Dimercaptopropane sulfonate (DMPS)

DMPS is a water-soluble parenteral heavy metal chelator used for the treatment of lead, arsenic and mercury poisoning.

Indications:

Clinical features consistent with lead, arsenic or mercury poisoning AND an elevated biological fluid concentration consistent with toxicity *(see separate guidelines)*

In acute exposures with severe clinical toxicity, chelation should be commenced early prior to biological fluid concentration results *(discuss with a clinical toxicologist)*

NB: Dimercaprol and $CaNa_2EDTA$ are alternative parenteral agents but are not commonly available

Contraindications:

-Known hypersensitivity

-DMPS and its metal complexes are renally excreted (consider dose adjustment in patients with renal impairment)

Presentation

250 mg/5 mL vial

Dose and administration (discuss with a clinical toxicologist)

- 5 mg/kg IV 4 -6 hourly up to 5 days
- Inject undiluted via a syringe driver over 20 minutes
- Do not mix with other drugs or blood products

Therapeutic endpoint:

- As clinical condition improves, IV chelation therapy may be changed to oral therapy with DMSA
- Discontinue chelation when patient is asymptomatic AND biological fluid concentrations are below the concentration indicating the need for chelation

Adverse effects:

- Rapid administration can cause hypotension and tachycardia
- Hypersensitivity reactions including Stevens-Johnson syndrome have been reported
- Rarely (5%) – nausea, leukopenia, rash, elevated liver transaminases

Pregnancy:

- Not known to be teratogenic in animal studies, however human pregnancy data is unavailable
- Administration is only recommended in circumstances where potential benefit justifies the potential risk to the foetus (discuss with a clinical toxicologist)

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