CASE DEFINITION

Arsine or Stibine Poisoning

Clinical description

Inhalation of arsine gas causes no immediate symptoms. Signs and symptoms occur 2 to 24 hours after exposure and result from massive hemolysis. These signs and symptoms include generalized weakness, dark urine, jaundice, and dyspnea. Oliguria and renal failure often occur 1 to 3 days after exposure (1-3).

Laboratory criteria for diagnosis

- **Biologic**: No specific test is available for arsine exposure; however, exposure to arsine might be indicated by detection of elevated arsenic levels in urine (>50 µg/L for a spot or >50 µg for a 24-hour urine) and signs of hemolysis (e.g., hemoglobinuria, anemia, or low haptoglobin).
- **Environmental**: Detection of arsine in environmental samples, as determined by NIOSH.

Case classification

- **Suspected**: A case in which a potentially exposed person is being evaluated by health-care workers or public health officials for poisoning by a particular chemical agent, but no specific credible threat exists.
- **Probable**: A clinically compatible case in which a high index of suspicion (credible threat or patient history regarding location and time) exists for arsine exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- **Confirmed**: A clinically compatible case in which laboratory tests have confirmed exposure.

The case can be confirmed if laboratory testing was not performed because either a predominant amount of clinical and nonspecific laboratory evidence of a particular chemical was present or a 100% certainty of the etiology of the agent is known.

Additional resources


This document is based on CDC’s best current information. It may be updated as new information becomes available. For more information, visit [www.bt.cdc.gov/chemical](http://www.bt.cdc.gov/chemical), or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).