

Palliative Care Manual – Symptom control booklet

Welcome to the symptom control booklet accompanying the palliative care manual. This booklet is an extract of section 2 of the manual excluding the gold nuggets and the bibliography.

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This resource has been produced by the Forth Valley
local Managed Clinical Network in Palliative Care.

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Anorexia

What is it?

Anorexia (poor appetite) and associated cachexia (weight loss) occur in 80-90% of patients with advanced cancer. They are believed to be both the cause and the consequence of various metabolic changes which occur as a malignancy progresses and are often accompanied by muscle wasting, lethargy and fatigue, producing the anorexia-cachexia-asthenia syndrome.

What causes it?

- Biochemical abnormalities, perhaps mediated by tumour by-products such as Tumour Necrosis Factor (TNF) and host cytokines
 - hypercalcaemia
 - hyponatraemia
 - uraemia
- Cognitive failure
- Constipation
- Delayed gastric emptying
- Depression/stress
- Dyspnoea
- Fatigue
- Nausea and vomiting
- Odours
 - fungating lesions
 - fistulae,
 - cooking smells
 - incontinence – urinary or faecal
- Oral problems
 - Altered taste
 - Candidiasis
 - Dry mouth
 - Dysphagia / obstruction
 - Ill fitting dentures
 - Ulcers / inflammation
- Pain
- Unappetising/too much food

What are the effects?

- Can cause anxiety in both patient and carer.
- Can create tension between patient and carer – ‘Food Is Life’.
- Denies carer an important aspect of care – ‘Food is love’.
- Loss of the social aspects of eating may cause withdrawal and isolation.
- Ongoing reminder of illness.
- Reduces
 - Quality of life
 - Energy
 - Ability to tolerate treatment.
- Associated cachexia may cause body image difficulties.

How is it treated?

The aim is to increase the patient's comfort and reduce anxiety in both patient and carer.

- Treat reversible biochemical causes if appropriate.

- Treat other reversible causes.
- Offer explanation and practical advice regarding nutrition to family. Written advice is likely to be welcome and CANCER BACUP booklets may be helpful. See website address www.cancerbacup.org.uk/ResourceSupport/Eatingwell for more information.
- Consider referral to a dietician.
- Medication.

Practical advice about nutrition (see section 8.7 of the manual for more information)

- Increase nutritional value of food by adding sugar, honey, cream, butter
- Gently encourage what the patient can manage
- Give permission to eat less. Use small portions on small plates, attractively presented.
- Tastes may change. Try tart foods, strong flavours or seasonings, marinate meats. Eat food cold or at room temperature.
- Alcohol may be beneficial.
- Nutritious drinks and snacks or supplementary drinks (if advised by dietician) may be of benefit.
- Encourage participation in the social aspects of meals.
- Try not to talk about food all the time.

Medication

- Corticosteroids
 - Short term improvement in appetite.
 - Temporary improvement in energy and sense of well-being.
 - No significant effect on nutritional status.
 - Side effects
 - Water and fat retention
 - Myopathy
 - Thrush
 - Gastric irritation
 - Response limited to 3-4 weeks
 - **Starting dose:** Dexamethasone 4 mg, once daily in the morning or Prednisolone 30mg in the morning
 - Try for 1 week. If no response, stop.
 - If beneficial, reduce to lowest effective dose.

Ascites

What is it?

Ascites is the abnormal presence of fluid in the peritoneal cavity.

When caused by cancer it generally implies advanced disease and prognosis of 8-20 weeks. Ovarian carcinoma is the commonest primary in malignant ascites but stomach, colon and pancreas also feature prominently. Ovarian carcinoma is unusual in that ascites presents earlier in the disease and survival figures of 20-50 weeks have been quoted.

What causes it?

Ascites is caused by increased influx of fluid into the peritoneum or impairment of drainage of fluid from the peritoneum. Normally 50 ml of fluid are contained in the peritoneal cavity with a turnover of 4-5 ml / hr.

Peritoneal carcinomatosis

Some tumour types secrete vascular permeability factor (VPF) which enlarges the normally tiny gaps between the endothelial cells that line blood vessels allowing the passage of protein rich fluid from blood into the peritoneum. Drainage may be impaired if tumour blocks the draining lymphatic vessels in the diaphragm.

Massive liver metastases (may co-exist with Peritoneal carcinomatosis)

A tumour may obstruct hepatic or portal veins and cause portal hypertension. This increases hydrostatic pressure, driving fluid out of the blood vessels into the peritoneum. As cancer cachexia may also have reduced the level of plasma albumen the oncotic pressure in the blood vessels is insufficient to retain fluid in the vascular space.

Chylous ascites

Lymphatics behind the peritoneum are blocked by tumour or radiotherapy which blocks the major route for drainage of peritoneal fluid causing an overspill of white lymph into the peritoneum.

Non malignant causes

Ascites may be secondary to cirrhosis of the liver or heart failure. The mechanism is similar to that of massive liver metastases causing portal hypertension.

What are the effects?

- Abdominal discomfort but severe pain is uncommon.
- Anorexia, nausea and vomiting - Squashed stomach syndrome.
- Dyspnoea
 - splinting of the diaphragm by abdominal fluid
 - may be co-existing pleural effusion
- Increased abdominal girth
 - bulging flanks, 'shifting dullness', 'fluid thrill'
 - ultrasound will detect as little as 100ml fluid
- Peripheral oedema / Lymphoedema
 - from venous and lymphatic compression
 - may develop lymphorrhoea
- Body image and quality of life issues.
- Fatigue.

How is it treated?

Even with ascites ovarian cancer patients may respond to chemotherapy and debulking surgery. However in advanced disease treatments are palliative. Interventions should be minimally invasive, should not add to the patient's burdens and should be aimed at relieving symptoms.

Non invasive management

Chemotherapy

- Ascites due to ovarian cancer may respond to systemic intra peritoneal treatment and oncological options should be considered, particularly in early disease.

Diuretics

- Research is limited regarding dose and type of diuretic.
 - Suggested starting doses are Furosemide 40mg and Spironolactone 100mg
 - Titrate up to a maximum of 160mg Furosemide and 400mg Spironolactone
- Effective only in cirrhotic-type ascites (Liver metastases) which activates the renin-angiotensin system and causes sodium and water retention.
- May take several days.
- May cause fall in BP, electrolyte disturbance and renal impairment.
- Not effective in ascites due to peritoneal carcinomatosis alone but often given on a trial basis.

Invasive Management

Paracentesis

- Immediate relief if symptomatic.
- 2 litres over 1 hour, slowly to dryness over 12 hours.
- May need to be repeated regularly.
- Complications
 - Hypovolaemia (The use of albumen is controversial and more relevant to ascites from cirrhosis. Dextran may be helpful.)
 - Haemorrhage
 - Pulmonary emboli
 - Peritonitis

Peritoneovenous shunt

- Consider if long prognosis and frequent paracenteses.
- Peritoneal cavity to internal jugular vein.
- Conserves albumin.
- Considerable hazards
 - Shunt blockages
 - DIC
 - Pulmonary emboli
 - Accelerated metastases
 - Fluid overload peritonitis

Non-specific treatment for ascites, though ensuring general comfort care

If patient choice, aggressive management inappropriate, patient asymptomatic, death imminent.

May need palliation of :

- squashed stomach – Metoclopramide 10mg t.i.d. orally before food or 30-40mg subcutaneously via a syringe driver (unless malignant bowel obstruction co-exists)
- peripheral oedema - trunclal massage and stockings
- dyspnoea – regular small dose of opiate if very distressed e.g. – Oramorph 2.5mg q.i.d. and p.r.n.
- pain – treat according to analgesic ladder
- lymphorrhoea - gentle bandaging.

May need psychological support for body image issues and social / professional support for improving quality of life e.g. assistance with ADL.

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Bleeding

What is it?

Bleeding or haemorrhage is the escape of blood from any part of the vascular system. It may be obvious or occult. Bleeding occurs in about 20% of patients with advanced cancer.

What causes it?

In the palliative care situation bleeding may have a single cause or be multi-factorial.

Examples are :

- direct tumour erosion of artery
- persistent or intermittent ooze from tumour bed
- thrombocytopenia from
 - marrow invasion
 - chemotherapy
 - increased destruction of platelets (sepsis, Heparin [HIT], DIC)
- coagulation defect from
 - liver involvement (though paradoxically the risk of venous thrombosis can be increased in hepatic failure)
 - vitamin K deficiency due to
 - malnourishment
 - fat malabsorption
 - prolonged courses of antibiotics
- drug-induced haemorrhage (NSAIDS).

What are the effects?

- Bleeding at any time can be a distressing and frightening experience for patient and carer.
- External catastrophic bleeding is less common than internal occult bleeding.
- Minor bleeding may herald a fatal bleed.
- Fear of major bleed may preclude continuing care at home.
- Warning haemorrhages may permit discussion regarding resuscitation/allow natural death.
- Hypotension from even minor haemorrhage may precipitate falls.
- Clothing, bedding and furnishings may be unsalvageable in the event of a major bleed.
- Particular care is required if the patient is known to be HIV or Hep B positive.

How is it treated?

Minor bleed

Is this a local or systemic problem?

- Check coagulation and LFTs.
- Check FBC.
- Discontinue any offending drugs.
- Prescribe antibiotics if sepsis present.
- Consider Vitamin K orally or IV if obstructive jaundice present.
- Identify site of bleed and treat appropriately.

Skin & mucus membranes - local pressure

- Consider topical gauze soaks with Tranexamic acid (500mg in 5ml) or Adrenaline (Epinephrine) 1 in 1000
- Haemostatic alginate dressings such as Kaltostat
- Diathermy, laser
- Systemic antifibrinolytic drug e.g. Tranexamic Acid 0.5 - 1.5mg tid (Reduce or discontinue 1 week after bleeding has stopped but restart if bleeding recurs.)
- Systemic haemostatic drug e.g. Etamsylate 500mg qid

Haemoptysis

Occurs in 33% of lung cancer patients. 3% of bleeds are fatal. May be caused by lung cancer (especially central, cavitating squamous cell tumours), metastatic lung disease, chest infection or pulmonary embolus.

Management

- Maintain the airway.
- Lay the patient on the bleeding side, if the site of bleeding is known, to reduce the effect on the other lung. Alternatively, a head down position may help.
- Use Oxygen or suction as necessary.
- Treat infection/PTE as appropriate
- Consider XRT/laser treatment
- Oral tranexamic acid as above

Haematemesis/melaena

Bleeding from the gastroduodenum is uncommon in advanced cancer. Incidence is 2%. Melaena occurs more frequently than haematemesis but both may be present, particularly in patients with liver cancer or hepatic metastases.

Management

- Administer H2-receptor antagonist or PPI
- Consider transfusion/endoscopic therapies
- Oral Tranexamic Acid as above

Rectal or vaginal haemorrhage

If due to acute inflammatory radiotherapy damage to the rectal mucosa, a Predsol retention enema administered bd may help. If chronic ischaemic radiation proctocolitis, oral or rectal Tranexamic acid will help. If due to bleeding from tumour, consider radiotherapy.

Haematuria

- Exclude infection
- Try Tranexamic acid (Though risk of clot retention until bleeding stops completely)
- Consider Etamsylate 500mg qid
- Bladder instillations and irrigations - saline 0.9%, Alum 1% may help
- Cystoscopy/diathermy

Major haemorrhage

Defined as loss of 1.5 litres in 30 seconds in a patient for whom active treatment is neither appropriate nor possible.

- Likely to be fatal within minutes in the palliative situation.
- If predictable arrange to have red/green towels/blankets available to mask extent of haemorrhage and drugs (see below) available by the bedside.
- If due to erosion of a major artery apply local pressure with adequate packing.
- Give stat dose of S/C diamorphine for its hypotensive effect - 10mg if opiate-naïve, 2-4 times normal breakthrough dose if on regular opiates.
- Give stat dose of S/C or buccal Midazolam 10mg for anxiolytic effect.
- If the patient is peripherally constricted use IV/IM routes.
- If the patient wishes to be at home to die, ensure the risks have been explained to the relatives and they are prepared to cope.
- Ensure NHS 24/OOH Service aware of potential haemorrhage.
- Significant family support may be required.

**ENSURE A DOCTOR OR NURSE REMAINS WITH THE PATIENT UNTIL
DEATH OR RESOLUTION OF THE ACUTE EVENT**

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Bowel obstruction

What is it?

Bowel obstruction is the occlusion to the lumen of any part of the small or large bowel. There may be partial or complete obstruction. Bowel obstruction also occurs when there is lack of normal propulsion of intestinal contents.

What causes it?

- Intraluminal occlusion – from annular or polypoid tumours.
- Intramural occlusion – from infiltration of intestinal muscles resulting in ineffective peristalsis.
- Extrinsic occlusion of lumen – from a primary or secondary tumour mass, omental masses, from abdominal or pelvic adhesions, or from post radiation fibrosis.
- Intestinal motility disorders – infiltration of mesentery affecting bowel muscle or nerves, or infiltration of coeliac plexus; rarely paraneoplastic neuropathy.

What are the effects?

The onset of symptoms is often gradual. They include nausea and vomiting, abdominal colic, continuous abdominal pain, constipation or diarrhoea (faecal incontinence from overflow of liquid faeces proximal to the obstruction).

Symptoms may depend on the site of the obstruction:

- Duodenal obstruction – often no pain or distension, but characterised by large-volume vomiting of undigested food.
- Small bowel obstruction – colic in upper to central abdomen with moderate to severe vomiting and distension.
- Large bowel obstruction – colic in central to lower abdomen and large abdominal distension.

