

Hazardous Materials Medical Response Team Procedures

Hydrogen Sulfide, Sulfides and Mercaptans

FORMS: Gas (hydrogen sulfide, methyl & short-chain alkyl mercaptans), liquid (other mercaptans).

ROUTES OF EXPOSURE: Skin and eye contact, inhalation, skin absorption.

SIGNS AND SYMPTOMS:

Cardiovascular:	Cardiovascular collapse, tachycardia and arrhythmias.
Respiratory:	Irritation of respiratory tract, cough, dyspnea and tachypnea. Respiratory arrest and pulmonary edema may be present.
CNS:	Headache, confusion, dizziness, excitement, tiredness and a garlic taste in mouth. Decreased LOC, coma and seizures.
Eye:	Chemical conjunctivitis, lacrimation and photophobia.
Skin:	Dermatitis, sweating and local pain. Cyanosis may be present.
Other:	Symptoms may be delayed. The ability to detect the product by smell may be lost after a short exposure time.

Procedure:

Pre-Radio Contact

1. Follow General HazMat Treatment Protocol
2. Monitor for shock and pulmonary edema.
3. Anticipate seizures.
4. Administer oxygen 10-15 l via non-rebreather mask.
5. Oral tracheal or nasal tracheal intubation is indicated in the unconscious or respiratory arrest patient.
6. Start IV NS.

Place patient on cardiac monitor and treat dysrhythmias according to cardiac protocols (3-01 through 3-13).

Treat seizures according to Seizure Protocol. Treat hypotension according to Non-Traumatic Hypotension Protocol. In the symptomatic patient with significant exposure administer treatment in the following order. (Use the Cyanide Poisoning Kit)

Sodium Thiosulfate is not effective for Hydrogen Sulfide exposure.

1. Amyl Nitrite: Break pearls into gauze sponge and hold under patient's nose or Ambu intake valve for 15 to 30 seconds/minute until sodium nitrite solution is ready.

Orders to Expect

1. Sodium Nitrite (3 % IV solution):
Adult: 10 ml at 2.5 to 5 ml/minute, or 0.35 ml/kg slow IV push over 2-3 minutes.
Child: 0.2 ml/kg not to exceed 10 ml.
2. Repeat antidote at 50% of initial dose if symptoms persist after 20 minutes. If symptoms worsen after treatment consider the possibility of NITRITE TOXICITY causing METHEMOGLOBINEMIA greater than 25%.

Contact Medical Control.

Washtenaw/Livingston MCA

HEMS

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SPECIAL CONSIDERATIONS:

Due to chemical characteristics consider hypothermia/frostbite. Treat according to Protocol 4-05.

If symptoms are mild, including eye and throat irritation, headache, nausea or dizziness, supportive care will suffice.

In severe cases observe for delayed onset of pulmonary edema.

8-06a

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Implement	02/99	04/05		