

Attachment 9: Treating clinician interview guide

Topic	Approximate Allotted Time (Minutes)
Introduction	4
Topic A: Background	5
Topic B: <i>Legionella</i> Knowledge, Attitudes, & Beliefs	5
Topic C: Diagnosis, Reporting, & Surveillance	15
Topic D: Barriers to Legionellosis Prevention	10
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Closing	1
Total	60

Introduction [4 minutes]

Hi, my name is _____. I am an independent contractor with the Hannon Group hired to conduct these interviews. I'll spend the next 60 minutes talking with you about legionellosis. The purpose of our discussion is to assist the Centers for Disease Control and Prevention, also known as the CDC, better understand the current legionellosis diagnosis and prevention practices in your hospital. This study is exploratory in nature and we've invited you to participate in this interview because we're interested in the thoughts and views of people who influence how legionellosis is diagnosed and reported in healthcare settings.

- I want to **thank you** for your participation.
- This interview is entirely **voluntary**. You can decline to answer any question and "I don't know" is an acceptable response to any question.
- The information you provide will be kept **private and secure to the extent permitted by law**. The responses of everyone I speak with will be compiled and reported in aggregate. Any direct quotes used for illustrative purposes will not be associated with your name or your hospital.
- With your permission, I would like to **record** our conversation so I can use the transcripts to make sure the analysis is accurate. Is that all right?
 - o Yes [**START RECORDING**]
 - o No [**NOTES ONLY**]
- Before we get started, do you have any questions?

Public reporting burden of this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road NE, MS D74, Atlanta, Georgia 30333; ATTN: PRA (0920-0800)

Topic A: Background [5 minutes]

1. Please tell me a little bit about you and your hospital. [Icebreaker/warm up question]

Probes:

- How many years have you been working in clinical practice/as a clinician? At your hospital?
- Do you/does your hospital serve any special populations (cancer patients, transplant center, etc.)?
- What infection prevention staff does your hospital have?

2. What, if anything, have you heard about *Legionella*, Legionnaires' disease, or Pontiac fever in your hospital?

- In your area? In the United States?

3. What type of training, if any, have you received specific to legionellosis prevention or recognizing healthcare-associated cases of pneumonia?

Probes:

- Who provided the training?
- How often is the training provided?
- What topics were covered in the training?
- How helpful was the training?
- What was missing from training?
- What wasn't useful?
- How are you applying what you learned in the training?

4. What professional organizations, if any, are you a member of? Are you an active member?

Probes:

- Association of Professionals in Infection Control and Epidemiology (APIC)
- Infectious Diseases Society of America (IDSA)
- OTHER

Topic B: *Legionella* Knowledge, Attitudes, & Beliefs [5 minutes]

1. How likely do you think it is that the hospital where you work is at risk for having *Legionella* in the building water systems? Why? This could include systems such as cooling towers, the main plumbing system (potable water), ice makers, decorative fountains, and hydrotherapy equipment.

Topic C: Diagnosis, Reporting, & Surveillance [15 minutes]

1. Please discuss with me who in your hospital is responsible for:

- Legionellosis diagnosis?
- Legionellosis management?
- Legionellosis tracking?
- *Legionella* prevention

2. What is your experience with legionellosis?

Probes:

- Have you ever diagnosed or treated someone with legionellosis (Legionnaires' disease or Pontiac fever)?
- Please describe the potential ways you would go about confirming a Legionnaires' disease diagnosis and why you would use this process. [i.e. urinary antigen test, respiratory specimen]
- Under what circumstances would you test someone with pneumonia for Legionnaires' disease?
- How often is Legionnaires' disease included in your differential diagnosis for community-acquired pneumonia?
- When your hospital is investigating suspected healthcare-associated pneumonia, how is Legionnaires' disease included in the diagnosis process?
- If you had to report a case of legionellosis, what is the process?
- When a legionellosis case is confirmed, what is the process at your hospital for determining if there is a cluster or outbreak? Has there ever been a healthcare-associated legionellosis case, cluster, or outbreak associated with your hospital? What was your role or involvement in that?

