



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

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Division of Public Health

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To: North Carolina Clinicians  
From: Zack Moore, MD, MPH, State Epidemiologist

**Subject: Increase in Legionnaires' disease cases in western North Carolina**

This memo provides clinicians with information regarding the increase in reported Legionnaires' disease cases in western North Carolina and recommendations for diagnosis and reporting.

**Background:**

State and local health agencies are investigating cases of Legionnaires' disease in individuals who attended the NC Mountain State Fair held in Fletcher, NC, Sept. 6–15, 2019. Public health officials are currently investigating whether and how people might have been exposed to *Legionella* bacteria at this event.

**Recommendations:**

Clinicians should consider Legionellosis in patients who attended the NC Mountain State Fair and present with symptoms consistent with Legionnaires' disease **within 2-10 days** or Pontiac fever **within 1-3 days of their last visit to the NC Mountain State Fair**.

- **Legionnaires' disease** is pneumonia caused by *Legionella* bacteria and is very similar to other types of pneumonia, with symptoms that include cough, shortness of breath, fever, muscle aches or headaches. Patients at highest risk include those aged  $\geq 50$  years, current or former smokers, and those with chronic lung disease (such as emphysema or COPD) or a weakened immune system.
- **Pontiac fever** is a milder, self-resolving infection caused by the same bacteria. Primary symptoms include fever and muscle aches.

**Diagnosis:**

- **The preferred diagnostic tests for Legionnaires' disease are the Legionella urinary antigen test and culture of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on selective media.** Sputum should ideally be obtained prior to antibiotic administration, but antibiotic treatment should not be delayed to facilitate this process. The urinary antigen test can detect *Legionella* infections in some cases for days to weeks after treatment.
- Testing is not recommended for individuals who attended the fair but do not have symptoms of Legionnaires' disease or Pontiac fever.
- Serological assays can be nonspecific and are not typically recommended.

**Reporting:**

Physicians are required to report all suspected Legionnaires' disease cases to public health. Cases can be reported to the NC Communicable Disease Branch at 919-733-3419 or your local health department (<https://www.ncdhhs.gov/divisions/public-health/county-health-departments>).

Additional information about Legionnaires' disease is available at <https://www.cdc.gov/legionella/index.html> or <https://epi.dph.ncdhhs.gov/cd/diseases/legionellosis.html>.

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