

North of England Cancer Network Palliative Care Guidelines

These guidelines have been developed by a multi-professional steering group of specialists working in palliative care to provide advice on the management of common symptoms. A rigorous process of drafting, consultation and review has enabled all palliative care teams across the network to contribute to the final version to ensure that, as far as possible, the content represents a consensus informed by available evidence.

The guidelines are for clinical staff whose work includes the care of patients with palliative care needs but for whom this work does not comprise the majority of their role. National documents refer to this work as 'generalist palliative care'.

Guidelines are a place to begin. They cannot replace specialist advice from experienced clinicians. Fundamental to the practice of palliative care is an emphasis on individualised care for the patient.

If symptoms fail to respond to usual measures, or if you are concerned that the recommendations given here may not be appropriate to the clinical situation, please contact your local specialist palliative care team. Contact numbers are listed on the final pages of this booklet.

Thanks are due to **all** who contributed to the development of these guidelines and in particular to the following people who have been members of the steering group process:

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On behalf of *everyone* who has contributed I hope you find these guidelines both clear and helpful, to the benefit of the patients in your care and to your own practice. Observations or comments which may inform future review of this booklet are welcome and should be directed to me: alex.nicholson@stees.nhs.uk

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Index

Symptom overview and links	2
Approaching the management of pain	3
Using opioids for pain in palliative care	5
Constipation	9
Management of nausea and vomiting	11
Guidance on use of corticosteroids in Palliative Care	13
Suspected spinal cord compression	14
Malignant hypercalcaemia	15
Major haemorrhage	16
Malignant superior vena cava obstruction	17
End of life symptom control flowcharts	18
Palliative care service contact information	24

Further reading

Regnard, C., Dean, M. and Hockley, J. (2009) **A guide to symptom relief in palliative care**: 6th edition.

Twycross, R., Wilcock, A., Charlesworth, S. and Dickman, A. (2007) **Palliative care formulary**: 3rd edition. Nottingham, Palliativedrugs.com Ltd

Watson, M., Lucas, C., Hoy, A. and Back I. (2005) **Oxford Handbook of Palliative Care** Oxford University Press. Oxford.

Other references

Back, I.N. (1997) **Palliative Medicine Handbook**. Penarth, Marie Curie Cancer Care.

Conner, A. & Muir, M. (2007) **Managing Symptoms: What Can Nurses Do?** In (eds) Kinghorn & Gaines **Palliative Nursing: Improving End of Life Care**. Bailliere Tindall UK.

Doyle, D., Hanks, G., Cherny, N. and Calman, K. (2004) **Oxford Textbook of Palliative Medicine**: 3rd edition. New York: OUP.

Doyle, D. (1984) **Palliative care: The management of far advanced illness**. Groom Helm, UK

Fallon, M., Hanks, G. and Cherny, N. (2006) Principles of control of cancer pain. **BMJ**;332:1022-4.

Hardy JR, Rees E, Ling J, Burman R, Feuer D, Broadley K, Stone P. (2001) **A prospective survey of the use of dexamethasone on a palliative care unit**. *Palliative Medicine*; 15:3-8

Humber and Yorkshire Coast Cancer Network (2005) **Palliative Care Emergencies**.

Jones, S. (2007) **Protocol for glycaemic control for patients on steroids**. The University Hospital of Hartlepool.

NICE (2008). Metastatic spinal cord compression. NICE clinical guideline 75. NHS National Collaborating Centre for Cancer.

Page RC. (1997) **How to wean a patient off corticosteroids**. *Prescriber's Journal*;37(1):11-16

Solano, Gomes, Higginson, (2006) **A comparison of symptom prevalence in for advanced cancer, AIDS, heart disease, COPD and renal disease**. *Journal Pain and symptom management* 31(1): 58-69.

St. Benedict's Hospice Palliative Care Service (2004) **Severe Haemorrhage Management Guidelines**.

Twycross, R. and Wilcock, A. (2001) **Symptom Management in Advanced Cancer**. 3rd edition. Radcliffe Medical Press. Abingdon.

World Health Organisation (1996) **Cancer Pain Relief**. WHO, Geneva.

St Benedict's Hospice Palliative Care Service (2003) **Steroid guidelines**.

Palliative Care

The WHO defines palliative care as:

“the active, holistic care of patients with advanced, progressive illness. Management of pain and other symptoms and provision of psychological, social and spiritual support is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families.”

The principles of palliative care are relevant to patients with both malignant and non-malignant disease and may be relevant to patients early on in their disease trajectory. Therefore the principles of palliative care should not be applied solely to cancer patients at the end of life.

The commonest symptoms include:

Pain	Anxiety	Fatigue
Breathlessness	Nausea	Vomiting
Diarrhoea	Depression	Confusion
Anorexia	Insomnia	Constipation

Key principles of symptom management

Several principles are fundamental to the palliative care approach and help to achieve success:

- Detailed assessment with patient and carers
- Diagnose cause and effect of symptom using knowledge of pathophysiology and disease processes
- Choose appropriate treatment for the individual balancing benefit against side effect burden and considering factors such as route of administration
- Avoid making too many changes at once or review will be complex
- Constantly reassess – “review, review, review”
- Anticipate future problems and plan ahead as much as possible.

This guideline booklet does not address every symptom and it is not the intention of the booklet to replace the excellent handbooks of palliative care and symptom control which exist. Its purpose is to provide

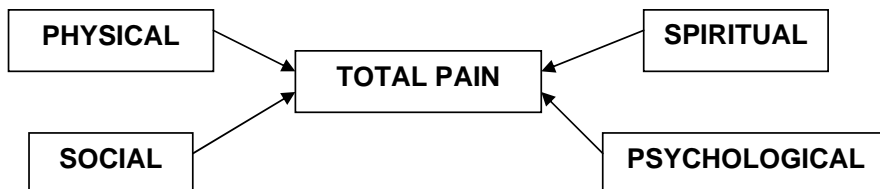
- convenient and accessible information on management of the common symptoms
- awareness of the main palliative care emergencies
- guidance on management in the last days of life of the five common symptoms.

Further guidelines and useful links can be accessed via the North of England Cancer Network website - www.cancernorth.nhs.uk

Approaching the Management of Pain

**Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. It is a highly subjective phenomenon.
Simple definition: "pain is what the patient says hurts"**

The concept of **TOTAL PAIN** is commonly used in Palliative Care to prompt health professionals to consider all possible influences on the pain experience:



When to consider support from the Specialist Palliative Care Team (SPCT)

Specialist Palliative Care Teams are experienced in the management of complex pain. Advice is available on the use of standard, adjuvant and non-drug measures to manage pain or it may be appropriate to refer for assessment, treatment and review. E.g.

- Complex or multiple pains where assessment is difficult
- Pains that appear resistant to usual measures
- Difficulty with management caused by adverse effects of medication
- Pain associated with more than usual distress, particularly where non-physical factors are involved.

If in doubt, please ask your local SPCT for advice.

Assessment

Careful initial assessment is very important and should include clear documentation of findings. This allows the assessing clinician, and others, to compare progress in management against the early features.

Many pains change with time and frequent reassessment is necessary, especially during and after interventions.

Multiple sites and/or types of pain are common. EACH pain should be assessed, documented, managed and reviewed.

Charts may be used to record site & radiation of pains, and associated clinical findings.

Pain scores or scales, though subjective, may allow the patient to rate the severity of the pain.

Each pain should be assessed for

- Site, severity, radiation and characteristics of its timing/frequency/variation
- Quality using descriptive terms (e.g. burning, tingling, throbbing, etc)
- Exacerbating and relieving factors including the effects of drug & non-drug interventions
- Associated symptoms and features

Patient's understanding, fears & concerns, previous experience of pain and expectations of treatment, and other aspects relevant to social, psychological and spiritual, should be determined.

Clinical examination should be performed to assist in determining the likely type and cause.

Relevant investigation, appropriate to the patient's condition, should be considered. This might include biochemistry (which may influence drug choice) and X-rays/scans.

Prescribing guidance

Use the oral route wherever possible.

Use a non-oral route if necessary, eg dysphagia, vomiting, bowel obstruction, terminal phase.

Prescribe regularly at an interval appropriate to the formulation.

Prescribe "as required" analgesia for pain that may occur despite regular treatment.

Treatment

The **WHO analgesic ladder** remains the mainstay of our approach to analgesia.

Move up to the next step if pain control is not achieved.

<p>Step 1 Paracetamol and/or NSAID (plus adjuvant)</p>
<p>Step 2 Paracetamol and/or NSAID PLUS opioid for mild/moderate pain (plus adjuvant) <i>Opioid for mild/moderate pain = codeine, dihydrocodeine, tramadol</i></p>
<p>Step 3 Paracetamol and/or NSAID PLUS opioid for severe pain (plus adjuvant) <i>Opioid for severe pain = morphine, diamorphine, oxycodone, fentanyl, hydromorphone</i> (for rescue analgesic, use 1/6th daily dose of regular opioid)</p>

Adjuvant analgesic drugs (co-analgesics) may be used alongside any step of the ladder. An adjuvant analgesic is a drug whose primary indication is for something other than pain, but which has analgesic effects in some painful conditions.

