

**Attachment 10: Infection control clinician interview guide**

<b>Topic</b>	<b>Approximate Allotted Time (Minutes)</b>
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Topic B: <i>Legionella</i> Knowledge, Attitudes, & Beliefs	5
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**Introduction [4 minutes]**

Hi, my name is \_\_\_\_\_. I am an independent contractor with the Hannon Group hired to conduct these interviews. I'll be spending 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 CDC, better understand the current legionellosis surveillance 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 prevented, diagnosed, managed and tracked 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?
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**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 infection control?
- Does your hospital serve any special populations (cancer patients, transplant center, etc.)?
- How does the infection control team operate at your hospital? Do you have an infection preventionist on staff?

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

**Probe:**

- In your area? In the United States?

3. What is your experience with *Legionella*?

4. What is your experience with legionellosis?

**Probes:**

- Have you ever reported a case of legionellosis (Legionnaires' disease or Pontiac fever) to the health department?
- Have you ever diagnosed or treated someone with legionellosis?
- Have you ever identified or dealt with any cases of healthcare-associated legionellosis?
- Has there ever been a healthcare-associated legionellosis case, cluster, or outbreak associated with your hospital? What was your role or involvement in that? What was the source of the case or outbreak?
- How does your hospital track cases or outbreaks of Legionnaires' disease?

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

**Probes:**

- How helpful was the training?
- What was missing from training?
- What wasn't useful?
- How are you applying what you learned in the training?
- Who provided the training?
- What topics were covered in the training?
- Was the training required? If so, who required it and who (types of clinicians) was required to take it?

6. 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. Describe the potential sources of *Legionella* exposure in your facility.

**Probes:**

- Are there any cooling towers or evaporative condensers on the premises?
- Are there any whirlpool spas, hot tubs, hydrotherapy spas, steam rooms, or wet saunas?
- Are there any decorative fountains or water features?
- Does the facility have centralized humidification or room humidifiers?
- Tell me about the potable water system.

2. Under what circumstances do 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 onset of illness?
- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia?
- Patients who develop pneumonia after a lengthy stay in the hospital?

3. What increases a hospital's risk for having *Legionella* in the water system(s)?

**Probe:**

- How at risk do you think the hospital where you work is for having *Legionella* in the water system(s)? Why?

4. In your opinion, when, if at all, should routine environmental testing for *Legionella* be done in hospitals?

**Probes:**

- What challenges would/does your hospital face with routine environmental testing (costs, time-consuming, expertise, etc.)?
- If/When your hospital performed/performs routine environmental testing for *Legionella*, what would/does (or should) your role in this be? Deciding where to sample? Collecting samples? Distributing results? Interpreting results?
- If/When your hospital found/finds *Legionella* during routine environmental testing, what action(s), if any, would be/are taken?

## **Topic C: Prevention Procedures & Guidelines [5 minutes]**

1. Generally, what is included in the water management program at your facility?

**Probes:**

- What water management procedures are used? What guidelines or standards are these based on?
- Who developed the procedures that are used?
- Do they address *Legionella* specifically?
- How are they enforced and who is in charge of the program?
- Under what circumstances or how frequently are the water management procedures updated? Who is responsible for updating them?

- What resources are used to inform what updates should be made?
  - Is there a water management and safety group or another group responsible for water safety at your facility? [If another name] What is it called?
  - Are you part of the water management and safety group/other named group at your facility? If so, can you describe your role in the group?
  - What, if anything, do you know about ASHRAE and its standards and guidelines (the organization formerly known as the American Society of Heating, Refrigerating, and Air Conditioning Engineers)?
  - *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?
2. How do you go about making changes to the water management procedures?
- Are there typical types of changes that are made regularly?
  - How are changes incorporated?
  - How are the changes enforced?
  - How, if at all, are you involved in this?
  - [If not directly involved] How do you hear about changes?
3. Does your hospital have a supplemental disinfection system for long-term control of *Legionella* or other microorganisms?
- Probes:**
- Please tell me more about that system and how it works.
  - What processes are in place to make sure the system is properly working?
4. How often, if at all, does your hospital test for *Legionella* in its water?
- Probes:**
- Where in the building are samples collected from?
  - Who collects the samples?
  - Who analyzes the samples?
  - Are they sent to an ELITE certified lab?
  - How are findings interpreted and acted on?
  - Are you aware of certain levels of *Legionella* your hospital feels are safe to have in the building water system?
  - If *Legionella* is found in the water system, do you actively look for Legionnaires' disease cases?
  - Do you notify your clinicians if *Legionella* is found in the water system? If so, how and when?
5. Who do you see as the person ultimately responsible for preventing the growth of *Legionella* in the hospital's water systems?
- Probes:**
- Can you tell me more about why you feel that way?

