



Diphtheria

Investigation Checklist for Local Health Departments

Local health department staff should follow these steps when beginning to investigate reports of Diphtheria. Consult with NJDOH by calling (609) 826-5964 during regular business hours or (609) 392-2020 after business hours and on weekends.

- Review laboratory results to understand what was reported.
 - Sometimes result is “diphtheroids” which is not diphtheria. Or result may come back as another *Corynebacterium* species (*accolens*, *afermentans*, etc) and be confused for diphtheria. When in doubt, request a hard copy of lab result.
 - Obtain this information:
 - How was *C. diphtheriae* identified? By MALDI-TOF or biochemical testing?
 - Were other pathogens identified besides *C. diphtheriae*? If yes, please list.
 - Were antibiotic susceptibilities completed on isolate?
- Obtain additional clinical and epidemiologic information from medical provider and patient:
 - Is individual currently hospitalized?
 - Is an adherent membrane present?
 - If yes,
 - Obtain good description of membrane. Typically, with diphtheria, it would be very tight (almost becoming part of the tissues b/c it becomes so adherent); when poked it would pull away from the pharynx and may bleed. Whereas with other organisms, a scraping may be more like being able to remove tissue, like a film—similar to scraping the inside of a cheek.
 - Any other competing diagnoses? (e.g., if unilateral—could it be peritonsillar abscess?)
 - Any testing done for mono, strep throat, herpes pharyngitis, underlying HIV?
 - Request a picture of membrane and continue collecting data below.
 - If no, please continue with requesting additional information below
 - Is patient exhibiting symptoms of respiratory diphtheria?
 - What antibiotics is patient receiving?
 - Any existing chronic conditions (e.g., diabetes mellitus, immunosuppressive state)?
 - Any mention of endocarditis in the patient’s chart?
 - Is individual currently homeless?
 - Was individual born in U.S.?
 - History of injection drug use? Current or past?
 - Recent contact with domestic or farm animals? Had they been working on a farm?
 - Recent (approx. last 4–6 weeks) domestic or international travel? Dates/locations?
 - Any recent contact with unvaccinated travelers?
 - Is diphtheria vaccination status known? Attempt to obtain documentation/dates of diphtheria vaccines (DTaP, DT, Tdap, Td). Document all or most recent dose(s)—review [NJIS](#) registry.



- Identify/assess close contacts
 - Close contacts include all household members, persons with a history of habitual, close contact with the suspected diphtheria patient, or persons directly exposed to secretions from the suspected infection site of the patient.
 - Inquire about diphtheria vaccination status for household members.
 - Are any close contacts exhibiting symptoms of respiratory diphtheria?
 - Ensure patient and close contacts have been educated on the symptoms of respiratory diphtheria and know what to do should they become sick within 14 days of their last contact with the patient.
- For all confirmed *C. diphtheriae* culture results, CDC requests isolates for toxigenicity testing, regardless of whether case has an adherent membrane. Process for submission may differ, depending on level of respiratory disease suspicion. Generally, NJDOH will notify CDC and then request that LHD request facility send isolate to PHEL (with completed [BACT-109](#) or requesting a “Reference Laboratory Test” via [PHEL’s Online Ordering Portal](#)).
 - Storage and handling guidance for isolates is available [here](#):
- Finalize [CDRSS](#) data entry, assign appropriate [case classification](#), and LHD Close case when investigation is complete.
 - Illness onset date
 - Demographics (including race/ethnicity)
 - Signs/symptoms (including onset dates)
 - Risk factors
 - Hospital admission/discharge dates
 - Mortality (whether case was alive or deceased upon discharge)
 - Immunizations (specifically only diphtheria immunizations)
 - Treatment (antibiotics for diphtheria)
 - Assessment of close contacts
- As with all communicable disease investigations, please feel free to contact your Regional Epidemiologist or the Disease Subject Matter Expert with any questions.