REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
BLS

SMO: Ricin **Revised Date:**

Overview: Ricin is manufactured from the castor bean, and can be formed from the waste products of castor oil production or made in clandestine laboratories. It is thought that ricin works by disrupting protein synthesis at the ribosomal level. Fast growing cells will be most affected initially. It can be inhaled in a powder or mist form, ingested if it is put in a food or water supply, or injected intramuscularly or subcutaneously. Death from ricin poisoning could occur within 26 to 48 hours after exposure. If the patient survives 5 days, they should survive the poisoning.

INFORMATION NEEDED

__ History of present illness
__ Any patient family members or friends experiencing similar signs and symptoms
__ Recent ingestion of foods other than what was prepared at home
__ Any recent injections and by whom

OBJECTIVE FINDINGS

__ • **Inhalational Exposure: Symptoms occur a few hours after an inhalational exposure, and may include cough, chest tightness, dyspnea, nausea and muscle pain. Severe exposures can develop into pulmonary edema and/or ARDS within 12 to 24 hours.**
__ • **Ingestion: Severe gastroenteritis can be seen with ricin toxicity with profound vomiting, severe abdominal pain, cramping and diarrhea. GI bleeding may be noted. Death is from multi-system organ failure.**
__ • **Injection: At low doses, intramuscular injection may produce flu-like symptoms, muscle pain, nausea, vomiting, and localized pain and swelling. Injection of a lethal amount of ricin will cause local tissue death, massive gastroenteritis, GI bleeding and multi-system organ failure**

BLS

__ Vital signs
__ Assess for any evidence of GI bleeding
__ Standard isolation techniques to be used by EMS personnel including masks
__ Provide a patent airway as necessary if the patient cannot maintain his or her own airway
__ Supplemental oxygenation by nasal cannula at 2-6 LPM or by non-rebreather mask at 10-15 LPM
__ Depending upon the patient's ability to protect their own airway, BLS mechanical airway procedures and/or suctioning may need to be utilized (oro- or naso-pharyngeal airways or CombiTube)

Documentation of adherence to protocol:

__ History of current illness
__ Oxygen provided
__ Isolation techniques taken by EMS personnel
__ Airway maintenance

Medical Control Contact Criteria

__ • Contact Medical Control if there is any suspicion that the patient may have been exposed to ricin

PRECAUTIONS AND COMMENTS

There is no specific treatment for ricin poisoning. The cornerstone of treatment is basic supportive care including fluids management of gastroenteritis and airway/pulmonary management for treatment of inhalational exposure.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
ALS

SMO: Ricin **Revised Date:**

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INFORMATION NEEDED

__ History of present illness
__ Any patient family members or friends experiencing similar signs and symptoms
__ Recent ingestion of foods other than what was prepared at home
__ Any recent injections and by whom

OBJECTIVE FINDINGS

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ALS

__ Vital signs
__ Assess for any evidence of GI bleeding
__ Standard isolation techniques to be used by EMS personnel including masks
__ Provide a patent airway as necessary if the patient cannot maintain his or her own airway
__ Supplemental oxygenation by nasal cannula at 2-6 LPM or by non-rebreather mask at 10-15 LPM
__ IV of N.S. if the signs and symptoms of dehydration are apparent
__ Depending upon the patient's ability to protect their own airway, suctioning, and ALS mechanical airway adjuncts may have to be utilized (CombiTube, intubation)
__ Pressor support with Dopamine may be needed for patients with hypotension

Documentation of adherence to protocol:

__ History of current illness
__ Oxygen provided
__ Isolation techniques taken by EMS personnel
__ Airway maintenance
__ IV initiated

Medical Control Contact Criteria

__ • Contact Medical Control if there is any suspicion that the patient may have been exposed to ricin
__ • Contact Medical Control prior to initiation of IV fluid
__ • Contact Medical Control prior to administration of any pressor

PRECAUTIONS AND COMMENTS

There is no specific treatment for ricin poisoning. The cornerstone of treatment is basic supportive care including fluids management of gastroenteritis and airway/pulmonary management for treatment of inhalational exposure.