Dose guidance for use of corticosteroids is included in this symptom control handbook.

Dose initiation and titration of other drugs must follow BNF guidance supported by specialist advice.

Common adjuvant analgesic drug groups	Indications
NSAIDs	Bone pain, soft tissue infiltration
Corticosteroids	Raised intracranial pressure, nerve compression, liver capsular pain, soft tissue infiltration
Antidepressants, Anticonvulsants	Neuropathic pain, tenesmoid pain
Muscle relaxants (baclofen, benzodiazepines)	Muscle cramp/spasm, myofascial pain
Bisphosphonates	Bone pain

Additional approaches to pain relief will be dictated by clinical circumstances:

- **interventional methods** - spinal analgesia, nerve block, radiotherapy, orthopaedic or spinal surgical stabilisation.
- **non-drug measures** - TENS, acupuncture, massage, and holistic or complementary therapies
- **rehabilitative support** - physiotherapy, occupational therapy

Adverse effects

Prescribers must know the adverse effects and contraindications of all medications that they prescribe and should consult the BNF if they are unsure.

The common adverse effects of opioids are explained on page (insert page no).

NB: a combination of some or all of an NSAID, corticosteroid, SSRI and/or anticoagulant will increase substantially the risk of GI toxicity in palliative care patients. Co-prescription of a PPI is recommended.

“Review, review, review”

Success in pain management depends upon regular review of pain and its causes as well as the efficacy and tolerability of treatment.

Using Opioids for Pain in Palliative Care

Morphine remains the first line strong opioid analgesic of choice.

1. Using opioid drugs safely

Morphine and other opioids are valuable drugs for the relief of severe pain in patients with advanced malignant and non-malignant disease.

These drugs are safe, effective and appropriate provided that

- cautious starting doses and titration are observed
- the properties and relative potencies of different strong opioids are understood
- opioid-related adverse effects are monitored and managed
- prescribers are aware that some types of pain are poorly responsive to opioids and require other types of analgesics (adjuvant analgesics)

2. Common concerns over the use of morphine and other opioids

Opioids and addiction

Clinical experience suggests that when opioids are titrated against moderate/severe opioid responsive pain, addiction is exceptionally rare. Patients should be reassured that if the pain is removed by some other intervention, the opioid drug can be reduced and discontinued without adverse effect. If increased doses do not improve analgesia this may indicate tolerance or that the pain is opioid-poorly responsive and requires specialist input.

Opioids and respiratory depression

All opioids have the potential to cause respiratory depression. Pain antagonises this effect. Dose titration, clinical judgement and regular review should avoid complications. Used appropriately, opioids are safe for patients with cardio-respiratory disease.

Opioids and renal impairment/failure

Most opioids or their metabolites have the potential to accumulate in patients with impaired renal function. In mild renal impairment doses will therefore need to be reduced, especially if renal function deteriorates further in a patient on a stable dose. Cautious titration, usually involving extended dose intervals, and close monitoring for opioid adverse effects is necessary to avoid complications. Sustained release formulations should be avoided if analgesic requirements or renal function are unstable. Check renal function if a patient previously stable on opioids develops adverse effects. In moderate to severe renal impairment seek specialist advice as this is likely to influence choice of opioid.

3. Management of opioid adverse effects

- **constipation** – common and persists during opioid treatment . Prescribe a combined softening/stimulant laxative (e.g. codanthrusate, codanthramer) and review every 2-3 days to achieve a bowel habit acceptable to the patient
- **nausea/vomiting** – common at initiation of opioid but patients usually become tolerant to this within one week. Prescribe anti-emetic (either haloperidol 1.5mg nocte or metoclopramide 10mg tds) for the first week then discontinue.
- **sedation** – fairly common during first few days of treatment. Tolerance usually develops. Reassure patient initially unless side effect is severe. If persists, reduce dose and re-titrate. Sometimes necessitates change to alternative opioid.
- **dry mouth** – fairly common and can persist.

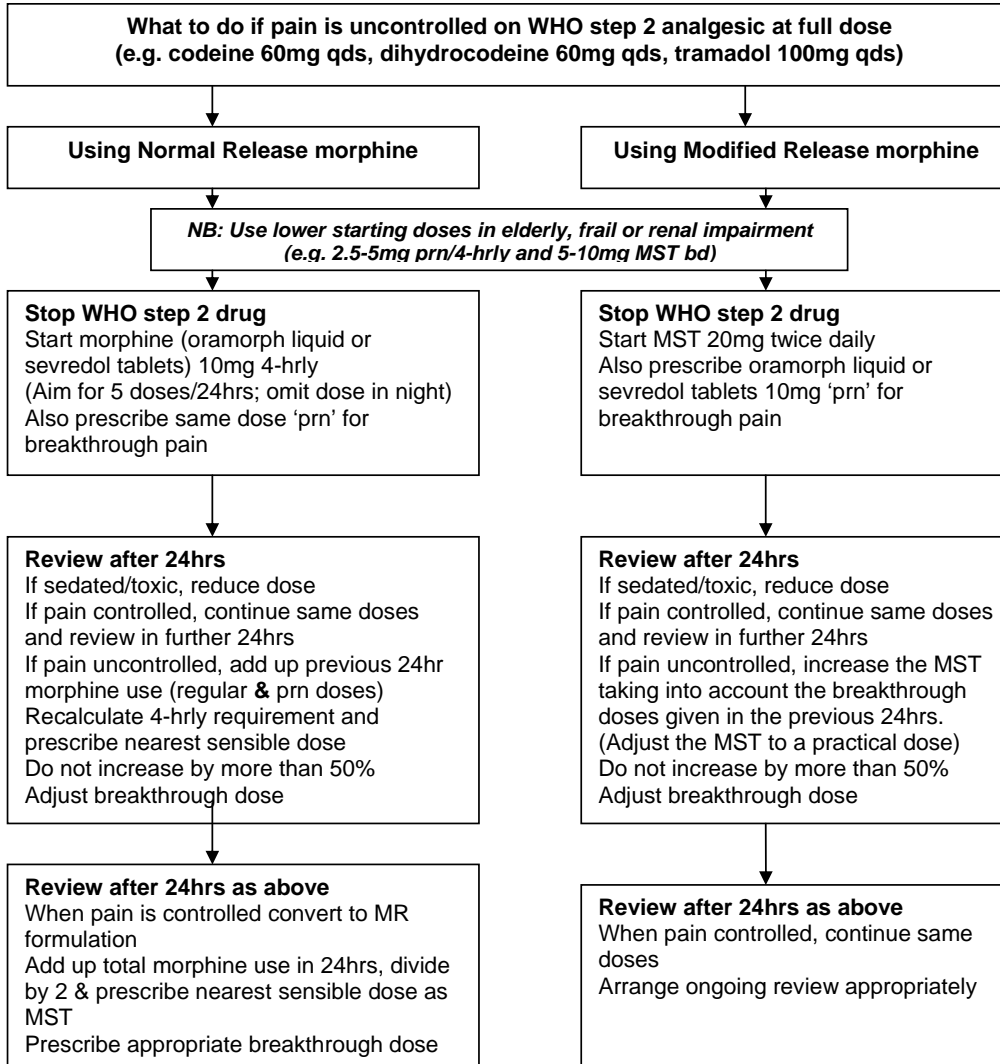
4. Opioid toxicity

Myoclonic jerks, pin-point pupils (miosis), hallucination and confusion are signs of potential opioid toxicity. Reduce dose. Check renal function. Consider whether pain is truly opioid responsive. Consider switch to alternative opioid. **Seek advice.**

5. Opioid titration - morphine is the first line WHO step 3 opioid of choice

1. Ideally start Normal (or 'immediate') Release (NR) morphine 4-hrly
2. Sometimes titration with Modified Release (MR) morphine is appropriate
3. Never titrate with transdermal preparations in unstable pain or opioid naive patients
4. Always adjust the breakthrough dose if the regular dose is changed (*up or down*)
5. Prescribe regular laxative (ongoing) and regular or 'prn' anti-emetic (for 1 week)
6. Monitor closely for efficacy, adverse effects and toxicity

**Opioid titration sequence – using morphine as the example
(Where MST stated, Zomorph or Morphgesic apply equally)**



6. Breakthrough or rescue doses of opioids

Treat breakthrough pain with normal/immediate release opioid at a dose which is approximately 1/6th of the total 24hr opioid dose to be given as needed. An appropriate breakthrough dose of normal release opioid should have onset of action between 15-30 mins and last 3-4hrs. Severe, refractory or recurrent pain may need more frequent doses. Under close supervision, a breakthrough dose may be repeated after 60-90 mins. Do not repeat sooner in case delayed absorption results in a double dose with risk of toxicity.

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7. Guidance on timing of switches between different routes of administration

- **When changing the route of administration and formulation, always use the opioid dose conversion chart guidance (on the next page).**
- **If the opioid switch is because of opioid toxicity, apply a dose reduction of 50% when calculating the dose of the new opioid.**

Oral to subcutaneous infusion

From normal release opioid: start syringe driver immediately

From 12-hrly modified release opioid: start syringe driver 4 hrs before next oral dose due

Subcutaneous infusion to oral

When switching to either normal or modified release opioid, stop the syringe driver at the same time as giving the first oral dose.

