



CASE DEFINITION

Chlorine

Clinical description

The majority of exposures occur by inhalation and typically lead to symptoms of ocular, nasal, and respiratory irritation. Signs and symptoms of poisoning might include eye redness and lacrimation, nose and throat irritation, cough, suffocation or choking sensation, and dyspnea. For cutaneous exposures, burning, blistering, and frostbite injury to the skin are possible (1, 2).

Laboratory criteria for diagnosis

- *Biologic*: No biologic marker for chlorine exposure is available.
- *Environmental*: Detection of chlorine 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 chlorine exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- *Confirmed*: A clinically compatible case in which laboratory tests on environmental samples are confirmatory.

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

1. Agency for Toxic Substances and Disease Registry. Medical Management Guidelines (MMGs) for Chlorine (Cl₂). Atlanta, GA: Agency for Toxic Substances and Disease Registry, Division of Toxicology; 2004. Available at www.atsdr.cdc.gov/MHMI/mmg172.html.
2. Urbanetti JS. Toxic inhalational injury. In: Zajtchuk R, Bellamy RF, eds. Textbook of military medicine: medical aspects of chemical and biological warfare. Washington, DC: Office of the Surgeon General at TMM Publications, Borden Institute, Walter Reed Army Medical Center; 1997:247-70.

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