

Botulism, Wound Investigation Overview

The following guidelines provide a brief overview of the steps of Wound Botulism investigation. Wound botulism is a rare illness caused by a toxin made by *Clostridium botulinum* bacteria. It is a serious illness historically associated with injection drug use or wounds or open fractures contaminated with soil or gravel. The toxin attacks the body's nervous system. People usually have symptoms which start with weakness of the muscles that control the eyes, face, mouth, and throat. This weakness may spread to the neck, arms, torso, and legs. Botulism also can weaken the muscles involved in breathing, which can lead to difficulty breathing and even death. Wound botulism can happen if the spores of the bacteria get into a wound and make a toxin. People who have symptoms should seek **immediate** medical attention.

***Clostridium botulinum* is a potential bioterrorism (BT) agent. It is highly UNLIKELY that Wound Botulism is a BT event.**

For additional support, consult the NC Communicable Disease Branch at (919) 733-3419.

Basic Steps of a Botulism, Wound Investigation

1. Ensure case definition is met	<ul style="list-style-type: none">Clinical criteria and laboratory evidence are required for the wound botulism case definition.
2. Collect clinical information	<ul style="list-style-type: none">Weakness of eye (double/blurred vision), face, mouth (slurred speech), and throat muscles (difficulty swallowing, breathing)Weakness may spread to the neck, arms, torso, and legsRespiratory muscles can also be involved, which can lead to difficulty breathing and deathDuring the course of the investigation, interview other exposed individuals for symptoms of illnessRefer symptomatic individuals immediately to health care provider for evaluation
3. Determine the incubation period	<ul style="list-style-type: none">Usually 4 – 14 days
4. Manage the case	<ul style="list-style-type: none">Refer the healthcare provider directly to the Epidemiologist On Call at the state (919) 733-3419 to discuss clinical findings. The epidemiologist on call will connect the provider with CDC to request antitoxin and specimen collection, if needed.Follow up with Epidemiologist On Call to make sure that healthcare provider was able to speak with epidemiologistAs soon as possible, obtain medical record (admission note, progress note, lab report(s), and discharge summary) to look for evidence in the medical record that supports clinical findings described in the case definitionReview clinical information to determine if illness is the foodborne, wound or intestinal (infant) form of botulismComplete the Part 2 Form/risk history and clinical packages in NCEDSS
5. Identify source of exposure	<ul style="list-style-type: none">An isolated case of wound botulism does not usually indicate a public health emergency. You cannot get botulism from another person. It is not contagious, but individuals sharing contaminated heroin or equipment with another person may both become infected.

6. Review Laboratory Information	<ul style="list-style-type: none"> • Laboratory results may not be available when a suspect case is reported • Botulism-related specimens can be submitted to the CDC for culture and toxin testing ONLY after approval by the state and CDC. <ul style="list-style-type: none"> • Instructions for shipping specimens will be provided at that time • Preferred specimens for wound botulism examination include serum (obtained before antitoxin administration) and wound specimens (i.e., debrided tissue, wound swabs) • Treatment, if indicated, should not be delayed pending test results.
7. Implement Control Measures	<ul style="list-style-type: none"> • Ensure that proper infection control practices are in place for wound precautions.
<p><i>Resources –</i></p> <ul style="list-style-type: none"> ➤ https://www.cdc.gov/botulism/index.html ➤ <i>Control of Communicable Diseases Manual (20th edition)</i> 	
<h2>Critical Elements for NCEDSS</h2>	
<ul style="list-style-type: none"> ➤ Document if patient resides or has been in a congregate living situation (e.g., shelter) where others may have had the same injection drug use exposure, if applicable. 	