Oral to patch

From normal release opioid: apply patch when convenient and use oral normal release opioid only as required.

From twice daily modified release opioid: apply patch at same time as last dose of MR oral opioid.

(From once daily modified release opioid: apply patch 12 hrs after last dose of MR opioid)

Breakthrough/rescue doses may be needed whilst transdermal absorption is established.

Patch to oral

Remove patch 6 hrs before giving first dose of oral modified release opioid.

For first 24 hrs (i.e. first two doses) give HALF the calculated equivalent dose since the transdermal fentanyl will take time to be cleared from plasma and subcutaneous reservoir.

After 24hrs increase to the calculated equivalent dose if clinically indicated by pain.

Patch to subcutaneous infusion

This does not apply to patients in the dying phase – see page 20

In other situations where a change from patch is required, remove patch and start syringe driver 6 hrs later. For the first 24 hrs use HALF the calculated opioid equivalent dose. After 24hrs adjust according to symptoms.

Subcutaneous infusion to patch

Apply patch. Continue subcutaneous infusion for a further 6 hrs then discontinue syringe driver.

8. Emergency treatment of opioid toxicity is indicated if:

- Respiratory rate (RR) < 8/min AND difficult to rouse, **OR**
- RR < 12/min AND difficult to rouse AND cyanosed, **OR**
- RR < 12/min AND difficult to rouse AND PaO₂ < 90% on pulse oximeter

Action (please follow local guidance where this exists)

- Stop opioid
- Secure i-v access
- Dilute 0.4mg naloxone in 10mls 0.9% saline
- Give 0.5ml (=20mcg naloxone) every 2mins i-v until satisfactory respiratory status
- Review renal function, pain and analgesic requirements

N.B. If long acting opioid (e.g. modified release formulation or methadone) is responsible, may need infusion as the half life of opioid will be longer than that of naloxone. Reversal of buprenorphine toxicity may require large doses of naloxone.

9. Opioid alternatives to morphine (drugs suitable for use on WHO ladder step 3)

Oral opioid Dose in mg per 24 hours		Subcutaneous infusion of opioid Syringe driver dose in mg per 24hrs					Opioid by patch (In mcg/hr 72hrly patches)	
Morphine	Oxycodone	Morphine	Diamorphine	Oxycodone	Hydromorphone	Alfentanil	Fentanyl	Buprenorphine
	½ oral morphine dose	½ oral morphine dose	1/3 oral morphine dose	½ oral oxycodone dose	1/5 diamorphine dose	1/10 diamorphine equivalent dose	See manufacturers' charts for equivalence	
20	10	10	5	5	1	N/A	N/A	20 (NB 7 day patch)
40	20	20	15	10	3	2	12	35
90	45	45	30	20	6	3	25	52.5
180	90	90	60	45	12	6	50	105
280	140	140	90	70	18	9	75	140
360	180	Use alfentanil	120	90	24	12	100	N/A

Conversion ratios stated between opioids are for guidance only and further dose adjustment, up or down, may be needed.

10. Opioid mini-monographs

Diamorphine & morphine: Di-acetylmorphine is metabolised to morphine. It has no *clinical* advantage over morphine but a *practical* advantage is high solubility making it ideal for administration by subcutaneous infusion and for combination with other drugs.

Fentanyl: (*Durogesic D-trans* patch) Synthetic opioid delivered by transdermal formulation (patch) changed every 72hrs. Advantages of non oral route and compliance. Less constipating than morphine. Note potency – see conversion chart. Time taken to achieve stable dose when applied (and to lose subcutaneous reservoir when removed) causes difficulties with titration. Not suitable for unstable pain.

Oral Transmucosal Fentanyl Citrate: (*Actiq*) 'lozenge' of fentanyl on plastic stick rubbed on mucosal surface of mouth until dissolved. Mouth must be moist. Rapid release of fentanyl providing analgesia within 5-10 mins if patient responds. Potential useful role in management of movement related and procedure related pain. 200,400,600,800,1200 & 1600mcg lozenges available. Start low (200mcg or 400mcg) moving to higher dose if initial choice insufficient effect on pain.

Oxycodone: Semi-synthetic opioid probably active at different opioid receptors from morphine/diamorphine. Alternative opioid if problems with morphine tolerability or toxicity. Alleged to be better in neuropathic pain but this is a conclusion drawn from trials against placebo, not against other opioids.

Hydromorphone: Opioid analgesic for severe pain sometimes used as an alternative where morphine intolerance limits use or titration. Manufacturer's guidance suggests a potency 7.5 times more than morphine. Used as an alternative opioid in renal impairment because, although metabolites accumulate, they are inactive. Limited range of oral formulations means it is inconvenient to use orally. Use via syringe driver is more usual but this is unfamiliar to some areas and specialist advice should be sought before prescribing it.

Alfentanil: Synthetic injectable highly potent opioid. An alternative to diamorphine where dose requirements mean volumes of infusion of morphine and oxycodone cause problems. Compatible with other drugs in syringe driver. Has a role in renal failure because no accumulation of neurotoxic metabolites (unlike morphine and diamorphine). This is an unfamiliar opioid to many areas and specialist advice should be sought before prescribing it.

Buprenorphine: *Transtec* 72-hrly patch. Low dose strong opioid (though 12mcg/hr fentanyl patch may also be useful). Stable dose achieved 12-24hrs after applying patch. Safe in renal failure and moderate liver failure. Lower doses may be achieved with *Bu-trans* patch changed weekly.

Constipation

1. SYMPTOMS

Hard faeces, which are uncomfortable or difficult to pass; reduced frequency compared with normal pattern.

Sense of incomplete evacuation after defecation; leakage of faecal fluid/incontinence

Colicky abdominal pain, flatulence, distension

Nausea, vomiting, anorexia malaise, headache and halitosis

Constipation may lead to urinary retention and frequency

2. CAUSES

Disease related: Immobility, reduced food intake/low residue diet, intra abdominal and pelvic disease

Fluid depletion: Poor fluid intake, increased fluid loss i.e. vomiting and fever, fistula and excessively exudating wounds

Weakness: Inability to raise intra-abdominal pressure e.g. paraplegia/general debility.

Intestinal obstruction: disease presentation or recurrence, adhesions

Medication: especially opioids, diuretics, phenothiazines, anti-cholinergic drugs (such as tricyclic anti-depressants and hyoscine salts), 5HT antagonists

Biochemical: Hypercalcaemia, hypokalaemia

Other: Embarrassment, pain on defaecation

3. MANAGEMENT

Attempt to **increase fluid/fibre intake** i.e. fruit/prune juice and encourage mobility

Environmental measures e.g. provide privacy, avoid bedpans, assist a patient to the toilet where possible and use raised toilet seats if necessary.

Anticipatory prescribing e.g. prescribe a laxative when starting opioids.

Check bowel function regularly – direct questions during assessment and review.

Use a **combination of laxatives** e.g. stimulant and softener/osmotic agent.

Titrate laxative to effect to achieve optimal stool frequency and consistency

5. THINK CAREFULLY BEFORE USING...

Stimulant laxatives if there is a possibility of bowel obstruction.

Lactulose as it can cause flatulence and worsen abdominal cramps

Bulk forming laxatives e.g. Fybogel, the volumes of which can be difficult for frail patients to tolerate

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5. FAECAL IMPACTION

Use rectal route: arachis oil enema to soften faeces and then bisacodyl suppositories or phosphate enema.

Oral alternative: use macrogols (eg movicol) for at least 3 days until effective. NB the patient must be able to tolerate the necessary volume of oral fluids for this method to be effective.

Use sedation and analgesia if planning manual removal.

Once constipation alleviated start regular oral measures to prevent recurrence.

6. NEUROGENIC CONSTIPATION

Patients with **spinal cord compression** or **sacral nerve damage** who have lost sensation and/or control:-

- Avoid oral stimulant laxatives which may cause uncontrolled/unmanageable bowel function.
- Allow the patient to become slightly constipated and use suppositories to evacuate the bowel every 2-3 days depending on comfort and food intake.
- Faecal softeners will prevent faeces from becoming hard and dry therefore minimising discomfort for the patient.

