



MARYLAND Department of Health

Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary

June 10, 2019

Dear Colleagues:

A case of botulism in an adult Maryland resident has [recently been identified](#). As you know, botulism is a rare disease, particularly among adults. This case is suspected to be foodborne. At this time, the Maryland Department of Health (MDH) is not aware of other people who might have been exposed to botulism. However, MDH asks that you be alert for signs and symptoms of illness that might be consistent with botulism in your patients, particularly since botulism is uncommon, and can be challenging to diagnose. Additionally, we ask for assistance in providing counseling to patients about how to prevent botulism.

Botulism in Maryland

There are typically multiple cases of botulism identified in Maryland each year. From 2015 to 2018, there were between three and 10 cases annually. Mirroring national trends, the vast majority of cases in Maryland occur among infants.

Clinical presentation of botulism

Botulism is a neuroparalytic illness characterized by symmetric, descending flaccid paralysis of motor and autonomic nerves, beginning with the cranial nerves. If untreated, illness might progress to cause descending paralysis of respiratory muscles, arms, and legs.

Signs and symptoms in an adult might include diplopia, blurred vision, ptosis, slurred speech, dysphagia, dry mouth, and muscle weakness. People with foodborne illness might also experience abdominal pain, nausea, vomiting, and diarrhea.

Signs and symptoms in an infant might include poor feeding, diminished suckling and crying ability, neck and peripheral weakness, constipation, or respiratory failure.

Transmission of botulism

Botulism is caused by a neurotoxin typically produced from *Clostridium botulinum*, which are anaerobic, spore-forming bacteria. Transmission differs by type of botulism:

- **Foodborne botulism** occurs when a person ingests botulinum toxin, which leads to illness within a few hours to days. A frequent source is home-canned foods prepared in an unsafe manner.
- **Infant botulism** occurs when an infant ingests spores of *C. botulinum*, which in turn colonize the intestinal tract and produce toxin.
- **Wound botulism** occurs when wounds infected with *C. botulinum* secrete the toxin.
- **Adult intestinal colonization** is very rare, and most patients have a history of gastrointestinal surgery or illness, or have received medications that predispose them to enteric colonization.
- **Iatrogenic botulism** occurs after an overdose of injected botulinum toxin for cosmetic or medical purposes.

Diagnosis of botulism

The initial diagnosis of botulism is based on clinical symptoms. **Do not delay beginning treatment to wait for specimen collection or laboratory confirmation.**

Botulism testing is performed at the MDH Laboratories Administration and requires prior approval through the health department.

For infant stool specimen collection, do NOT use glycerin suppositories, as they can interfere with testing. Tips on infant stool specimen collection are available at <http://infantbotulism.org/laboratorian/collection.php>.

Treatment of botulism

If botulism is suspected, contact your local health department immediately. If you are unable to reach your local health department, contact MDH at 410-767-6700 during business hours or 410-795-7365 after hours. If you are unable to reach the health department, contact CDC's clinical emergency botulism service at 770-488-7100.

- **For non-infant cases:** Administer botulism antitoxin as soon as possible. Antitoxin can stop the progression of paralysis. If administered early in the course of illness, antitoxin can prevent the progression of paralysis and shorten the duration of illness. Antitoxin is available through CDC and can be requested via MDH.
- **For infant botulism: Administer *BabyBIG*[®], *Botulism Immune Globulin Intravenous*, as soon as possible. *BabyBIG*[®] is available through the [Infant Botulism Treatment and Prevention Program](#) at the California Department of Public Health; consultation is available 24/7 at 510-231-7600. Please also notify your local health department or MDH.**

Prevention of foodborne botulism

Many cases of foodborne botulism are caused by improperly processed home-canned, preserved, or fermented foods that were contaminated with toxin. Contamination can happen when food is handled improperly when it is made, when it is stored, or when it is used by consumers.

Guidance for your patients regarding safe home canning and other tips to reduce the risk of foodborne botulism are available at <https://www.cdc.gov/botulism/consumer.html>

If you have questions, please contact your local health department or MDH's Infectious Disease Epidemiology and Outbreak Response at 410-767-6700.

Sincerely,



Monique Duwell, MD, MPH
Chief, Center for Infectious Disease Surveillance and Outbreak Response
Maryland Department of Health