Episodes of obstruction may resolve spontaneously.

Investigations

Radiological investigations may be required if the diagnosis is in doubt. They can help differentiate between constipation and obstruction. The site and nature of the obstruction can be determined if surgery is being considered.

How is it treated?

Initial management includes deciding whether surgery is appropriate. For many patients with advanced malignancy this is not an option. Their general condition may be too poor or there are multiple levels of obstruction.

It is possible to relieve the symptoms without the need for iv fluids or naso-gastric tubes.

Exclude constipation or faecal impaction or treat accordingly.

If partial obstruction suspected:

- Stop drugs that reduce peristalsis, e.g. cyclizine.
- Consider a pro-kinetic antiemetic, e.g. metoclopramide – but stop if colic worsens.
- Give rectal intervention (e.g. phosphate enema) and an osmotic laxative, e.g. Movicol or a stimulant laxative, e.g. co-danthramer. Again, stop if colic worsens.

In complete obstruction:

- Do not give pro-kinetic anti-emetics if complete obstruction, e.g. metoclopramide, as they will worsen colic and can lead to bowel perforation.
- Drugs should be given via a syringe driver (SD) as oral route unreliable.
- Stop laxatives.

| symptom | drug | dose | comments |
|--|--|--|---|
| Nausea and vomiting | cyclizine and/or haloperidol levomepromazine octreotide | 100-150mg/24hr via SD 5-10mg/24 hr via SD 12.5 – 25mg/24hr via SD 300microg/24 hr via SD initially | See cyclizine notes below For large volume vomits, seek specialist advice & see octreotide notes below |
| Intestinal colic | hyoscine butylbromide | 60 – 120mg/24hr via SD | |
| Tumour pain | morphine diamorphine | Convert from oral 24 hr dose of opiate to appropriate sub. cut. dose given via SD | |
| In partial obstruction consider: | dexamethasone | 4 -8 mg/24 hr via SD | May reduce peritumour oedema and relieve obstruction temporarily. NB significant risk of bowel perforation. |

Prescribing notes

- **Octreotide** – is a synthetic analogue of somatostatin that stimulates the intestinal absorption of water and electrolytes and decreases gut peristalsis. It is diluted in normal saline rather than water. It is incompatible with many other drugs used in syringe drivers, therefore seek specialist advice.
- **Cyclizine** at higher doses may crystallise when combined with other drugs in a syringe driver.

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Breathlessness

What is it?

Breathlessness (dyspnoea) is the subjective experience of breathing discomfort. It is common in advanced disease, being present in 94% of chronic lung disease, 83% of heart failure patients and up to 70% of cancer patients.

The symptom of breathlessness is often multi factorial, associated with physiological and psychological factors.

What causes it?

Breathlessness might be attributable to the presence of a primary tumour within the respiratory system, metastatic spread to the lungs, pleural effusion, advanced respiratory disease etc. It could also result from the administration of anti-cancer therapy.

The causes of breathlessness can be described as :

- mechanical –airway obstruction or lung compression
- biochemical-anaemia, hypoxaemia
- psychological-anxiety.

Some patients suffer from breathlessness as a result of reversible or partially reversible conditions. However, for others breathlessness is a non-reversible result of the disease process although this does not mean that symptoms cannot be improved.

What are the effects?

Breathlessness can cause significant distress, fear and disability. Supportive care is integral to breathlessness management.

- Multidisciplinary assessment of the patient/family is essential e.g. physiotherapist, occupational therapist, social worker, specialist nurses etc. may be needed in addition to ward staff/primary care team.
- Anxiety and panic attacks. Anxiety and fear are common with breathlessness.
 - Explore anxieties/fears (e.g. suffocation) and allay where possible.
 - Simple breathing exercises and relaxation techniques.
 - Discuss possible drug management with the patient/family e.g. benzodiazepines Lorazepam 0.5mg SL, prn for panic attacks. Diazepam 5mgs PO at night, if more chronic anxiety (increase dose gradually, as necessary and tolerated).
- Life style adaptations.
 - Discuss limitations and listen to patient and family concerns. Maximise functional ability using controlled breathing and activity pacing techniques, where possible.
 - Consider need for equipment/aids and a package of community care review benefit entitlement (may be eligible under the special rules scheme).
 - Offer written information about living with breathlessness to reinforce verbal advice and discussion.

If the patient has more severe/persistent problems with anxiety or lifestyle adjustment and has a longer prognosis, consider referral to a breathlessness support service and/or clinical psychologist, where available.

How is it treated?

The recommendations in this guidance apply equally to patients with cancer and non-malignant disease.

- Is treatment of the underlying illness appropriate? - check with specialist if in doubt.
- Are there any potentially reversible causes of breathlessness? (for example - cardiac failure, infection, anaemia, pleural or pericardial effusion, pulmonary embolus, ascites, arrhythmia, pneumothorax or airflow obstruction).

Treat below as appropriate

- Drainage of effusions, pneumothorax etc.
- Bronchodilators e.g. nebulised salbutamol 2.5 – 5mg qid + or – ipratropium bromide 250-500 mcg qid. Stop if no effect.
- Nebulised saline/Mecysteine for tenacious secretions.
- Sit well propped up.
- Do not try to hurry.
- Keep cool – consider using a fan.
- Consider Morphine Oral/SC + or – Midazolam SC.
- Diuretics if appropriate.
- Offer written information about living with breathlessness to reinforce verbal advice and discussion

If superior vena cava obstruction present or stridor :

- Seek advice-urgent referral to Oncologist or Consultant Respiratory Medicine
- Give high dose dexamethasone 16 mgs daily, IV/IM/oral or give 60mgs of prednisolone orally, before admission. Consider PPI
- Stenting and/or palliative radiotherapy or chemotherapy should be considered. Avoid giving steroids after 2pm; gradually reduce to lowest effective dose.

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Confusion and delirium

What is it?

Acute or sub acute confusion may develop over hours or days. It can be :

- disturbance of consciousness
- disturbance of attention
- disturbance of and disordered cognition
- disturbance of and altered perceptions
- usually accompanied by disturbance in psychomotor behaviour e.g., hyper or hypoactive.

What causes it?

It is essential to consider the cause(s) as many :

- may be reversible or irreversible
- may be multi factorial
- may be complex
- can be common in last few days of life (see section 6 of the manual).

The following represent the main causes of confusion/ delirium in the palliative care patient :

- Metabolic e.g., infection, hypoxia, uraemia, liver failure, hypercalcaemia, hypo/hyperglycaemia, low sodium or magnesium, dehydration
- Physical e.g., uncontrolled pain, urinary retention, bleeding, severe constipation, sensory deprivation
- Drug related e.g., corticosteroids, anticholinergics, neuroleptics, benzodiazepines, opioid toxicity (see section 2.18), acute withdrawal of many drugs including nicotine and alcohol
- Previous history, e.g., dementias, CVA, primary brain tumour or metastatic cerebral involvement, alcohol or drug misuse and or withdrawal, depression, end stage AIDS

What are the effects?

Delirium may have profound effects for the individual patient as well as for family and staff. It is often misdiagnosed and mismanaged. Effects may include the following :

- restlessness and agitation
- aggressive behaviour
- personality change
- lethargy or stupor
- poor concentration
- irritability
- disturbance of sleep wake cycle
- disorientation to time, place and person
- impaired memory
- altered perception inc. illusions, hallucinations and delusions.

The above can be very difficult for family to cope with and unsuccessful or unsatisfactory management of confusion may have negative effects for family eg - poor bereavement outcome.

How is it treated?

- assess each patient on an individual basis.
- consider underlying cause(s) and treat those that are possible and appropriate

Skilled nursing management is essential as well as the following :

- maintain quiet environment
- ensure well lit environment
- provide a night light
- provide a clock to improve orientation in time
- adopt a calm and reassuring manner
- use short and simple sentences when communicating
- use of name to orientate
- ensure personal effects are within environment
- ensure continuity of staff in daily care
- involve family members in care if appropriate
- provide daily routine similar to home if possible
- maintain continuity of surroundings as far as possible

Medication

- Use of neuroleptics to manage perceptual disturbance including hallucinations and to clear sensorium e.g. Haloperidol, starting at 0.5 to 1.5mg nocte and or lorazepam 0-5mg sublingually PRN 4 hourly.
- For urgent treatment of acute delirium consider subcutaneous injection of Haloperidol 5-10 mg per dose which can be repeated after one hour
- Other neuroleptics may be suitable but will require specialist advice from psychiatrist or Palliative care team
- Benzodiazepines may compound confusion and cause sedation, but will be necessary in acute confusion related to alcohol and drug withdrawal e.g. Lorazepam (as above) or diazepam 2- 5mg PRN 6 hourly
- Consider Midazolam via subcutaneous infusion e.g. Midazolam 10 mg / 24 hours. Titrate future requirements by noting extra doses required for control of symptoms.
- Consider nicotine patch if appropriate
- Review all medication
- Discontinue or reduce as appropriate unnecessary drugs
- Maintain effective symptom control
- Maintain hydration, if appropriate
- For terminal delirium, see end of life care (see section 6)
- Opioid toxicity (see section 2.18)

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Constipation

What is it?

Constipation is the difficulty in passing stools. It includes straining at stool, infrequent bowel movements or passing small, dry or hard stools.

What causes it?

Causes are often multifactorial.

- Tumour within or pressing on the bowel wall.
- Tumour damaging lumbosacral spinal cord, cauda equina or pelvic plexus.
- Hypercalcaemia.
- Dehydration.
- Diminished food intake, low fibre diet and immobility.
- Drugs – opioids, anticholinergics (hyoscine, phenothiazines, tricyclic antidepressants, antacids, diuretics, iron.)
- Concurrent disease – hypothyroidism, diabetes, hypokalaemia, diverticular disease, anal fissure or stenosis.

What are the effects?

Abdominal pain, bloating, flatulence, nausea, vomiting, malaise, anorexia, headache, altered taste, overflow diarrhoea (faecal impaction with biodegradation of faeces proximal to stool resulting in passage of liquid faeces only), urinary retention.

Investigations

Ask the patient:

- What is the usual pattern of defecation?
- When was the last bowel movement?
- What laxatives have been tried?
 - Have they been taken prn or regularly?
- Are the stools hard or soft?
- Is there any pain/mucous/blood on defecation?

Abdominal and rectal examinations are essential to exclude intestinal obstruction, to diagnose faecal impaction and to determine the consistency of the stools. An empty, ballooned rectum is indicative of high impaction of faeces.

Abdominal x-rays are rarely required unless there is concern that there is intestinal obstruction.

How is it treated?

- Eliminate or modify causes listed above.
- Encourage fluid intake – 2-3 litres per day if able.
- Improve dietary fibre content – dietician referral may be appropriate.
- Identify and treat hypercalcaemia (iv fluids and pamidronate).
- Choice of laxative depends on whether the faeces requires softening or the bowel requires stimulating. Often a combination is needed.
- Rectal laxatives may be necessary in the first instance to resolve established constipation.
- Encourage regular use of laxatives, not prn.

| | Mode of action | Preparation/dose | comments |
|---|---------------------------|--|------------------------------|
| Acute constipation or Hard impaction | Osmotic | Micro enema 1 at night | Maximum of 3 days therapy |
| | Osmotic | Phosphate enema 1 in the morning | |
| | Osmotic | Movicol 8 sachets in 1 litre of water over 6 hours | |
| Soft impaction | Stimulant | Senna 2 – 4 tablets at night | |
| High Impaction | Stimulant | Sodium picosulphate (Picolax) half to one sachet as required | |
| Chronic constipation | Stimulant | Senna 2 - 4 tablets at night | |
| | Osmotic | Movicol 1-2 sachets daily | |
| Opioid induced constipation | Softener and stimulant | Codanthramer 5 – 10ml (1-2 caps) at night titrated up to 20ml qid | |
| | Stimulant | Senna 2 – 4 tablets at night | |

Prescribing notes

- Laxatives should be titrated up until constipation is controlled.
- Co-danthramer is only licensed for use in the terminally ill. Co-danthramer may colour the urine red. It can cause a characteristic red rash over the buttocks/perineum. The risk is increased if incontinent of urine or faeces.
- Avoid bulk-forming laxatives, eg Fybogel, as not suitable for patients with poor fluid intake, or when opioids have reduced bowel motility.

Other commonly used laxatives or suppositories :

Arachis oil enema – derived from peanuts so avoid in patients with nut allergies. Oily retention enema used in severe impaction to soften faeces, usually administered at night. This is followed by a phosphate enema in the morning to stimulate evacuation.

Glycerin suppositories – rectally administered softener for hard impaction.

Bisacodyl suppositories – rectally administered stimulant for hard impaction when given in combination with glycerin suppository or for soft impaction when given alone.

Lactulose – osmotic laxative which may take up to 48 hours to act and is therefore unsuitable for relief of acute symptoms or “prn” prescribing. Can be associated with abdominal cramping, bloating and flatulence. Needs a high fluid intake to be effective.

Bisacodyl tablets – a stimulant. Dose 5 – 10 mg nocte.

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Cough

What is it?

Useful protective function in maintaining patency and cleanliness of the airways.

Symptomatic treatment needed when cough is distressing or affecting sleep/activity. Reversible causes should be identified and treated.

What causes it?

- Cigarette smoking.
- Cancer related - airway obstruction or distortion; pulmonary infiltration; pleural infiltration; mucous secretion and retention; tracheo-oesophageal fistula; ineffective cough e.g. due to vocal cord palsy, pain, weakness.
- Treatment related - cancer treatment e.g. pulmonary fibrosis related to radiotherapy, chemotherapy; medications e.g. ACE inhibitors, beta-blockers.
- Others - Infection; COPD; bronchiectasis; post nasal drip; gastro-oesophageal reflux; pulmonary oedema; recurrent aspiration; pleural effusion; candida.