7. COMMONLY USED LAXATIVES

For further information, including dosages, please refer to BNF or Palliative care formulary. Local preferences vary but for general guidance the following suggestions may be helpful

First line stimulant: senna

First line softener: docusate sodium

First line combination softener/stimulant: co-danthrusate or co-danthramer

Category	Examples	Description	Dosage
Osmotic Laxatives	Movicol, Idrolax	Osmotic laxatives are not absorbed from the gut and so retain water in the lumen by osmotic action (this action may be partial). This increase in volume will encourage peristalsis and consequent expulsion of faeces.	Start with 1-3 sachets a day. (NB this volume may be difficult for frail patients) Some patients need a combination of stimulant with softener.
Softeners	Docusate	Act to reduce surface tension and improve water penetration of the stools.	100-200mg bd/tds Capsules preferable to medicine (bitter taste)
Stimulant Laxatives	Senna Bisacodyl	Senna and Bisacodyl both rely on bacterial transformation in the large bowel to produce active derivatives and so have little small intestinal effect.	Senna 2-4 tablet nocte or 10-20-ml nocte Bisacodyl 5-10mg nocte (10mg PR)
Combined stimulant and softening laxatives	Co-Danthramer Co-Danthrusate	The dantron component is predominantly stimulant in action with a direct effect in small and large intestine. Dantron is eliminated both in urine (causing an orange discolouration) and faeces and can cause contact skin damage 'dantron burn' which is painful.	Starting dose 2 capsules or 10mls nocte Co-danthramer is also available as a strong preparation, which is approximately double the strength. Dantron-containing preps are licensed for use in analgesic induced constipation in terminally ill patients.
Suppositories	Bisacodyl Glycerin	Stimulant Mainly softener	10-20 mg 1-2 suppositories

Management of Nausea and Vomiting

- Attempt to determine cause by appropriate investigation.
Treat reversible causes where possible.**

Prompts to consider underlying cause – suggestions, not a complete list

Infection: UTI, pneumonia, gastro-enteritis, oropharyngeal candidosis, meningitis

Metabolic: renal failure/impairment; hypercalcaemia; tumour toxins

Drug-related: opioids, diuretics, NSAIDs, antibiotics, chemotherapy

Gastric stasis: pyloric tumour/nodes, ascites, hepatomegaly, opioids, anticholinergic drugs, autonomic neuropathy

GI disturbance: constipation, gastritis, ulceration, obstruction, hepatomegaly, ascites

Organ damage: distension, distortion, obstruction, radiotherapy

Neurological: raised intracranial pressure, vestibular disease, motion sickness

Psychological: anxiety, associations of sights/smells

- Choose anti-emetic according to cause of nausea/vomiting.
(see reverse for specific detail about suggested drugs)**

Probable cause/specific features	Suggested treatment hierarchy
Chemical causes (metabolic, drug, infection, 'toxins'). Persistent, often severe, nausea unrelieved by vomiting.	First: Haloperidol Then: Levomepromazine
Gastric stasis. Fullness/regurgitation. Reduced appetite. Nausea relieved by vomiting (often large volume & undigested). Functional obstruction (failure of GI motility). Partial bowel obstruction (eg flatus PR, no colic).	Metoclopramide Domperidone Consider trial of steroids
Chemotherapy, radiotherapy (useful to distinguish between 'acute' and 'delayed' phase).	Acute: Ondansetron + steroids (follow local oncology guidelines) Delayed: Aprepitant, Levomepromazine
'Organ damage': harm to thoracic, abdominal or pelvic viscera caused by malignancy or treatment.	Cyclizine
Bowel obstruction (may be high, low or multiple levels) where surgery is not appropriate. High: regurgitation, forceful vomiting, undigested food Low: colicky pain, large volume vomits, possibly faeculent.	First try Cyclizine ± Haloperidol Then Cyc + Halo in combination Then Levomepromazine Finally anti-secretory (e.g. Hyoscine butylbromide or Octreotide)
Raised intracranial pressure (possible headache, visual disturbance, other neurological signs), motion sickness	Cyclizine (Consider steroids if raised ICP)
Psychological factors, anxiety, fear, anticipation (always consider non-pharmacological management)	Levomepromazine Benzodiazepine
Cause unknown/terminal phase/patient too ill for investigation	Consider Cyclizine (or Haloperidol if chemical cause most likely) Or Levomepromazine
Post operative	Ondansetron / Granisetron

- Route and regime**

- Patients with nausea/vomiting absorb drugs poorly by the oral route
- Prescribe subcutaneously for at least 24 hours if there is vomiting, obstruction and/or poor symptom control
- Prescribe chosen anti-emetic regularly – see next page for frequency
- Prescribe broad-spectrum anti-emetic (i.e. levomepromazine) as required for 'rescue' or 'breakthrough' use. Evidence suggests cyclizine + haloperidol is more potent.

- Review – reassess symptom control within 24hrs**

- Review drug choice if symptoms persist or worsen
- Review route: consider switch to oral if resolving or to sub-cut if poor control
- If cause/symptom resolves, consider whether anti-emetic can be discontinued

Specific detail about anti-emetic drugs; use with guidance overleaf; also see BNF

APREPITANT – neurokinin receptor antagonist. Recent addition to formularies in some centres. Indicated in conjunction with dexamethasone and 5HT3 antagonists for moderate & highly emetogenic chemotherapy and for the treatment of delayed phase chemotherapy induced nausea/vomiting.

DOSE: follow oncology guidelines or ask for specialist palliative care advice.

CYCLIZINE – antihistaminic, anticholinergic anti-emetic. For vagally-mediated nausea/vomiting caused by any distension/compression/disturbance of viscera in thorax, abdomen or pelvis and for brain metastases. Some specialist believe that the anticholinergic effects of cyclizine block the action of metoclopramide and recommend that these drugs are not combined.

DOSE: Oral: 50mg tds. Syringe driver: 150mg/24hrs. If subcutaneous use causes skin irritation, increase dilution of infusion with water only or add dexamethasone 1mg to driver.

DEXAMETHASONE – corticosteroid. Potential adjuvant anti-emetic. Standard in chemotherapy induced n&v. Consider in functional and complete bowel obstruction: give subcutaneously but abandon if no obvious effect within 3-7 days. Useful in raised intracranial pressure. Always try to reduce dose to minimum effective aiming to discontinue.

STARTING DOSE: Oral/subcutaneous: raised ICP - 16mg; obstruction – 12mg-16mg.

DOMPERIDONE - prokinetic anti-emetic. For nausea/vomiting of gastric stasis, e.g. due to ascites, hepatomegaly, mesenteric nodes, opioids or functional/partial obstruction. Action blocked by anticholinergic effect of cyclizine: do not combine. Domperidone does not cross blood/brain barrier so avoids extrapyramidal effects of metoclopramide.

DOSE: Oral: 20mg bd - 20mg qds. Rectal: 30mg tds-qds (30mg PR = 10mg PO).

HALOPERIDOL – centrally acting anti-emetic. For nausea/vomiting induced by drugs/toxins/metabolites (including *initiation* of opioids). Useful with cyclizine in bowel obstruction. Illogical to combine with metoclopramide because both act by dopamine antagonism

DOSE: Oral: 0.5-5mg nocte. Syringe driver: 1.5mg-10mg/24hrs. Doses >8mg/day risk extrapyramidal effects.

HYOSCINE BUTYLBROMIDE – antimuscarinic. Reduces GI motility (controls colic) and GI secretion (reduces volume of vomit in obstruction). Antimuscarinic (anticholinergic) effect may reduce efficacy of prokinetics. Causes dry mouth. Negligible effect if given by mouth – avoid.

DOSE: Syringe driver: 60mg-300mg/24hrs.

LEVOMEPRMAZINE - broad spectrum anti-emetic. Consider for refractory/persistent symptoms. Risk of sedation and hypotension (even at low dose). If prescribed regularly give at night.

DOSE: Oral: 6mg-25mg nocte. In clinical practice it is acceptable to use ¼ to ½ of a 25mg tablet at night. Subcutaneously: 6.25mg-25mg/24hrs via syringe driver or stat nocte. Higher doses sedate.

METOCLOPRAMIDE - prokinetic anti-emetic. For nausea/vomiting of gastric stasis, e.g. due to ascites, hepatomegaly, mesenteric nodes, opioids or functional/partial obstruction. Some specialists believe the action of metoclopramide is blocked by cyclizine and recommend that these drugs are not combined. Watch for extrapyramidal side effects due to central dopamine antagonism which also causes a weak central anti-emetic effect (see haloperidol).

DOSE: Oral: 10mg tds to 20mg qds. Syringe driver: 30-60mg/24hrs. Higher doses are occasionally used under specialist supervision.

OCTREOTIDE – somatostatin analogue. Increases water, sodium and chloride absorption from GI tract. Reduces GI blood flow, gastric acid and gastric, pancreatic & small intestinal secretions. Costly. Useful adjunct in management of complete mechanical bowel obstruction. Short half-life.

DOSE: Recommend infusional use by syringe driver: 300mcg-1200mcg/24hrs.

ONDANSETRON (and other 5HT3 receptor antagonists) – *specific* anti-emetic. Not recommended for empirical use outside licensed indications. For nausea/vomiting post-op and in acute phase of chemotherapy/radiotherapy treatment. Side effects: constipation, headache, flushing.

DOSE: follow oncology guidelines where available. Available as tablets, melts, syrup, suppositories and injection.

North of England Cancer Network Palliative Care Guidelines
Guidance on use of Corticosteroids in Palliative Care

Drug choice, formulation and indications

Corticosteroids are used extensively in Palliative Medicine.

Dexamethasone is the preferred choice due to its relatively high anti-inflammatory potency and lower incidence of fluid retention and biochemical disturbance. (Potency: Dexamethasone 1mg equivalent to Prednisolone 7.5mg).

