Levomepromazine (green)

Introduction
A phenothiazine used widely in palliative care to treat intractable nausea or vomiting, and for severe delirium/agitation in the last days of life

Preparations

| Oral                   | 6mg tablet (named patient, unlicensed) | There is variation between brands regarding dispersion and scoring
|                        | 25mg tablet(scored)                   | Levinan® disperses well in water
|                        |                                        | Allow time for pharmacist to order
|                        |                                        | Can be used sublingually
|                        |                                        | Listed in BNF but rarely used as dose too high for most patients
| Injection              | 25mg/ml                                | Used by subcutaneous bolus injection or continuous subcutaneous infusion
| 1ml ampoule            | (NB. Potential for confusion over dosing where 2.5mg rather than 25mg may be prescribed) |

Indications
- Broad spectrum antiemetic for intractable nausea/vomiting, often used second or third line
- Potent antipsychotic/sedative used second line to manage severe delirium/agitation in a dying patient

Cautions
- Lowers blood pressure and can cause significant postural hypotension in ambulant patients. Ideally check blood pressure before starting treatment and then daily until dose stable. Additive hypotensive effect if combined with other anti-hypertensives.
  - Has sedative effects – risk for falls (refer to falls guidance)
- Additive sedative effect if combined with other sedating drugs.
- Liver impairment: dose reduction and careful titration.
- Sensitises skin to sunlight – advise patients about skin protection including reflection from water or snow
- Rarely causes prolonged QT interval in cardiac disease or hypokalaemia.
- Parkinsonism, epilepsy (lowers seizure threshold).

Side effects
- Skin irritation at infusion site; dilute maximally when preparing syringes. Sodium chloride 0.9% may be better tolerated than water for injection (WFI) as a diluent, particularly at doses greater than 25mg
- Cover syringe containing the infusion as degrades in sunlight (purple colouration).
- Drowsiness, dry mouth, dystonia, neuroleptic malignant syndrome (rarely).

Interactions
Inhibits cytochrome P450  CYP2D6 metabolism – check BNF for drug interactions.
Dose and Administration

- Low doses for nausea/ vomiting and higher doses for delirium/ agitation.
- SC dose is half the oral dose.
- Each dose can last 12 to 24 hours; once or twice daily SC injection is an alternative to a continuous subcutaneous infusion.

**Antiemetic:**
- Oral starting dose: 3mg once or twice daily. In some areas this may be administered as a single daily dose of 6mg.
- SC injection starting dose: 2.5mg to 5mg once or twice daily, or as continuous SC infusion; usual dose range: 5mg to 15mg / 24 hours.

**Antipsychotic/Sedative:**
- Second line added to a benzodiazepine (midazolam SC 10 to 30mg/ 24hours or rectal diazepam 5mg to 10mg, 6 to 8hourly) if the patient is dying and agitated. Exclude other causes of terminal delirium particularly opioid toxicity, urinary retention. (see: Delirium)
- Injections will be needed to gain control of agitation while a SC infusion takes effect and may be needed if agitation worsens; use 12.5mg to 25mg SC, 6 to 12 hourly.
- Subcutaneous infusion dose: 25mg to 100mg over 24 hours. Sodium Chloride 0.9% is the recommended diluent as levomepromazine can be irritant.

References

Palliative Care Drug Information online: [http://www.palliativedrugs.com](http://www.palliativedrugs.com)
