Laboratory-Based Surveillance Plan 2019-2020
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Influenza Surveillance

Background
Laboratory-based surveillance for influenza is coordinated by the Wisconsin State Laboratory of Hygiene (WSLH), in collaboration with the Wisconsin Division of Public Health and the Centers for Disease Control and Prevention (CDC). This multi-element laboratory-based surveillance program has enabled us to achieve the four key objectives of routine influenza surveillance that include:

- Providing situational awareness:
  - When season begins/ends
  - Types/subtypes/strains of influenza circulating
  - When and where circulating
  - Clinical severity
  - Community impact
  - Age groups targeted
  - Number of tests performed/positivity rate
  - Reliability of diagnostic methods
- Detecting novel or reassortant viruses
- Informing vaccine strain selection by CDC
- Detecting and monitoring antiviral resistance

Surveillance plans will be modified as the level of influenza activity changes and other circumstances require. Changes in the plans will be announced in the bi-weekly “Laboratory Surveillance Report” which is posted at the WSLH website.

Following is a description of the contributing elements of the laboratory-based influenza surveillance plan for Wisconsin:

Rapid Influenza Testing Sites: Rapid testing sites are asked to provide weekly reports of their testing data (number tested, number positive) and to provide specimens to the WSLH, based on WSLH requests (Table 1).

PCR & Rapid Molecular Laboratories: PCR testing sites are requested to provide weekly reports of their testing data (number tested, number positive) and to provide specimens to the WSLH, based on WSLH requests (Table 1).

Enrolled Surveillance Sites: Surveillance also includes testing sites that are enrolled by the WSLH to provide a consistent supply of specimens from all areas of the state.

Healthcare Provider Sites: In addition, surveillance includes a small number of healthcare providers/sites who are enrolled to submit a limited number of specimens directly to the WSLH.
It is no longer necessary for labs to report testing data to the National Respiratory and Enteric Virus Surveillance System (NREVSS). The WSLH is now reporting this data to NREVSS directly for all labs in Wisconsin that report to WSLH.

All sites are provided with customized forms, instructions, specimen collection and transport supplies, and transport to the WSLH at no cost to them. Please contact our Clinical Orders department at 800-862-1088 to order shipping supplies.

In addition to influenza testing data, the WSLH also requests laboratory testing data for other bacteria and viruses as part of the laboratory-based surveillance system (Table 1).

Weekly web-based and FAX reporting is now available for PCR, Rapid Molecular and Raid Influenza Diagnostic Test (RIDT) testing data. Confirmatory testing at WSLH is NOT available unless requested by WSLH. Confirmatory testing, when requested, is available at NO cost.

Information collected will be updated weekly on the WSLH website: http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/
<table>
<thead>
<tr>
<th>Respiratory Pathogen</th>
<th>Testing Data requested</th>
<th>Frequency</th>
<th>Confirmatory testing available at WSLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rapid Testing/Antigen Detection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Influenza A/B                        | Number detected and number tested | Weekly   | 1. **ALL** summer positives  
2. During respiratory virus season, limited to first confirmed A or B positive at WSLH  
3. Additionally, please send positive specimens from patients with:  
   1. International travel history  
   2. Swine exposure |
| Rotavirus                            |                        |           | Send **one** positive/week             |
| RSV                                  |                        |           | **No**                                 |
| Strep A (rapid tests only)           |                        |           |                                       |
| **PCR**                              |                        |           |                                       |
| Influenza A/B                        | Number detected and number tested | Weekly   | **ONLY** send the following specimens:  
   1. Unable to subtype (InfA Ct<35.0) if subtyping was attempted  
   2. One hospitalized patient per week  
   3. Patients with international travel history  
   4. Patients with swine exposure |
| Non-influenza respiratory pathogens (e.g. RSV) |                        |           | **No**                                 |
| *B. pertussis*                       |                        |           |                                       |
| Other viruses (e.g., VZV )           |                        |           |                                       |
| **Enterovirus**                      | Number detected & number tested | Weekly   | **Yes**                               |

* Enterovirus typing may be performed on CSF specimens related to clusters of severe disease, acute flaccid myelitis (AFM), paralysis, death or those requested by the Wisconsin Division of Public Health (WDPH).
Wisconsin Acute Diarrheal Illness Surveillance (WADIS)

The WSLH, in collaboration with other public health stakeholders, has developed a statewide gastrointestinal pathogen surveillance program in Wisconsin. This program has evolved similar to the influenza surveillance program whereby testing data for enteric targets including bacterial, parasitic and viral pathogens are provided to the WSLH weekly. The WSLH aggregates the data and provides summary reports in the bi-weekly Laboratory Surveillance Report and on the WSLH website http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/

The overarching aim of this surveillance program is to gain awareness of the gastrointestinal pathogens effecting community health in Wisconsin.

