**Affected Areas**
Central Nervous System
Cardiac

**Immediate Symptoms**
- Altered state of consciousness
- Progression from fatigue and lightheadedness to coma
- Seizures
- Cardiac

**Ongoing Symptoms**
**Inhalation Exposure**
- *Mild to moderate*:
  - Flushing of the skin
  - Fatigue
  - Lightheadedness
- *Severe*:
  - Nausea
  - Anxiety
  - Difficulty breathing

**Life Threatening**:
- Convulsions
- Respiratory distress

**Fatal**:
- Severe convulsions
- Irreversible respiratory distress

**Ingestion Exposure**
- *Mild to moderate*:
  - Vomiting
  - Abdominal pain
  - Fatigue
  - Lightheadedness
- *Severe*:
  - GI irritation
  - Sedation
  - Confusion
  - Mild increased lactate
  - Seizures/convulsions

**Life Threatening**:
- Hypotension
- GI Perforation

**Fatal**:
- Refractory hypotension
- High lactate
- Academia (metabolic and respiratory)
- Refractory bradycardia

**Examples**
- Chemical Warfare Agents
  - Cyanide*
- Toxic Industrial Chemicals/Toxic Industrial Materials
  - Cyanide*
  - Sodium azide
  - Carbon monoxide
  - Aniline
  - Arsine
  - Nitrogen
  - *May be weaponized

**Sensitive Populations**
- No particularly sensitive populations

**Concerns About This Syndrome**
- No special concerns.

**Common Treatment Protocols**
- Supportive care for all agents and to rule out other diagnoses: Oxygen
  - For cyanides: Cyano kits
  - For other agents specific antidotes may be available:
    - Chelators for arsenic

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Not meant to be a complete care guideline. Please refer to the CHEMM website for more information: [https://chemm.hhs.gov/mmghome.htm](https://chemm.hhs.gov/mmghome.htm)