

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.

NB: Dimercaprol and CaNa₂EDTA are alternative parenteral agents but not available at Austin

Contraindications:

- Known hypersensitivity
- DMPS and its metal complexes are renally excreted.
(Consider dose adjustment in patients with renal Failure: discuss with clinical toxicologist)

Presentation

250 mg/5 mL vial

Dose and Administration (discuss use with a clinical toxicologist)

Adult: 250mg IV every 4 hours

Child: 5 mg/kg IV (max 250 mg) every 4 hours

Inject undiluted via a syringe driver over 10 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 when patient is asymptomatic AND biological fluid concentrations are below the level 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:

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