If your laboratory recently added PCR for gastrointestinal pathogens, please contact Erik Reisdorf at 608-224-4261 or erik.reisdorf@slh.wisc.edu

If you have questions regarding the reporting of surveillance data to WSLH, please contact Mary Wedig at 608-224-4274 or mary.wedig@slh.wisc.edu

Gastropathogen Characterization

In addition to monitoring gastropathogen activity, the WSLH actively solicits positive stool specimens or enteric isolates for further genotyping and molecular subtyping. This information is critical for the ability to recognize and respond to clusters and outbreaks of gastropathogens in Wisconsin. The resulting laboratory data is used by epidemiologists at the WDPH to rapidly determine linkage to potential food and environmental point sources.

The current requests for stool specimens and isolates to be submitted to WSLH are listed in Table 2.

Antibiotic Resistance Monitoring

Antibiotic resistance is increasingly becoming a public health concern as multi drug resistant bacteria become more common. The WSLH is the Midwest Regional Laboratory for the CDC-coordinated Antibiotic Resistance Laboratory Network (AR Lab Network) Regional Laboratories. The overarching goal of AR Lab Network testing is rapid identification and containment of resistant pathogens. Isolate submission guidance is listed in Table 3.

Data compiled from the ARLN is presented to stakeholders at the Wisconsin Clinical Laboratory Network regional meetings and will be shared on the WSLH website in the future.
<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Testing Data to Report</th>
<th>Frequency</th>
<th>Send specimens to WSLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gastropathogens (PCR or other CIDT)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Aeromonas</em> species</td>
<td></td>
<td></td>
<td>Isolates or stool for identification</td>
</tr>
<tr>
<td><em>Campylobacter</em> species</td>
<td></td>
<td></td>
<td>Isolates or stool for identification; Antimicrobial susceptibility testing and molecular subtyping (WGS) will be performed as necessary</td>
</tr>
<tr>
<td>Enteroaggregative <em>E. coli</em> (EAEC)</td>
<td></td>
<td></td>
<td>Isolates or stool for storage</td>
</tr>
<tr>
<td>Enterotoxigenic <em>E. coli</em> (ETEC)</td>
<td></td>
<td></td>
<td>Isolates or stool for storage</td>
</tr>
<tr>
<td>Enteroinvasive <em>E. coli</em> (EIEC)</td>
<td></td>
<td></td>
<td>Isolates or stool for <em>Shigella</em> rule-out and storage</td>
</tr>
<tr>
<td>Enterohemorrhagic/ Shiga Toxin-Producing <em>E. coli</em> (EHEC/STEC)</td>
<td>Number detected and number tested</td>
<td>Weekly</td>
<td>Isolates, stool or enrichment broth for identification, serotyping and molecular subtyping (WGS)</td>
</tr>
<tr>
<td><em>Plesiomonas shigelloides</em></td>
<td></td>
<td></td>
<td>Isolates or stool for identification</td>
</tr>
<tr>
<td><em>Salmonella</em> species</td>
<td></td>
<td></td>
<td>Isolates or stool for identification, antimicrobial susceptibility testing and molecular subtyping (WGS)</td>
</tr>
<tr>
<td><em>Shigella</em> species</td>
<td></td>
<td></td>
<td>Isolates or stool for identification and antimicrobial susceptibility testing; Molecular subtyping will be performed as deemed necessary</td>
</tr>
</tbody>
</table>

*Stool specimens positive for Cryptosporidium by PCR-based methods will not be confirmed*
<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Testing Data to Report</th>
<th>Frequency</th>
<th>Send specimens to WSLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gastropathogens (PCR or other CIDT)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibrio Species</td>
<td></td>
<td>Weekly</td>
<td>Isolates or stool for identification and referral to CDC</td>
</tr>
<tr>
<td>Yersinia species</td>
<td></td>
<td></td>
<td>Isolates or stool for identification</td>
</tr>
<tr>
<td>Cryptosporidium species</td>
<td></td>
<td></td>
<td>Stool for identification* and genotyping.</td>
</tr>
<tr>
<td>Cyclospora cayetanensis</td>
<td></td>
<td></td>
<td>Stool for molecular subtyping and/or referral to CDC</td>
</tr>
<tr>
<td>Entamoeba histolytica</td>
<td></td>
<td></td>
<td>Stool for identification</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>Number detected and number tested</td>
<td>Weekly</td>
<td>One positive per week for molecular subtyping/ genotyping</td>
</tr>
<tr>
<td>Any other organism suspected of being in a cluster or outbreak of public health significance</td>
<td></td>
<td></td>
<td>Consult with Wisconsin Division of Public Health Foodborne Disease Epidemiologists; isolates or stool for identification and molecular subtyping as applicable</td>
</tr>
<tr>
<td>Clostridioides difficile (C. diff.)</td>
<td></td>
<td></td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
<tr>
<td>Norovirus</td>
<td></td>
<td></td>
<td>WSLH does not request routine submission of this organism at this time unless specifically requested by the WDPH</td>
</tr>
</tbody>
</table>

