

Classification

Synthetic B12, anti-anemic

LA County Prehospital Indications

Cyanide toxicity: cardiovascular, neurologic, and/or respiratory compromise due to suspected or known cyanide exposure

Other Common Indications (Not authorized for EMS administration in LA County)

B12 deficiency

Adult Dose

5 grams (25mg/ml) reconstituted in 200mL of Normal Saline IV/IO and infused over 15 minutes, may repeat x1 in 15 minutes

Pediatric Dose

70mg/kg (25mg/ml) infused over 15 minutes [reconstitute 5 grams in 200mL of Normal Saline and infuse weight-based dose], may repeat x1 in 15 minutes

Mechanism of Action

Contains cobalt compounds that bind to and detoxify cyanide thereby preventing its binding to cytochrome c oxidase which leads to inhibition of cellular respiration.

Pharmacokinetics

Onset immediate

Duration half-life 24 hours

Contraindications

Hypersensitivity

Interactions

Sodium thiosulfate, sodium nitrite

Adverse Effects

Allergic reactions

Renal injury

Increase in blood pressure

Prehospital Considerations

- Do not co-administer with other medications through the same vascular access; flush in between.
- Avoid administration through the same IV/IO as blood products.
- After administration pulse oximetry and co-oximetry will be inaccurate and may overestimate oxygenation and underestimate CO exposure. Skin, tears and urine will turn red; flushing is expected.
- Hydroxocobalamin may interfere with laboratory tests for up to 24 hours.