IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

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MEMORANDUM

TO: Local Health Department Administrators, Infectious Disease and Environmental Health Staff; IDPH Regional Offices, Communicable Disease and Environmental Health Staff

FROM: E. Matt Charles
Chief, Division of Laboratories

DATE: January 29, 2018

SUBJECT: Update to the IDPH Division of Laboratories Manual of Services – Legionella Urine Antigen testing

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The Illinois Department of Public Health (IDPH) Division of Laboratories has added Legionella Urine Antigen Testing to our manual of services. The updated page is attached and can help to guide your future specimen submission efforts.

The IDPH lab has implemented the Alere BinaxNOW® *Legionella* Urinary Antigen Test (UAT). This test is an *in vitro* rapid immunochromatographic assay for the qualitative detection of *Legionella pneumophila* serogroup 1 antigen (*L. pneumophila* serogroup 1 antigen) in urine specimens. *L. pneumophila* serogroup 1 antigen is the most common Legionella serogroup to cause *Legionellosis*. This test is intended to aid in the diagnosis of *Legionellosis* infection (Legionnaires' Disease and Pontiac Fever) in persons with clinically compatible symptoms caused by infection with *L. pneumophila* serogroup 1. The UAT should not replace the use of sputum cultures to detect Legionella species; culture data provides critical information to aid investigations and is critical when other Legionella species are suspected. Thus, when clinically feasible, sputum culture should be obtained as well.

The *Legionella* UAT allows for early diagnosis of *Legionella pneumophila* serogroup 1 infection through detection of a specific soluble antigen present in the urine of patients with *Legionellosis* caused by this serogroup. *Legionella pneumophila* serogroup 1 antigen has been detected in urine as early as three days after the onset of symptoms.

This test will be used as part of state and local *Legionellosis* investigation response activities. All testing must be authorized. For questions about authorization, please contact the Communicable Disease Control Section of the IDPH at 217-782-2016. For questions about testing or shipping, please contact the IDPH Springfield laboratory during business hours at 217-782-6562.

To reach IDPH personnel during holidays and non-business hours, please contact the Illinois Emergency Management Agency at 1-800-782-7860. Ask for the IDPH duty officer.

Legionella Urine Antigen Test (UAT)

Test Name:	Identification of *Legionella pneumophila* serogroup 1
Method Name:	Alere BinaxNOW® *Legionella* Urinary Antigen Card
Results:	Negative / Positive for the identification of *Legionella pneumophila* serogroup 1 antigen.
Reference Ranges:	Negative for the identification of *Legionella pneumophila* serogroup 1 antigen.
Clinical Significance:	This test is an *in vitro* rapid immunochromatographic assay for the qualitative detection of *Legionella pneumophila* serogroup 1 antigen (*L. pneumophila* serogroup 1 antigen) in urine specimens. *L. pneumophila* serogroup 1 antigen is the most common Legionella serogroup to cause *Legionellosis*. This test is intended to aid in the diagnosis of *Legionellosis* infection (Legionnaires' Disease and Pontiac Fever) in persons with clinically compatible symptoms caused by infection with *L. pneumophila* serogroup 1. The UAT should not replace the use of sputum cultures to detect Legionella species; culture data provides critical information to aid investigations and is critical when other Legionella species are suspected. Thus, when clinically feasible, sputum culture should be obtained as well. The *Legionella* UAT allows for early diagnosis of *Legionella pneumophila* serogroup 1 infection through detection of a specific soluble antigen present in the urine of patients with *Legionellosis* caused by this serogroup. *Legionella pneumophila* serogroup 1 antigen has been detected in urine as early as three days after the onset of symptoms.
Submission Criteria:	Acceptable specimens include: a. Urine collected in sterile urine collection containers (provided by IDPH lab) b. Urine specimens should be shipped in leak-proof containers at 2-8°C or frozen. The specimens can be stored at room temperature (59-86°F, 15-30°C) if assayed within 24 hours of collection. Alternatively, specimens may be stored at 2-8°C for up to 14 days or at -10 to -20°C. c. Ship overnight to the Springfield laboratory on frozen packs and avoid weekend delivery unless previously discussed with laboratory staff.
Rejection Criteria:	Specimens other than those detailed above; improperly filled out requisition forms; no patient identifier on specimen; broken specimen container.
Authorization:	Prior approval from your LHD with an outbreak investigation number is required. For questions, please contact your LHD or the Communicable Disease Control Section of the IDPH at 217-782-2016.
Turn Around Time:	2 days
Ship to:	Springfield IDPH Lab
Submission Form:	Communicable Disease Test Requisition Form