*Stool specimens positive for Cryptosporidium by PCR-based methods will not be confirmed
<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Testing Data to Report</th>
<th>Frequency</th>
<th>Send specimens to WSLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gastropathogens (PCR or other CIDT)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astrovirus</td>
<td></td>
<td></td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
<tr>
<td>Sapovirus</td>
<td></td>
<td>Weekly</td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
<tr>
<td>Adenovirus F (40/41)</td>
<td>Number detected and number tested</td>
<td>Weekly</td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
<tr>
<td>Enteropathogenic <em>E. coli</em> (EPEC)</td>
<td></td>
<td></td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
<tr>
<td>Giardia species</td>
<td></td>
<td></td>
<td>WSLH does not request submission of this organism at this time</td>
</tr>
</tbody>
</table>

*Stool specimens positive for Cryptosporidium by PCR-based methods will not be confirmed*
<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Testing Data Requested</th>
<th>Frequency</th>
<th>Confirmatory testing available at WSLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antimicrobial Resistance (AR)</strong></td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing, AR-targeted PCR and referral to CDC as necessary</td>
</tr>
<tr>
<td>Pan-resistant organisms (R to all drugs tested in your laboratory)</td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing and referral to CDC as necessary</td>
</tr>
<tr>
<td><em>Candida auris</em>, unusual* and hard to ID <em>Candida</em>, invasive <em>C. glabrata</em>, invasive <em>C. glabrata</em>, and multidrug resistant <em>Candida</em></td>
<td>AST results and any phenotypic or molecular targets detected submitted with isolate</td>
<td>As detected</td>
<td>Identification, antimicrobial susceptibility testing, carbapenemase screen, AR-targeted PCR and referral to CDC as necessary</td>
</tr>
<tr>
<td><em>Enterobacteriaceae</em> (non-susceptible to carbapenems)</td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing and referral to CDC as necessary</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> (I or R to Vancomycin)</td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing and referral to CDC as necessary</td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em> (Resistant to carbapenems other than ertapenem)</td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing, carbapenemase screen, AR-targeted PCR and referral to CDC as necessary</td>
</tr>
<tr>
<td>†<em>Acinetobacter baumannii</em> (Resistant to carbapenems)</td>
<td></td>
<td></td>
<td>Identification, antimicrobial susceptibility testing, AR-targeted PCR and referral to CDC as necessary</td>
</tr>
</tbody>
</table>

*Any species other than C. albicans, C. parapsilosis, C. dubliniensis, C. lusitaniae, C. tropicalis, or C. krusei
†Select surveillance labs
<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Frequency to Send</th>
<th>Send Specimens to WSLH for Characterization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Invasive Bacteria (Blood, CSF or other sterile body site)</td>
</tr>
<tr>
<td><strong>Haemophilus influenzae</strong></td>
<td>As detected</td>
<td>Isolates or CSF for identification and serotyping</td>
</tr>
<tr>
<td><strong>Listeria monocytogenes</strong></td>
<td></td>
<td>Isolates for identification and molecular subtyping (WGS)</td>
</tr>
<tr>
<td><strong>Neisseria meningitidis</strong></td>
<td></td>
<td>Isolates or CSF for identification, antimicrobial susceptibility testing and serogrouping</td>
</tr>
<tr>
<td><strong>Streptococcus pneumoniae</strong></td>
<td></td>
<td>Isolates or CSF for identification, antimicrobial susceptibility testing and serotyping* (*serotyping only performed on isolates approved by the WI Division of Public Health)</td>
</tr>
<tr>
<td>Any other organisms suspected of being in a cluster or outbreak of public health significance</td>
<td>As detected</td>
<td>Consult with Wisconsin Division of Public Health Epidemiologists; Isolates for identification and molecular subtyping as deemed appropriate.</td>
</tr>
<tr>
<td><strong>Group A Streptococcus</strong></td>
<td></td>
<td>WSLH no longer requests submission of these organisms except if deemed of public health significance (see above)</td>
</tr>
<tr>
<td><strong>Group B Streptococcus</strong></td>
<td></td>
<td>WSLH no longer requests submission of these organisms except if deemed of public health significance (see above)</td>
</tr>
</tbody>
</table>
## Influenza Surveillance Requisition Form [rev. 9/2019]

