

**These Tier C recommendations are general
To Contact your Regional Poison Center: (800) 222-1222
Consultation is available by a Specialist in Poison Information or Toxicologist (upon request) 24 hours daily.**

Antidote	Toxin	Dosing	Other Info	Current Stock	Recommended Stock
Antivenin Crotalidae Polyvalent Immune FAB (CroFab™)	Snake bite (Copperhead, Water moccasins, Rattlesnakes)	4-6 vials IV q2-4h until pain improves, swelling stops, or clinical bleeding resolves, then 2 vials q6h for 3 doses	Indicated for moderate to severe envenomations Moderate: Evidence of local tissue injury that extends 1 major joint proximal to bite and/or numeric coagulopathy without clinical bleeding Severe: Local injury >1 joint, documented compartment syndrome, coagulopathy with clinical bleeding, hypotension, angioedema, and/or neurological findings		12 vials
Antivenin-black widow	Black Widow envenomation	1 vial in 50 ml of NS	Equine derived antivenom		None (currently must be drop-shipped based on patient presentation – black widows not likely in western KY)
Atropine	Organo- phosphate or carbamate pesticides and muscarine mushrooms	2-4 mg IV q5-10 minutes or 0.02- 0.08 mg/kg/hr IV infusion until excessive bronchial secretions terminate	Indicated for SLUDGE symptoms associated with cholinergic excess		5 x 20 ml (0.4 mg/ml) vials

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Calcium chloride/ calcium gluconate	Calcium Channel Blockers	Calcium chloride 1g IV q 10 minutes or 20-50 mg/kg/hr until response seen (Must have central IV access) Calcium gluconate 60- 120 mg/kg/hr IV until response seen (May give by peripheral IV)	Administration of calcium chloride must be by central IV access due to high risk of local tissue damage		Calcium Chloride 10%: 15 x 10 ml vials And Calcium Gluconate 10%: 20 x 10 ml vials
Nithiodote® kit or hydroxocobalamin (Cyanokit®)	Cyanide	Nithiodote®: Sodium nitrate 10 ml over 10 min Sodium thiosulfate 50 ml over 10 min Cyanokit® 5g over 15 minutes with a repeat of 5g if clinically indicated (skin and urine discoloration) for total dose of 10 g	Nithiodote® kit consists of sodium nitrite 300 mg/10 ml, and sodium thiosulfate 12.5 g/ 50 m Cyanokit®: , 5 gram vial of hydroxocobalamin		Nithiodote® Kits: 2 kits Add 3-4 separate vials of sodium thiosulfate 12.5 g Cyanokit®: 2 kits
Dantrolene	Malignant Hyperthermia	1 mg/kg IV to maximum of 10 mg/kg	Check with anesthesia for recs for your hospital based on surgery volume		15 X 20mg vials

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Deferoxamine	Iron	Mild to moderate toxicity: 15 mg/kg/hr IV for 6-12 hours then reassess Severe toxicity: 15 mg/kg/hr IV for 24 hours then 12 hours off 12 hours on reassess	Avoid using deferoxamine >24 hours		4 x 2g vials
Digoxin Immune Fab (DigiBind/DigiFab)	Digoxin	# of vials= <u>(serum dig level x wt)</u> 100	Digoxin level is ng/ml Wt is kg		15 vials
Dimercaprol	Arsenic, lead, mercury	3-5 mg/kg IM q 4-12 hours until symptoms resolve	Product contains peanut oil		1 x 3 ml (100 mg/ml) vials
Edetate Calcium Disodium (EDTA)	Lead	50-75 mg/kg/24hr IM or IV in 3-6 divided doses x 5 days	May repeat dosing regimen after 2-day hiatus		Not Recommended in this setting
Oral Ethanol (vodka)	Ethylene glycol/methanol	See separate dosing info	Goal blood ethanol level is 100-150 mg/ dl		Not necessary if stocking adequate fomepizole – see additional dosing info
Glucagon	Calcium Channel and Beta Blockers	5-10 mg IV bolus then 2-10 mg/hr IV infusion	Only patients responding to initial dose should be maintained on continuous infusion. Patients should be observed for vomiting.		35 X 1 mg vials

