

**TO:** Chittenden County Health Care Providers, Hospitals, Ambulatory Care Centers, EMS Providers

**FROM:** Mark Levine, MD, Commissioner of Health

## **Possible Ricin Exposure**

A field test performed by the Vermont State Hazardous Materials Response team (HAZMAT) today identified ricin at Wake Robin, a Shelburne retirement community. Confirmatory testing is underway at the Vermont Department of Health Laboratory. Ricin is believed to have been processed, from castor beans, by a resident. That individual is hospitalized at the University of Vermont Medical Center, not necessarily for ricin poisoning. Law enforcement officials are investigating the incident.

Symptoms of ricin poisoning develop rapidly after exposure. No other possibly ill individuals have been identified, nor are expected, based on the last possible date of exposure on Sunday, November 26.

### **What is Ricin?**

Ricin is an extremely toxic poison found naturally in castor beans. Ricin can be made from the waste material left over from processing castor beans and then purified, and treated to form a powder that can be inhaled or ingested.

### **What are the symptoms of ricin exposure?**

Initial symptoms of ricin poisoning are most likely to occur within four to 10 hours if the ricin was inhaled or swallowed. Symptoms of ricin poisoning depend on whether ricin was inhaled or swallowed, and the dose received.

**Symptoms of Inhalation Exposure:** Respiratory distress (difficulty breathing), fever, cough, nausea, tightness in the chest, and heavy sweating. Symptoms may occur as early as four to eight hours, and as late as 24 hours after exposure. Symptoms are then likely to progress to include problems such as worsening respiratory distress, pulmonary edema (fluid within the lungs), and eventually respiratory failure.

**Symptoms of Ingestion Exposure:** Vomiting, diarrhea that may become bloody). Other signs may include hallucinations, seizures, and blood in the urine. Following ingestion of ricin, initial symptoms typically occur in less than 10 hours.

### **Treatment**

- Get ricin off or out of the body as quickly as possible. There is no antidote.
- Provide supportive treatment to minimize the effects of ricin poisoning, based on exposure and symptoms (outlined below).

**Inhalation Exposure:** Provide oxygen, and/or mechanical ventilation with positive end expiratory pressure to maintain oxygenation, if needed.

**Ingestion Exposure:**

- Do NOT induce vomiting.
- Administer a single dose of activated charcoal as soon as possible.
- Do not give anything by mouth.
- Provide early and aggressive intravenous fluid and electrolyte replacement.
- Administer blood pressure support using intravenous vasopressors, if needed.

**Report suspect cases of ricin poisoning immediately** to the Vermont Department of Health by calling 802-863-7240 (available 24/7).

**Ricin Information for Clinicians –**

Resources for clinicians are available on the Center for Disease Control and Prevention's website: <https://emergency.cdc.gov/agent/ricin/hp.asp>