Route & formulations: 0.5mg and 2mg tablets (water soluble); 2mg/5ml oral solution; dexamethasone injection for SC or IV use: 4mg/ml (1ml & 2 ml ampoules) and 24mg/ml (5ml ampoules).

Subcutaneous injection volumes greater than 2mls (ie 8mg) are painful. Larger doses than this should be given in divided SC doses or infused over 4 hrs via syringe driver.

Standard starting doses for the different indications are not well established and must take account of patient factors.

Clinical response must be reviewed within 7 days. Titrate down to minimum effective dose.

General well-being and appetite: Start at 4mg. Judge response within 2 weeks. Any enhanced effect often disappears by 4 weeks.

Adjuvant analgesic: 8 -16mg in cancer-related pain (e.g. liver capsular pain, nerve compression).

Anti-emetic: for chemotherapy follow Oncology guidelines. Refractory nausea & vomiting: start at 4-8mg daily.

Spinal cord compression (SCC) and raised intracranial pressure (↑ICP): 16mg daily. In SCC after radiotherapy, reduce dose gradually and stop. After radiotherapy for ↑ICP reduce to lowest dose which maintains benefit. Consider trial of dose increase if symptoms recur.

Tracheal compression/ SVCO/ Lymphangitis carcinomatosa/ Bowel obstruction: 8 – 16mg.

Hormone therapy: Prostate cancer refractory to hormone control consider Prednisolone 10-20mg for tumour control.

Adverse effects

Insomnia: Give single or divided daily dose before noon to prevent insomnia.

Diabetes mellitus: Steroids can increase blood sugar levels. Patients should have a urine dipstick, baseline BM and/or venous blood glucose. If BM<8.0 and no glycosuria continue. If BM >8.1 needs regular BM monitoring. If BM>11.1 or known diabetic discuss with diabetic team.

Dyspepsia: Give after food. Co-prescribe PPI if history of peptic ulcer disease or patient on Aspirin, NSAIDs or Warfarin.

Psychiatric disturbance: depression, mania, psychosis, delirium

Change in appearance: moon face, truncal obesity, negative body image.

Musculoskeletal problems: proximal myopathy, osteoporosis, avascular bone necrosis.

Increased susceptibility to infection: especially oral/pharyngeal candidosis (examine mouth regularly).

Skin changes: thinning, bruising, acne, striae, impaired wound healing.

Other: Hypertension, oedema, pancreatitis.

Drug interactions: (see the BNF)

Antiepileptics accelerate steroid metabolism so patients may require higher doses of steroids.

Warfarin: steroids alter the metabolism of warfarin increasing INRs. The INR must be monitored regularly.

Safe use: monitoring and stopping treatment

Use the lowest effective dose for the shortest period of time. Close careful monitoring is essential.

Steroid withdrawal: if total treatment duration less than 5 days, may stop abruptly.

Reduce gradually if: risk of recurrent severe symptoms, repeated courses have been given, treatment duration has been longer than 5 days. Gradual reduction means reduce by 2mg/day every 5-7 days.

Steroid treatment card: Patients on systemic steroids for > 3 weeks must be given a steroid card. The prescriber must take responsibility for steroid monitoring. The patient and other involved professionals must be informed of the indication for steroid use and the plan for dose reduction and monitoring.

Steroids at end of life:

If prescribed for specific severe or serious symptom, continue at the most convenient subcutaneous dose.

If prescribed for general sense of well-being or appetite stimulation, discontinue.

Emergencies - Suspected Spinal Cord Compression (SCC)

This guidance applies only to cancer patients

Patients with suspected SCC must be assessed **urgently**.
Discuss possible cases with the patient's cancer specialist or oncologist on call.
Consider this possible diagnosis in any cancer patient who goes 'off legs'.

1. Recognition

Act promptly on clinical suspicion. Plain X-rays are normal in 10-20% cases.
Do not wait for LATE SYMPTOMS/SIGNS to evolve.

Pain, especially with a root or girdle distribution, exacerbated by coughing or straining and not relieved by rest, frequently precedes neurological signs.

Any cancer patient with severe back pain in a root distribution should be considered at risk of spinal cord compression.

Late symptoms/signs include

- limb weakness, altered gait, unsteadiness, falls
- urinary retention, dribbling or incontinence; faecal incontinence or constipation
- altered or reduced sensation

Cauda equina syndrome – tumour pressure below L1/L2 – may present with

- Sciatic pain, often bilateral
- Weakness/wasting of gluteal muscles
- Bladder problems including retention, overflow & incontinence
- Sacral (saddle) anaesthesia, loss of anal sphincter tone

2. Immediate action

- **Give dexamethasone 16mg** (oral/sc/iv) unless contraindicated
- **Prescribe PPI for gastric protection** (esp. if GI pathology, NSAIDs or warfarin)
- **Give adequate analgesia** to enable comfortable transfer for admission/investigation
- **Nurse flat** if mechanical pain or neurological symptoms/signs suggest spinal instability

3. Referral for investigation (for patient at home or already in hospital)

- **Ideally** all patients should be discussed with their cancer specialist
- This applies especially to patients who present with dense hemiplegia or paraplegia or who may be too frail for definitive treatment
- **When indicated whole spine MRI must be done within 24hrs**
- Patients will need admission via the acute admission system to achieve this
- If urgent MRI is not available on site, you must refer to a tertiary centre and **this must be agreed by a Consultant to Consultant discussion**
- A bed must be retained at the referring hospital for patients who do not require treatment

4. If Metastatic Spinal Cord Compression is diagnosed

- Speak to the patient's Oncologist or Haematologist (or the on-call Consultant) as a matter of urgency
- A neurosurgical or spinal surgical opinion may also be required
- **Definitive treatment, where indicated, must begin within 24hrs**

See NICE clinical guideline 75: Metastatic Spinal Cord Compression: www.nice.org.uk

Emergencies – Malignant Hypercalcaemia

This guidance applies only to patients with a known cancer diagnosis

1. RECOGNITION

**Exclude in any patient with advanced cancer whose condition deteriorates rapidly.
Onset may be insidious and symptoms not evident until corrected calcium well above normal.**

Commonest paraneoplastic syndrome in patients with advanced cancer - 10% cancer patients.
May occur in the absence of bone metastases. Strongly associated with breast, lung, haematological and genito-urinary tract malignancies.
Reflects poor prognosis – median survival 3-4 months; worse if resistant to treatment.

Clinical Presentation:

- Confusion, drowsiness, and eventually coma
- Thirst & polyuria, Dehydration may lead to pre-renal failure
- Nausea & vomiting. Constipation
- Worsening pain or pain responding poorly to treatment.

2. IMMEDIATE ACTION

Assessment

- Check **corrected calcium** level in venous blood. Normal < 2.65 mmol/L
Corrected calcium = {Serum Calcium} + {(40 - serum albumin g/L) x 0.02}
- If normal but clinical suspicion remains, recheck in 1 week. Also check renal function (U&E)

Management

- **Admit** to hospital/hospice unless it is agreed that intervention is not appropriate
- Stop thiazide diuretics – may increase Calcium levels
- **Rehydrate with i-v 0.9% saline**. Aim for 2-3L/day. Caution if co-morbidities risk fluid overload.
- After 1-2 litres saline (to prevent renal damage) give **i-v bisphosphonate**

Drugs of choice (local guidance applies):

Zoledronic acid 4mg iv in 100ml saline over 15 minutes

(Reduce dose if renal impairment – see manufacturer's SPC for guidance)

Disodium Pamidronate: 30-90mg i-v in 500ml saline over 2hrs

(Some sources advise a dose based on corrected calcium. In practice most palliative care physicians give 90mg unless there is renal impairment)

Side-effects: see BNF. Flu-like syndrome/pyrexia is common - treat with paracetamol.

Osteonecrosis of jaw is a rare but significant side effect. Rebound **hypocalcaemia** may occur.

3. FOLLOW UP

Expect **clinical** improvement in 24-72 hours. Check for **biochemical** improvement in 5-7 days.

After 7 days, if no clinical/biochemical response consider giving 8 mg Zoledronic acid iv in 200ml of saline.

On discharge ask primary care team to monitor for symptoms and check calcium if clinical suspicion.

Also monitor renal function

Consider prophylaxis with oral bisphosphonate.

Resistant/refractory hypercalcaemia may be an end of life event. If so, treat symptoms appropriately.

Emergencies – Major Haemorrhage

This guidance applies only to cancer patients

1. RECOGNITION

- Bleeding of all types occurs in 14% of patients with advanced disease.
- Haemorrhage causes death in approximately 6% patients.
- Catastrophic external haemorrhage is less common than internal unseen bleeding.

