Fomepizole

Fomepizole, a competitive inhibitor of alcohol dehydrogenase (ADH) prevents formation of toxic metabolites of methanol and ethylene glycol (G)

Indications

- *Ethanol and fomepizole are both effective ADH inhibitors used for the treatment of EG and methanol poisoning. Ethanol is widely available, however fomepizole has significant advantages and is the preferred antidote when available*
- ***In particular, fomepizole is the preferred antidote in:***
  - ***children***
  - ***pregnancy***
  - ***significant liver disease (cirrhosis)***

Contraindications:

- Isopropyl alcohol poisoning

Adverse effects (uncommon):

- headache, nausea, dizziness
- metallic taste
- phlebitis, rash
- fever
- eosinophilia, transient elevated transaminases

Presentation

- 1.5g / 1.5 mL vial

Dose and Administration (dilute in 100 mL 0.9% NaCl or 5% dextrose to avoid venous irritation)

*Diluted solutions remain stable up to 24 hours when stored refrigerated or at room temperature

Loading dose:

- 15 mg/kg IV

Maintenance dose:

- 10 mg/kg IV every 12 hours
- If dosing is required beyond 48 hours (i.e. 5th maintenance dose onward), increase maintenance dose to 15 mg/kg IV 12 hourly
- Administer maintenance dose at 4 hourly intervals if patient is treated using intermittent haemodialysis (8 hourly if patient treated using CVVHD)

Therapeutic Endpoint:

- Osmol Gap (OG) < 10 in conjunction with serum pH > 7.3, not requiring dialysis or bicarbonate infusion OR serum methanol or ethylene glycol concentration (if available) < 20 mg/dL

Pregnancy:

- Category C
- The use of fomepizole should not be withheld if potential benefit outweighs any potential risk