



**LAC DPH Health Alert
Wound Botulism Cases
Associated with Heroin**

November 21, 2019



This message is intended for emergency departments, first responders, urgent care providers, emergency medical services, behavioral health providers, infectious disease, neurologists, and other health care professionals and for facilities that care for patients who inject drugs.

Please distribute as appropriate

Key Messages

- There have been several cases of wound botulism associated with heroin injection reported in Los Angeles County.
- Symptoms consistent with botulism include drooping eyelids, blurred or double vision, change in sound of voice, difficulty speaking or swallowing, and trouble breathing. Patients may present with mild symptoms but can also progress rapidly to respiratory failure requiring intubation.
- Health care providers are asked to be vigilant for cases of wound botulism, especially in injection drug users.
- Patients who are suspected to have wound botulism should be referred to the nearest emergency department immediately.
- Botulism antitoxin can prevent the progression of symptoms and should be given as soon as possible. It is only available through Los Angeles County Department of Public Health (LAC DPH).
- Suspected cases should be reported to LAC DPH immediately. See reporting section below.

Situation

Since October 13, 2019, two confirmed and two suspected cases of wound botulism associated with heroin injection have been reported in LA County. The cases are apparently unknown to each other and are not geographically clustered. The sources of the heroin remain unknown and additional cases may occur.

All four cases had wound infections or abscesses and a recent history of injecting heroin. Presenting symptoms included diplopia, ptosis, dysphagia, slurred speech, facial paralysis, difficulty breathing and muscle weakness. All required intensive care treatment and two had respiratory failure requiring intubation. All patients received Botulism Antitoxin Heptavalent (BAT®).

Between 2014-2018, eighteen confirmed cases of wound botulism have occurred in LA

County (average 3.6/year, range 1-8/year), all of which were associated with drug use. Of these 18, 9 cases were associated with black tar heroin, 7 with heroin, and 2 were associated with injection/inhalation of cocaine and/or methamphetamine. In 2019 to date, there has been a total of 6 reported cases of wound botulism in the County.

Actions Requested of Providers

- Be alert for possible cases of wound botulism. The initial presentation may be mild and there may be no obvious site of infection.
- Establish the presence of signs consistent with the descending paralysis of botulism: e.g. cranial nerve palsies (ptosis, diplopia, dysarthria), progressing distally to extremities, weakness, and shortness of breath.
- Determine if the patient has risk factors for wound botulism, e.g. injection drug use, especially injecting or “skin-popping” heroin.
- Immediately refer suspect cases of wound botulism to the nearest emergency department.
- Call LAC DPH 24/7 for consultation, botulism testing, and treatment with botulism antitoxin if indicated (see reporting section for telephone numbers).
- Obtain infectious disease, neurology, and surgical consultation (for wound debridement) as indicated.

Background

Botulism is a rare, potentially fatal paralytic illness caused by the neurotoxins produced by *Clostridium botulinum*. Wound botulism occurs when a wound infected with *C. botulinum* secretes the toxin. Wound botulism in drug users may occur in abscesses from subcutaneous or intramuscular injection (skin or muscle “popping”). More information about botulism and guidance for clinicians are available on the Centers for Disease Control and Prevention (CDC) [botulism website](#).

Clinical Presentation

Botulism typically presents with prominent bilateral cranial nerve palsies (e.g. diplopia, dysphagia, dysarthria) and then progresses to the extremities in a proximal to distal manner. This symmetrical descending paralysis can impair respiratory muscles causing respiratory failure and death. Patients may initially complain of blurred vision, double vision and difficulty speaking including slurred speech, dysphagia, dysphonia. The presentation is acute, usually bilateral, and without sensory deficits or altered mental status.

Not all IDU-associated wound botulism patients present with a visible abscess or wound. Therefore, clinicians need to have a high index of suspicion for botulism. Prompt clinical diagnosis is imperative as timely administration of botulism antitoxin may halt the progression of disease.

Diagnosis and Treatment

All testing for botulism is performed by LAC DPH.

Supportive care is the mainstay of treatment for wound botulism. Treatment with botulism antitoxin will halt progression but not reverse symptoms. To reduce the incidence of respiratory failure, antitoxin should be administered as early as possible, prior to laboratory confirmation or wound debridement, and ideally within 12 hours of presentation.

Treat any infected wound(s) with high-dose antibiotics effective against anaerobes, as indicated. Debride the patient's wound(s) if any. It is recommended that antitoxin is administered prior to wound debridement.

Consultation from LAC DPH is available 24/7 to authorize testing and release of botulism antitoxin

Transmission and Infection Control

Person-to-person transmission does not occur. Standard precautions are indicated.

Reporting

Los Angeles County DPH Acute Communicable Disease Control:

- Weekdays 8:30am–5pm: call 213-240-7941.
- After-hours: call 213-974-1234 and ask for the physician on call.

Long Beach Health and Human Services:

- Weekdays 8am-5pm: call 562-570-4302.
- After hours: call the Duty Officer at 562-500-5537.

Pasadena Public Health Department:

- Weekdays 8am-5pm (closed every other Friday): call 626-744-6089.
- After hours: call 626-744-6043.

Additional Resources

- LAC DPH Botulism webpage (including posters for patients in English and Spanish) <http://publichealth.lacounty.gov/acd/Diseases/Botulism.htm>



- CDPH Botulism webpage <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Botulism.aspx>
- CDC Wound botulism webpage <https://www.cdc.gov/botulism/wound-botulism.html>

This Health Alert was sent by Dr. Sharon Balter, Director, Division of Communicable Disease Control and Prevention, Los Angeles County Department of Public Health

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