Clinical Presentation

- Cardiovascular compromise – Hypotension, Tachycardia (>100 beats/min = significant recent bleed)
- Identifiable bleeding source, eg haematemesis, melaena, haemoptysis, PV or PR bleeding, haematuria
- Erosion of an artery by a malignant ulcer or superficial/fungating tumour

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2. ANTICIPATORY MANAGEMENT

- Massive haemorrhage is often preceded by smaller bleeds. Oral/topical treatment may help (see below).
- Review resuscitation status and document decision.
- Consider stopping warfarin or switching to Low Molecular Weight Heparin.
- Always monitor INR closely if warfarin continues. Correct any coagulation disorder.
- Consider referral for radiotherapy or embolisation if patient has an erosive tumour.
- Try to discuss possibility of haemorrhage with the patient/family. This may enable discussion of options for preferred place of care if haemorrhage occurs or risk of haemorrhage increases.
- Dark towels should be available nearby to reduce the visual impact of blood if haemorrhage occurs.
- Midazolam/Diazepam (see below) should be prescribed and made available.
- Prescription charts for community staff to administer these emergency drugs should be signed.

3. IMMEDIATE ACTION

If a patient is close to death from underlying cancer, it is usually appropriate to regard major haemorrhage as a terminal event and not to intervene with resuscitation measures.

Advance decisions or statements regarding preferred place of care should be observed.

If resuscitation is inappropriate

- Administer Midazolam 10mg IM (*IV if in hospital & access available*). Buccal midazolam could be used depending on source of bleeding. Rectal Diazepam 10mg is an option but not very practical.
- Stay with the patient, giving as much reassurance/explanation as possible.
- Try to remain calm. This will help a dying patient to achieve a peaceful death.

If resuscitation is appropriate

- Admit as emergency. Secure IV access.
- Start rapid infusion of 0.9% saline.
- Cross match & follow local haemorrhage protocols.
- Apply local pressure to any obvious bleeding.
- Seek specialist help on further management.

3. FOLLOW UP

- Ensure support available for family and staff following experience of haemorrhage.
- If the patient survives the haemorrhage and remains stable for 24-48 hours, consider transfusion.
- To prevent rebleeding: **ORAL:** Tranexamic acid 1g 8-hrly (avoid in haematuria) or Etamsylate 500mg 6-hrly. **TOPICAL:** Sucralfate paste applied direct to ulcer under non-adherent dressing; Adrenaline 0.1% (1mg/ml) soaks (10ml on gauze); Tranexamic acid (500mg/5ml of injectable formulation).
- Consider diathermy, radiotherapy or embolisation.

Emergencies – Malignant Superior Vena Caval Obstruction

This guidance applies only to cancer patients

1. RECOGNITION

95% of cases of superior vena caval obstruction (SVCO) are caused by malignant tumour in the mediastinum preventing venous drainage from the head, arms and upper trunk. Commonest in lung cancer. Also occurs in lymphoma and in cancers metastasising to mediastinal lymph nodes.

Onset usually over weeks or months, but occasionally occurs rapidly over days.

Clinical Presentation:

- Facial swelling, redness, headache, periorbital oedema, engorged conjunctivae.
- Swelling of the arms, prominent distended veins on neck and chest wall.
- Breathlessness, cough, chest pain, stridor, cyanosis.
- Other symptoms e.g. dysphagia, visual disturbance.

2. IMMEDIATE ACTION

If SVCO suspected in the community setting:

- Give Dexamethasone 16mg stat (oral or iv) and continue 16mg daily as morning dose.
- Give PPI for gastric protection (esp. if GI pathology, NSAIDs or warfarin).
- For severe symptoms/distress consider emergency medical admission
- If the situation is less urgent, discuss with respiratory physician (oncologist/ haematologist if patient does not have lung cancer) to arrange early assessment – this may prevent unnecessary **emergency** admission to hospital.
- If the patient presents with features of SVCO towards the end of life and is too unwell for transfer/hospital intervention, or does not wish to be admitted to hospital, consider treatment with dexamethasone and anticoagulation with low molecular weight heparin at treatment dose, at home.

If SVCO suspected in hospital:

- Relieve the acute symptoms with steroids, oxygen and other symptomatic measures.
- Seek specialist opinion – respiratory physician/oncologist/haematologist/radiologist – and arrange the investigations as advised.
- Specialist – with input from relevant MDT – will arrange appropriate intervention.

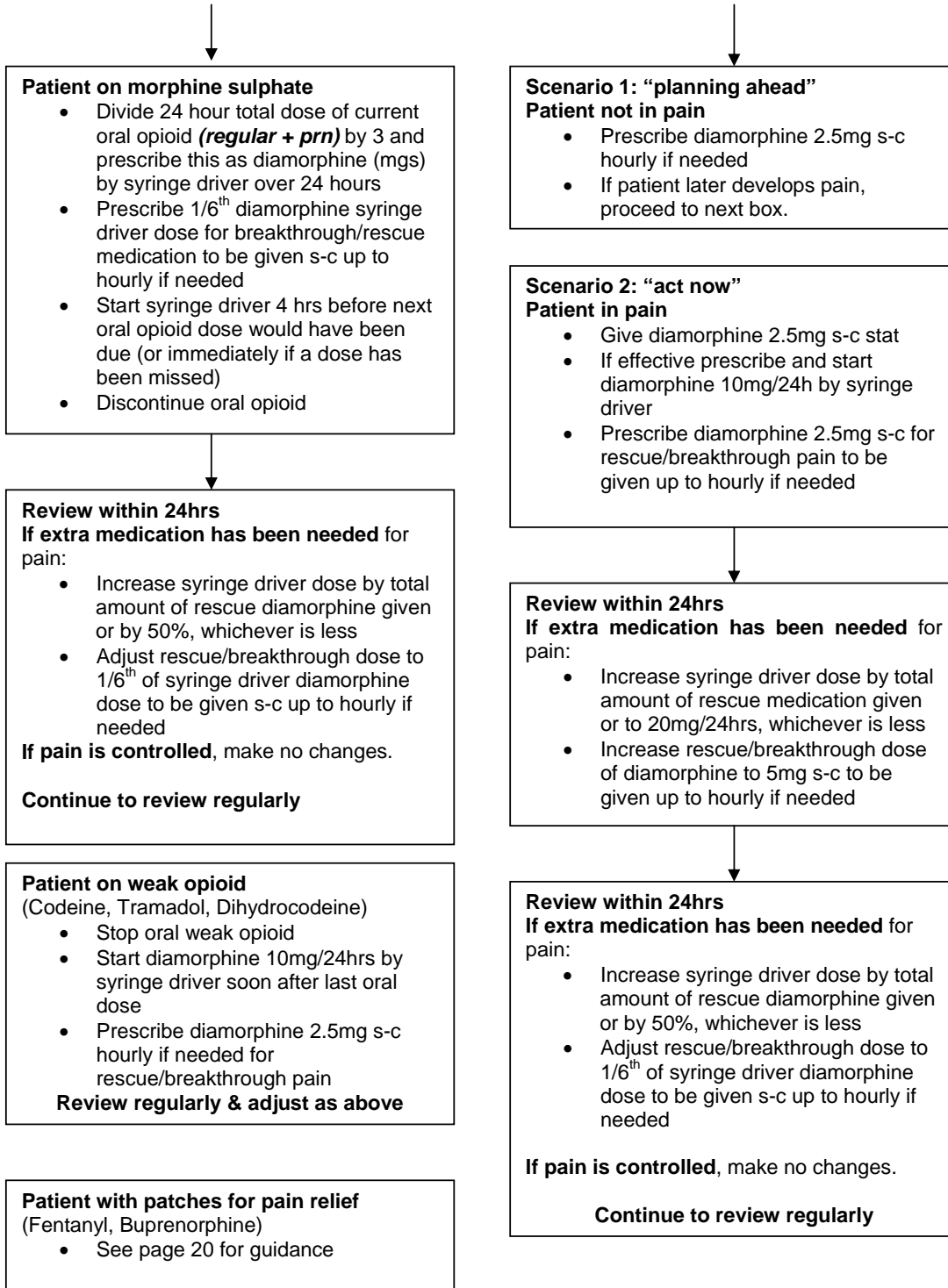
3. FOLLOW UP

- If the obstruction is resolved by stent insertion or other intervention the dexamethasone should be reduced gradually and stopped. Consider ongoing prophylactic anticoagulation.
- If the obstruction cannot be resolved with intervention, the dexamethasone should be gradually reduced to the lowest dose that helps with symptoms.
- Further opinions should be sought from the patient's oncologist regarding follow-on treatment with radiotherapy or chemotherapy.

PAIN AT THE END OF LIFE

N.B. If diamorphine is not available, see opioid guideline on page 9 for alternatives

	YES	Is patient already on opioid drugs?	NO	
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Pain at end of life - special circumstances and fentanyl patches

This guidance should be read in conjunction with the opioid dose conversion chart on page 9.

Fentanyl patches in the dying/moribund patient

It is recommended to continue fentanyl patches in these patients. Remember to carry on changing the patch(es) every 72hrs – this is sometimes forgotten.

If pain occurs, give rescue doses of diamorphine or whichever injectable opioid has been recommended by the specialist palliative care team.

Consult the chart on page 9 to calculate the correct rescue dose.

If diamorphine is not available seek advice about an alternative injectable opioid.

Adding a syringe driver to a patch

If 2 or more rescue doses are needed in 24hrs, start a syringe driver with diamorphine (or other opioid) and continue the patch(es).

