



Health Alert Network

Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

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The pages that follow contain information critical to protecting the health of your patients and the citizens of Colorado.

HAN ADVISORY

Number of pages including cover: 4

Subject: **Advisory - Wound botulism associated with heroin injection**

Message ID: 10/13/2017 11:00:00 AM

Recipients: HAN Community Members.

From: TRI-COUNTY HEALTH DEPARTMENT

Adams, Arapahoe and Douglas County, Colorado

Recipient Instructions: **This is a revised HAN. You may have received a similar HAN recently from CDPHE. The final section of the HAN has been revised to include new messages for patient counseling.**

You have received this message based upon the information contained within our Health Alert Network Notification System. If you have a different or additional e-mail or fax address that you would like us to use, or if you have additional questions, call 720-200-1477.

Categories of Health Alert Network Messages:

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service/Public Health Brief: Provides general information that is not necessarily considered to be of an emergent nature.

You may download a copy of this HAN from the TCHD website at
<http://www.tchd.org/259/Health-Alert-Network>



HEALTH ADVISORY | Wound botulism associated with heroin injection | Oct. 12, 2017

Health care providers: Please distribute widely in your office

This information is for the public health and health care community. Do not post this document on a public web or social media site.

Key points

- A suspected case of wound botulism associated with injecting black tar heroin was reported in October 2017. This is the second case of black tar heroin-related wound botulism identified in Colorado since June 2016. Prior to June 2016, the last case of wound botulism in Colorado associated with black tar heroin use was in 1999.
- Symptoms of wound botulism are similar to foodborne botulism and include weak or drooping eyelids, blurred or double vision, dry mouth and sore throat, slurred speech, trouble swallowing, difficulty breathing, and progressive descending symmetric paralysis. Most patients with injection-related wound botulism have visibly infected wounds in places they have injected heroin.
- Consider botulism in differential diagnosis when evaluating patients who inject drugs and present with clinically compatible illness.
- Report all suspected cases of botulism to CDPHE immediately at 303-692-2700 (after hours 303-370-9395).
- CDPHE facilitates botulism testing and antitoxin release.

Background information

Botulism is a rare but serious paralytic illness caused by a nerve toxin that is produced by the bacterium *Clostridium botulinum*. There are three main kinds of botulism: foodborne botulism, wound botulism, and infant botulism. During 2012-2016, one case of foodborne botulism, 15 cases of infant botulism, and one case of wound botulism were reported in Colorado. The previous wound botulism case, in June 2016, was associated with heroin injection.

In October 2017, a suspected case of wound botulism was reported to the Colorado Department of Public Health and Environment (CDPHE). The case was investigated by Tri-County Health Department. Heptavalent botulinum antitoxin was released and administered to the case based on the case's clinical presentation and history of injecting drugs. Laboratory testing at CDC is pending. The patient remains hospitalized.

While wound botulism is rare in Colorado, an average of 10 cases of wound botulism are reported each year in California. From California data and other research, wound botulism is most commonly associated with injection of contaminated black tar heroin. Black tar heroin is the predominant type of heroin available in the western United States and is sometimes called H, dope, horse, chiva, and black. People who inject drugs dissolve the heroin and inject it intravenously (“mainlining”), intramuscularly (“muscling”), or subcutaneously (“skin popping”). Injecting black tar heroin intramuscularly or subcutaneously is believed to increase risk of wound botulism. Cooking or cleaning the drug does not prevent wound botulism because it is unlikely to inactivate *C. botulinum* spores.

The recent Colorado case reported injecting black tar heroin on multiple occasions and had an abscessed injection site prior to symptom onset.

The source of the case’s heroin is unknown, and it is possible that contaminated black tar heroin is available and being used in Colorado.

Recommendations / guidance

Identify and report cases

Persons who inject drugs who develop wound botulism typically present with complaints of double vision, trouble swallowing, muscular weakness, and difficulty breathing. The incubation period for wound botulism (4 to 14 days) is typically longer than that for foodborne botulism (average 12 to 36 hours); however, it is difficult to determine the incubation period for wound botulism associated with injection drug use given the tendency for people who inject drugs to inject multiple times per day. Symptoms can be mistaken for drug overdose, but on physical examination, patients are found to have ptosis and/or other cranial nerve palsies. Weakness progressing to flaccid paralysis is bilateral, symmetrical, and descending. Most cases associated with injection drug use will have visibly infected wounds in the locations where they have been injecting heroin.

Promptly report suspected cases of any type of botulism (wound, foodborne, or infant) to the CDPHE Communicable Disease Branch at 303-692-2700 (after hours 303-370-9395). CDPHE will facilitate testing and antitoxin acquisition.

Testing

Collect serum and wound specimens from suspected wound botulism cases. Specimens should be refrigerated, not frozen. Botulism testing for Colorado cases is done by the Centers for Disease Control and Prevention (CDC). Specimens should be sent to the CDPHE laboratory to be sent to CDC. Authorization by the CDPHE Communicable Disease Branch is required for testing by CDC. Due to the nature of botulism laboratory testing (toxin neutralization bioassay in mice), results may not be reported until several days after specimens are received. Do not delay patient treatment while laboratory results are pending.

Treatment

Botulism cases should receive botulinum antitoxin as soon as possible. The antitoxin is administered intravenously and blocks the action of the toxin circulating in the blood unbound to nerve endings. The antitoxin is most effective if given early in the course of the illness and can prevent the illness from worsening. **Notify the CDPHE Communicable Disease Branch immediately of a suspected case of botulism so the process of obtaining antitoxin can be initiated.** The antitoxin is only available through the CDC and must be requested by CDPHE. Serum specimens should be collected before the antitoxin is administered. Even with antitoxin treatment, recovery still takes many weeks.

To reduce the risk of wound botulism, counsel patients who inject drugs on the following:

- If possible, stop drug use altogether. Be supportive of patients who are ready to look at their treatment options.
- Refer patients to a local syringe access program if one is available. Check <https://naseen.org/directory/co/>
- Smoking drugs can be a safer alternative to injecting.
- Accidental “missed hits” (i.e., attempting to inject into a vein but missing the vein) are a significant risk factor for wound botulism. Advise the patient to adopt safer injecting practices.
- Patients who report black tar heroin use should monitor themselves for symptoms of botulism (e.g., trouble swallowing, muscle weakness, blurred vision) and seek immediate medical attention should symptoms develop.

For more information

To consult CDPHE about suspected cases of botulism, call **303-692-2700** (regular business hours) or **303-370-9395** (after hours, weekends and holidays).

Additional information on botulism can be found on the CDC and California Department of Public Health websites:

- <http://www.cdc.gov/botulism/index.html>
- <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Botulism.aspx>