Ricin Toxin Poisoning

Merlin disease code: 98830 Ricin Toxin Poisoning

Specimens for all cases must be sent to the Bureau of Public Health Laboratories

This condition has been identified as a potential bioterrorism agent by the CDC.

Clinical criteria for case classification

Clinical criteria depend on the route of exposure:

- **Inhalation:** Inhalation of ricin typically leads to cough and respiratory distress followed by pulmonary edema, respiratory failure, and multi-system organ dysfunction. Weakness and influenza-like symptoms of fever, myalgia, and arthralgia might also be reported.

- **Ingestion:** Ingestion of ricin would cause internal bleeding of the stomach and intestines that would lead to vomiting and bloody diarrhea. This may be followed by hypovolemic shock and multisystem organ dysfunction. Weakness and influenza-like symptoms, fever, myalgia, and arthralgia, might also be reported.

- **Injection (data are limited):** Low doses of intravenous ricin may result in influenza-like symptoms of fatigue and myalgia. Pain at the injection site. Depending on dose, may progress to multi-organ failure.

- **Skin and eye exposure:** Ricin is unlikely to be absorbed through skin. Contact with ricin powders or products may cause redness and pain of the skin and eyes.

- **Death from ricin poisoning could take place depending on the route of exposure (inhalation, ingestion, or injection) and the dose received.**

Laboratory criteria for case classification

- **Environmental:** Detection of ricin in environmental samples.

- **Biologic:** Detection of ricinine in urine specimens.

Epidemiological criteria for case classification

Not applicable.

Case classification

- **Confirmed:** A clinically compatible illness in a person with laboratory criteria.

- **Probable:** A clinically compatible illness in a person with either a high index of suspicion (reliable intelligence or patient history) for ricin exposure or an epidemiologic link to a case with laboratory criteria.

A case can be confirmed in the absence of laboratory testing if either a predominant amount of clinical and nonspecific laboratory evidence of a particular chemical is present or if there is 100% certainty of the etiology of the agent.

Criteria to distinguish a new case from previous reports

Not applicable.