The diamorphine (or other opioid) dose in the syringe driver should equal the total rescue doses given in previous 24hrs up to a maximum of 50% of the existing regular opioid dose.

Continue to apply this rule when reviewing pain control daily.

Remember to use the dose of the patch and the dose in the syringe driver to work out the new rescue dose each time a change is made.

Renal failure/impairment at end of life:

Morphine/diamorphine metabolites may accumulate.

Seek specialist advice on opioid choice.

Alternative opioids which may be given by subcutaneous infusion include alfentanil or hydromorphone.

If the pain has been stable a fentanyl patch may be considered.

In circumstances of diamorphine shortage:

Seek specialist advice.

Alternative options include morphine, oxycodone, hydromorphone and alfentanil.

Breakthrough or rescue dose calculation for patients on end of life care pathway requiring subcutaneous medication

Patients on Diamorphine, Morphine, Oxycodone or Hydromorphone via syringe driver

Calculate the breakthrough or rescue dose as $1/6^{\text{th}}$ of the 24hr dose

For convenience prescribe to the nearest 5mg for doses over 10mg

Patients on alfentanil via syringe driver:

Calculate the breakthrough or rescue dose as $1/10^{\text{th}}$ of the 24hr dose

Patients with a fentanyl patch:

Use the opioid dose conversion chart on page 9 to calculate the appropriate dose depending on the opioid being given as required.

NAUSEA AND/OR VOMITING AT THE END OF LIFE

This flowchart guides management of nausea/vomiting in the terminal phase and should be read in conjunction with the general guideline on nausea/vomiting in palliative care.

Patients on an oral anti-emetic who enter the terminal phase should have the route of administration of the anti-emetic changed to sub-cutaneous to ensure continued symptom control.

This may require a drug change (e.g. Domperidone replaced by Metoclopramide; Prochlorperazine replaced by Cyclizine).

New nausea/vomiting at end of life is difficult to investigate and may be multi-factorial. Evidence points to cyclizine + haloperidol in combination as the most effective treatment. To avoid using two drugs, some specialists recommend levomepromazine because of its broad spectrum of action and because its anxiolytic properties may be useful in end stage care.

New nausea/vomiting in a patient not currently using an anti-emetic

ASK: Is a chemical cause possible?

If YES prescribe Haloperidol 1.5-3mg daily by s-c injection (syringe driver if preferred)
Also prescribe Cyclizine 50mg prn s-c maximum 150mg/24hrs

If NO prescribe Cyclizine 150mg/24hrs via syringe driver
Also prescribe Haloperidol 1.5mg s-c prn, maximum 3 doses in 24hrs

REVIEW AFTER 24hrs:

If symptoms are controlled, continue as before.

If either nausea or vomiting persists, please contact the Specialist Palliative Care Team

Uncontrolled nausea/vomiting in a patient already on an anti-emetic

Review the possible causes but do not delay changing the anti-emetic regime or arrange burdensome investigations in an end of life care situation.

If a combination of cyclizine and haloperidol fails to control nausea/vomiting replace them with levomepromazine 12.5mg/24hrs s-c via syringe driver

Also prescribe levomepromazine 6.25mg s-c prn up to 4 doses/24hrs.

Nausea/vomiting already controlled

Continue existing anti-emetic but switch to the subcutaneous route

(this may require a change of agent if prochlorperazine or domperidone is in use)

Also prescribe levomepromazine 6.25mg s-c prn up to 4 doses/24hrs

REVIEW THE SYMPTOM CONTROL ACHIEVED ON A REGULAR BASIS

Notes on Levomepromazine

The effects of this drug may last up to 24hrs – once daily s-c dosing may be an alternative to infusion via syringe driver.

The maximum anti-emetic effect may be achieved at doses of 25-50mg/24hrs.

Doses above 25mg/24h (or lower in patients who are sensitive) have a sedative effect.

The sedative effect may be clinically useful - this drug is also used in the management of terminal agitation and restlessness (see relevant flowchart for more information).

RESTLESSNESS/AGITATION AT END OF LIFE

Consider common causes of restlessness, e.g. urinary retention, faecal impaction and pain. Manage these appropriately. Also consider whether sedation is acceptable or not. Patients on regular or long term benzodiazepines who enter the terminal phase should continue to receive a benzodiazepine as midazolam by subcutaneous infusion to prevent rebound agitation/withdrawal.

The doses given here are a guide. If symptoms are problematic, seek specialist advice.

PATIENT RESTLESS/AGITATED

PATIENT NOT RESTLESS/AGITATED

**Consider whether sedation is acceptable or not.
Sedative needed - choose MIDAZOLAM
To minimise sedation - choose HALOPERIDOL**

Immediate management

Give medication s-c stat:

Midazolam 5mg (2.5mg if thin/elderly)

OR

Haloperidol 1mg

Start syringe driver:

Midazolam 10-20mg/24h
(lower range if thin/elderly)

OR

Haloperidol 2.5mg/24h

Prescribe rescue doses s-c up to hourly:

Midazolam 5mg (2.5mg if thin/elderly)

OR

Haloperidol 1mg

Plan ahead

Prescribe s-c up to hourly as needed

Either Midazolam 5mg (2.5mg if thin/elderly)

Or Haloperidol 1mg

Review within 24 hrs

If 2 or more doses needed **and are effective**, start syringe driver of same drug (see left).

If 2 or more doses tried **but are not effective**, switch to the other drug or consider levomepromazine (see below)

Review within 24 hrs

Midazolam:

Increase syringe driver dose by the equivalent of the extra doses given. Seek specialist advice if dose increases over 50% appear to be needed.

Also continue rescue doses of 5mg s-c prn.

If midazolam driver dose > 30mg/24hrs, consider **addition** of levomepromazine or haloperidol.

Haloperidol:

If extra doses are given and effective, increase driver dose by the same amount. Consider addition of midazolam if doses need to be increased above 10mg/24hrs or there is limited effect.

Persistent symptoms

Levomepromazine is an effective sedative.

It may be added to midazolam (if midazolam partially effective) or used to replace haloperidol or midazolam.

Start syringe driver at 50mg/24h
Use rescue dose 12.5mg s-c hourly as needed – no limit
Sometimes very high doses are needed.

Seek advice if symptoms difficult to control.

RESPIRATORY TRACT SECRETIONS AT END OF LIFE

Secretions ('death rattle') are easier to control early than late. Treat promptly.

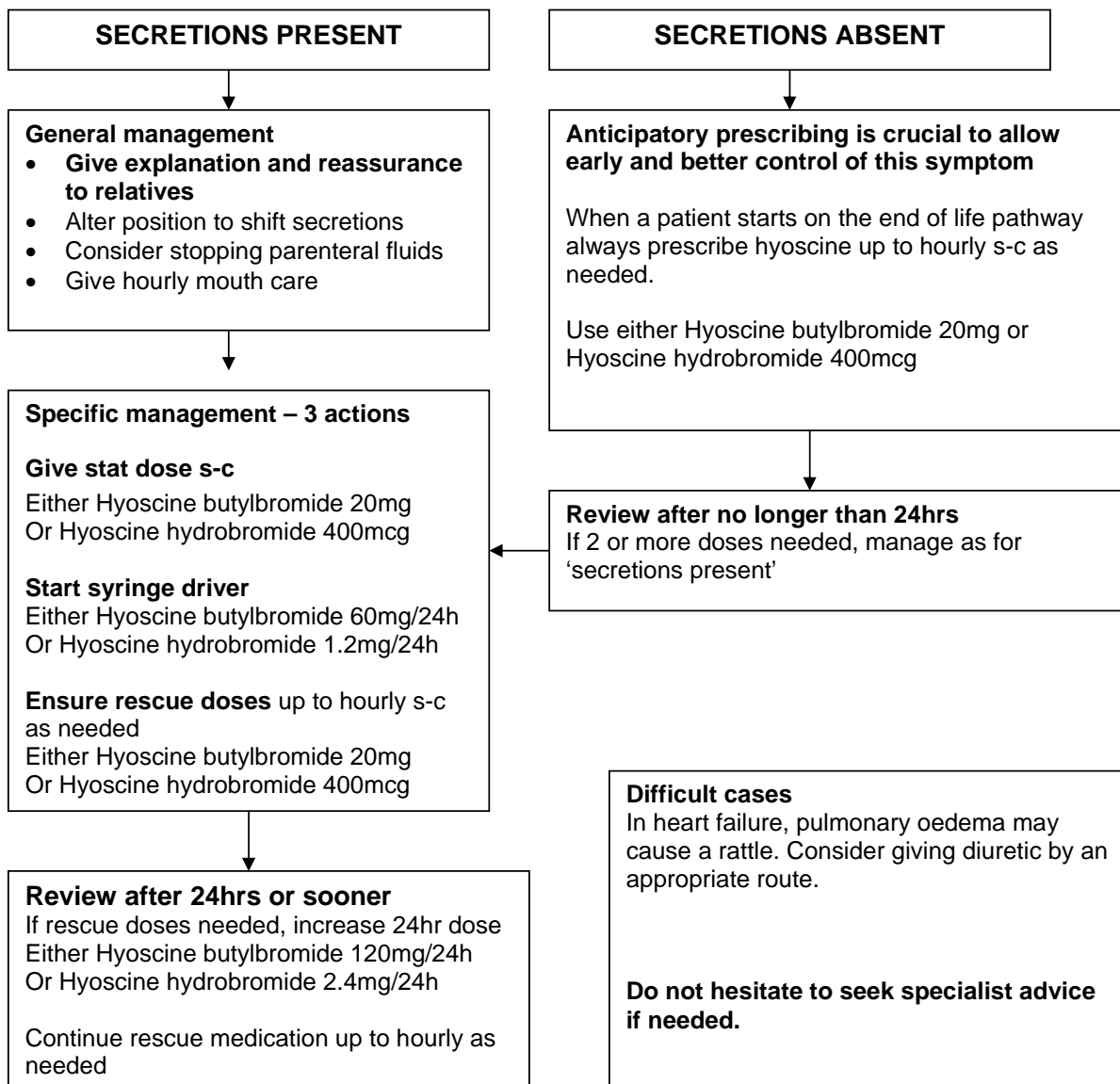
Hyoscine salts are most commonly prescribed to try to control secretions at the end of life. There are two forms of hyoscine.

