



LAC DPH Health Alert: Wound Botulism Cases Associated with Heroin



October 29, 2020

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

Key Messages

- There have been six cases of wound botulism associated with heroin injection reported in Los Angeles County since June 2020.
- Health care providers are asked to be vigilant for cases of wound botulism, especially in injection drug users.
- 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.
- 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 immediately reported to LAC DPH. LAC DPH will authorize botulism testing and release botulism antitoxin, if indicated. See *Reporting and Consultation* below.

Situation

Since June 1, 2020, six suspected cases of wound botulism associated with heroin injection have been reported in Los Angeles County (one case a month June through August and three cases in October). The cases are apparently unknown to each other. The sources of the heroin remain unknown and additional cases may occur.

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

In 2020 to date, there has been a total of 9 reported cases of wound botulism, more than twice the annual average.

Between 2015-2019, twenty confirmed cases of wound botulism occurred in Los Angeles County (average 4.0/year, range 1-8/year), all of which were associated with drug use. Of these twenty, 11 cases were associated with black tar heroin, 7 with heroin and 2 were associated with injection/inhalation of cocaine and/or methamphetamine.

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 symmetrical paralysis of botulism: e.g. acute bilateral 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 and Consultation* 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 is contaminated by *C. botulinum* spores that germinate and produce toxin inside the wound. Wound botulism in drug abusers occurs in dermal 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 antitoxin will halt progression but not reverse symptoms. Botulism antitoxin should be administered as early as possible, prior to laboratory confirmation or wound debridement, and ideally within 12 hours of presentation to reduce the incidence of respiratory failure.

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

Reporting and Consultation

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: 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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