3. What is involved in ordering tests for legionellosis?

Probes:

- How many tests, and types of tests, do you order to confirm diagnosis?
- Are any tests particularly complex to order?
- Are certain tests preferable to others? If so, why?
 - Are certain tests cost prohibitive?
 - Are certain tests preferable due to when results are available?
- Are tests run in your hospital or are they sent out to another lab?
- When you order a test for legionellosis do you specify what media the lab should use?
- Are legionellosis tests offered as part of pneumonia testing?

4. What is your role in identifying healthcare-associated cases of legionellosis?

Probes:

- When a case is diagnosed in a patient, whose job is it to determine if it is community-acquired or healthcare-associated? If it is your job, how do you make that determination?
- What information would be routinely collected from patients with legionellosis?

5. How often do you think clinicians in your facility test for or consider a diagnosis of Legionnaires' disease for:

- All patients with pneumonia?
- Patients with severe pneumonia, particularly those requiring intensive care?
- Immunocompromised patients with pneumonia?
- Patients with a travel history in the two weeks prior to the onset of pneumonia?
- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia?
- Patients who develop pneumonia after a lengthy stay in the hospital?

6. Under what circumstances, if any, would your hospital routinely test all of a certain kind of patient or a certain kind of specimen for *Legionella*?

Probe:

- Does your hospital/do you test pneumonia patients that have stayed in a hospital for Legionnaires' disease?

7. Research shows that most clinicians test for legionellosis using a urine specimen. The IDSA (Infectious Diseases Society of America)/ATS (American Thoracic Society) guidelines recommend also using a respiratory specimen. What do you see as the barriers to testing both types of specimens?

Probes:

- What do you see as the benefits of culturing for legionellosis? What are the drawbacks?
- How aware do you think other clinicians are that a urinary antigen test can only test for one type of *Legionella*?
- How aware do you think other clinicians are that a culture is needed to confirm whether the *Legionella* strain found in the environmental sample matches the patient's cause of infection, thus confirming the source of the bacteria?

8. What, if any, are the challenges clinicians in your hospital have to implementing IDSA/ATS guidelines for managing community-acquired pneumonia in adults?

Probes:

- How familiar do you think other clinicians are with these guidelines?
- What parts of the guidelines are not clear?
- What additional issues should be added to make the guidelines more helpful?
- What staff at your hospital could implement these guidelines? Who else would you need?
- What, if any, cost/reimbursement concerns exist when it comes to implementing these guidelines?
- How would having a HEDIS measure associated with these guidelines affect your hospital's adherence to them, if at all? (Note: The National Committee for Quality Assurance develops and maintains HEDIS or Healthcare Effectiveness Data and Information Set measures, which is one of the most widely used sets of healthcare performance measures in the United States.)
- How would you like to receive updated guidelines?

9. What kinds of materials or tools would make it easier to collect respiratory specimens for culturing?

Probes:

- How and when would you use materials if they are developed? Should they be customizable?
- If print materials are developed, what size should they be? For example, should they fit in a binder, be a poster for the wall, or maybe even a wallet sized card?
- How could electronic clinical decision support regarding *Legionella* specimen collection be incorporated at your hospital? Who would be responsible for incorporating it?
- How helpful would an interactive mobile app be? How and when would you use it?
- How much would hearing about case studies from other hospitals help and motivate clinicians at your hospital?

Topic D: Barriers to Legionellosis Prevention [10 minutes]

1. What guidelines are you aware of that you or your hospital can follow to prevent healthcare-associated pneumonia?

Probes:

- Does your hospital require that these guidelines be followed?
- What have you heard, if anything, about guidelines from CDC (Centers for Disease Control and Prevention) and HICPAC (Healthcare Infection Control Practices Advisory Committee) for preventing healthcare-associated pneumonia?
- *For Veterans Affairs clinicians:* What do you know about the VHA (Veterans Health Administration) Directive: Prevention of Healthcare-Associated Legionella Disease and Scald Injury from Potable Water Distribution Systems?
- How familiar do you think other clinicians are with any of these guidelines?
- Which guidelines does your hospital require you to follow?