Hyoscine **butylbromide is non-sedating** and should therefore be considered in a conscious patient. (NB *Hyoscine butylbromide is incompatible with cyclizine in a syringe driver*).

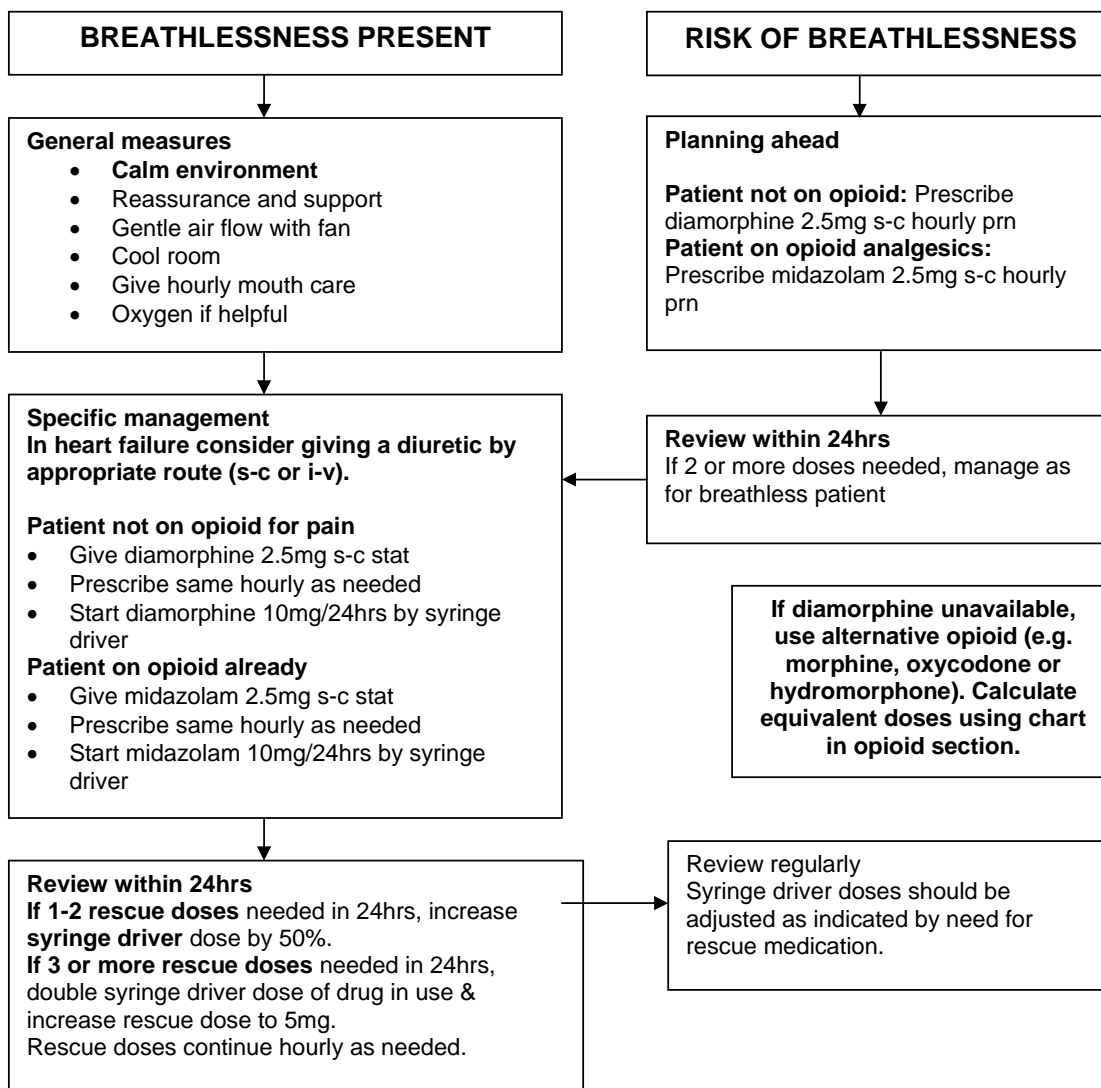
Hyoscine **hydrobromide has sedative effects** which *may* be useful.

Some palliative care services use **Glycopyrrolate** as the preferred anti-secretory agent to avoid sedation.

Consider these details and local experience when deciding what to prescribe.



BREATHLESSNESS AT END OF LIFE



Severe frightening breathlessness

Severe frightening breathlessness is an emergency and may be a terminal situation. Therapeutic sedation is the appropriate treatment in this emergency situation.
Explain that only sufficient sedation to relieve the frightening sensation will be given.

Administer MIDAZOLAM 5mg subcutaneously.

Repeat at 30 minute intervals until the patient is calm (for some this will mean being asleep)

When the patient is calm set up a syringe driver with MIDAZOLAM.

Start at 20mg/24hrs and prescribe 5mg s-c doses every 15-30 mins for frightening symptoms.

Review every few hours and further titration is necessary to maintain good symptom control. In some patients doses of midazolam up to 100mg/24hrs may be needed.

Treatment with an opioid may also be appropriate to reduce sensation of breathlessness.

Specialist palliative care services contact details

Cumbria

Carlisle & Eden Palliative Care Team: 01228 603208
West Cumbria Specialist Palliative Care Services: 01900 705200
Eden Valley Hospice: 01228 810801
Out of hours advice: 01228 810801

Darlington

Hospital & Community Team: 01325 465564
St Teresa's Hospice: 01325 254313

Derwentside

Derwentside Community Team: 01207 594608
Willowburn Hospice (for nursing advice): 01207 529224

Durham

University Hospital North Durham: 0191 333 2338
Durham & Chester-le-Street Community Team: 0191 387 6532
St Cuthbert's Hospice: 0191 386 1170
Out of hours advice: 0191 569 9195

Durham Dales & Sedgfield

Community team: 01388 607301
Out of hours advice (Butterwick Hospice): 01642 607742

Easington

Community Macmillan Service: 0191 586 2426
Out of hours advice: 01429 855558

Gateshead

Hospital & Community team: 0191 445 6403
Out of hours advice: 0191 273 3435

Hartlepool

Hospital Team: 01429 522631
Community Team: 01429 851792
Hartlepool Hospice: 01642 855555
24hr advice line: 01642 855558

Middlesbrough, Redcar & Cleveland

Hospital Team: 01642 854938
Community Team: 01287 639100
Teesside Hospice: 01642 819819
Out of hours advice: 01642 819819

Newcastle

St Oswald's Hospice: 0191 285 0063
Marie Curie Hospice: 0191 219 1000
Hospital Specialist Palliative Care Teams
RVI: 0191 282 4019
Northern Centre for Cancer Care: 0191 213 8606
Freeman Hospital: 0191 213 7221
Community team: moving in July number unknown
Out of hours advice: 0191 273 3435

North of England Cancer Network Palliative Care Guidelines

North Tees

Hospital Team: 01642 624548

Community Team: 01642 765453

Butterwick Hospice (Stockton on Tees): 01642 607742

Hospice at Home: 07977 217050

Out of hours advice: 01642 607742

Northumberland

Wansbeck Hospital Team: 01670 529541

Community Team – Cramlington base: 01670 396119

Community Team – Alnwick/Berwick: 01665 626713

Community Team – Hexham: 01434 604008

Out of hours advice – Newcastle Hospices advice line: 0191 273 3435

North Tyneside

Hospital & Community: 0191 220 5961

Out of hours advice: 0191 273 3435

South Tyneside

Hospital Team: 0191 202 4105

Community Team: 0191 451 6396

St Clare's Hospice: 0191 451 6384

Out of hours advice: 0191 451 6384

Sunderland

Hospital Team: 0191 565 6256 ext 47337

Community Team: 0191 569 9987

St Benedict's Hospice: 0191 569 9195

Out of hours advice: 0191 569 9195

Space for useful numbers