

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
BLS**

SMO: Clostridium Perfringens Toxin

Revised Date:

Overview: Toxins purified from Clostridium perfringens may be used in biochemical warfare. The epsilon toxins are most likely to be delivered as an aerosol, although water borne disease is conceivable. The epsilon toxins change cell membrane integrity and cause intracellular electrolyte disturbances, which lead to cell dysfunction and death. All suspected or confirmed cases of clostridium perfringens must be reported to the local department of public health and the Illinois Department of Public Health. The incubation period is usually 1 to 5 hours post exposure.

INFORMATION NEEDED

- History related to the present illness
- Any patient family members or friends displaying signs and symptoms of this disease

OBJECTIVE FINDINGS

- **Pulmonary: May see respiratory irritation, cough, bronchospasm, with severe cases developing ARDS and respiratory failure.**
- **Cardiac: Tachycardia and/or hypotension may be seen.**
- **GI: Nausea, vomiting and diarrhea may potentially be seen with food/water-borne contamination.**
- **CNS: The C. perfringens epsilon toxin is a potent neurotoxin which can cause vacuoles to form in nerve and brain cells resulting in dysfunction and death. Weakness, dizziness, ataxia and coma leading to death may occur.**

BLS

- Standard isolation techniques to be used by the EMS personnel, including masking of the EMS personnel and patient
- Vital signs
- Assess for any other medical or trauma issues
- Assess the patient's airway and respiratory effort
- Provide supplemental oxygenation as needed using a nasal cannula at 2-6 LPM or by non-rebreather mask at 10-15 LPM
- Ensure that the patient has a secure airway

Documentation of adherence to protocol:

- History related to the present illness
- Oxygen provided
- Airway measures taken to ensure a patent airway

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