Fomepizole

Fomepizole, a competitive inhibitor of alcohol dehydrogenase (ADH inhibitor), is used to prevent formation of toxic metabolites from methanol and ethylene glycol

Indications

- *Ethanol and fomepizole are both effective ADH inhibitors used for the treatment of toxic alcohol poisoning.*

Generally, ethanol is cheaper and more widely available, however, there are some instances where fomepizole is the preferred antidote:

- ***when ethanol (as an antidote) or timely measurement of ethanol concentrations are not readily available***
- ***in children/pregnancy/significant liver disease***
- ***patients with reduced GCS or patients Rx with disulfiram***

- *May have a role in severe disulfiram reactions*

Contraindications:

- No absolute contraindications

Adverse effects:

- 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 for 48 hours (4 doses). Increase maintenance dose to 15 mg/kg IV 12 hourly if fomepizole is required beyond 48 hours (i.e. 5th dose onwards)

- 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, resolving acidosis
- 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