**Topic D: Surveillance (10 minutes)**

1. How many healthcare-associated outbreaks in your hospital have you managed in the past year? In the past 3 years? What diseases did these include?

**Probes:**

- Were any of these respiratory?
- Did you suspect that any of them was *Legionella*?

2. What procedures, if any, are in place to identify healthcare-associated pneumonia cases at your hospital (not limited to Legionnaires' disease)?

**Probes:**

- How well do you think your hospital's procedures are working?
- What procedures are in place for clinicians regarding suspecting, testing, or reporting healthcare-associated pneumonia?
- Where does your hospital get their guidance for what to do if a case of healthcare-associated pneumonia is identified? How, if at all, do you use information or guidance from CDC – HICPAC?
- Are you aware of strategies that other hospitals are using to help identify cases?
- Do you have suggestions for how to improve identification or make it timelier?
- Are there any tools or resources that would help you to identify cases quicker?

3. We would appreciate your walking us through what happens once a case of healthcare-associated pneumonia is identified.

**Probes:**

- How is information about the case shared with other clinicians in the hospital? With patients? With the health department?
- Are additional tests requested by clinicians treating suspect cases? If so, what types of tests?
- What procedures, if any, would be put in place to protect other patients? Would you actively start looking for other cases?

4. Please tell us what happens when a case of legionellosis is diagnosed in a patient?

**Probes:**

- Whose responsibility is it to determine if it is community-acquired or healthcare-associated? How is this done?
- How does the response differ if it is community-acquired or healthcare-associated? [e.g., notifications, water samples collected, corrective and remediation activities]
- What factors would lead you to believe the case is healthcare-associated?
- What information do you routinely collect from patients with legionellosis?
- Where does your hospital get their guidance for what to do if a case of healthcare-associated legionellosis is identified?
- When a legionellosis case is confirmed, what are the procedures at your hospital for determining if there is a cluster or outbreak?
- What contact or coordination exists between the hospital and the local/state health department with regard to legionellosis?

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

6. Who do you see as the person ultimately responsible for identifying healthcare-associated cases of legionellosis in your hospital?

**Probe:**

- Can you tell me more about why feel this way?

**Topic E: Barriers to Legionellosis Prevention [10 minutes]**

1. What, if any, are the challenges clinicians in your hospital have to implementing guidelines for preventing healthcare-associated pneumonia, meaning the ones developed by CDC and HICPAC, or the Healthcare Infection Control Practices Advisory Committee?

**Probes:**

- How familiar do you think other clinicians are with these guidelines? What types of clinicians are most familiar with these guidelines?
  - Are certain parts of the guidelines (CDC/HICPAC) not clear? Which?
  - What additional issues should be added to the guidelines to make them more helpful?
  - What staff do you have at your hospital to implement these guidelines? Who else would be needed?
  - 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.)
2. What kinds of materials or tools would make it easier to implement those guidelines?

**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 be a wallet sized card?
- How could electronic clinical decision support concerning 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 your hospital?

**Topic F: Materials Testing [15 minutes]**

When we emailed you confirmation of this interview, you should have also received some pages 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 G: Information Sources and Sharing [5 minutes]**

1. Thinking about training you have received specific to legionellosis prevention or recognizing healthcare-associated cases of pneumonia, and what we have been discussing:

**Probes:**

- What additional training would you like to have?
- How 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 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 with other infectious disease doctors? Other clinicians?

**Probe:**

- What suggestions do you have to improve the sharing of information?

4. If your hospital was experiencing a legionellosis outbreak, what resources would be most helpful to 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 did you want to have, but did not?

**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?