

**FOR IMMEDIATE RELEASE 2/05/16**

TO: Grant County Healthcare Providers

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## Influenza and Pneumonia Testing Updates

***Health Officer Encourages a Review of Influenza and Pneumonia Testing Standards.  
Legionellosis Update Provided***

Grant County Health Officer, Dr. Alexander Brzezny, encourages the Grant County healthcare community, especially physicians and practitioners of first contact and hospitalists to review their influenza and pneumonia testing policies and practice. In the wake of slowly increasing influenza-like illness (ILI) visits, related seasonal increase in pneumonia cases and recent cluster of Legionellosis in a neighboring county, guidelines-supported testing may improve community surveillance, diagnosis, and adequate treatment.

In patients presenting with ILI and signs of pneumonia, strongly consider rapid diagnostic test (RDT) for influenza A/B and other respiratory organisms (i.e. RSV in select pediatric patients) and additional confirmatory studies including DFA (direct fluorescent assay) or PCR. In addition, follow or develop an institutional policy reflective of national guidelines incorporating use of sputum and blood cultures for instances when:

- 1) the result is likely to change individual antibiotic management;
- 2) the test is likely to have the highest yield;
- 3) identifying an etiologic agent would be beneficial (i.e. in cases of failed outpatient therapy); and
- 4) dealing with cases of moderate-severe or hospital-associated infection. Physicians and practitioners should also consider ***routine testing for Legionella infection with legionella urine antigen and culture in certain patients with pneumonia.***

According to the CDC, cases of Legionellosis, or Legionnaires disease, have been increasing each year over the last decade. Legionellosis outbreaks have recently been identified throughout the U.S., **including a cluster of 9 Legionella pneumonia cases in the Wenatchee area, identified between September and December 2015.** All 9 patients were hospitalized and have since recovered. **No cases have been identified in Grant County.**

### Legionellosis

Legionellosis is a respiratory infection caused by *Legionella* bacteria; infection can manifest as either Legionnaires disease or Pontiac fever. **Legionnaire's disease is a common form of severe pneumonia requiring hospitalization, whereas Pontiac fever is a milder disease with flu-like symptoms that generally resolves on its own.** Among those who develop Legionnaires disease, 5%-30% will die of their illness. Although most people exposed to Legionella do not get sick, **risk factors for this pneumonia include current or past history of smoking, older age, history of chronic lung disease, or suppressed immune system.**



## **Diagnosis and Testing (Legionnaires disease)**

Clinical features of Legionnaires disease are not specific and include cough, shortness of breath, fever, muscle aches/headaches and radiologic evidence of pneumonia. These symptoms usually begin 2 to 10 days after being exposed to the bacteria, but it can take longer and people should watch for symptoms for about 2 weeks after suspected exposure.

Legionnaires' disease can be difficult to diagnose because its symptoms are similar to other types of pneumonia and there is no characteristic appearance on a chest x-ray. **Specific tests are needed to determine if a case of pneumonia is Legionnaires' disease.**

## **Who should be tested for Legionellosis**

- Patients with severe pneumonia, in particular those requiring intensive care;
- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia;
- Immunocompromised patients with pneumonia;
- Patients with pneumonia in the setting of a legionellosis outbreak;
- Patients with a travel history 2 weeks prior to the symptom's onset; and
- Patients suspected of having healthcare-associated pneumonia.

## **How to Test for Legionellosis**

**Urinary antigen assay AND culture of respiratory secretions on selective media (buffered charcoal yeast agar) are the preferred diagnostic tests for Legionnaires' disease.**

### **Legionella Urinary Antigen Test**

The most commonly used laboratory test for diagnosis is the urinary antigen test, which detects a part of the *Legionella* bacteria in urine. The urinary antigen test is designed to detect the most common cause of legionellosis, *L. pneumophila* serogroup 1. However, all species and serogroups of legionellae are potentially pathogenic so a patient with a negative urinary antigen result may have legionellosis caused by some other member of genus *Legionella*. Thus, best practice for detection of *Legionella* and public health surveillance is to also obtain respiratory specimens for culture at the time urinary antigen testing is ordered, preferably before the administration of antibiotics.

### **Legionella Culture**

Isolation of *Legionella* from respiratory secretions, lung tissue, pleural fluid, or a normally sterile site is confirmatory and an important method for diagnosis, despite the convenience and specificity of urinary antigen testing. In addition, if urinary antigen testing is negative but Legionnaires' disease is still suspected, then a respiratory culture is required. Commercial labs are to be used unless these tests are unavailable. Please contact GCHD if you have questions.

Investigations of outbreaks of Legionnaires' disease rely on both clinical and environmental isolates. Clinical and environmental isolates can be compared using serological and molecular techniques. Because *Legionella* is commonly found in the environment, clinical isolates are necessary to interpret the findings of an environmental investigation.

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## **Sources of Legionella**

*Legionella* bacteria can be found in natural, freshwater environments, but they are not present in sufficient numbers to cause disease. Potable (drinking) water systems, whirlpool spas, and cooling towers allow for heat, stasis and aerosolization needed for *Legionella* growth and survival and are common sources of outbreaks. Hot water systems (showers), evaporative condensers, humidifiers, respiratory therapy devices, decorative fountains, and potting soil have also been implicated in outbreaks.

## **Legal Reporting Requirements:**

**Health care providers, health care facilities, laboratories:** notifiable to GCHD within 24 hours

## **Resources**

<http://www.cdc.gov/legionella/clinicians.html>

<https://www.osha.gov/dts/osta/otm/legionnaires/faq.html>

<http://www.cdc.gov/legionella/downloads/case-report-form.pdf>

<http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/Legionellosis>

<http://www.thoracic.org/statements/resources/mtpi/idsaats-cap.pdf>

## **Environmental Consultation**

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## **Clinical Consultation**

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