2. What challenges, if any, do clinicians in your hospital have to implementing guidelines for preventing healthcare-associated pneumonia?

Probes:

- What parts of the guidelines, if any, are not clear?
- How feasible is it to implement these guidelines given the processes and infrastructure at your hospital?
- What additional issues should be addressed to make the guidelines more helpful?
- What staff at your hospital who could help implement these guidelines? Who else would you need?
- What, if any, cost/reimbursement concerns exist when it comes to implementing these guidelines?
- How would having a HEDIS measure associated with these guidelines affect your hospital's adherence to them? (Note: The National Committee for Quality Assurance develops and maintains HEDIS or Healthcare Effectiveness Data and Information Set measures, which is one of the most widely used sets of healthcare performance measures in the United States.)
- How would you like to receive updated guidelines?

3. What kinds of materials or tools would make it easier to implement guidelines for preventing healthcare-associated pneumonia?

Probes:

- How and when, would your organization use materials if they are developed? Should they be customizable?
- If print materials are developed, what size should they be? For example, should they fit in a binder, be a poster for the wall, or maybe even a wallet sized card?
- How could electronic clinical decision support concerning healthcare-associated legionellosis be incorporated at your hospital? Who would be responsible for incorporating it?
- How helpful would an interactive mobile app be? How and when would you use it?
- How much would hearing about case studies from other hospitals help and motivate clinicians at your hospital?

Topic E: Materials Testing [15 minutes]

When we emailed you confirmation of this interview, you should have also received several documents that I would like to discuss now. These materials were developed by the CDC to raise awareness about preventing legionellosis.

[ONE AT A TIME, DISCUSS EACH MATERIAL; RANDOMIZE ORDER]

[ASK QUESTIONS E1-3 AFTER EACH MATERIAL]

1. What did you think of this?

Probes:

- In your opinion, what is the main message?
- What, if anything, is it asking you to do?
- What, if any, information here is new to you?
- What information, if any, is it missing?

2. Who do you think this material was designed for?

3. What about this, if anything, was confusing or hard to understand?

Probe:

- How would you change it to make it better?

4. What did you like best about this design? What did you like least about it?

Probes:

- What did you think of the design/layout/colors/images?
- What did you think of the wording?
- What would you change about the design or wording?

Topic F: Information Sources and Sharing [5 minutes]

1. Thinking about the training, if any, you have received specific to legionellosis prevention or recognizing healthcare-associated cases of pneumonia, and about what we have discussed just now:

- What additional training would you like to have?
- What is the best way to get you training? In-person? Self-study webinar?
- Would having continuing education credits available for a training make you more likely to complete it?

2. How do you get information on current healthcare-associated legionellosis prevention guidelines?

Probes:

- Where do you go for the latest information?
 - Of the sources you get information from, which do you trust the most and why?
 - Are there other sources or channels you would like to receive information from?
 - Who at your hospital is responsible for staying up to date on the latest information?
 - How does your hospital ensure those who need to be informed have the latest information?
3. How do you share information about legionellosis with other doctors in your field? Other clinicians in the hospital? [if they say they do not do this, ask about general information sharing]
- Probe:**
- What suggestions do you have to improve this sharing?
4. If your hospital was experiencing a legionellosis outbreak, what resources would be most helpful to help you communicate about it with other clinicians? Patients? Management?
- Probes:**
- *For those that had an outbreak in the past:* What types of resources did you find helpful when responding to past outbreaks?
 - What types of resources would have been helpful, but you did not have?

Closing [1 minute]

Those are all of the questions I have for you today. Thank you so much for taking time to share your thoughts. Is there anything you wanted to share with me on this topic before we close?