



**Title Updated** **Toxins & Environmental POISONING / TOXIDROMES Practice Guideline**

**Patient Care Goals**

1. Ensure patient is removed from hazardous material environments and appropriately decontaminated
2. Ascertain type of agent by toxidrome or testing
3. Identify antidote or appropriate treatment

**Patient Presentation:**

*Inclusion Criteria*

Exposure or overdose of medications and/or toxins  
*Routes:* Absorption, Ingestion, Inhalation, Injection

**Patient Management:**

Airway management is crucial throughout EMS care  
 12 lead ECG

**Medications:**

**Naloxone**

- 0.5 mg IV/IO/IM
- 1 mg IN

Max single dose 1.0 mg, q3 min until resp improves

**Ondansetron**

- ODT: 15-30 kg: 4 mg >30 kg: 8 mg
- IV/IO: 0.1 mg/kg, MAX 4 mg

**Ketamine**

- 3 mg/kg IM ROUTE ONLY, max first dose 300 mg
- After 10 mins, second dose if needed, 1 mg/kg IM ROUTE ONLY, max 100 mg (add'l orders OLMC)

**Sodium Bicarbonate** *OLMC no longer required for TCA OD*

- Unstable vitals refractory to fluid bolus and wide QRS
- 50 mEq IV/IO (Adult)
- 1 mEq/kg IV/IO (Peds)

**Hydroxocobalamin (Cyanokit®)** *May use in cardiac arrest*

- Dedicated line, vented tubing
- 5 G IV/IO (Adult)
- 70 mg/kg IV/IO (Peds)

**DuoDote kit** (may be carried by haz-mat or command):

- Atropine 2.1 mg IM (or 2 mg IV/IO in lieu of DD kit)
- 2-PAM 600 mg IM
- Repeat x 2 PRN

Normal Saline Bolus and Norepinephrine per Shock PG

**Special PRN circumstances:**

- Albuterol / Ipratropium for bronchospasm
- 5.0 mg/1 mg nebulized (Adult)
- 2.5 mg/0.5 mg nebulized (Peds)

**Patient Safety Considerations**

1. Maintain a high index of suspicion
2. Engage Haz-Mat resources for decon and expertise
3. Ensure appropriate PPE for exposure

**Note: Consider HBOT (Hyperbaric Oxygen Therapy) destination for toxic inhalation exposures without trauma or major burns**

**Quality Improvement:**

- Key Documentation Elements

  1. Possible etiology
  2. Time of exposure
  3. Response to treatment

Paramedic Working Assessment: Poisoning / Toxidromes

Scene safety  
 Appropriate PPE  
 Patient decontamination

Universal Care

Toxidromes

Opioid  
 Narcotic  
 Loperamide

Respiratory depression

Airway Management Guideline  
 Opioid Overdose Guideline  
 Naloxone

Alcohol  
 Benzodiazepine  
 Sedative

Airway compromise

Airway Management Guideline  
 Prevent aspiration  
 Ondansetron

Stimulant  
 Anticholinergic

Delirium with agitated behavior

Patient Restraint Guideline  
 Ketamine

Tricyclic Antidepressant

Hypotension or QRS ≥ 0.12 sec

Shock Guideline  
 Sodium Bicarbonate\*

Beta Blocker  
 Calcium Channel Blocker

Unstable vitals

Shock Guideline  
 Bradycardia with Pulses Guideline

Carbon Monoxide

Closed-space exposure or fire

Airway Management Guideline  
 High flow O2 all patients  
 Consider Cyanide Poisoning Guideline

Cyanide

Closed-space fire or Manufacturing

Airway Management Guideline  
 Cyanide Poisoning Guideline  
 Hydroxocobalamin  
 Consider \*\*Haz Mat\*\*

Organophosphate  
 Nerve Agent  
 Cholinergic

SLUDGE

Chemical Exposure Guideline  
 DuoDote (or Atropine)  
 \*\*Haz Mat\*\*

OLMC Consult PRN:  
 Uncommon overdose or exposure  
 No responsive to interventions

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Pg 1 of 1