What are the effects?

- Chest wall pain or muscle strain.
- Dyspnoea.
- Nausea.
- Fatigue.
- Sleep disturbance.
- Urinary incontinence.
- Dizziness or syncope.

How is it treated?

- Careful assessment, establish cause, where possible.
- Review medications.
- If cancer related, consider specific treatments (e.g. radiotherapy, chemotherapy, drainage of pleural effusion etc.)
- Treat, or maximise therapies for other underlying cause.

| | | |
|----------------------------|---|--|
| Infection | → | Antibiotics (if purulent sputum) Physiotherapy (if appropriate) Nebulised saline |
| Airway obstruction | → | Bronchodilator Physiotherapy Corticosteroids |
| Malignant obstruction | → | Dexamethasone 16mg Oral IV & PPI Seek specialist advice |
| Cardiac Failure | → | Diuretic |
| Drug induced | → | E.g. ACE inhibitor Stop or change drug |
| Oesophageal reflux | → | Upright position Anti reflux medication |
| Aspiration of saliva | → | Anticholinergic to reduce saliva Hyoscine Butylbormide (non sedating) |
| To encourage expectoration | → | Simple linctus Nebulised saline Carbocystine |
| To suppress cough | → | Codeine linctus 10ml 4 hourly PO Oramorph 2.5 - 5 mg 4 hourly PO Consider laxative as well |

There is no evidence for the use of nebulised agents apart from saline and bronchodilators

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Depression

Introduction

Up to 80% of the psychological and psychiatric morbidity that develops in cancer patients goes unnoticed and depression is the most frequent psychiatric illness in patients with terminal cancer.

Depression impairs the quality of life for these patients and their carers and is often associated with physical symptoms that are difficult to control. 70% of depressed patients with end-stage illness may respond to antidepressant treatment but only a minority of patients are prescribed them.

Assessment

All patients should be assessed for the presence or risk of depression. Staff should be aware that a past history of psychiatric problems, particularly depression is a risk factor for depression in the context of a cancer diagnosis.

There are no universally accepted diagnostic criteria for depression in palliative care patients. Some biological symptoms associated with depression may be also be symptoms of the illness making diagnosis difficult on occasion.

Depressive symptoms with particular weight in palliative care patients are :

- loss of pleasure in day to day activities, social withdrawal
- excessive feelings of guilt or worthlessness
- desire for hastened death
- a positive response to the question 'Do you think you may be depressed?'

Screening tools may be useful but should be chosen carefully and used selectively. The Edinburgh Postnatal Depression Scale is the most sensitive and specific scale for a palliative care population. The Hospital Anxiety and Depression Scale is widely available but less sensitive and specific for these patients. No scale is a substitute for clinical assessment. A score suggesting depression should not automatically lead to treatment, but indicates that the patient should be assessed in more detail.

All patients with depressed mood should be :

- assessed to establish the persistence and duration of the low mood (less than 2 weeks may be an adjustment reaction which will resolve spontaneously)
- offered psychological support services, where available
- assessed for active suicidal ideas
- screened for confusion; delirium may mimic depressed mood.

Clinical features of acute confusion (delirium) are :

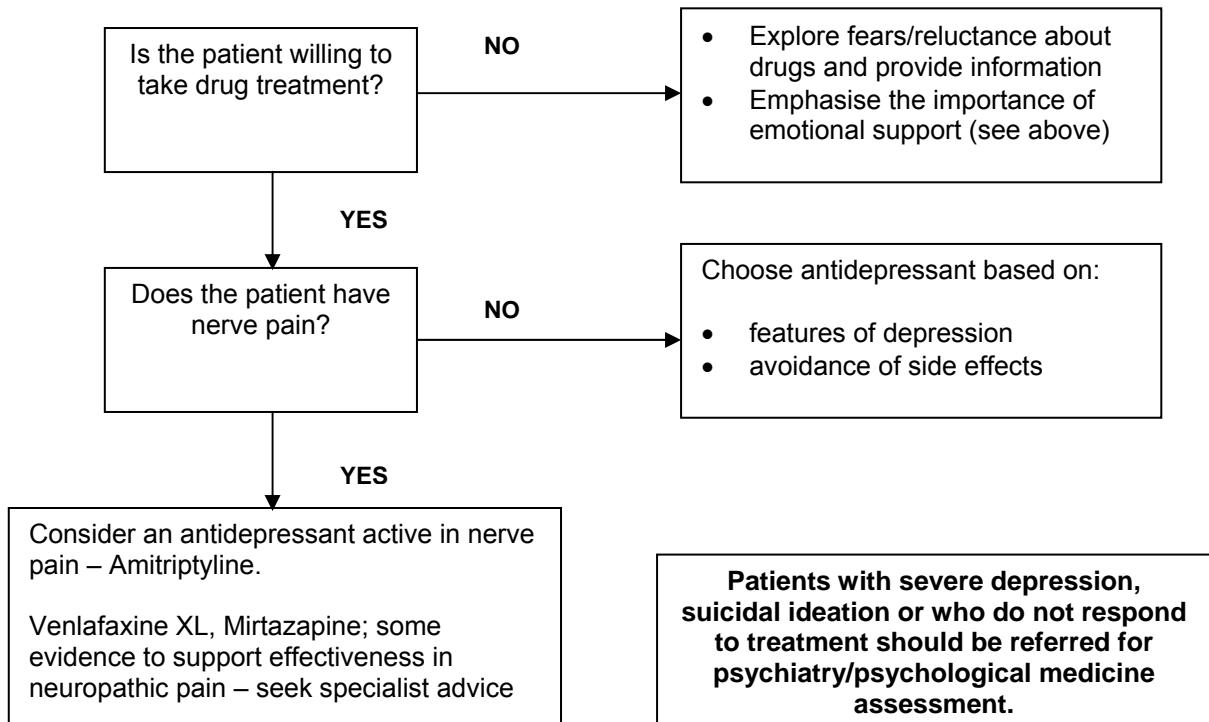
- acute onset and fluctuating course
- inattention – easily distracted
- disorientated to time/place/person
- disorganised thinking – rambling or irrelevant conversation, switching topics
- altered level of consciousness – hyperactive or hypoactive.

Management of depression

- All patients with depressive symptoms should be offered emotional and/or psychological support, ideally from one or two key people to ensure continuity. Practice based counsellors, clinical psychologists, community psychiatric nurses, and other healthcare workers with training in counselling skills or adjuvant psychological therapy may be available (see other useful information section for information about local services).

- Many patients find complementary therapies helpful and if they are available they should be offered. Some therapies (e.g. massage and acupuncture) have measurable benefits on the neuro-chemical features of depression and a variety of therapies may be helpful for general psychological wellbeing.

After diagnosis of depression made: -



Choosing an antidepressant

Refer to the Forth Valley Formulary (FVF) and local guidance when selecting an antidepressant. Note that some antidepressants included in FVF may not be appropriate for a palliative care patient.

Note also that anti-depressants may take at least three weeks to become effective.

- Fluoxetine is not recommended for use in palliative care patients due to significant drug interactions, side-effects and a long half-life which may exacerbate these problems.
- Paroxetine is not recommended in FVF. It should be avoided in palliative care patients with advanced disease due to the frequency and severity of withdrawal reactions.
- All antidepressants should be withdrawn slowly, where possible.

Serotonin specific reuptake inhibitors (SSRI)

Citalopram: starting dose, 20mg, once daily. Tablets and liquid preparation (note different dose)

- Non-sedating antidepressants.
- Few drug interactions.
- Safer in patients with cardiac disease.

Side-effects include :

- nausea, diarrhoea
- insomnia
- sweating
- impaired sexual function
- hyponatraemia
- vivid dreams/nightmares, agitation
- risk of GI bleeding; especially in the elderly and patients with GI bleeding history. (due to impaired platelet aggregation).

Tricyclic Antidepressants

Amitriptyline: starting dose, 75mg nocte (25mg in elderly or frail patients)

Lofepamine: starting dose, 70mg twice daily (70mg daily in elderly patients)
(Tablets and liquid preparation are available for both drugs)

- Sedation and secretion-drying effects may be useful in some patients but may be problematic with others.
- Less likely to cause nausea than SSRIs.

Avoid in patients with cardiac disease; caution if risk of seizures.

Non-formulary drugs which may be indicated in palliative care patients (seek specialist advice).

Venlafaxine: starting dose, 75mg controlled release, once daily
Tablets only (controlled release preparation causes less nausea)

- Non-sedating antidepressant.
- Side-effects same as SSRIs; avoid if SSRI not tolerated.
- Caution in hepatic or renal impairment. Some drug interactions.
- Withdrawal effects are common; less suitable for advanced illness.
- Unsuitable for patients with pre-existing cardiac disease, electrolyte imbalance and hypertension.

NB - Venlafaxine should be initiated by specialist practitioners only. ECG and BP monitoring is required

Mirtazapine: starting dose, 15mg nocte dispersible tablet

- Sedating (but less sedation at higher doses).
- Appetite stimulant; may produce weight gain.

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Diarrhoea

What is it?

Diarrhoea is the increase in frequency and/or fluidity of stools.

What causes it?

- Laxative overdose.
- Faecal impaction with overflow – often opiate induced.
- Partial bowel obstruction with overflow.
- Shortened bowel – resection, ileostomy, colostomy.
- Enhanced motility
 - High fibre diet
 - Steatorrhoea – pancreatic cancer, obstructive jaundice
 - Visceral neuropathy – diabetes
 - Nerve blocks – coeliac plexus, lumbar sympathectomy
 - Hyperthyroidism
- Drugs – commonly antibiotics, NSAIDs, laxatives, chemotherapy agents, iron, SSRIs.
- Infection
 - Gastro-enteritis
 - Pseudomembranous colitis – colonisation of bowel by clostridium difficile
- Cholegenic – non-absorbed bile acids from bacterial invasion of small bowel (rare).
- Radiotherapy.

What are the effects?

- Physical** - dehydration, fatigue, hyponatraemia, hypokalaemia and renal failure.
- Psychological** - anxiety and embarrassment about soiling.
- Social** - being confined to home or readily accessible toilets.

How is it treated?

Assess need for rehydration with iv fluids.

Identify and treat any reversible cause

- Reduce or withdraw laxatives
 - Encourage use of regular laxatives rather than erratic use of high dose laxatives once constipation established.
- Relieve constipation with rectal intervention and/or laxatives.
- Review need for antibiotics or other drugs.
- Send stool for culture and treat infection accordingly e.g. clostridium difficile, with appropriate antibiotics (according to current microbiology recommendations)
- Blood tests to exclude hyperthyroidism and electrolyte disturbances.

Specific treatments

| Cause | Drug | Dose | Comments |
|----------------------------|-------------------------|--|--|
| Non-specific | loperamide | Initially, 4–8 mg daily in divided doses, adjust according to response. Max. 16 mg/day. | Avoid in antibiotic-associated colitis. |
| | codeine phosphate | 30 mg tid or qid, adjust according to response. | May cause sedation especially in the elderly. |
| Acute radiation enteritis | ibuprofen octreotide | 400 mg tid. 50 micrograms od or bd subcut, gradually increasing up to 200 micrograms tid. | Or other NSAID. May also be given as a continuous infusion via a syringe driver. |
| Zollinger-Ellison syndrome | ranitidine | 150 mg tid | |
| Fat malabsorption | Creon 10 000 | 1–2 capsules with meals | Take whole or mix contents with fluid or soft food (then swallow immediately without chewing). |
| Carcinoid syndrome | octreotide | 50 micrograms od or bd subcut, gradually increasing up to 200 micrograms tid | May also be given as a continuous infusion via a syringe driver. |
| Chologenic diarrhoea | colestyramine | 12-24g daily in 1 - 4 divided doses | Take other drugs 1 hour before or 6 hours after as their absorption may be interfered. |

If diarrhoea persists despite the above measures, and is causing faecal incontinence then an anal plug could be considered. They are inserted per rectum and can remain in situ for up to 12 hours. They can be obtained via surgical supplies : telephone 01786 450010. "Conveen Anal Plugs" available in small and large sizes.

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Emergencies in palliative care

What is an emergency?

Good palliative care is planned and not crisis intervention, as many situations can be anticipated and strategies considered in advance. However, emergencies do happen and prompt assessment and treatment decisions are required. In addition to the nature of the emergency, it is important to consider :

- the patient
 - general condition
 - symptoms
 - comorbidities
 - disease state and likely prognosis
 - wishes
- the carers
 - abilities
 - wishes
- the treatment
 - benefits
 - toxicity

Physical emergencies in palliative care are considered below but it is important to be aware that social, psychological and spiritual emergencies also occur.

Fear, anxiety and depression may present unexpectedly. Suicide and para-suicide may be significant risks if controlled drugs are available. The patient may need an opportunity to ventilate feelings and be listened to, more than medication.

When confronted with a terminal illness, patients may choose to ignore signs of impending death but may suddenly feel they have to “set their affairs in order” before it’s too late. They may question the meaning of life, their inherent worth, value or legacy. Wills and funeral requests may need to be dealt with as emergency discussions if time becomes short, as may custody of children if there is dispute between interested parties. Emergency care of pets may be problematic.

Urgent air travel for relatives can be facilitated by appropriate letters, faxes or e-mails and finance recovered through legitimate claims. Requests for prisoners to see loved ones are usually treated sympathetically.

