

**Legionnaires’ Disease Cluster Hypothesis Generating Questionnaire**

<*Instructions to the interviewer appear in italics. Please read the entire questionnaire before beginning the interview*.>

Interviewer:

Date:

Initials of Case-Patient: DOB: NJ Case ID (pre-fill):

What was the patient’s outcome? ☐ Recovered ☐ Still Ill ☐ Died ☐ Unknown

**Patient contact information**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Age: \_\_\_\_\_\_\_\_\_\_\_ Sex: ☐ M ☐ F

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

City: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ State: \_\_\_\_\_\_ Zip: \_\_\_\_\_\_\_\_\_\_\_ County: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Alt. phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Proxy contact information** *<List proxy contact information if patient is unable to be interviewed or has died.>*

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Relationship to patient: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Alt. phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Please fax the completed questionnaire to 609-292-5811 or send attached to an encrypted email to** **PreventLD@doh.nj.gov**

*Questionnaire last updated on July 26, 2023*

**Template Call Script (ONLY READ IF INITIAL CALL AND NOT PREVIOUSLY SCHEDULED)**

Hello, my name is [Interviewer] and I’m calling from the [LHD]. May I speak with [patient]?

I would like to follow up with a few questions regarding your recent hospitalization at [hospital name]. While you were at the hospital, were you told if you had a lung infection, or a type of pneumonia called Legionnaires’ disease?

*<If they are unaware of their diagnosis, ask them why they went to the hospital and ask about what signs/symptoms they had. Explain that the hospital performed a lab test that detected Legionella bacteria.>*

Legionnaires’ disease is caused by breathing in water droplets that have *Legionella* bacteria in them. The bacteria enter your lungs and can make you sick. We are seeing an increase in people with Legionnaires’ disease in the area and we are concerned there is an ongoing risk to the public. I would like to ask you about what you did in the 14 days before you got sick. This can help us possibly figure out where you may have been exposed to Legionella bacteria and can help us prevent others from getting sick. The interview typically takes 20 minutes to complete. Do you have a few minutes to talk?

*<Additionally, it may be helpful for the patient to review bank statements, receipts, recent transactions (e.g., credit cards, gift cards), and/or text messages to help aid in recalling this information>*

*<If not, schedule a day/time that is more convenient for them. Explain the importance of the interview and that it should not be delayed for too long>*

|  |
| --- |
| **Communication Log** |
| **Date and Time** | **Contact Outcome** | **Scheduled Call Back Date and Time** | **Communication Note** |
|  |  |  |  |
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**1. Illness Onset**

*<First you want to establish the illness onset date. Ask about the patient’s symptoms>*

The symptoms of Legionnaires’ disease may include fever, cough, shortness of breath, chest pain, abdominal pain, diarrhea, nausea, confusion, body aches, and headache. Did you have any of these symptoms? What day did they begin?

*<Check all that apply and document onset date>*

|  |  |  |  |
| --- | --- | --- | --- |
| **Onset date** | **Symptom** | **Onset date** | **Symptom** |
|  | Fever |  | Diarrhea |
|  | Cough |  | Nausea |
|  | Shortness of breath |  | Confusion |
|  | Chest pain |  | Body aches |
|  | Abdominal pain (stomach aches) |  | Headache  |

Were you hospitalized for your illness? ☐ Yes ☐ No ☐ Do Not Know

 If yes, what date did you go to the hospital? \_\_/\_\_/\_\_\_\_

Were you diagnosed with pneumonia by a healthcare provider? ☐ Yes ☐ No ☐ Do Not Know

<*Important: Use a calendar to calculate the exposure period. Start at the date of earliest symptom onset documented above and count backwards 14 days.>*

**

<*Document exposure period here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_>*

For the remainder of the interview, I am going to ask you about the 14 days before you became ill. The 14 days prior to your illness would be from [*day of the week*] \_\_/\_\_/\_\_\_\_ to [*day of the week*] \_\_/\_\_/\_\_\_\_. The rest of the questions will ask about the places you visited during this time. If you don’t remember exactly where you visited during this time, just say you don’t know. If you cannot remember exactly but I mention a place you generally go, please let me know.

**2. Medical Device Use**

In the 14 days prior to illness onset did you use a humidifier, nebulizer, CPAP, BiPAP, or any respiratory therapy equipment for the treatment of sleep apnea, COPD, asthma, or for any other reason?

☐ Yes ☐ No ☐ Not sure

*<If yes, complete the following table:>*

| **Type of device** | **Location used** | **Date(s)** |
| --- | --- | --- |
|  |  |  |

If yes, does this device use a humidifier? ☐ Yes ☐ No ☐ Do Not Know

If yes, describe what type of water you use in this device (e.g., sterile, tap, distilled).

**3. Occupation**

In the 14 days prior to becoming ill, did you work or volunteer either part-time or full-time?