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Flumazenil	Benzo-diazepines	<p>Reversal of sedation: 0.2 mg IV over 15 seconds repeated every minute up to 1 mg</p> <p>Overdose: 0.2 mg IV over 30 seconds; if desired consciousness not obtained, 0.3 mg over 30 seconds. 0.5 mg over 30 seconds may be repeated every minute up to total dose of 3-5 mg</p>	<p>If no response after 5 minutes and 5 mg cumulative dose benzodiazepine sedation unlikely</p> <p>Contraindicated if TCA co-ingested and if chronic benzodiazepine use</p> <p>**Contact PCC for Consult**</p>		<p>2 x 10 ml (0.1 mg/ml) vials</p> <p>(not usually recommended)</p>
Fomepizole	Ethylene glycol	<p>Initial dose: 15 mg/kg then 4 doses of 10 mg/kg then 15 mg/kg every 12 hours until ethylene glycol/methanol level < 25mg/dl</p>	<p>Dosing interval should be adjusted during hemodialysis-</p> <p>**Contact PCC for Consult**</p>		<p>2 x 1.5 ml (1 g/ml) vials</p> <p>Currently not available wholesale – might be drop-shipped by manufacturer – see additional information</p>
Methylene blue	Oxidizers (Methemoglobinemia)	<p>1-2 mg/kg IV over 5 minutes; may repeat up to a total dose of 7 mg/kg</p>	<p>Contraindicated: known G6PD deficiency</p> <p>Methylene blue interferes with pulse oximetry</p>		<p>1 x 10 ml (1%) vials</p>

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N-acetylcysteine	APAP	Oral Dosing LD: 140 mg/kg MD: 70 mg/kg q4h IV Dosing Load: 150mg/kg over 1 hour then 50 mg/kg over 4 hours, followed by 100 mg/kg over 16 hours	4-hr APAP level used for nomogram; level prior to 4-hr not useful Treatment should continue for 24 hours or until patient is asymptomatic with declining AST and ALT, INR < 2, and APAP level < 10; whichever is greater		6 vials x 30 ml 20% vials
Naloxone	α -2 agonists (clonidine), Opiates	0.4-2 mg/dose IV, SC or IM	Naloxone may improve mental status of the patient but will not prevent cardiotoxicity for α -2 agonists Long acting agents may require infusion of 2/3 initial dose/hr Use lower doses in opioid dependent patients with minimal respiratory and/or CNS depression		20 x 1ml (1mg/ml) vials
Octreotide	Sulfonylurea induced hypoglycemia	75 mcg SC q6h	Therapy should only be used after dextrose is given **Contact PCC for Consult**		2 x 1 ml (50 mcg/ml) ampoules
Physostigmine	Anti-cholinergics	1-2 mg over 5 minutes	Contraindications: Cardiac conduction delays, pt with seizure risk, and TCA toxicity **Contact PCC for Consult**		1 x 2 ml (1 mg/ml) vials

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Pralidoxime (2-PAM)	Organo-phosphates or anticholin-esterase medications	1-2 g then 500 mg/hr	Indicated for respiratory insufficiency or muscle paralysis		2 x 1 g vials
Pyridoxine	Isoniazid	1g IV per gram of INH ingested or 5 g IV if unknown amount repeat prn	Dose is grams not mg; 1g dose is 10 vials, 5g dose is 50 vials		Minimum 50 x 1 ml (100mg/ml) vials
Sodium bicarbonate	Cyclic antidepressants, olanzapine, and venlafaxine	1-2 mEq/kg IV bolus prn QRS interval > 0.14 sec			20 x 50 ml (1 mEq/ml) vials
Succimer (Chemet®)	Lead	10 mg/kg/dose q8h x 5 days followed by 10 mg/kg/dose q12h x 14 days	Transient LFT abnormalities may occur during treatment		Unlikely to need in your setting

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Decontamination

Single Dose Activated Charcoal (AC):

- Oral administration or instillation by nasogastric tube of an aqueous preparation of activated charcoal
- Dose
 - 0.5 - 1g/kg as a single dose
- Indications
 - Ingestion of toxin known to be absorbed by charcoal
 - Ingestion occurring within 1 hour prior to administration of activated charcoal (some exceptions exist)
- Contraindications/cautions
 - Unprotected airway (depressed state of consciousness without endotracheal intubation)
 - Use increases risk and severity of aspiration
 - Risk of hemorrhage or GI perforation due to pathology, recent surgery or medical conditions
 - Ingestion of a corrosive substance in which use of activated charcoal will interfere with potential endoscopy
- Preparation
 - If to be taken orally, consider mixing with something palatable like soda or juice

Multi-Dose Activated Charcoal (MDAC)

- Repeated administration of 2 or more doses of activated charcoal to enhance the elimination of toxins already absorbed in the body
- Dose
 - Initial load of single dose AC (0.5 -1g/kg)
 - 0.25 – 0.5 g/kg in subsequent doses
- Possible Indication
 - A life threatening amount of salicylate, valproic acid, phenytoin, carbamazepine, dapsone, phenobarbital, quinine, or theophylline
- Contraindications
 - Unprotected airway
 - Presence of intestinal obstruction
 - GI tract that is not anatomically intact
 - Decreased peristalsis (relative contraindication)
- Bowel sounds should be checked prior to each dose

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Cathartics

- Not generally recommended for stock
- One dose of sorbitol may be considered with first dose of AC but not used with multiple doses as this has caused severe electrolyte abnormalities (especially in pediatric cases)