Physical emergencies :

- Fracture
- Haemorrhage (see bleeding section 2.3)
- Hypercalcaemia (see hypercalcaemia section 2.13)
- Sepsis in the neutropenic patient (see infection section 8.6)
- Malignant spinal cord compression
- Superior vena cava obstruction

Fracture

What is it?

A fracture is a break or interruption in the continuity of a bone.

What causes it?

Bone metastases are common in advanced cancer and can cause marked thinning of bones. Consequently, even trivial injuries can result in pathological fractures of the diseased bone. Non-pathological fractures may occur as a result of falls in patients whose mobility is impaired or whose gait is ataxic.

What are the effects?

Fractures are usually painful and cause reduction in movement and function of the affected bone or limb. However some fractures may not be painful and may present as an acute confusional state.

How can it be treated?

- **Prevention**
 - if cortical thinning is present consider prophylactic internal fixation
 - irradiate painful bony metastases
 - use regular bisphosphonates – monthly IV infusion especially in myeloma, breast
- **Treatment** of established fracture is dependent on the site of fracture and condition of the patient. In addition to oral or parenteral analgesia, options include :
 - internal fixation +/- XRT
 - external immobilisation
 - topical Lidoocaine patches over the fracture site to reduce pain

Malignant Spinal Cord Compression

What is it?

This is pathological pressure on the spinal cord at one or multiple levels, from the medulla oblongata to the filum terminale.

In the early stages, the presentation of spinal cord compression may be very subtle. It is important to have a high index of suspicion as the neurological damage may be reversible if treatment is started within 24-48 hours of the onset of symptoms. The neurological status at the start of treatment is the most important factor influencing outcome. Delay in diagnosis may lead to permanent loss of motor power and care at home may become impossible.

Spinal cord compression occurs in 3-5% of patients with cancer and 10% of patients with spinal metastases. Malignancies of bronchus, breast and prostate and myeloma are the commonest culprits.

What causes it?

Spinal cord compression is caused by :

- extradural compression (80%) – vertebral body metastases
- intramedullary metastases
- intradural metastases
- vertebral collapse
- tumour spread through intervertebral foramen (lymphoma and testicular tumours)
- interruption of blood supply.

What are the effects?

Symptoms and signs include :

- pain 90%
 - tenderness over the affected vertebrae

- radicular pain, particularly on coughing or sneezing
- stiffness
- weakness
- numbness/sensory level
- altered reflexes
- sphincter disturbance
 - urinary symptoms - hesitancy (occurs late)
 - bowel symptoms - constipation

Site of compression

- thoracic – 70%
- lumbosacral – 20%
- cervical – 10%

Lesions above L₁ (lower end of spinal cord) → UMN signs + Sensory level

Lesions below L₁ → LMN signs and peri-anal numbness (cauda-equina syndrome)

Multiple sites of compression can cause confusing neurological signs.

| | UMNL | LMNL |
|------------------|----------------|----------------|
| POWER | Reduced/absent | Reduced/absent |
| TONE | Increased | Reduced |
| SENSATION | Sensory loss | Sensory loss |
| REFLEXES | Increased | Absent/reduced |
| PLANTAR RESPONSE | Upgoing | Downgoing |

How can it be treated?

Assessment and examination

- identify risk factors
- evaluate pain
- evaluate sensory and motor function
 - walking
 - established cord compression
- assess bowel and bladder function
- ascertain patient’s wishes and prognosis as these may direct treatment

Give high dose Dexamethasone

- dose is 16mg/day oral or IV with gastric protection
- reduces peri-tumour oedema

Admit to local hospital if patient agreeable and clinical condition permits for urgent discussion with the oncology team.

Refer urgently for MRI or Multidetector row-CT (MDCT) scan and radiotherapy

Consider surgical decompression and stabilization/cementoplasty if appropriate. Nurse flat until assessment by spinal surgeon.

- Indications for surgical decompression
 - unknown cause – for histology

- XRT ineffective
- radio-resistant tumour – melanoma
- unstable spine
- major structural compression
- cervical cord lesion
- solitary vertebral metastasis

The results of treatment are tabled below.

| State on initial assessment | Retain/regain ability to walk |
|-----------------------------|-------------------------------|
| Ambulatory | 70% |
| Paraparetic | 35% |
| Paraplegic | 5% |

Challenges are significant and in hospital the SPCT should be involved to ensure multi-disciplinary management of the patient and family and to facilitate future care.

Difficulties include:

- immobility – risk of DVT → consider LMWH
(if mobile maximise potential with physiotherapy and use of appropriate aids)
- skin – risk of pressure sores → obtain appropriate bed and mattress
- bowel – constipation → use paraplegic bowel treatment regime
- urinary system – retention → catheterise
- psychological – distress → promote readjustment to new (possibly paraplegic) life style

Superior Vena Cava Obstruction (SVCO)

What is it?

This is obstruction to the superior vena cava blood flow by external compression, thrombosis or direct tumour invasion. It may present acutely but may also present more insidiously as chronic dyspnoea.

What causes it?

SVCO is most commonly caused by tumour involving mediastinal lymph nodes or those in the area of the right main bronchus.

The most common tumours are :

- bronchial carcinoma 75%
- lymphoma 15%
- breast, colon, oesophagus, testis 10%

Approximately 3 % of lung cancer and 8% of lymphoma patients develop SVCO.

What are the effects?

Symptoms are those of venous hypertension :

- breathlessness – airway oedema or laryngeal/tracheal/bronchial obstruction.
- visual changes.

- dizziness.
- headache worse on stooping – cerebral oedema.
- swelling of face, neck, arms.

Signs include :

- conjunctival oedema
- peri-orbital oedema
- papilloedema – late
- dilated neck veins – non-pulsatile
- dilated collateral veins – arms and anterior chest wall
- oedema of hands and arms
- stridor
- cyanosis
- increased respiratory rate

How is it treated?

- Discuss with or refer urgently to oncologist/radiotherapist/respiratory physician
- Prescribe Dexamethasone 8-16mg daily orally or IV
Discontinue promptly if no benefit and reduce gradually in responders.
- Arrange radiotherapy or chemotherapy if patient's condition permits
- Consider referral for intraluminal stents +/- thrombolysis +/- anticoagulation
- Offer benzodiazepines, opiates and supportive care for all patients, in addition to the above measures.

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Hiccups

What is it?

Hiccup is a pathological respiratory reflex characterised by spasm of the diaphragm, resulting in sudden inspiration followed by abrupt closure of the glottis.

It occurs more commonly in males than in females and can be transient or chronic. Chronic hiccup is defined as hiccup lasting more than 48 hours and is not unusual in patients with advanced cancer.

What causes it?

There are many potential causes of hiccup. In patients with advanced cancer the causative factor is likely to be one of the following:

- Gastric distension (most common)
- Gastro-oesophageal reflux
- Uraemia
- Infection
- Diaphragmatic irritation
- Phrenic nerve irritation
- CNS tumour

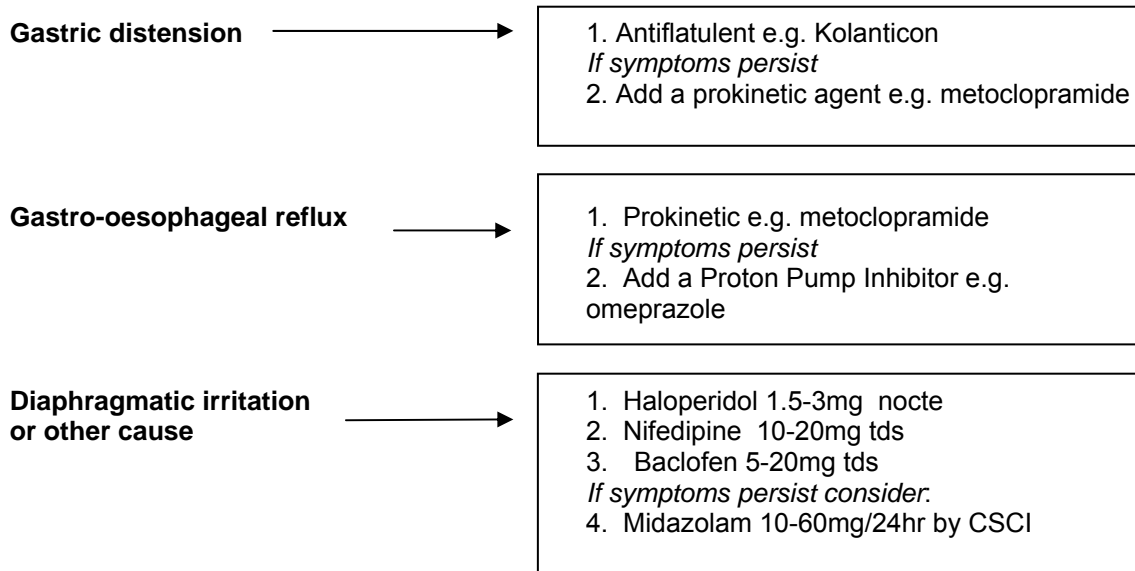
What are the effects?

Prolonged hiccup interferes significantly with a patient's daily living.

It affects eating, talking and sleeping resulting in fatigue, weight loss and depression.

How is it treated?

Various therapies are available for the management of chronic hiccup. Treatment will depend on the most likely cause.



Hypercalcaemia

What is it?

Hypercalcaemia is a common metabolic complication of cancer. Its causes are complex and it is frequently associated with high tumour burden and end stage disease. It can be seen in any cancer and it is estimated that 10 - 20% of all patients with cancer will develop hypercalcaemia at some point during the course of their illness. It occurs primarily in end stage disease with survival often being less than 3 months.

It is particularly common in squamous cell lung tumours, breast cancer, multiple myeloma, squamous cell head and neck, renal, cervix and uterine tumours.

Normal calcium levels range from 2.15 – 2.60 mmol/l. Hypercalcaemia is any result above 2.60 mmol/l.

Patients may present as a medical emergency. It is essential that clinicians identify those patients at risk by recognising the signs and symptoms of hypercalcaemia.

What causes it?

There are three mechanisms :

- Increased osteoclastic bone reabsorption
- Increased renal calcium reabsorption
- Increased gastrointestinal absorption of dietary calcium

Three related mechanisms may contribute to hypercalcaemia. All 3 processes occur in malignancy.

What are the effects?

Signs and symptoms can be vague and non-specific and can mimic advancing disease. The severity of symptoms is not correlated with the degree of serum calcium elevation, but most patients initially develop lethargy and malaise, followed by thirst, nausea and constipation before neurological and cardiological symptoms appear.

Symptoms therefore, can range from mild to severe and become progressively worse if the condition is left untreated.

MILD

Anorexia
Lethargy and muscle weakness
Constipation
Nausea and vomiting
Thirst
Polyuria
Polydipsia
Bony Pain

SEVERE

Dehydration
Ileus
Confusion
Drowsiness
Coma
Cardiac Arrhythmias

Definitive diagnosis requires a blood test to measure serum calcium.

99% of body calcium is found in bone combined with phosphate. The remaining 1% is divided evenly in the plasma between protein (albumin) bound and ionised or free calcium. A correction formula is applied to calcium measurements to take account of low albumin levels, something commonly found in patients with advanced cancer.

Corrected calcium = measured serum calcium + [0.022 x (42 – albumin level)]
Corrected calcium measurements are given with biochemistry reports.

How is it treated?

Treatment is palliative unless the primary tumour or bone metastases can be controlled. Many patients will require several treatments for hypercalcaemia in their last few months of life.

Indications for treatment :

- Corrected calcium greater than 2.6mmol/l.
- Cymptomatic.
- First episode.
- Previous good quality of life.
- Acceptance of IV therapy and routine blood tests.

Aims of treatment :

- To improve renal calcium secretion.
- To correct factors impairing renal function i.e. dehydration.
- To stop bone reabsorption of calcium.

Treatment/Medical Management

- Usually require rehydration with 2 – 4 litres of normal saline 0.9% over 24hour period. 0.9% normal saline aids the diuresis of calcium by excreting calcium ions along with sodium. This alone will result in a small decrease in the measurement of corrected calcium and may be sufficient to treat very mild hypercalcaemia.
- Bisphosphonates are the mainstay of treatment (pamidronate, zoledronate, clodronate) and can be effective in 80% of patients
- A bisphosphonate infusion (PAMIDRONATE) in 0.9% normal saline is administered at a rate not greater than 1mg/min and a concentration not greater than 60mg in 250mls. The dose required will depend on the level of hypercalcaemia.

| Calcium Level | Pamidronate | Minimum Infusion Time |
|---------------|----------------|-----------------------|
| < 3.0 | 30mg in 250mls | 30 minutes |
| 3.0 – 3.5 | 60mg in 250mls | 60 minutes |
| > 3.5 | 90mg in 500mls | 90 minutes |

Pamidronate has a rapid onset of action and results in a reduction in hypercalcaemia within 24hours. However, it does not reach a nadir until day seven. Repeat infusions of pamidronate would not be administered during this period and daily blood tests are not necessary. It is suggested that a repeat calcium level is measured at day five.

In recurrent hypercalcaemia pamidronate infusions can be repeated at three to four weekly intervals if required.

Insomnia

What is it?

- A complaint that may involve difficulties falling asleep (initial or sleep onset).
- Trouble staying asleep with prolonged awakenings (middle or maintenance).
- Early morning awakenings with inability to resume sleep (terminal or late).
- A complaint of non-restorative sleep.

Insomnia may occur as a single episode, but more frequently, it is a recurrent problem.

What causes it?

- Anxiety and fear.
- Depression delirium/dementia.
- Poorly controlled pain.
- Physical symptoms e.g. breathlessness, itch, sweating, leg cramps, nocturia, heartburn.
- Cardiac failure.
- Advanced respiratory disease.
- Disordered sleep-wake cycle.
- Sleep disorders e.g. Sleep apnoea, restless leg syndrome.

