

Nausea / Vomiting in Palliative Care

Introduction

Common, distressing symptoms that can be controlled with careful assessment of underlying causes, and selection of appropriate medication and route of administration.

Assessment

Seek and treat any reversible causes including:

| | | | |
|------------------|----------------|----------------------|-------------|
| • medication | • constipation | • gastric irritation | • coughing |
| • hypercalcaemia | • uraemia | • gastroenteritis | • infection |

Management

Choice of drug is based on likely cause(s), side effect profile and route of administration of antiemetics, and patient's condition/ prognosis. Drug doses and prescribing advice - see chart.

| Clinical picture | Possible cause(s) | Treatment |
|--|--|--|
| <ul style="list-style-type: none"> • Intermittent vomiting that relieves nausea. • Early satiety. • Audible splash, and frequent small vomits if fluid retained in flaccid stomach. • Other autonomic features (eg syncopal episodes, postural hypotension). | <p>Impaired gastric emptying:</p> <ul style="list-style-type: none"> • Locally advanced cancer (stomach, pancreas, liver metastases, gross ascites) • Morphine, anticholinergics • Gastroenterostomy • Autonomic neuropathy (diabetes, alcoholism, chronic kidney disease, coeliac plexus infiltration, paraneoplastic syndrome, Parkinson's disease) | <p>Prokinetic antiemetic:</p> <ul style="list-style-type: none"> • metoclopramide • domperidone <ul style="list-style-type: none"> • dexamethasone (extrinsic compression/ obstruction from tumour, diffuse gastric tumour) • proton pump inhibitor (gastric irritation, reflux) |
| <ul style="list-style-type: none"> • Dysphagia, pain, regurgitation, coughing. | <p>Regurgitation:</p> <ul style="list-style-type: none"> • Obstruction/ compression of oesophagus | <ul style="list-style-type: none"> • dilatation, stent, laser • dexamethasone |
| <ul style="list-style-type: none"> • Persistent nausea, little relief from vomiting. | <p>Chemical/ metabolic:</p> <ul style="list-style-type: none"> • Medication (opioids, antibiotics, SSRI antidepressants, digoxin) • Extensive cancer • Sepsis • Renal or liver impairment • ↑ calcium, ↓ magnesium, ↓ sodium | <ul style="list-style-type: none"> • haloperidol • metoclopramide • levomepromazine |
| <ul style="list-style-type: none"> • Intermittent vomits that may relieve nausea. • Colic in mechanical obstruction. • Constipation. | <p>Bowel obstruction:</p> <ul style="list-style-type: none"> • Mechanical obstruction • Peristaltic failure (autonomic neuropathy or carcinomatosis) | <p>Medical management if surgery not appropriate.</p> <p>See: Bowel Obstruction</p> |
| <ul style="list-style-type: none"> • Worse in the morning. • Headache. • Neck stiffness. | <p>Cerebral disease:</p> <ul style="list-style-type: none"> • Compression/ irritation by tumour • Raised intracranial pressure • Anxiety | <ul style="list-style-type: none"> • cyclizine • add dexamethasone |
| <ul style="list-style-type: none"> • Worse on movement. • Vertigo, deafness if ear pathology. | <p>Vestibular system:</p> <ul style="list-style-type: none"> • Motion sickness • Base of skull, brainstem disease | <ul style="list-style-type: none"> • prochlorperazine • cyclizine • hyoscine hydrobromide • levomepromazine |
| | <p>Chemotherapy/ radiotherapy:</p> | <ul style="list-style-type: none"> • Seek specialist advice |
| <ul style="list-style-type: none"> • Review possible causes/ previous treatment. | <p>Unknown or multiple causes:</p> <ul style="list-style-type: none"> • Broad spectrum treatment using single or multiple drugs. | <ul style="list-style-type: none"> • metoclopramide and/or levomepromazine • or cyclizine + haloperidol • add dexamethasone |

Practice points

- Even if the patient is not vomiting, ask about nausea (often not reported).
- Mechanisms of nausea/ vomiting are complex and multiple pathways are affected; a pragmatic approach selecting the antiemetic most likely to be effective and then a second drug or drugs is often effective.
- Avoid combining drugs with a similar mode of action or side effect profile; and do not combine prokinetics with anticholinergics.
- If patient is vomiting or if oral absorption is in doubt, use the subcutaneous route or rectal route. (see: Subcutaneous medication)
- Prescribe the antiemetic regularly and as required starting with the lowest dose.
- Review the treatment and response every 24 hours until symptoms are controlled.
- Continue to review antiemetic use regularly. Stop if underlying cause has resolved.
- Nausea can usually be fully controlled; vomiting about once a day may be acceptable in bowel obstruction.
- Good mouth care is essential in patients with nausea/ vomiting. (see: Mouth Care)
- Many antiemetics are used outside their marketing authorisation in palliative care, including by the subcutaneous route; this is supported by extensive clinical experience. Palliative medicine specialists occasionally recommend other regimens. This should be clearly documented in the patient's notes. (see: Medication outside marketing authorisation on website).

