



**REGION 11
CHICAGO EMS SYSTEM
DRUG TABLE**

Drug Name: Hydroxocobalamin
Approved: EMS Medical Directors Consortium
Effective: December 6, 2023

DRUG NAME - GENERIC	Hydroxocobalamin
DRUG NAME - TRADE	Cyanokit
DRUG CLASSIFICATION	Antidote for cyanide exposure
DOSAGE FORMS	One kit - 5 gram hydroxocobalamin dark red crystalline powder in a vial to be reconstituted with 200 ml of 0.9% Sodium Chloride
ACTION(S)	<ul style="list-style-type: none"> • Contains cobalt compounds that bind to and detoxify cyanide before it inhibits cellular respiration
INDICATIONS	<ul style="list-style-type: none"> • Exposure to products of combustion with smoke inhalation from closed-space fires <u>AND</u> • One or more significant cyanide exposure signs or symptoms, such as markedly altered level of consciousness, seizures, respiratory depression or respiratory arrest, cardiac dysrhythmias and hypotension.
CONTRAINDICATIONS	<ul style="list-style-type: none"> • Hypersensitivity to hydroxocobalamin, cyanocobalamin or cobalt
ADULT DOSE / ROUTE	<ul style="list-style-type: none"> • IV infusion • Initial dose: 5 grams (one kit) administered over 15 minutes, slow IV • After reconstitution, the vial contains hydroxocobalamin for injection with concentration 25 mg/mL • Considered safe for treatment in pregnant patients
PEDIATRIC DOSE / ROUTE	<ul style="list-style-type: none"> • IV infusion • 70 mg/kg (reconstitute concentration is 25 mg/mL) • Max dose 5 grams (one kit)
SIDE EFFECTS	<ul style="list-style-type: none"> • <u>Risk of anaphylaxis or other hypersensitivity reaction</u> - Common reactions include new onset chest tightness, edema, urticaria, pruritis, dyspnea, or rash. • <u>Risk of renal injury</u> – Acute renal failure with acute tubular necrosis, renal impairment, and urine calcium oxalate crystals have been reported after Cyanokit administration. • <u>Risk of substantially increased blood pressure</u> – Monitor blood pressure during treatment. • <u>Red coloring of the urine (chromaturia) and skin (erythema)</u> - This flushing should not be interpreted as an allergic reaction. • <u>Other side effects</u> – headache or infusion site reaction.
PREPARATION	<ul style="list-style-type: none"> • Visually inspect hydroxocobalamin solutions for particulate matter and color prior to administration. If the reconstituted solution is not dark red or if particulate matter is observed after the solution has been appropriately mixed, the solution should be discarded. • Any reconstituted product not used within 6 hours should be discarded. • Use a separate IV line for administration of hydroxocobalamin.



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- **Reconstitute:** Place the vial in an upright position. Add 200 ml of 0.9% Sodium Chloride Injection to the vial using the transfer spike. Fill to the line.
- **Mix:** The vial should be repetitively inverted or rocked, not shaken, for at least 60 seconds prior to infusion. Visually inspect the solution for particulate matter and color prior to administration. Discard solution if particulate matter is present or solution is not dark red.
- **Infuse vial:** Using vented intravenous tubing, hang and infuse over 15 minutes.

