

Hydroxocobalamin (Cyanokit)

Formulary

Douglas County Kansas EMS System

March 2021

Approved Provider: Paramedic

Referenced Procedures: [Cyanokit](#)

Referenced Protocols: [CO/Smoke Inhalation/Cyanide poisoning](#)

Dosing and Administration	
ADULT Medications: <ul style="list-style-type: none">5 g IV/IO over 15 minutes<ul style="list-style-type: none"><u>In its own IV/IO line</u><i>(Administer with stopcock and 30ml)</i> (Each 5g vial needs to be reconstituted with 200cc of normal saline.) ☎ If signs and symptoms persist, repeat dose at a rate between 15 minutes and 2 hours	PEDIATRIC Medications: Refer to HandTevy <ul style="list-style-type: none">70 mg/kg IV/IO over 15 minutes<ul style="list-style-type: none"><u>In its own IV/IO line</u><i>(Administer with stopcock and 30ml)</i> (Each 5g vial needs to be reconstituted with 200cc of normal saline.) ☎ If signs and symptoms persist, repeat dose at a rate between 15 minutes and 2 hours.

Administration:

- Each 5g vial needs to be reconstituted with 200cc of normal saline.
- Cyanokit must be given through its own IV/IO site**
- During reconstitution, Cyanokit must be swirled, **NOT SHAKEN**, for 1 full minute
- Administer with included drop set. Attach stopcock to end of drop set. Use 30ml syringe to administer 200ml over 20 minutes.

Pharmacology and Actions:

- An emergency treatment (antidote) used in patients with a known or suspected cyanide poisoning. Cyanide can result in death within minutes due inhibition of cytochrome which prevents the cell from using oxygen and forces anaerobic metabolism resulting in lactate production, cellular hypoxia and metabolic acidosis. The Cyanokit binds cyanide ions to form cyanocobalmin, which is then secreted in the urine.

Indications:

Known or suspected cyanide poisoning.

Carbon Monoxide exposure with any of the following:

- Elevated SpCO
- Soot around the airway
- Hypotension not attributable to other obvious causes
- Headache
- Nausea/vomiting
- Tachypnea(early) bradypnea (Late)
- Altered mental status / Seizure
- Cardiac / Respiratory arrest
- Chest tightness

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Contraindications:

- Hypersensitivity to hydroxocobalamin or cyanocobalamin

Precautions:

- Inform receiving hospital staff which line was used for hydroxocobalamin due to the following being incompatible: dobutamine, Nitroglycerin, Propofol, blood products.

Side Effects:

- CNS: Headache
- CV: Increased blood pressure
- GI: Transient chromaturia (abnormal coloration of the urine), Nausea
- Skin: Erythema, rash, injection site reactions