Nausea / Vomiting in Palliative Care

- Treat reversible causes if possible and appropriate eg.
  * drugs * hypercalcaemia * anxiety
  * constipation * cough * gastric irritation
- Remember unrelated causes, eg gastroenteritis
- Prescribe the same antiemetic *regularly* and *prn* - REVIEW every 24 hours
- If patient is vomiting or if oral absorption is in doubt → use the subcutaneous route (s/driver) or rectal route

Possible Causes	**Clinical picture**	**Treatment** (see table for doses)
• Drugs (incl opioids) • Carcinomatosis • Uraemia/hypercalcaemia	**Chemical/ metabolic** Persistent, often severe nausea. Little relief from vomiting/ retching	1. Haloperidol [2] 2. Levomepromazine[3] (methotrimeprazine)
• Opioids, anticholinergics • Local tumour • Autonomic failure • Hepatomegaly • Peptic ulceration	**Gastric stasis/outlet obstruction** Intermittent nausea often relieved by vomiting.	***Prokinetic*** Metoclopramide[4, 5] SC, IM or oral Domperidone (fewer side effects)[5] If colic or no response: seek advice Consider dexamethasone 4-6mg mane, oral (if liver metastases or extrinsic compression) [6]
• Oesophageal or mediastinal disease	**Regurgitation** Dysphagia. Little nausea or relieved after food regurgitated	• Stents/laser • Radio/chemotherapy • Dexamethasone (6-8mg/d)[6] 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:- a) Peristaltic failure Metoclopramide (prokinetic)[4,5] b) Mechanical obstruction 1. Hyoscine butylbromide (if colic) 2. Levomepromazine[3] 3. Cyclizine +/- Haloperidol 4. NG tube if persistent vomiting
• ↑Intracranial pressure • Radiotherapy • Brainstem/meningeal disease	**Cranial disease/treatment** Headache +/- cranial nerve signs	1. Cyclizine + Dexamethasone 8-16mg/day (if raised intracranial pressure)[6]
• Vestibular disease • Base of skull tumour • Motion sickness	**Movement related**	1.Cyclizine 2. Levomepromazine[3] 3.Prochlorperazine;motion sickness
	Cause unclear/multiple causes	1. Levomepromazine[3] 2. Metoclopramide (if no colic)[4,5] 3. Cyclizine + haloperidol 4. Trial of dexamethasone[6]

If chemotherapy/ radiotherapy induced → seek specialist advice
NB $5HT_3$ antagonists (eg ondansetron) are of proven value in chemotherapy / radiotherapy induced nausea and vomiting but otherwise are not recommended. Constipating.

Prescribing notes

1. Long term antiemetic use should be reviewed regularly. Stop if the underlying cause has resolved
2. Haloperidol may cause extrapyramidal side effects (eg. hypokinesia, tremor) at higher doses or if use is prolonged.
3. Levomepromazine (methotrimeprazine) 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 or pharmacy can prepare a suspension. (see guideline on obtaining oral levomepromazine) SC dose is half the oral dose.
4. Metoclopramide may cause extrapyramidal side effects (eg. tremor) with prolonged use. Caution in patients under 20 years.
5. Prokinetic action is **blocked** by anticholinergics eg.cyclizine, buscopan, amitriptyline.
6. Corticosteroids are best given before 2pm. Review and reduce to lowest effective dose. Withdraw once ineffective. Dexamethasone 1mg is approximately equivalent to prednisolone 7mg

Drug doses

Drug	**Oral dose** (PR dose)	**Stat dose / prn dose**	**Subcutaneous syringe driver/24hrs**
Cyclizine	50mg, 8 hourly	50mg, oral/ IM	50-150mg
Domperidone	10-20mg, 6-8 hourly (30-60mg, 4-8 hourly, PR)		
Haloperidol	1.5mg, bd or 3mg, nocte	1.5mg, oral 1.25-2.5mg, SC	2.5-5mg
Levomepromazine	3-6mg, bd or nocte	3mg, oral 2.5-6.25mg, SC	6.25-25mg
Metoclopramide	10-20mg, 6-8hourly	10mg, oral or IM	30-80mg
Hyoscine butylbromide (Buscopan)	20mg, 6 hourly	20mg, SC	20-100mg
Hyoscine hydrobromide	skin patch,1mg/72hours, 150-300 micrograms 8-12hourly, oral	400 micrograms, SC	0.4-1.2mg

Other drugs, drug doses and combinations are used occasionally by palliative care specialists whose instructions should be clearly documented in the patient's notes. If there are any concerns about the regimen, advice should be sought from a specialist palliative care pharmacist or specialist medical staff.

Drug actions - main receptor sites

Drug	**D_2 antagonist**	**H_1 antagonist**	**Ach antagonist**	**$5HT_2$ antagonist**	**$5HT_4$ agonist**
Metoclopramide	++				++
Domperidone	++				
Cyclizine		++	++		
Hyoscine			+++		
Haloperidol	+++				
Levomepromazine	++	+++	++	+++	

References

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