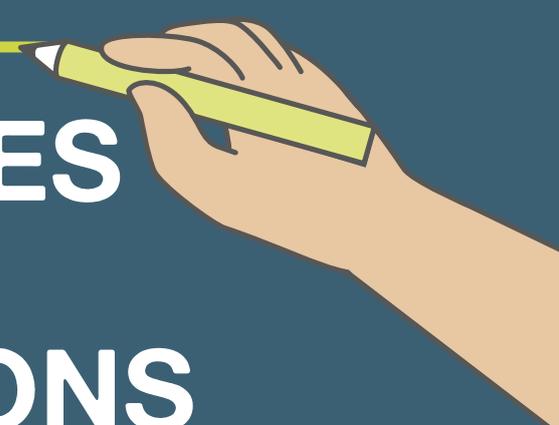
*Ref: Greater Manchester and Eastern Cheshire Strategic Clinical Networks Specialist Medication Proforma Final: June 2018*



# SECTION 5

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# REFERENCES AND ABBREVIATIONS



# KEY REFERENCES

BNF Online <https://bnf.nice.org.uk/> 

Diabetes UK. End of Life Diabetes Clinical Care Recommendations 3rd edition (March 2018) [https://www.diabetes.org.uk/resources-s3/2018-03/EoL\\_Guidance\\_2018\\_Final.pdf](https://www.diabetes.org.uk/resources-s3/2018-03/EoL_Guidance_2018_Final.pdf) 

Greater Manchester Medicines Management Group. Neuropathic Pain Guidelines (2014) <http://gmmmg.nhs.uk/docs/guidance/GMMMG%20Neuropathic%20Pain%20Guidance%20March%202014.pdf> 

## National Institute for Health and Clinical Excellence (NICE) Guidelines:

### Palliative Care guidelines:

- Palliative Care for Adults: strong opioids for pain relief (2016). Clinical Guideline CG140 <https://www.nice.org.uk/guidance/cg140> 
- Care of dying adults in the last days of life (December 2015). NICE Guideline NG31 <https://www.nice.org.uk/guidance/ng31> 

### Other relevant NICE guidelines:

- Metastatic spinal cord compression: Diagnosis and management of patients at risk of or with metastatic spinal cord compression. Clinical Guideline CG75 (November 2008). <http://www.nice.org.uk/guidance/cg75> 
- Depression in adults: recognition and management. Clinical Guideline CG90 (April 2018). <http://www.nice.org.uk/guidance/cg90> 
- Depression in adults with a chronic physical health problem: recognition and management. Clinical Guideline CG91 (October 2009). <http://www.nice.org.uk/guidance/cg91> 
- Delirium: prevention, diagnosis and management. Clinical Guideline CG103 (2010) <https://www.nice.org.uk/guidance/cg103> 

- Dementia: assessment, management and support for people living with dementia and their carers. NICE Guideline NG97 ” (June 2018) <https://www.nice.org.uk/guidance/ng97/chapter/Recommendations> 
- Generalised anxiety disorder and panic disorder in adults. Clinical Guideline CG113 (January 2011) <http://www.nice.org.uk/guidance/cg113> 
- Neuropathic pain in adults: pharmacological management in non-specialist settings (April 2018). Clinical Guideline CG173 <https://www.nice.org.uk/guidance/cg173> 
- Scottish Palliative Care Guidelines. <https://www.palliativecareguidelines.scot.nhs.uk/guidelines/about-the-guidelines/background.aspx> 
- Twycross R, Wilcock A., Howard P (2017). Palliative Care Formulary 6th Edition. palliatedrugs.com Ltd, Nottingham. [www.palliatedrugs.com](http://www.palliatedrugs.com) 
- Twycross R, Wilcock A, Toller CS (2009). Symptom Management in Advanced Cancer 4th Edition. palliatedrugs.com Ltd, Nottingham. [www.palliatedrugs.com](http://www.palliatedrugs.com) 
- Twycross R, Wilcock A (2016). Introducing Palliative Care 5th Edition. palliatedrugs.com Ltd, Nottingham. [www.palliatedrugs.com](http://www.palliatedrugs.com) 
- Watson M, Armstrong P et al (2016). Palliative Adult Network Guidelines 4th edition. Bedfordshire and Hertfordshire, London Cancer Alliance, Northern Ireland, PallE8, Surrey, Sussex and Wales.
- World Health Organization (2018). WHO Guidelines for the Pharmacological and Radiotherapeutic Management Of Cancer Pain In Adults and Adolescents. <https://apps.who.int/iris/bitstream/handle/10665/279700/9789241550390-eng.pdf> 

All weblinks correct as of 20.01.2019

# ABBREVIATIONS

<b>BNF</b>	British National Formulary
<b>caps</b>	Capsules
<b>CD</b>	controlled drug - preparation subject to prescription requirements of the Misuse of Drugs Act (UK). (See BNF)
<b>COPD</b>	Chronic obstructive pulmonary disease
<b>COX, COX2I</b>	cyclo-oxygenase, cyclo-oxygenase type 2 inhibitor
<b>CSCI</b>	continuous subcutaneous infusion
<b>EAPC</b>	European Association for Palliative Care
<b>g</b>	gram(s)
<b>h</b>	hour(s)
<b>IM</b>	Intramuscular
<b>IV</b>	Intravenous
<b>L</b>	Litre(s)
<b>microgram</b>	not abbreviated
<b>mg</b>	milligram
<b>ml</b>	millilitre
<b>min</b>	minute(s)
<b>mmol</b>	millimoles
<b>m/r</b>	modified release (used interchangeably with controlled release)
<b>nocte</b>	at night
<b>LTOT</b>	Long Term Oxygen Therapy

<b>NSAID</b>	Non-steroidal anti-inflammatory drug
<b>p.o</b>	By mouth
<b>PPI</b>	Proton pump inhibitor
<b>p.r</b>	By rectum
<b>p.r.n.</b>	When required
<b>®</b>	Trade mark
<b>Ref</b>	Reference
<b>SC</b>	Subcutaneous
<b>SNRI</b>	Serotonin-noradrenaline reuptake inhibitor
<b>SSRI</b>	Selective serotonin reuptake inhibitor
<b>SPC</b>	Summary of Product Characteristics
<b>stat</b>	Immediately
<b>TD</b>	transdermal
<b>TENS</b>	Transcutaneous electrical nerve stimulation
<b>PENS</b>	Percutaneous electrical nerve stimulation
<b>UK</b>	United Kingdom
<b>URTI</b>	Upper respiratory tract infection
<b>UTI</b>	Urinary tract infection
<b>WFI</b>	Water for injection
<b>WHO</b>	World Health Organization
<b>≈</b>	Is approximately equivalent to





# GET IN TOUCH

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All specific enquiries on on the Palliative Care Pain and Symptom Control Guidelines for Adults for staff providing generalist Care please contact:  
[England.GMEC-EOLC@nhs.net](mailto:England.GMEC-EOLC@nhs.net) 

## GENERAL ENQUIRIES

[gm.hscinfo@nhs.net](mailto:gm.hscinfo@nhs.net) 

[www.gmhsc.org.uk](http://www.gmhsc.org.uk) 

[www.england.nhs.uk/north-west/gmec-clinical-networks/](http://www.england.nhs.uk/north-west/gmec-clinical-networks/) 

 [@GM\\_HSC](https://twitter.com/GM_HSC)

 [@GMEC\\_scn](https://twitter.com/GMEC_scn)