

This information is current as of the date faxed and for the patient specified ONLY. Do not use this information for other patients without contacting the Poison Center at 1-800-222-1222.

VESICANTS – Health Care Information

The blister/vesicant agents, **Mustard** (H, HD, HN), **Phosgene oxime** (CX), **Lewisite** (L), and the **dichloroarsines** (ED, MD, PD), are potent liquid compounds that may be used as weapons of mass destruction. They may be sprayed as a liquid, vaporized or distributed via an explosive device. All blister/vesicant agents are rapidly absorbed and cause topical damage to tissues that they contact.

Recognition and Triage: The blister/vesicant agents cause topical damage to the skin, mouth, and lungs (e.g., “burns” of the skin and mucosa and pneumonitis). Patients may develop **immediate** (e.g., **phosgene oxime, lewisite or dichloroarsines**) or **delayed** (e.g., **mustard**) **pain and erythema of the skin, upper airways, and pneumonitis**, followed in hours by blistering of the skin. **Mustard causes no immediate symptoms**, but produces skin and respiratory symptoms 2 to 24 hours after exposure. After mustard exposure, pneumonitis may develop over 2 to 48 hours with **necrosis of respiratory epithelium and sloughing, and bone marrow suppression** may become evident on day 2 to 5. Patients may be triaged as follows:

Immediate: Respiration >30/minute or upper airway edema

Delayed: Mild mucosal irritation

Minor: Asymptomatic (minor patients exposed to mustard must be observed for delayed symptoms)

Personal Protective Equipment (PPE) (at the health care site): Personnel who decontaminate patients should wear splash-proof PPE (waterproof outer garment) and a filtered air respirator. Personnel treating patients who have already been decontaminated require no PPE other than universal precautions.

Decontamination (at the health care site): Sufficient decontamination includes removal of ALL clothing and jewelry and thorough washing of the skin and hair with water for 3 to 5 minutes. Exposed or painful eyes should be flushed with 1 to 2 liters of water or normal saline, then continue flushing until the ophthalmic pH is between 7 and 8. An ophthalmic anesthetic should be used prior to flushing.

Diagnosis and Treatment: Diagnosis can be definitively made by sending **25mL of urine** to the OR State Health Lab. In unknown chemical events, draw and send **3 purple top and one green (or gray) top tube** of blood to the OR State Health Lab.

Treatment is **supportive**. **Oxygen** may be required for hypoxemia. Early **intubation** should be considered for upper airway swelling. **Bronchodilators** (e.g., albuterol) may be used for wheezing or cough. Exposed eyes should be flushed with 1 to 2 liters of water or normal saline and then be treated with lubricants, such as petroleum jelly. Significant blisters should be unroofed (blister fluid does not contain the blister/vesicant agent) and treated with silver sulfadiazine. Massive fluid resuscitation is NOT necessary with these chemical burns. Contact the Poison Center (1 800 222 1222) for specific questions or advice on individual patients.

Patient Monitoring: Continuous monitoring of pulse oximetry and end-tidal carbon dioxide may help assess oxygen exchange. Continuous cardiac and blood pressure monitoring are necessary for critically ill patients.

Disposition Criteria (when to send the patient home): Initially asymptomatic or mildly symptomatic patients exposed to mustard may progress to severe systemic toxicity over 4 to 8 hours. Patients with mild or no symptoms after 8 hours may be discharged with instructions to return if symptoms worsen.

Reporting/Coordination Link: Call the Poison Center (1 800 222 1222) for information on specific patients. Contact the local or state public health authority to report a mass casualty incident. (see attached contact list). For additional information on this topic, see the following websites: CDC chemical fact sheets: www.bt.cdc.gov/agent/agentlistchem.asp.

Oregon Poison Center *Fast Facts* 1-800-222-1222

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Please review the CDC Collection Protocol, which should be included with this FAX.