What are the effects?

- Disease related symptoms may worsen, such as pain fatigue and anxiety.
- Can decrease a person's ability to cope and cause feelings of isolation.
- May cause memory and concentration problems and mood disturbances.
- May have physical, psychological and economic effects on the individual.

How is it treated?

- Address underlying cause(s) if possible.
- Sleep hygiene plan, consider the following :
 - optimise sleep environment
 - avoid napping especially during the day
 - regular bedtime/wake time
 - avoid caffeine and alcohol late in the day
 - reduce evening fluid intake
 - exercise regularly, if possible
 - relaxation techniques/breathing exercises/consider complementary therapies
 - education about sleep
 - psychological support.

Medication

Medication should be reviewed :

- Diuretics.
- Steroids (give before 2pm).
- Sedative/hypnotic/acute withdrawal.
- Theophylline.
- Opioid side effects.
- Medications may also be the cause of excessive daytime drowsiness.

If the patient's current regimen is working well, do not change. Hypnotics should be withdrawn gradually.

| Drug | Comments |
|--|---|
| Temazepam (10-20mgs nocte) Zopiclone (3.75-7.5 mgs nocte) Haloperidol (1.5-3mgs daily) Risperidone (0.25-1mg nocte) | Short to intermediate acting benzodiazepine Second line, short acting hypnotic Management of acute delirium Management of chronic confusion (avoid long term use; caution if history of CVA or TIA) |
| Amitriptyline (10-50mg nocte) | Sedative antidepressant-use low dose, may cause confusion |
| Trazodone (50-100mg nocte) | Sedative antidepressant-less risk of worsening chronic confusion |

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Lymphoedema

What is it?

Lymphoedema is a chronic, progressive and often debilitating condition, caused mainly by an abnormality of, or trauma to the lymphatic system.

Lymphoedema affects mainly arms and legs but can affect any part of the body causing profound physical and psychological morbidity.

What causes it?

Any reduction in the capacity of the Lymphatics to draw the fluid from the interstitium and return it to the vascular circulation will result in the build up of protein-rich fluid in the affected part of the body.

The main causes of Lymphoedema are:

- Cancer and its treatments – secondary lymphoedema
- Congenital abnormalities of lymphatic system – primary lymphoedema
- Chronic venous insufficiency – lympho-venous/chronic oedema.

What are the effects?

Clinical signs and symptoms

- Increase in fluid volume and size of the affected area.
- Distortion of limb shape.
- Progressive changes in skin and subcutaneous tissue.
- Lymphorrhoea – leakage of lymph through the skin surface.
- Cellulitis.
- Pain associated with lymphoedema eg Throbbing, heaviness, tingling.
- Sensory changes e.g. “bursting” sensation, paraesthesia.
- Impaired function.
- Psychological distress and altered body image.

General Advice for healthcare professionals in managing Lymphoedema patients

- It is important not to puncture or traumatise any limb affected by lymphoedema with needles (this includes venflons, phlebotomy, BMs, injections etc).
- Blood pressure measurements should never be carried out on an affected arm.
- Daily skin hygiene is important. Skin should be cleansed, thoroughly dried and moisturised daily with aqueous cream to maintain skin integrity.
- Skin should be examined carefully for any signs of trauma, lymphorrhoea or infection. Each should be treated promptly and in line with local wound management and antibiotic guidelines for patients with lymphoedema.
- Fungal infections - treat problems such as athlete's foot promptly.
- Effective positioning of an affected limb can help reduce oedema. Where possible during frequent rest periods the affected limb should be supported by pillows and elevated - not above shoulder height for arms or waist height for legs.

- It is important that compression garments (sleeves or hosiery) used to minimise and maintain lymphoedema, are well-fitting. Some patients may require help to apply garments, and assessment for new or replacement garments can be made through lymphoedema key workers.
- Normal activity and use of the limb is encouraged but over-exertion or strenuous exercise can exacerbate limb swelling. Patients should be encouraged where possible to follow exercise routines as advised by lymphoedema key workers or physiotherapists. Compression garments should be worn when patient is exercising.
- Educate patients to recognise signs of infection and to seek medical advice immediately.
- Patients should be advised to avoid tight and restrictive clothing, footwear or jewellery on an affected limb.
- Patients should be advised not to carry heavy weights (including handbags) with an affected arm.
- Patients should be advised to wear protective gloves when using harsh detergents or carrying out any chores where there is a risk of skin damage.

Lymphoedema service - contact information

Full details of the lymphoedema care pathway from referral to treatment, how to access the service, and contact telephone numbers for the lymphoedema nurse specialist and the key workers can be found on the Forth Valley Intranet at

http://intranet.fv.scot.nhs.uk/web/site/Clinical/Lymphoedema/Lymph_Intro.asp

For specialist advice, please contact Strathcarron Hospice on 01324 826222

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Nausea and vomiting

What is it?

Nausea is an unpleasant feeling of sickness that often precedes vomiting. Autonomic symptoms e.g. cold sweat, pallor, diarrhoea, tachycardia are often present.

Vomiting is the involuntary upward expulsion of gastric contents through the mouth.

What causes it?

There are many causative factors in advanced cancer (see table). The most common are drugs, metabolic disorders, gastrointestinal obstruction and gastric stasis.

What are the effects?

Nausea and vomiting are symptoms that are highly distressing for patients, adversely affecting their quality of life. Prolonged vomiting can result in various metabolic effects, including hyponatraemia, hypokalaemia and dehydration.

How is it treated?

Treatment will depend on the likely cause. If the cause is reversible, treatment should be directed at the underlying cause, if appropriate. If the cause is irreversible, treatment should be given according to the likely cause and clinical picture.

| Reversible Cause | Irreversible Cause |
|--|---|
| Hypercalcaemia Constipation Drugs Infection Raised intracranial pressure Anxiety Gastric irritation Ascites | May be related to site of disease or other factors and complications |
| Treat underlying cause | Treat according to likely cause and mechanism |

| Likely causes | Clinical picture | Treatment (see table below for drug doses) |
|---|--|---|
| Drugs (incl opioids) Carcinomatosis Uraemia/hypercalcaemia Infection | Chemical/metabolic Persistent, often severe nausea. Little relief from vomiting/retching | 1.Haloperidol ² 2.Metoclopramide ^{4,5} 2.Levomepromazine ³ |
| Opioids, anticholinergics Local tumour Autonomic failure Hepatomegaly Peptic ulceration | Gastric stasis/outlet obstruction Intermittent nausea, often relieved by vomiting | Prokinetic 1. Metoclopramide ^{4,5} 2. Domperidone ^{5,6} If colic/ no response, seek advice Liver metastases or extrinsic compression⁷ consider dexamethasone 4-6 mg/day Gastritis -proton pump inhibitor (e.g.lansoprazole) |
| Oesophageal or mediastinal disease | Regurgitation Dysphagia. Little nausea. Relief after food regurgitated | Stents/laser Radio/chemotherapy Dexamethasone 6-8 mg/day ⁷ Antiemetics often ineffective |
| Abdominal carcinomas Autonomic neuropathy Exclude constipation | Bowel obstruction May be partial/intermittent initially. Nausea often improved after vomiting. ↑ nausea, +/- colic, +/- faeculent vomiting in advanced/complete obstruction | Medical management if surgery inappropriate. Seek specialist advice early. 2 main types:- peristaltic failure metoclopramide ^{4,5} mechanical obstruction 1. hyoscine butylbromide (if colic) 2. Levomepromazine ³ 3.Cyclizine +/- Haloperidol 4.Octreotide SC (seek advice) |
| ↑ Intracranial pressure Radiotherapy Brainstem/meningeal disease | Cranial disease/treatment Headache +/- cranial nerve signs | 1. Cyclizine + Dexamethasone 8-16mg/day (if raised intracranial pressure) ⁷ |
| Vestibular disease Base of skull tumour Motion sickness | Movement related | 1. Cyclizine 2. Levomepromazine ³ 3. Hyoscine hydrobromide patch |
| | Causes unclear or multiple causes | 1. Levomepromazine ³ 2. Metoclopramide (if no colic) ^{4,5} 3. Cyclizine + Haloperidol 4. Trial of Dexamethasone ⁷ |

If chemotherapy/radio therapy induced then seek specialist advice

NB – 5HT3 antagonists (e.g. – ondansetron) are of proven value in chemotherapy / radiotherapy induced nausea and vomiting but otherwise are not recommended

Prescribing notes (numbers refer to table above)

1. Long term antiemetic use should be reviewed regularly. Stop if the underlying cause has resolved.
2. Haloperidol may cause extrapyramidal side effects (e.g. – apathy, withdrawal) at higher doses or if use is prolonged.
3. Levomepromazine is a potent, broad-spectrum antiemetic. Use low doses to avoid sedation and hypotension. A 6mg, scored tablet is available on a named patient basis.
4. Metoclopramide may cause extrapyramidal side effects (e.g. tremor) with prolonged use. Caution in patients aged 20 years and under.
5. Prokinetic action is blocked by anticholinergics e.g. – cyclizine, buscopan, amitriptyline.
6. Domperidone is not as useful a prokinetic agent as metoclopramide but is less likely to cause extrapyramidal side effects.
7. Corticosteroids are best given before 2pm. Review and reduce to lowest effective dose. Withdraw once ineffective. Oral dexamethasone 1mg is approximately equivalent to oral prednisolone 7.5mg. Parental dose of dexamethasone is the same as the oral; prescribed as dexamethasone sodium phosphate SC or IM.

Prescribing guidance

- It is important to prescribe the same antiemetic regularly and when required. Review the situation every 24 hours.
- Avoid the oral route if the patient is vomiting or if oral absorption is likely to be compromised.
- Skin irritation with sc infusions of cyclizine or levomepromazine may be reduced by using a more dilute concentration in a 20ml syringe.
- Octreotide should be diluted in sodium chloride 0.9% rather than in water.

Drug Doses

| Drug | Oral dose | Stat dose / prn dose | Subcutaneous syringe driver 24 hrs |
|-------------------------------------|--|------------------------------|---|
| Cyclizine | 50mg, 8 hourly | 50mg, oral SC | 100-150mg |
| Domperidone | 10-20mg, 6-8 hourly rectal preparation available | N/A | N/A |
| Haloperidol | 1.5mg - 3mg, nocte | 1.5mg, oral 1.5-2.5mg, SC | 2.5-10 mg |
| Levomopromazine | 6mg, nocte or bd | 6mg, oral 6.25mg, SC | 6.25-25mg |
| Metoclopramide | 10-20mg 6-8 hourly | 10mg, oral or SC | 30-40mg (up to 80mg) |
| Hyoscine butylbromide (buscopan) | 20mg, 4-6 hourly | 20mg, 4 hourly, SC | 40-120mg |
| Hyoscine hydrobromide | Topical patch, 1mg / 72 hours | 0.4-0.6 mg, 2-4 hourly SC | 0.8-2.4mg |
| Octreotide | N/A | N/A | 0.3-0.6mg |

Non-pharmacological measures

- Avoid exposure to foods that may precipitate nausea
- Ensure that the patient is in a calm environment away from the sight and smell of food
- Advise frequent snacks rather than large meals
- Have someone else prepare meals
- Use a mouthwash to rinse the mouth after vomiting
- Control malodour from wounds etc
- Use acupressure wristbands

Assessment and investigations

It is important to assess nausea and vomiting independently.

- Establish the frequency, volume, nature of vomitus, precipitating factors and whether or not there is ongoing nausea between vomits.
- Review the drug regimen.
- Examine the abdomen.
- Perform a rectal examination.
- Perform blood tests to exclude metabolic causes or drug toxicity (e.g. digoxin).
- Examine the fundi for papilloedema.
- Evaluate associated symptoms.

Radiological investigations may be required if there is significant doubt over the cause.

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Oral care

Introduction

The consequences of an unhealthy or painful oral cavity are significant. Not only are there physical implications of reduced oral intake and weight loss but, in addition, there may be psychological effects due to impaired communication and feelings of exclusion and social isolation. Patients who are at particular risk of developing oral problems and who will require scrupulous oral care include :

- patients aged 75 and over
- dysphagic patients
- patients with NG or PEG tubes
- patients receiving high volumes of O₂ therapy
- terminally ill patients
- endotracheal intubated/ventilated patients
- patients with acute oral or oro-pharyngeal conditions or requiring oro-pharyngeal suction
- patients receiving chemotherapy or XRT, especially to head and neck (seek specialist advice)
- immunosuppressed / immunocompromised patients
- children.

What is oral care?

The aim of Oral care is to :

- preserve a clean and healthy mouth
- remove plaque and debris
- prevent complications such as
 - Candidiasis or other infections
 - Xerostomia – subjective feeling of mouth dryness
 - Sialorrhoea – excessive salivation
 - Stomatitis
 - Halitosis – unpleasant or bad breath
 - Haemorrhage
- treat complications if they arise

How is this achieved?

Assessment and prompt treatment are essential.

Assessment

An assessment should be performed on admission to hospital or hospice (and should be repeated daily) and as regularly as possible at home. It entails :

- History
 - Mouth pain
 - Mouth dryness
 - Anorexia
 - Dysmastia (difficulty in chewing)
 - Dysphagia
 - Dysphonia (difficulty in talking)
 - Altered taste
 - Drug history
- Examination
 - Use a recognised oral assessment guide, torch and tongue depressor and wear disposable non-sterile non-powdered gloves.

