

SPECIMEN SUBMISSION GUIDELINES FOR SUSPECTED BOTULISM (excluding INFANT BOTULISM)



All suspected botulism cases should be reported immediately by telephone to the Local Health Department (CA Code of Regulations, Title 17, Section 2500). In Los Angeles County, call Acute Communicable Disease Control **213-240-7941** or the County Emergency Operator **213-974-1234** after hours and on weekends and holidays to report the suspect case and to obtain botulinum antitoxin. Suspect cases residing in **Long Beach** (562-570-4302) or **Pasadena** (626-744-6000) should be reported to the respective public health department.

- The **Infant Botulism Reporting Hotline** of the California Department of Public Health is **510-231-7600**. See <http://www.infantbotulism.org/> for infant botulism specimen collection guidelines, diagnostics, and treatment specific to infant botulism.

For botulinum toxin testing, submit the following specimens to the Los Angeles County Public Health Laboratory (PHL); Public Health will arrange for courier pick-up. Please include in the submitted package the name and telephone number of the contact physician, and a brief medical/clinical history including a list of medications the patient has recently received. Anticholinergics, such as ambenonium (Mytelase), neostigmine (Prostigmine), and pyridostigmine (Regonol, Mestinon) are of special concern.

All specimens submitted to the PHL should be kept refrigerated, not frozen. Place specimens into biohazard-labeled zip lock specimen bags to contain any leakage. The submitter must complete a separate test requisition form for each type of sample (serum, fecal, gastric). Specific questions on specimen submission should be directed to the PHL Bioterrorism Response Unit at 562-658-1360. PHL test request forms can be downloaded at <http://www.lapublichealth.org/lab/>.

1) PRE-ANTITOXIN SERUM

- Draw three 10 cc red-top or serum-separating vacutainer tubes. Refrigerate tubes until well clotted.
- Label as PRE-ANTI-TOXIN SERUM with 1) patient name, 2) date and time collected and 3) medical record number.
- Spin down cells and ship all tubes without removing serum.
- Note: Testing the patient post-treatment is no longer indicated, according to the Centers for Disease Control and Prevention (CDC) and California public health officials.

2) FECAL SAMPLE - for both foodborne AND wound botulism

- Submit at least 25 g feces in a clean, dry container without transport media. If an enema is needed, use only sterile, non-bacteriostatic water. Submit approximately 50 ml of enema effluent.
- Stool can be collected EITHER pre- or post-antitoxin administration.
- Label the container with 1) patient name, 2) date and time collected, and 3) medical record number.

3) GASTRIC CONTENTS, ASPIRATE or VOMITUS - for both foodborne AND wound botulism

- Submit 25-50 ml of gastric material taken before lavage in a clean, dry container without transport media.
- Only samples taken within 48 hours of admission will be accepted.
- Label as GASTRIC ASPIRATE or VOMITUS with 1) patient name, 2) date and time collected, and 3) medical record number.

For suspected **WOUND BOTULISM**, anaerobic culture for wound or abscess should be attempted by the submitting facility and isolates suspicious for *C. botulinum* should be submitted to the PHL for confirmatory identification. Please contact the PHL Bioterrorism Response Unit prior to isolate submission and include a copy of your laboratory results on the submitted organism.

Special collection procedures are essential to recovery of anaerobic bacteria since brief exposure to oxygen may be detrimental to their survival. The use of anaerobic specimen collection devices including carbon dioxide-filled anaerobic collection tubes protect anaerobic bacteria from exposure to toxic amounts of oxygen until the specimen is inoculated on appropriate medium in an anaerobic environment. Submit samples ASAP for anaerobic culture to your hospital laboratory. Label specimens with: 1) patient name, 2) source, 3) date and time collected, and 4) medical record number. Transport all specimens at room temperature in a biohazard specimen bag. The laboratory or physician may call the PHL for consultation on sample collection.

Sample any evident wounds, including fracture sites; submit excisional biopsy, aspirate, or swab to your hospital laboratory. Excision of site is always preferred. Place excised tissue in the anaerobic transport device used by your hospital. If the

excised specimen is too large to fit inside the anaerobic transport device, a sterile screw cap cup may be used. A piece of gauze with a small amount of physiologic saline can be used to keep the specimen moist. Large tissue samples will maintain a sufficient internal anaerobic environment during transport.

If incision and drainage is performed, lavage the open site with sterile, non-bacteriostatic, normal saline and submit washings for culture using an anaerobic transport device/vial.

For needle aspirates, aseptically clean site and perform the aspiration from the deepest part of the lesion with 3-5 ml syringe and a 22- to 23-gauge needle. Disinfect rubber stopper of anaerobic transport device/vial with 70% alcohol. Expel all air from the syringe before collecting sample. Inject sample slowly and directly through the rubber stopper of the anaerobic transport device/vial. Never send capped needle syringes containing specimens to the laboratory. Needle transport is unsafe because there is a risk of needle stick injury; also the sample may be expelled accidentally during transport and ruined. Always transfer aspirated material to an anaerobic transport device.

A swab is not considered satisfactory for anaerobic culture and may only be used as a last resort. If submitted, obtain as much material as possible and utilize an anaerobic culturette device.

In wound botulism, incision and drainage or debridement may be indicated; intravenously infuse botulinum antitoxin prior to surgery to capture unbound toxin released into the bloodstream. High-dose antibiotics effective against anaerobes are indicated. Consider tetanus immunization if indicated by patient history and prior immunization status. Call Acute Communicable Disease Control for other clinical management questions at 213-240-7941.

Submit all patient samples with adequate gel-type cold packs. Transport at 4°C and do not freeze. Isolates should be packaged and sent as Division 6.2 hazardous goods. Request a county courier by calling the PHL Bioterrorism Response Unit directly.

**Los Angeles County Department of Public Health
Public Health Laboratory
Main Line 562-658-1330 or 562-658-1300
Bioterrorism Response Unit 562-658-1360
FAX: 562-401-5999**