Patient/ carer advice points

- Make sure the patient knows if the antiemetic is to be taken regularly or as needed; explain the treatment and plan review.
- Offer dietary advice; small, frequent meals may be better.
- Avoid strong smells, and any nausea triggers.
- Acupuncture/ acupressure has been used for nausea in chemotherapy or surgery.

Resources

Professional

Palliative Care Drug Information online: <http://www.palliattedrugs.com/>

Patient

Patient leaflet on website: Managing sickness & vomiting

Key References

1. Wood GJ. Management of intractable nausea and vomiting in patients at the end of life. *JAMA* 2007; 298(10):1196-1207
2. Stephenson J. An assessment of aetiology based guidelines for the management of nausea and vomiting in patients with advanced cancer. *Support Care Cancer* 2006; 14:348-353
3. Glare P. Systematic review of the efficacy of antiemetics in the treatment of nausea in patients with far-advanced cancer. *Support Care Cancer* 2004; 12: 432-440
4. Kennett A. An open study of methotrimeprazine (levomepromazine) in the management of nausea and vomiting in patients with advanced cancer. *Support Care Cancer* 2004; 13: 715-721
5. Mannix K. Palliation of nausea and vomiting. *CME Cancer Medicine* 2002;(1):18-22
6. Bentley A. Management of nausea and vomiting using clinical pictures. *Palliative Medicine* 2001; 5:247-253

Antiemetic information chart

| Drug | Oral dose range | As required dose | 24 hour SC dose range | Prescribing notes |
|--|--|--|-------------------------------|--|
| Cyclizine | 25-50mg, 8 hourly | 25-50mg oral or SC, 8 hourly | 50-150mg | <ul style="list-style-type: none"> Anticholinergic antihistamine. Slows peristalsis in GI tract; acts directly on vomiting centre. Side effects: dry mouth, urinary retention, blurred vision; also hypotension, extrapyramidal effects, confusion. |
| Domperidone | 10-20mg, 6-8 hourly (tablet / suspension) | 10mg oral | --- | <ul style="list-style-type: none"> Prokinetic action in GI tract; blocked by anticholinergics. Lower risk of extrapyramidal side effects than metoclopramide. Available as 30mg suppository; dose 30-60mg PR twice daily. |
| Metoclopramide | 10-20mg, 6-8 hourly (tablet / suspension) | 10mg oral 5mg SC 5-10mg IM | 20-120mg | <ul style="list-style-type: none"> Central and peripheral actions. Prokinetic action in GI tract; blocked by anticholinergics. Extrapyramidal side effects (caution in those < 20 years). Injection is 5mg/ml so give larger as needed doses IM not SC. |
| Haloperidol | 0.5-1.5mg, nocte or bd | 0.5-1.5mg oral 0.5-1mg SC, 12 hourly | 2-5mg | <ul style="list-style-type: none"> Main action is dopamine blockade; avoid in Parkinson's disease. Can cause extrapyramidal side effects (eg apathy, withdrawal) especially at higher doses for over 1-2 weeks. Once daily SC dose can be used as alternative to SC infusion. |
| Levomepromazine | 3-6mg, nocte or bd | 3mg oral, 2.5mg-5mg SC, 12 hourly | 5-25mg | <ul style="list-style-type: none"> Phenothiazine with a broad spectrum of action. Use low doses to avoid sedation and hypotension. 6mg scored tablet is available on named patient basis; tablet disperses well in water. (see: Levomepromazine on website) SC dose is half the oral dose; a dose can last 12-24 hours. |
| Hyoscine butylbromide (Buscopan) | Poor absorption | 20mg SC, hourly | 40-120mg | <ul style="list-style-type: none"> Anticholinergic. Slows peristalsis and reduces secretions in GI tract. Less central side effects than hyoscine hydrobromide. |
| Hyoscine hydrobromide | No oral preparation | 400 micrograms SC, 2 hourly | 400-1200 micrograms | <ul style="list-style-type: none"> Anticholinergic. Slows peristalsis and reduces secretions in GI tract. Side effects: dry mouth, drowsiness, confusion. Available as topical patch (1mg/ 72 hours) |
| Prochlorperazine | 5-10mg, 8 hourly | 5-10mg oral, 12.5mg IM | Not used SC (too irritant) | <ul style="list-style-type: none"> Used for motion sickness, post-operative vomiting. Buccal tablet 3mg once or twice daily is available. |
| Dexamethasone | 4-16mg | | 4-16mg | <ul style="list-style-type: none"> Adjuvant antiemetic; oral dose the same as SC/IM dose. Best given in the morning to maintain diurnal rhythm. Monitor for side effects. Review and reduce to lowest effective dose or stop. |
| 5HT ₃ antagonists | See BNF/ Formulary for drugs and doses | | | <ul style="list-style-type: none"> Constipating; proven value in oncology |