- Lips – clean and moisten before assessing oral cavity as dry cracked lips will be painful when the mouth is opened. Check for angular stomatitis
- Mouth – examine hard palate, tongue and mucosal surfaces for evidence of coating, ulceration or infection. Retract upper and lower lips and cheeks. Ask patient to protrude tongue and lift upwards.
Swab affected areas with a microbiological oral swab to identify any infection
Assess mouth dryness and pain.
- Dentures – all dentures should be removed to permit a thorough assessment.
Ensure privacy to avoid embarrassment.
- Documentation
 - Findings should be accurately recorded on a daily basis. Diagrams may help assess response to treatment.

Treatment

If able, patients may prefer to perform their own oral care but most palliative care patients are likely to require some assistance. It is a duty of carers to carry out oral hygiene in dependent patients.

Treatment can be considered as follows

- General treatment (for all patients)
- Treatment of specific problems
- Dental referral

General treatment

- Offer oral care x4 daily (after meals and at bedtime).
- Wear disposable gloves.
- For patients with natural teeth :
 - Clean with soft toothbrush and fluoridated toothpaste
 - Use water for rinsing to ensure all food debris is removed
 - Clean lips gently with gauze swab or foam stick soaked in water
 - Apply water soluble lubricating jelly to lips
 - If mouth is dry, also use artificial saliva (aerosol) and give frequent sips of water or crushed ice. Sucking sugar-free mints or gum may be helpful.
- For patients with dentures :
 - Remove dentures and clean with a soft toothbrush under running water over a sink or bowl to avoid damage.
 - Use water or denture cream in accordance with patient's wishes.
 - Remove full and partial dentures at night, clean and soak overnight in Chlorhexidine solution. Rinse after soaking.
 - Thoroughly rinse dentures after use.
 - Check dentures regularly for cracks , sharp edges or missing teeth.
 - Mark dentures with patient's name.
 - When dentures are removed, rinse the mouth with Chlorhexidine solution morning and night and water at other times.
 - Remove food debris with disposable foam sticks moistened with water.
 - If necessary, clean the tongue and oral mucosa with a soft toothbrush or foam stick soaked in water.
 - For heavy coating, dissolve ¼ tablet of effervescent ascorbic acid on the tongue.
 - If mouth is dry, also use artificial saliva (aerosol) and give frequent sips of water or crushed ice.

- For patients whose condition is poor or who are unconscious :
 - Brush teeth with fluoridated toothpaste and a small soft toothbrush or foam stick moistened with water (or dilute Chlorhexidine morning and night).
 - Remove excess toothpaste with a moistened foam stick.
 - Clean oral mucosa with foam sticks moistened with water.
 - Increase frequency of oral care as tolerated.
 - If mouth is very dry apply a thin film of water soluble lubricating jelly to the oral mucosa with a foam stick.

Treatment for specific problems – may be required singly or in combinations

- Bacterial infections :
 - Chlorhexidine mouthwash has antibacterial, antifungal and antiplaque properties and is used to treat oral infections in palliative care. It can be used on a foam stick but may be unpalatable and can cause alteration of taste. It is astringent and may cause pain but this can be reduced by diluting with equal volumes of water. It should only be used 12 hourly and the patient should not eat for 1 hour after use.
 - Flucloxacillin 250 - 500mg qid should be considered for Staphylococcal Mucositis
- Candidal infection :
 - Nystatin 1-5 ml q.i.d. is a topical used to treat thrush but should be given 1 hour before or after Chlorhexidine as they compete for the same receptors. Its action is limited to time of contact with the mucosa.
 - Fluconazole 50 mg orally daily for 7-14 days is a systemic treatment and is available as a capsule or liquid.
 - Itraconazole may be helpful in resistant infection but sensitivities would be required before prescription.
- Viral infections :
 - Herpes Simplex may be present on the mucosa (yellowish lesions) or on the lips as vesicles (cold sores) and oral or topical Aciclovir should be prescribed – oral dose is 200mg x5 daily for 5 days, topical dose is 1 smear x5 daily for 5-10 days.
- Xerostomia :

The causes of xerostomia are myriad but can be considered in 3 groups :

 - Decreased saliva secretion.
 - Extensive erosion of oral mucosa.
 - Dehydration and reduced mastication.

Treatment of xerostomia includes :

- Two hourly oral hygiene.
 - Ice cubes /crushed ice.
 - Sugarless chewing gum, acid substances – salivary stimulants.
 - Saliva substitutes.
 - mucin-based artificial saliva is more effective and better tolerated than cellulose-based preparations
 - pH should be neutral
 - Water soluble lubricating gel.
 - Dentures with a substitute saliva reservoir.
 - Saliva stimulating tablets (SST) or pastilles (Salivix).
 - Pilocarpine hydrochloride 5mg tid with meals (only for xerostomia following irradiation for head and neck cancer) N.B. Contraindicated in uncontrolled asthma and COPD, hepatic and renal impairment and angle-closure glaucoma.
- Sialorrhoea :
 - Excessive salivation is unusual in cancer patients but may occur in patients with neurological conditions associated with swallowing problems. Amitriptyline 10-25mg nocte may help as may the application of a Hyoscine Hydrobromide (Scopoderm TTS) Patch which releases 1mg/72 hours.

- Stomatitis (or mucositis) :

This may be chemotherapy or radiation induced and can be extremely painful. Chemotherapy inhibits mitosis in the rapidly dividing cells of the oral epithelium causing atrophic changes and ulceration usually about 7 days after treatment. Radiotherapy can cause erythema and ulceration usually about 2 weeks after treatment.

Palliative treatment is aimed at controlling pain and reducing mucosal trauma :

- Oral hygiene is vital.
- Ice chips can be soothing.
- Spicy foods should be avoided.
- Topical corticosteroids (Hydrocortisone oromucosal pellets or Triamcinolone dental paste) may reduce inflammation.
- Topical analgesics such as choline salicylate oral gel 8.7% (Bonjela) may lessen discomfort.
- Topical Gelclair (which covers the affected area with a film of povidone and sodium hyaluronidase) may allow the patient to eat.
- Care should be taken with topical local anaesthetics to avoid anaesthesia of the pharynx before meals as this may cause choking.
- Systemic analgesia may be required.
- Angular stomatitis (cheilitis) presents as inflammation and cracking at the corners of the mouth. Consider haematinic deficiencies, bacterial or candidal infection and treat accordingly. Topical miconazole or sodium fusidate ointment can be tried and evidence is emerging that topical tea tree oil may be beneficial.

- Halitosis :

This is a combination of exhaled air and foul-smelling substance from the upper digestive or respiratory tracts but most cases result from disease of the oral cavity. Treatment includes :

- Oral hygiene
- Dietary advice
- Systemic or topical antibiotics
- Prokinetic drugs e.g. Metoclopramide

In addition, odour absorbing or odour masking substances e.g. aromatherapy essential oils may be required in the patient's room.

- Haemorrhage (Please also refer to section 2.3 – Bleeding)

Consider topical sucralfate suspension 2g in 10ml bd or Silver nitrate sticks applied to bleeding points

Dental referral

If new problems are identified or complex dental work is present a dental referral should be considered.

Poorly fitting dentures can be improved with denture soft lining or denture tissue conditioner eg Ivoclar Elite Soft Relining Kit or Coe Soft Relining Kit to prevent irritation of atrophic mucosa.

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Pain

What is it?

Pain is one of the most common symptoms experienced by patients receiving palliative care and for many the most feared. If not treated effectively, pain can have a detrimental effect of many aspects of the patient's life.

Pain is 'what the patient says it is' and can be described as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

What causes it?

Pain can be caused by many different factors :

- For patients with cancer, the primary tumour itself may be pressing on surrounding tissues and or nerves.
- Secondary tumours or metastases can often cause pain, especially in the bones.
- Inflammation caused by infection.
- Tissue damage due to therapies e.g. – chemotherapy or radiotherapy
- Pain can be exacerbated by the psychosocial and spiritual impact of the person's illness.

What are the effects?

Unresolved pain may have an effect on :

- mood
- general enjoyment of life
- sleep
- the patient's general activity
- mobility
- normal working
- relationships with others

Psychological pain

Pain can reduce the quality of life, lead to fear, anxiety and depression which in turn can effect the patient's perception of pain creating a vicious cycle (see section 2.9).

Social pain

Pain may limit the contribution the person makes socially. They may be unable to work and become socially isolated and withdrawn, leading to depression. Financial problems due to loss of earnings may also impact on the person's wellbeing.

Spiritual pain

Pain can have a major spiritual component (see section 8.10). This is not always related to religion or culture. Pain can cause people to lose hope or ask 'why me' or think that 'pain means death'.

Factors that increase the perception of pain :

- Insomnia
- Tiredness/exhaustion
- Anxiety
- Fear or anger
- Isolation
- Depression
- Boredom
- Financial/family concerns
- Uncommunicative staff/carers
- Therapeutic failure

Factors that decrease the perception of pain :

- Sleep
- Comprehension
- Calmness
- Companionship
- Elevation of mood
- Occupation of time
- Forward planning
- Communication
- Control of other symptoms

Pain assessment

The purpose of assessment is :

- to identify and describe the patient's experience of pain
- its location and intensity
- to diagnose its cause and any factors which make the pain better or worse. This then enables appropriate treatments to be tailored for the individual.

How to assess pain

The most effective way to assess a patient's pain is through dialogue with the patient. The use of the Forth Valley Pain Assessment Tools (see the control symptoms resource folder for samples) will allow the patient the opportunity to express the physical characteristics of their pain and also the effect it has on their life.

The assessment tool incorporates a visual analogue scale, a body diagram to pinpoint where the patient's pain(s) are as well as specific questions to ask. Assessment must include sensitive and careful questioning to allow the patients to open up and discuss their pain.

How is it treated?

All aspects of a patient's pain (spiritual, physical, social, psychosocial) should be addressed. See section 8.10 for information on spiritual care, and sections 1.3 and 4.7 for information on psychosocial care.

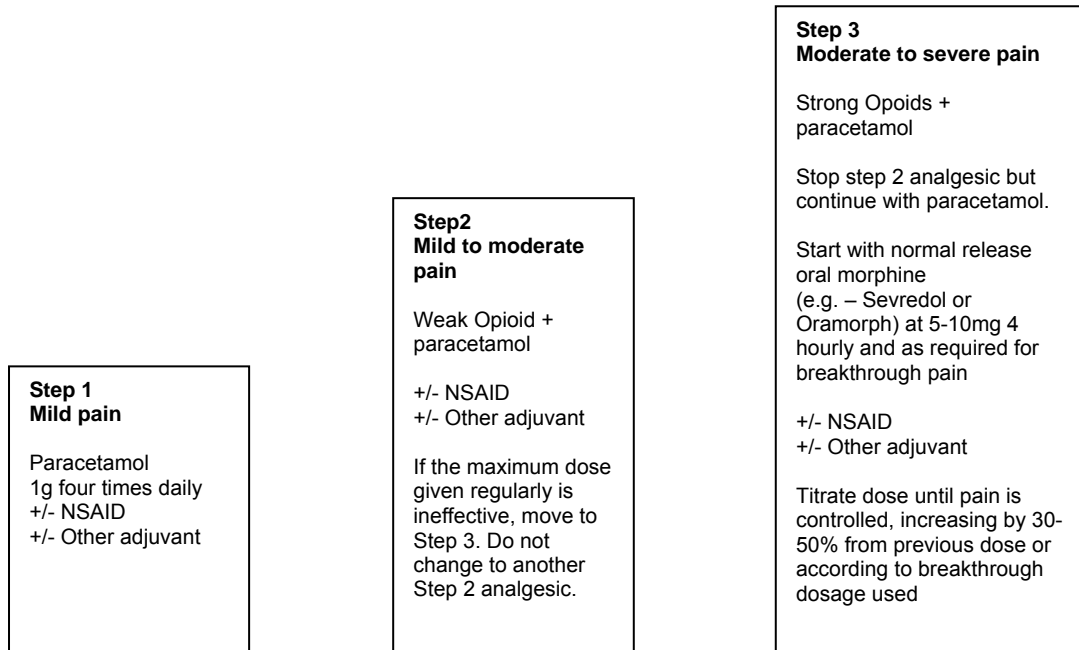
Physical pain

The World Health Organisation (WHO) has produced a helpful "analgesic ladder" which suggests treatment for varying levels of pain and allows analgesics to be tailored for the individual patient.

The WHO analgesic ladder

The following WHO ladder has been extracted from the Scottish Intercollegiate Guidelines Network (SIGN) Publication 44 (Control of Pain in Patients with Cancer). A quick reference guide for SIGN 44 is available in the control symptoms resource folder.

Pain is graded from mild to severe and the analgesic ladder is a useful means of tailoring analgesia. Start at an appropriate step of the ladder and move up or down as needed.



Notes

- All patients on step 2 or 3 of the ladder must have access to regular prophylactic laxatives
- Patients on step 3 of the ladder should have access to a prophylactic antiemetic to take when required.

If pain is controlled on step 3

- Convert to a 12 hourly release preparation of controlled release oral morphine: Calculate 24 hour dose of normal release morphine and divide by 2. Prescribe this dose as controlled release morphine (e.g. MST continuous) 12 hourly.
- Prescribe breakthrough analgesia (section below).
- Review regularly.
- If oral route is inappropriate, for some patients fentanyl patch may be appropriate (refer to Fentanyl section for appropriate indications and guidance).

If pain is not controlled (or side effects intervene) on step 3

- Review diagnosis.
- Consider adjuvant therapy.
- Consider other treatment.
- Seek specialist advice. Oxycodone may be a suitable alternative if patient has opioid responsive pain and is unable to tolerate morphine at an adequate dose to control their pain.

