LA County Public Health Approach to *Legionella* Surveillance and Outbreak Response in Skilled Nursing Facilities

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What do we mean by surveillance?

• Systematic collection, analysis, and dissemination of data on a health-related event to improve health outcomes

• Uses of surveillance data:
  – Determine disease burden and trends
  – Detect outbreaks
  – Evaluate the effectiveness of prevention measures

• *Legionella* infection reportable in LA County <7 days
  – Provider reportable
  – Laboratory reportable
Legionnaires’ disease on the rise in LA County
Possible reasons for the increasing number of reported cases

- Increased susceptibility of the population
  - Aging U.S. population
  - More people on immunosuppressing medications
- More *Legionella* in the environment
  - Warmer temperatures
  - Aging infrastructure
- Improved diagnostic capability
  - Urine antigen test availability
- Increased awareness and reporting
Investigating *Legionella* Reports

• Objectives:
  – Understand risk factors
  – Identify source of infection

• Investigation approach
  – Obtain medical records
  – Interview patient
  – Conduct site visit and environmental sampling (if needed)
INVESTIGATING HEALTH CARE ASSOCIATED CASES AND OUTBREAKS
When does public health investigate healthcare-associated Legionnaires’ disease?

- >1 case of *definite* healthcare-associated Legionnaires’ disease is identified

- >2 cases of *possible* healthcare-associated Legionnaires’ disease is identified within 12 months of each other at same facility
Definition of healthcare-associated Legionnaires’ disease

- **Definite** case if patient was hospitalized at one or more facilities during the entire 2 to 10 day incubation period (time between exposure and symptom onset)

- **Possible** case if patient was hospitalized at one or more facilities for a portion of the 2 to 10 day incubation period
Key elements of a public health investigation for Legionnaires’ disease

- Perform a retrospective review of cases
- Prospective review of case to identify additional (new) cases
- Consider immediate control measures
- Facilitate environmental assessment
- Facilitate environmental sampling, as indicated by the environmental assessment
- Work with healthcare facility leaders to review and revise the water management program
- Follow up to assess the effectiveness of implemented measures
Examples of immediate control measures to reduce risk of ongoing *Legionella* transmission

- Restrict showers
- Avoid therapy pools and spas
- Use bottled water for vulnerable patients
- Do not use water from faucets in patient rooms
- Do not use non-sterile ice from facility ice machines
- Consider installing 0.2 micron biological point-of-use filters
- Consider halting new admissions or temporarily closing the building, affected area, or device
PREVENTING CASES AND OUTBREAKS
Most outbreaks can be prevented with effective water management

- Establishes minimum legionellosis risk management requirements for building water systems.
CMS water management program requirement

• Issued in 2017 and updated in 2018
• Requires facilities to “develop and adhere to policies and procedures...that reduce the risk of growth and spread of Legionella and other opportunistic pathogens in water.”
• Applies to
  – Hospitals
  – Skilled nursing facilities
  – Critical access hospitals
• Surveyors will review policies, procedures, and reports documenting water management program implementation
QUESTIONS?