

SECTION: R-08

TITLE: Cyanide/Hydrogen Sulfide Poisoning

REVISED: November 1, 2017

GENERAL COMMENTS: While not normally available to field medics (outside HAZMAT responses) some of the following treatments are kept on fire/EMS supervisor rigs and at certain manufacturing facilities and may be administered by ACCESS paramedics. Begin or continue such treatment as indicated and contact MEDICAL CONTROL as soon as possible.

BLS SPECIFIC CARE: See Adult General Toxicological Care Protocol R-1

- Maintain safety. Do not enter a HOT ZONE without proper PPE. Generally speaking, Level B protection or higher is recommended
- Do not accept a patient who has not been appropriately decontaminated
- Patients suffering from Cyanide or Hydrogen Sulfide poisoning may expose providers by means of respiratory off gassing even after being decontaminated. Ensure good ventilation in enclosed spaces
- Give priority to decontamination of the eyes with water. Remove contaminated clothing and decontaminate the skin as appropriate with soap and water
- If pediatric patient, determine patient's color category on length based resuscitation tape (ACCESS Pediatric Tape)
- Obtain patient's temperature and cool/warm as necessary
- Position patient as appropriate

AEMT/O.M. Specific Care: See Adult General Toxicological Care Protocol R-1

ALS SPECIFIC CARE: See Adult General Toxicological Care Protocol R-1

- Attempt to identify co-morbid factors and other medical issues, including poly-pharm involvement

Protocol

R-08

CYANIDE & HYDROGEN SULFIDE POISONING

Hydroxocobalamin: (Cyanokit)

- IV initial dose: 5g administered over 15 minutes
- Depending upon severity of the exposure and clinical response to the initial dose, a second dose may be administered
- Second dose: 5g IV infused over 15-120 minutes depending upon severity of signs and symptoms

Be prepared for seizures and treat appropriately.

PHYSICIAN PEARLS:

Aggressive management of seizure activity with benzodiazepines is crucial.

Cyanide inhibits brain glutamate decarboxylase, which causes a decrease in the inhibitory neurotransmitter GABA and contributes to convulsions.

Drugs such as Benzodiazepines, which act at the GABA receptor complex, therefore can help control seizures.