Ipecac Syrup

- Not Recommended for Stock

Urine Alkalinization

- Use of intravenous sodium bicarbonate to increase the pH of the urine (goal ≥ 7.5) and enhance elimination of toxin (usually a weak acid)
- Caution: requires careful monitoring of serum pH and electrolytes. It is highly recommended KRPCC be consulted prior to use.
- Procedure
 - Prior to starting an infusion, provide a sodium bicarbonate bolus (1 mEq/kg) slowly over 15 minutes.
 - Prepare an infusion by compounding 150 mEq sodium bicarbonate with 40 mEq of KCl in 850 mL of D5W.
 - Administer infusion at 3-4 ml/kg/hr with a goal urine output of 2 ml/kg/hr.
- Indication
 - First line treatment for salicylate toxicity in patients that are symptomatic or have a salicylate level > 40 mg/dl
 - Monitor lungs in between each liter as patients with salicylate toxicity are at greater risk of pulmonary edema if they smoke, are elderly, or decreased lung function due to COPD.
- Contraindication
 - Established or incipient renal failure
 - Existing heart disease (relative contraindication)

Whole Bowel Irrigation

- Administration of large volumes of PEG-ES by nasogastric tube at rapid rates at least until the rectal effluent takes on the physical appearance of the infusate
- Dose
 - 1500-2000 ml/hr until rectal effluent is clear; duration may be extended based on corroborative evidence
 - Many patients may not tolerate doses $>$ then 750 ml/hr without vomiting – use cautiously if the patient is at risk for aspiration.
- Not for routine use; may have potential benefit in a limited number of toxic ingestions

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- Possible Indications
 - Potentially toxic ingestion of sustained release or enteric coated drugs
 - Substantial iron or lithium ingestion due to lack of other options for gastric decontamination
 - Removal of ingested packets of illicit drugs (refers to packets created by professional smugglers and not “baggies” consumed while evading law enforcement)

- Contraindications
 - Bowel perforation or obstruction
 - Clinically significant GI hemorrhage
 - Ileus
 - Unprotected or compromised airway
 - Hemodynamic instability
 - Uncontrollable/intractable vomiting

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Antivenin *Crotalidae* Polyvalent Immune FAB Ovine (CroFab™)

- Recommendation sufficient for complete of one confirmed rattlesnake bite
- If necessary, this would allow time for attainment of more vials
- Wyeth's brand of antivenin *Crotalidae* is no longer available and is not recommended

Antivenom-Black Widow

- Recommendation sufficient for therapy for 1 patient
- If necessary, minimum level can be reduced to zero and the dose be kept at a central location within the *hospital system* to reduce cost, as the antidote may not be necessary within 3 hours of bite

Calcium Chloride and Calcium Gluconate

- It is recommended to carry sufficient quantities of both if central access is not available for preferred calcium chloride
- Calcium gluconate is the more versatile agent
- Recommended dose sufficient to start therapy with either agent

Sodium Dithionate Antidote Kit (Cyanide)

- It is recommended to add 3-4 vials of sodium thiosulfate, which is inexpensive, safe, and can be given before a definitive diagnosis is made

Cyanokit®

- Stocking two kits would be enough to treat two patients
- Cannot be run in the same line as sodium thiosulfate due to precipitation, but giving both at the same time may show synergistic effect

Dantrolene

- Use of dantrolene is not currently recommended for poisoning patients, but is limited to indication of malignant hyperthermia

Deferoxamine

- Recommendation sufficient to treat 1 patient for 12 hours with mild to moderate toxicity
- If necessary, treatment can be started with current stock and patient transferred to another facility or additional antidote obtained

Digoxin Immune Fab (DigiBind/DigiFab)

- Recommendation is for empiric treatment of two adults
- It is realized that empiric therapy in adult will not likely exceed 10 vials, and most chronic therapy is 3 vials or less

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Dimercaprol

- Stock level sufficient to initiate treatment in a patient that allows time to obtain more product

Calcium Disodium EDTA

- Not Recommended in your setting

EtOH

- Due to sufficient supply of fomepizole, not necessary to stock for EG/methanol poisoning
- Fomepizole is preferred agent as it is effective and requires less monitoring than EtOH
- Not Recommended

Glucagon

- Stock a sufficient amount to initiate treatment; then obtain more antidote

Flumazenil

- Generally not recommended

Fomepizole

- Recommendation sufficient load a patient; another dose isn't needed for 12 hours unless patient is hemodialyzed

N-acetylcysteine

- Recommendation sufficient to load and treat for 8 hours using either route

Octreotide

- Dosing generally ranges between 50-75 mcg SQ every 4-6 hours when needed for sulfonyleurea overdose
- In many cases, more than two doses has not been necessary

Physostigmine

- ****Contact PCC for Consult****

Pralidoxime (2-PAM)

- Recommendation is for agriculture exposure to maintain a continuous infusion if needed until more can be obtained – this does not take into account the Strategic National Stock Pile which would be deployed if a warfare agent was suspected

Succimer (Chemet®)

- Should not need in your setting