Example of conversion to controlled release morphine.

- Sevredol 20 mg 4 hourly = 120mg in 24 hours (no breakthrough doses used in 24 hours)
- Dose of MST = $120\text{mg} / 2 = 60\text{mg}$ every 12 hours.
- Dose of Sevredol for breakthrough = $120\text{mg} / 6 = 20\text{mg}$ as required.

Moderate to severe uncontrolled pain (Step 3) – parenteral diamorphine (please be aware of the current shortage of diamorphine.)

- Parenteral opioids will not give better analgesia than the oral route unless there is a problem with absorption (e.g. – persistent nausea/vomiting or bowel obstruction) or with administration (e.g. – unable to swallow or very weak).
- Diamorphine is opioid of choice in syringe drivers due to its high solubility.

Patients who are not currently on any opioids

- For a patient who has not previously been on any opioids, i.e. – opioid naïve, a suitable starting dose of SC diamorphine would be 5-10mg over 24 hours given via a syringe driver.

Patients already on oral morphine

- When transferring from oral morphine, 3:1 is the usual conversion:- 3mg oral morphine = 1 mg subcutaneous diamorphine.
- Breakthrough analgesia : Prescribe a bolus dose of SC diamorphine: 1/6th of the 24 hour diamorphine dose.
- Titrate dose until pain is controlled increasing by 30-50% from previous dose or add up total of 24 hour infusion and breakthrough doses given, and use this total as the new 24 infusion dose.

Example of conversion from controlled release oral morphine

- Patient has MST 30mg twice daily + 3 doses of Sevredol 10mg in previous 24 hours. Total oral morphine therefore equals 90mg over 24 hours.
- Diamorphine dose = 90mg / 3 = 30mg by SC infusion over 24 hours.
- Diamorphine breakthrough dosage = 30mg / 6 = 5mg as required.

If pain is controlled

- Reassess regularly.

If pain is not controlled (or side effects intervene)

- Review diagnosis.
- Consider adjuvant therapy.
- Consider other treatment.
- Seek specialist advice. An alternative opioid may be appropriate if patient has pain which is opioid responsive and is unable to tolerate diamorphine at an adequate dose to control their pain : seek advice on choice and dose conversion.

Breakthrough Analgesia

- Every patient on step 3 should have access to breakthrough analgesia.
- The same principles apply for oral morphine and subcutaneous diamorphine.
- Prescribe normal release oral morphine (Sevredol/Oramorph) at 1/6th of the total daily dose or prescribe SC bolus dose of diamorphine at 1/6th of the 24 diamorphine infusion dose.
- If more than 1 or 2 breakthrough doses required on a regular basis, consider increasing dose of controlled release morphine or SC diamorphine infusion; then calculate new breakthrough dose.
- **Caution** – In a patient who has movement related pain or incident pain, and whose background is satisfactorily controlled, do not keep titrating upwards the regular 24 dose as toxicity may ensue. Give breakthrough doses in anticipation of movement related pain or incident pain.

Practical points

- Remember to increase/decrease the breakthrough dosage when the 24 hour dose is changed.
- Advise the patient to wait 30 minutes after taking breakthrough medication to assess the effect. If pain persists take a further dose and wait 30 minutes. If pain persists, ask the nurse, doctor or pharmacist for advice.

Opioid Toxicity

There is wide individual variation in the dose of opioid which causes toxicity. Prompt recognition and action is essential. Patients may not volunteer information regarding dreams or hallucinations.

Toxicity can present as :

- Subtle agitation or confusion
- Pinpoint pupils
- Muscle twitching/myoclonus/jerking
- Vivid dreams/ hallucinations
- Abnormal skin sensitivity to touch
- Seeing shadows at periphery of visual field

Actions

- Reduce opioid dose by 1/3rd and ensure patient well hydrated.
- Consider checking urea, electrolytes & calcium. Give SC/IV fluids if necessary.
- Consider adjuvant therapies and/or seek advice on alternative opioids if toxicity precludes control of pain.
- If side effects are distressing or symptoms do not settle, seek advice promptly.

Practical points

- Agitated confusion may be misinterpreted as uncontrolled pain, and further opioids given making it worse.
- Patients with excessive sedation may become dehydrated, with resultant renal impairment and increased toxicity. Ensure adequate oral fluids are taken.

Adjuvant therapies and co-analgesics for pain management

Practical points

- Assess fully the type of pain and likely cause before commencing a co-analgesic.
- Reassess regularly.
- Review effectiveness of any medication prescribed and discontinue if no benefit after appropriate trial period.
- Remember that the side effects of some of the co-analgesics are additive to opioid side effects e.g. – drowsiness and dry mouth.

| Drug Class | Drug | Start dose | Titration | Useful points |
|---------------------------|------------------|-----------------------|--|---|
| Tricyclic antidepressants | Amitriptyline | 10-25mg at night | Titrate up slowly | Watch for sedation, confusion, dry mouth |
| Anti-convulsants | Gabapentin | 300mg at night | Increase by 300mg on day 2 and again on day 3 depending on tolerance. Maximum of 2.4g daily in divided doses | 100mg at night + slow titration essential in frail or elderly patients and in renal impairment. |
| | Carbamazepine | 100-200mg twice daily | Titrate up slowly | Use lower end of dose range in elderly |
| | Sodium valproate | 100-200mg twice daily | Titrate up slowly | |

| Description | Co-analgesics | Non-drug methods |
|---|--|--|
| Nerve pain (shooting, lightning, shock like, burning, tingling, pins & needles, throbbing, jaggy, radiating) | Trial of steroids (e.g. – dexamethasone) Tricyclic anti-depressants Anti-convulsants | Hot/cold packs TENS Acupuncture Nerve blocks |
| Bone metastases (worse on movement relieved by rest, grinding, hot spot, tenderness over bone, definite location) | NSAIDS Trial of steroids (e.g. – dexamethasone) Consider bisphosphonates | Hot/cold packs Radiotherapy Nerve blocks |
| Intestinal colic (comes and goes, spasm like, gripping, gripey) | Anti-spasmodics (e.g. hyoscine Butylbromide) | Hot/cold packs Relaxation therapy TENS |
| Liver capsule pain (right sided, dull ache, continuous, deep, tight) | Trial of steroids (e.g. – dexamethasone) NSAIDS | Advice on change of position (e.g. – sleeping propped up) |
| Headache (related to raised intracranial pressure) | Trial of steroids NSAIDS / Paracetamol | Radiotherapy Relaxation techniques |
| Muscular pain | NSAIDS Muscle relaxant (e.g. – diazepam 2mg) | Heat pad Massage Relaxation exercises Acupuncture |

Please refer to section 8.11 of the palliative care manual for more information on the use of steroids in palliative care.

Fentanyl patches

Indications

- Stable, opioid responsive pain. **Do not use for unstable pain (i.e.- pain that is not controlled).**
- Intolerable adverse effects with oral morphine which do not resolve with appropriate intervention.
- Oral route inappropriate e.g.- difficulty swallowing, ileostomy, administration of medicines via enteral feeding tube.
- Poor compliance with oral medication but supervised patch application is possible.

Initiation of patches

From full therapeutic dose of oral/weak opioid (step 2 of WHO analgesic ladder)

- Not normally advised.
- Start with regular oral strong opioid (step 3 of WHO analgesic ladder) first if possible
- Extreme caution required particularly in frail and elderly. The lowest patch strength may be too high

From oral strong opioid (step 3 of WHO analgesic ladder)

- For a 4 hourly opioid (e.g. – Oramorph) – continue for 12 hours after applying first patch
- For a 12 hourly opioid (e.g. – MST) – give last dose when first patch applied
- For a 24 hourly opioid (e.g. – MXL) – apply first patch 12 hours after last dose

From Diamorphine SC infusion

- Apply first patch and continue infusion for 12 hours. **Then stop infusion.**

General

- When applying a fentanyl patch, select a strength based on an opioid dose conversion chart or seek specialist advice. The control symptoms resources folder contains a sample conversion chart.
- Ensure that the patient/carer knows to stop the regular oral or SC opioid.
- Prescribe breakthrough morphine (either orally or via enteral tube). Use an opioid dose conversion chart for appropriate dose. If oral route is unavailable, consider alternative e.g.- morphine suppositories.

Titration

- If pain is not controlled, wait 48-72 hours until steady rate is reached before considering a dose increase. (Advise patient to use breakthrough analgesia as required.)
- If pain persists and is opioid responsive, consider dose increase by increment of 12 micrograms. (25 mcg increments if 75mcg patch or higher).
- Prescribe appropriate new dose of breakthrough analgesia.
- Review after 48-72 hours
- Incident pain or movement related pain in patients whose pain is otherwise controlled should be managed by appropriate use of breakthrough analgesia and not by increases in patch strength.
- Less constipating than morphine – halve previous laxative dose and adjust according to need.

If there are signs of opioid toxicity present (see above), remove patch and seek advice.

Practical points for patients

- Change patch every three days.
- Apply new patch to a different skin site to previous patch.
- Apply to dry, non-inflamed, non-irradiated skin, hairless skin on upper arm or trunk. Avoid bony prominences.
- Consider writing date and time patch applied on the patch.
- Avoid direct heat sources (e.g.- hot water bottle) in direct contact with patch.
- Used patches still contain active drug – dispose of safely.
- Sweating may reduce adhesion and absorption.

Changing from a fentanyl patch to oral morphine may occasionally be necessary for example, when a patient develops sensitivity to the patch adhesive or pain is not well controlled with the fentanyl patch. A reservoir of fentanyl in the skin under the patch means that significant levels persist in the blood for up to 24 hours after patch removal. Do not convert directly to a modified release oral opioid. Seek specialist advice.

Initiation of diamorphine infusion at end of life in a patient on a fentanyl patch

This can be complicated – practitioners must seek specialist advice if they are unsure or require guidance on doses.

Continue fentanyl patch at current dose and change every 3 days (conversion to equivalent dose of diamorphine is difficult due to the reservoir of fentanyl under the skin and is not normally advised). At the same time, add in and titrate diamorphine to control the increasing pain using either of the options below i.e. – bolus dose or continuous infusion as appropriate.

Bolus dose

- Prescribe diamorphine SC as required for breakthrough pain, calculated from an opioid dose conversion chart for the total patch strength of fentanyl in situ.
- If regular breakthrough required, give the amount of diamorphine required in 24 hours in a syringe driver as a continuous SC infusion. This is given in addition to the fentanyl patch.
- Calculate the new breakthrough dose of diamorphine from an opioid dose conversion chart (=diamorphine SC breakthrough dose for fentanyl patch + diamorphine SC breakthrough dose for 24 hour diamorphine infusion).

Example

Calculate breakthrough dose of diamorphine for fentanyl patch:

- a) patient on fentanyl 50 microgram patch. Conversion chart calculates diamorphine breakthrough dose = 10mg subcutaneously

Calculate breakthrough dose of diamorphine for SC infusion:

- b) patient on diamorphine SC infusion 30mg over 24 hours. Conversion chart calculates diamorphine breakthrough dose = 5mg

Calculate total breakthrough dose by adding (a) and (b) above

- c) Diamorphine breakthrough dose = 10mg + 5mg = 15mg, as required

Continuous Infusion

If 'as required' SC bolus injections are difficult (e.g. – in the community), set up a continuous SC infusion of diamorphine using the equivalent of 2 breakthrough doses of diamorphine, calculated from an opioid dose conversion chart for the patch of fentanyl in situ.

Example

Patient on fentanyl 100 microgram patch. From opioid dose conversion chart, breakthrough dose of diamorphine = 20mg subcutaneously prn

Use 2 x 20mgs = 40mg /24 hours SC diamorphine in a syringe driver in addition to existing Fentanyl patch

Titrate diamorphine infusion and breakthrough as per guidance above.

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Pleural effusion

What is it?

A small amount of fluid (20-30ml) is normally present in the pleural space for lubrication. This is produced by capillaries and removed by lymphatics at a rate of 100-200ml daily. The lymphatics drain into the mediastinal lymph nodes.

A pleural effusion forms as a result of excess production and /or reduced resorption of fluid. Almost 50% of patients with advanced cancer develop a pleural effusion. The commonest primary tumours are lung, breast, ovary or lymphoma.

The median survival for patients with a pleural effusion is 3-12 months but a low pleural fluid pH (<7.3) and/or low glucose (<3.3mmol/l) suggests extensive pleural disease and a prognosis of 2 months.

What causes it?

In most malignant effusions there is reduced resorption of fluid due to tumour obstructing lymphatic transport in the pleura or regional lymph nodes. There may also be parapneumonic effusions secondary to infection behind the tumour, empyema or cardiac failure.

Effusions may be exudates or transudates. More than 90% of malignant pleural effusions are exudates.

What are the effects?

- Breathlessness is the main symptom and is caused by :
 - chest wall and diaphragm displacement, weakening respiratory muscles
 - lung compression causing ventilation-perfusion mismatch
 - hypoxia.
- Cough
- Chest pain

How is it treated?

Investigations include :

- chest X-Ray
- ultrasound
- CT scan thorax
- cytological, bacteriological and biochemical examination.

Management depends on severity of symptoms and prognosis and it is important to exclude reversible causes. Small asymptomatic effusions require monitoring only. Symptomatic effusions should be drained.

Short prognosis (<8weeks)

- Aspiration (thoracocentesis) – even removal of 500ml may provide relief. The effusion is likely to recur and repeat aspirations may be necessary.
- Aspiration of loculated effusions may be aided by intrapleural streptokinase or urokinase which degrade fibrin but the evidence for this is poor.