☐ Yes ☐ No ☐ Not sure

*<If yes, complete the following table:>*

| **Name of facility and location** | **Dates** | **Describe type of work and any possible exposures to water at work**  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| Comments:  |

**4. Construction Exposures**

In the 14 days prior to becoming ill, did you have any exposure to general construction, plumbing projects, or water main breaks (e.g., any water disruptions such as brown water/low water flow)?

☐ Yes ☐ No ☐ Not sure

*<If yes, complete the following table:>*

| **Describe exposure** | **Address of exposure** | **Dates of exposure** |
| --- | --- | --- |
|  |  |  |

**5. Water Usage**

In the 14 days prior to becoming ill, did you have any exposure to aerosolized water at home (or at work) such as washing the car, water the garden, using the hose, or using a power washer?

☐ Yes ☐ No ☐ Not sure

*<If yes, complete the following table:>*

| **Describe exposure** | **Address of exposure** | **Dates of exposure** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| Comments: |

**6. Healthcare Exposures**

In the 14 days prior to becoming ill, did you work at, get treatment in, or visit a healthcare setting (e.g., hospitals, nursing homes, outpatient clinic, dental office)?

☐ Yes ☐ No ☐ Not sure

*<If yes, complete the following table:>*

| **Describe exposure (e.g., outpatient, inpatient, visitor, employee)** | **Name and address of facility** | **Dates of exposure** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| Comments: |

| 7. Other Exposures *<ensure you specifically state that you are asking about exposures in the 14 days prior to becoming ill>* |
| --- |
| Exposures | *<Check one:>* | Name and Address | Date(s) |
| Yes | No | Not sure |
| 1. Did you visit any friends or family?
 |  |  |  |  |  |
| 1. Did you shop for groceries at a grocery store, farmers market, food co-op?

*(If they say no, ask them where they typically grocery shop)* |  |  |  |  |  |
| 1. Did you go shopping or run any errands (e.g., malls, outdoor shopping centers, hardware stores, nurseries, etc.)

*(If they say no, ask them what routine errands they may typically do)* |  |  |  |  |  |
| 1. Did you visit any convenience stores such as … (*name several convenience stores in their community*)?
 |  |  |  |  |  |
| 1. Did you visit any fast-food establishments such as … (*name several fast-food establishments in their community*)?
 |  |  |  |  |  |
| 1. Did you go to any restaurants, bars, or casinos?
 |  |  |  |  |  |
| 1. Did you attend any religious services or visit a church, synagogue, mosque, or temple?
 |  |  |  |  |  |
| 1. Did you visit any recreational centers, community pools, community centers, sports clubs, or gyms?
 |  |  |  |  |  |
| 1. Did you visit any amusement or water parks?
 |  |  |  |  |  |
| 1. Did you attend any events such as wedding, potluck, BBQ, street fair, or party?
 |  |  |  |  |  |
| 1. Did you attend a convention, charity event, reception, conference, or other public gathering?
 |  |  |  |  |  |
| 1. Did you work at or visit an assisted living facility or senior living facility?
 |  |  |  |  |  |
| 1. Did you work/volunteer at, reside in, or visit a congregate living facility (e.g., correctional facility, shelter, dormitory)?
 |  |  |  |  |  |
| 1. Did you visit or spend the night at any travel accommodations such as a hotel, motel, resort, campground, or vacation rental property?
 |  |  |  |  |  |
| 1. Did you spend any nights away from home?
 |  |  |  |  |  |
| 1. Did you use or go near a whirlpool or hot tub?
 |  |  |  |  |  |
| 1. Did you walk through or visit any playgrounds or parks?
 |  |  |  |  |  |
| 1. Did you visit or walk by any decorative fountains, such as a fountain in a mall?
 |  |  |  |  |  |
| 1. Did you walk by or spend time near any outdoor cooling misters, like those found near outdoor seating of a restaurant?
 |  |  |  |  |  |
| 1. Did you visit any transportation hubs such as a train station, bus terminal, or airport?
 |  |  |  |  |  |
| 1. Did you visit an area with large buildings, such as shopping centers, high-rise offices or hotels, or industrial buildings
 |  |  |  |  |  |
| *Add additional questions as needed. Consider including locations other case-patients visited or other businesses nearby.*  |  |  |  |  |  |

**8. Open Ended Questions**

A. When leaving your home, do you normally walk, drive, or take public transportation such as a bus?

*If they drive, ask them which gas station(s) they went to, or typically go to.*

☐ Walk ☐ Drive ☐ Public Transportation

B. Please tell me about other places you may have visited during the 2 weeks prior to becoming ill.

☐ Yes ☐ No ☐ Not sure

*<If yes, describe the activities:>*

D. Did you go anywhere else during the 14 days prior to becoming ill, that I have not asked about (e.g., hair salon, post office):

☐ Yes ☐ No ☐ Not sure

*<If yes, describe the location names, addresses, and dates:>*

E. Are there any other locations that you visit regularly?

☐ Yes ☐ No ☐ Not sure

*<If yes, describe the location names, addresses, and dates:>*

*<Thank the interviewee for their time>*