

Investigation Steps: Legionnaires' disease in a healthcare facility resident North Carolina Communicable Disease Branch — Medical Consultation Unit

The Legionnaires' disease case definition and investigation steps can be found here:
http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/reportable_diseases.html.

For additional information, contact the NC Communicable Disease Branch, 919-733-3419 (24/7).

Was the patient in a healthcare facility (e.g., hospital, long-term care facility, skilled nursing facility) during the 14 days before symptom onset?

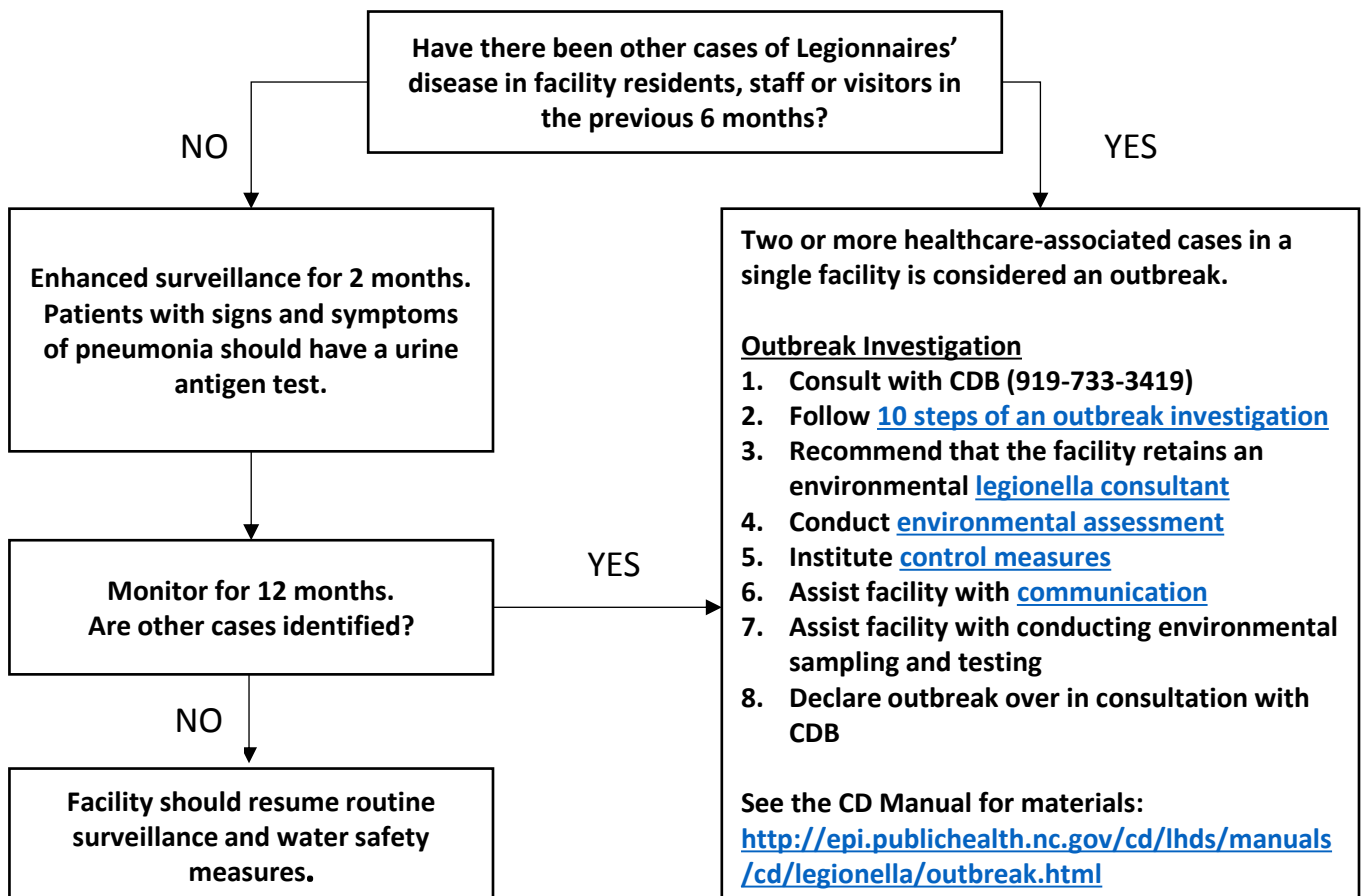
To answer this question, create a timeline of events.

- When was the patient originally admitted to each facility?
- When did symptoms start?
- Did the patient go anywhere else in the 14 days before symptom onset (e.g., family member's home, trips, outings)?

What additional investigation steps are necessary?

First, determine if the case is a possible or definite healthcare-associated case. The algorithms below illustrate next steps for each case type.

POSSIBLE HEALTHCARE-ASSOCIATED CASE
(patient was in a facility for part of the 14 days before symptom onset)



What additional investigation steps are necessary?

DEFINITE HEALTHCARE ASSOCIATED CASE

(patient did not leave the facility at any point during 14 days before symptom onset)

Have there been other cases of Legionnaires' disease in facility residents, staff or visitors in the previous 6 months?

NO

Sentinel Case Investigation

1. Consult with CDB (919-733-3419)
2. Conduct a [facility site visit](#); use the [environmental assessment tool](#)
3. Conduct [six-month retrospective surveillance](#)

See the CD Manual for materials:

http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/legionella/sentinel_case.html

Were other cases of Legionnaires' disease identified?

YES

NO

Enhanced surveillance for 2 months. Patients with signs and symptoms of pneumonia should have a urine antigen test.

Monitor for 12 months. Are other cases identified?

NO

Facility should resume routine surveillance and water safety measures.

YES

Two or more healthcare-associated cases in a single facility is considered an outbreak.

Outbreak Investigation

1. Consult with CDB (919-733-3419)
2. Follow [10 steps of an outbreak investigation](#)
3. Recommend that the facility retains an environmental [legionella consultant](#)
4. Conduct [environmental assessment](#)
5. Institute [control measures](#)
6. Assist facility with [communication](#)
7. Assist facility with conducting environmental sampling and testing
8. Declare outbreak over in consultation with CDB

See the CD Manual for materials:

<http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/legionella/outbreak.html>

YES