Longer prognosis (>8 weeks)

- Aspiration.
- Drainage - small bore catheters (8-14F) can be inserted under ultrasound guidance. A chest X-ray should be performed after insertion of a chest drain.
- Pleurodesis – medical pleurodesis involves the instillation of an irritant agent into the pleural cavity to induce inflammation. This causes adhesion of the pleural layers which obliterates the pleural space. Talc is the recommended agent and is added with 50ml of saline 0.9%.
- Thorocscopy – if the patient is fit consideration should be given to throroscopy with drainage and pleurodesis.
- Pleuroperitoneal shunts.

Adequate analgesia (local and systemic) should be administered for the above procedures and consent should be obtained. Oxygen should be available.

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Pruritus/itch

What is it?

Pruritus or itch is an unpleasant sensation in the skin which provokes an urge to scratch.

What causes it?

There are many causes of skin itching (with or without a rash) ranging from simple allergies and primary skin diseases such as scabies through to more complicated haematological or endocrine disorders. Itch is often associated with dry skin. Virtually all patients with advanced cancer and pruritus have dry skin.

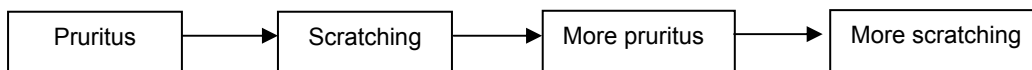
In palliative care the most common reasons for itch are listed below but this is not an exhaustive list and other causes should be considered where appropriate.

- Allergies causing contact dermatitis.
- Drug reactions.
- Cholestatic jaundice.
- Renal failure resulting in uraemia.
- Cutaneous metastatic lesions.
- Myeloma, lymphoma & polycythaemia rubra vera.

Pruritus can also be neuropathic i.e. initiated centrally by brain tumours, brain damage and multiple sclerosis.

What are the effects?

- Mild to severe discomfort/distress for patients.
- Disturbed sleep.
- There is often dry, scaling skin, which will itself cause pruritus through the itch/scratch cycle.



- Painful excoriated skin – which has the potential to become infected.

Pruritus can be increased by attention/awareness, anxiety and boredom. Similarly it can be decreased by relaxation and distraction.

How is it treated?

Always correct the correctable.

Review the patients medication :

- Is the pruritus drug-induced? (a rash may or may not be present)
- Has an opioid recently been prescribed (this side effect is more common with spinal opioids, but it can occur with systemic drugs.)
- If a drug is the likely cause, it should be stopped if possible or switch to an alternative.
- Consider biliary stenting or a percutaneous drain, if there is obstructive jaundice. Stent insertion can be very effective in relieving jaundice and the associated pruritus.
- Dry skin is frequently an important factor in advanced cancer and pruritus (or itch) is often associated with dry skin. Rehydrate the skin topically with aqueous cream or emulsifying ointment and/or emollient in the bath water, twice a day. This is an essential part of treatment and is often effective on its own.
- Menthol 1% can be added extemporaneously if aqueous cream alone is ineffective.
- Eurax (Cromamiton) has been shown to be ineffective against pruritus despite it being commonly used.
- The topical use of antihistamine creams should not be encouraged – prolonged use may lead to contact dermatitis.
- Calamine lotion has an antipruritic effect but as the water evaporates, the lotion has a drying effect, which is counterproductive. An oily lotion or aqueous cream calamine preparation is available but many people find the pink colour cosmetically unacceptable.
- General measures include the discouragement of scratching, keeping finger nails short and avoid skin contact with synthetic materials.
- Avoid agents that exacerbate skin dryness – e.g. stop using soap and use a non detergent substitute. Use aqueous cream as a soap substitute.
- Antihistamines such as chlorpheniramine are commonly used, but pruritus resulting from renal failure or cholestasis is rarely relieved by antihistamines.
 - However, the sedative effect may allow the patient to sleep at night
 - Newer non-sedating antihistamines are probably ineffective for pruritus
- Cholestyramine is not recommended for patients with advanced cancer because
 - Generally it is not effective
 - It often causes diarrhoea, is unpalatable and is poorly tolerated

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Thrombosis

What is it?

A thrombus consists of dense layers of platelets and fibrin. Later it becomes a loose, friable, jelly-like mass of fibrin and red cells which may readily detach to form an embolus. After a few days, inflammatory changes occur in the wall of the vein. The thrombus may undergo lysis or organisation.

Thrombosis is commonest in the lower limbs but the axillary vein may be involved as a complication of tumour or radiotherapy.

What causes it?

Injury to the vein, slowing or obstruction of the blood stream and increased coagulability of the blood may all be contributory.

What are the effects?

- Pain.
- Swelling.
- Pyrexia.
- Limb discolouration :
 - Pink- dilatation of superficial veins
 - White – collaterals patent
 - Blue – collaterals occluded
- Silent.
- Pulmonary embolism.

Thrombosis may be diagnosed clinically or by US scanning. D-dimer testing may become more widely available soon.

How is it treated?

Cancer patients are at risk of venous thrombo-embolism (VTE) but control of anti-coagulation is difficult in palliative care and decisions regarding management should be made on an individual basis. Traditionally Warfarin has been the anti-coagulant of choice. However, evidence is now emerging to support the use of Low Molecular Weight Heparin (LMWH) as first-line treatment of cancer-related VTE. In addition, many patients have found LMWH to be an acceptable and simple alternative to Warfarin allowing them freedom from blood tests and optimism regarding their care.

Cancer patients will fall into one of three groups :

- Patients not on anti-coagulant and with no evidence of DVT
- Patients previously established on oral anti-coagulation
- Patients not on anti-coagulant and found to have DVT

Patients not on anticoagulant and with no evidence of DVT

These patients should not routinely be commenced on an anti-coagulant but consideration should be given to prophylactic LMWH in addition to compression hosiery or TED stockings for patients at particular risk e.g. spinal cord compression

Patients previously established on oral anti-coagulation

In general oral Warfarin may be continued unless there are significant contra-indications to continued use such as :

- Evidence of bleeding
- High INR (> 5) on repetition and for no identified reason
- Thrombocytopenia
- Hepatic failure.
- Serious risk of falls
- High alcohol intake

Consideration should be given to the use of LMWH (see below for details) if there are difficulties associated with administration such as :

- Dysphagia
- Drug interactions
- Difficulty in monitoring INR e.g. poor venous access (note, however, that finger prick monitoring of INR is becoming more widely available in the community).

Patients not on an anti-coagulant and discovered to have a DVT

- Each patient should be considered as an individual but all patients should receive symptomatic relief with leg elevation and analgesia. Possible PTEs should be treated with O₂, opioids and anxiolytics.
- Further investigation may be appropriate e.g. US scanning but need not delay the initiation of therapy.
- Initial treatment should be given with appropriate (treatment) dose LMWH once daily according to BNF guidelines. Platelets should be monitored at day 5-8. The LMWH can be reduced to maintenance/prophylactic dose or converted to oral Warfarin therapy as indicated by the clinical condition, prognosis, concomitant diagnoses etc.
- Anti-Factor Xa monitoring is not normally required for LMWH but may be considered in patients with an increased risk of bleeding or those who are actively bleeding.
- The dose of LMWH should be reduced in severe renal impairment.
- If Warfarin is commenced the INR should be monitored regularly and if interacting drugs are used the monitoring schedule should be adjusted accordingly.
- The length of treatment should be considered on an individual basis. In some situations the risks of continuing treatment may outweigh the benefits.
- For some patients Aspirin 75-150mg daily may be a more useful compromise.
- Some patients with inferior vena caval thrombosis may be well enough to have a vena caval filter inserted to prevent recurrent pulmonary emboli if anti-coagulation is contra-indicated.

Problems associated with anti-coagulant therapy

Haemorrhage (please refer to section 2.3 – Bleeding)

Reversal of Warfarin therapy may be necessary in the event of major haemorrhage using Phytomenadione (Vit K1), factor concentrate or fresh frozen plasma. (See BNF 2.8.2) If bleeding is minor (e.g. microscopic haematuria, single epistaxis of < 5 minutes duration) the Warfarin should be discontinued and re-introduced when the INR is satisfactory (< 5). Alternatively LMWH could be considered.

Heparin-induced thrombocytopenia (HIT)

LMWH can rarely cause cutaneous reactions which may be a clinical indicator of heparin-induced thrombocytopenia (HIT). Platelet counts may be stable in this condition but heparin-dependent antibodies can often be detected.

If patients develop skin lesions LMWH should be discontinued.

Potential Drug interactions with Warfarin

All changes in drug therapy should be considered (see BNF Appendix 1) but those commonly used in palliative care are listed.

Anti-coagulation effect increased by :

- Coproxamol
- NSAIDS
- Amiodarone
- Erythromycin
- Ciprofloxacin
- Metronidazole
- Fluconazole
- Miconazole gel
- Omeprazole
- Cranberry juice (CSM suggests should be avoided in patients taking Warfarin)

Anticoagulation effect decreased by :

- Rifampacin
- Carbamazepine
- Azothioprine
- Sucralfate
- Vitamin K (may be present in enteral feeds)
- St. John's Wort

Changing Clinical Situation

Changing clinical conditions can adversely affect oral anticoagulation control e.g. cardiac failure, alcohol consumption, changing thyroid function. In addition, changes in dietary intake, concurrent chemotherapy and significant constipation/diarrhoea can have detrimental effects, requiring closer monitoring.

Interfaces of care

When patients on Warfarin are transferred from one care setting to another the most recent INR should be detailed with a recommended date for rechecking. Arrangements for subsequent monitoring should be confirmed.

If a patient is discharged on Warfarin initiated during an admission the GP should be informed via the immediate discharge document. The patient should be educated about anticoagulant therapy and provided with a yellow record book and information on potential drug interactions.

If a patient has been commenced on LMWH during an admission this should be communicated to the PHCT and arrangements made for daily administration by the DN. A 7 day supply of LMWH should be provided.

Weakness and Fatigue

What is it?

Fatigue is defined as a chronic form of tiredness which persists for longer than one month, which is perceived by the patient as being unusual or abnormal, absolutely disproportionate to the amount of exercise or mental activity carried out and not removed by resting or sleeping.

What causes it?

Contributory factors

Extrinsic :

Radiotherapy.
Chemotherapy.
Hormone therapy.
Biological therapy e.g. Interferon.
Surgery.
Drugs e.g. analgesics, antiemetics, sedatives. Corticosteroids.

Intrinsic :

Disease progression
Cancer cachexia
skeletal muscle wasting may be mediated by Tumour Necrosis Factor.
Infection.
Anaemia.
Metabolic abnormalities
low sodium, potassium
high calcium, urea, glucose
Accumulation of toxic metabolites from cell destruction may contribute.
Poorly controlled symptoms e.g. pain.
Psychological factors e.g. depression/anxiety/fear.
Altered sleep pattern.
Co-morbidity e.g. COPD, cardiac failure.
Nutrition.

Specific causes of Muscle Weakness :

Cancer cachexia.
Physical inactivity.
Focal weakness.
Cerebral metastases.
Spinal cord / nerve root compression.
Brachial plexopathy.
Proximal myopathy from corticosteroids.
Paraneoplastic syndromes.
e.g. Lambert-Eaton myasthenic syndrome (LEMS).

What are the effects?

- Low energy, tiredness.
- Loss of independence / control.
- Muscle weakness.
- Poor concentration.
- Reduced mobility.
- Low mood / loss of self esteem.

How is it treated?

There is no generally accepted treatment for the whole fatigue syndrome.

Patients will require multi-dimensional evaluation & regular review. The impact on the quality of life should be assessed.

Treatment should be tailored to the individual & modified as necessary.

Treat the treatable - if appropriate, consider

Medication review.

Control of other symptoms.

Blood transfusion.

Correction of biochemical abnormalities.

Treatment of infection.

Dietetic advice +/- supplementary drinks etc.

Trial of an appetite stimulant

Dexamethasone 4-6 mg daily

Discontinue if ineffective after 1 week

Reduce dose by 2mg weekly (see section 8.11 on using Steroids in Palliative care)

Duration of response may be limited.

Co-morbidities may limit use e.g.- gastro-intestinal bleeding

Megestrol acetate 160 mg daily

Increase dose weekly up to 160 mg qid

Maintain on lowest effective dose

Stop if no benefit

Avoid if hypertension, cardiac and renal dysfunction

Provide information

Explore patient's understanding of condition.

Emphasise reality of symptoms.

Offer possible explanations.

A fatigue diary may help.

Offer written information e.g. Cancer Backup.

Devise a management strategy considering Physical, emotional & practical needs

Physical needs :

- graded exercise.
- physiotherapy /OT to maximise potential.
- pace self care activities.
- prioritise and delegate less important tasks.
- set realistic goals.
- schedule day time rest periods.
- ensure adequate sleep.
- consider relaxation techniques.

Emotional needs :

- allow opportunities to share feelings and concerns.
- address issues of self worth and significance.
- prescribe an antidepressant or anxiolytic if appropriate.
- enlist appropriate professionals e.g. community nurse, clinical psychologist.
- consider attendance at a community centre or day hospice.

Practical needs :

- identify key family members / carers.
- if in hospital anticipate discharge requirements.
- if at home predict patterns of decline and identify changing requirements.
- a case conference involving all agencies may be necessary.
- a home visit/environmental visit should identify equipment needs and any home adaptations required.
- social work can advise re benefits, home help for shopping, carers etc.
- voluntary agencies may provide support e.g. Crossroads, befrienders.
- consider transport needs (disability sticker, reduce hospital appointments).
- meals on wheels / Wiltshire farm foods may be helpful.

Patient pointers

- Written information from Cancer BACUP is very useful

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