



General Medicine
CHOLINERGIC TOXICANT EXPOSURE
 (formerly Chemical Exposure)
 Practice Guideline

Patient Care Goals:

1. Identify exposure to potential cholinergic toxicants
2. Focus on supportive care measures
3. Perform appropriate mass casualty triage

Patient Presentation:

Inclusion Criteria

Presumed exposure to nerve agents, pesticides, or other organophosphates

Exclusion Criteria

Presumed exposure not potentially cholinergic toxic

Patient Management:

Management of the basics - airway, breathing, and circulation (ABCs) is key to survival. Mortality is tied to bradycardia, bronchospasm, and bronchorrhea. Basic and advanced airway with suctioning and ventilation management, plus HR and BP control for circulation are critical.

Medications

- Atropine IV/IO
 - Adult (≥ 40kg) : 2 mg q 5 min
 - Pediatric (<40kg): 0.5 mL/kg q 5 min
 - Max 20 mg cumulative
 - May require frequent doses to reverse agent
- Midazolam IV/IO/IN over 10 seconds
 - Adult (≥ 40kg) : 4 mg
 - Pediatric (<40kg): 0.1 mg/kg
- Midazolam IM
 - Adult (≥ 40kg) : 10 mg
 - Pediatric (<40kg): 0.25 mg/kg

Patient Safety Considerations:

Continuous vital sign monitoring (including EtCO₂) and supportive care is critical to survival
 Mass casualty triage may limit medication availability and administration

Quality Improvement

- Key Documentation Elements
1. Signs and symptoms
 2. Vital signs including EtCO₂
 3. Suspected exposure agent
 4. Number of victims

Paramedic Working Assessment: Cholinergic Toxicant Exposure (formerly Chemical Exposure)

Universal Care

Refer to Mass Casualty Triage Practice Guideline and S.A.L.T. Triage if applicable

*Remove pt from contaminated scene
 Remove clothing, decontaminate*

Assess for symptoms
S Salivation (drooling)
L Lacrimation (tearing)
U Urination
D Diarrhea/defecation
G General twitching/seizures
E Emesis
M Miosis (pinpoint pupils)

Yes

Atropine
 May repeat every 5 min

PRN circumstances

- Wheezing
 O₂, Albuterol/Ipratropium
- Seizures
 Midazolam
- Burns
 Wound management

Transport to appropriate destination

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