### Patient Information
- **Name (Last, First):**
- **Address:**
- **City:**
- **State:**
- **Zip:**
- **Age or Date of Birth:**
- **Gender:**
- **Patient Telephone Number:**
- **Reason for submission:**

### Submitter Information
- **Your Institution’s Agency Number If Known:**
- **Your Institution’s Name:**
- **Your Institution’s Address:**
- **City, State, Zip Code:**
- **Telephone Number:**
- **Health Care Provider Full Name:**
- **Specimen ID Number (optional):**

### Test Details
- **WSLH Use Only:**
- **Bill To: Account #: 74201**

### Test Results
- **Your Test Results:**
  - Positive Influenza A
  - Positive Influenza B
  - Positive Influenza A and B
  - Positive Influenza (Unknown Type)
  - Negative Influenza A
  - Negative Influenza A and B
  - Not Tested
  - Other (specify): ______________________

### Test Types
- **Antigen Detection:**
  - [ ] BD Veritor Influenza A+B
  - [ ] BinaxNOW Influenza A&B
  - [ ] QuickVue Influenza A&B
  - [ ] Xpect Flu A & B
  - [ ] Sofia Flu A&B
  - [ ] Other (specify): ______________________

- **PCR:**
  - [ ] GenMark Respiratory Panel
  - [ ] Simplexa Flu/RSV
  - [ ] BioFire Respiratory Panel
  - [ ] ProFlu+
  - [ ] ProFAST+
  - [ ] Cepheid Xpert Flu/RSV
  - [ ] Nanosphere Verigene RV+
  - [ ] Other (specify): ______________________

- **Rapid Molecular (Cont.):**
  - [ ] Abbott ID NOW (Alere i) Influenza A+B
  - [ ] LIAT Influenza A+B
  - [ ] Solana Influenza A+B

### Additional Information
- **Hospitalized?:**
  - [ ] Yes
  - [ ] No
  - [ ] Unknown
- **Travel history (within 10 days of onset) (Places & Dates):**
- **Swine contact**

### WISCONSIN STATE LABORATORY OF HYGIENE USE ONLY
- **WSLH Test Code:**
- **To Be Determined On Receipt**
Influenza Confirmatory Testing

The WSLH recommends the following actions when performing rapid “EIA-like” tests for influenza:

1. Confirmatory testing for **ALL influenza A positive specimens** during the **summer** months (June-September).

2. During the respiratory virus season, **confirm only the first influenza (A or B) positive specimen** or until:
   - **Influenza activity has increased in Wisconsin** (as reported in the “Laboratory Surveillance Report” or on the WSLH website).
   - Confirmatory testing may require collection of a second specimen. See your kit insert and these examples to see if you should collect a second specimen for confirmatory testing.
     - **Wash or aspirate samples**: submit remaining portion of sample for confirmatory test.
       - If sample was collected in saline, add an equal volume of virus transport medium before submitting to the WSLH for confirmatory testing.
     - **Swab samples**:
       - If swab was collected and immersed in test reagent, collect a second sample for confirmatory testing. Alternatively, swabs may be transferred to VTM. **Swabs should be polyester with plastic shafts**.
       - If swab was diluted in virus transport medium or saline before a portion was removed for testing, submit remaining swab in virus transport medium.

If you experience suboptimal performance of your rapid antigen or rapid molecular assays, please contact Erik Reisdorf (608-224-4261). The CDC has developed a reporting system to document performance issues (e.g. false negative, false positive).
Influenza Confirmatory Testing

Reporting Rapid Molecular Results to WSLH

The WSLH has recently built the capability to distinguish rapid molecular influenza tests (e.g. generally those with results in <30 minutes and intended for point of care settings) from other PCR and immunoassay tests. This allows us to better monitor the ability of diagnostic tests to detect emerging clades of seasonal influenza viruses.

Please choose the “Rapid Molecular” test option when reporting results for the following molecular assays:

- COBAS LIAT Influenza
- Cepheid Xpress Influenza
- Quidel Solana Influenza
- Silaris Influenza
- Abbott ID Now (Alere i) Influenza
- Mesa Biotech Accula Influenza

Reporting Rapid Test Results to WSLH

The WSLH recommends weekly reporting of the number of tests performed and the number of positives and negative results.

- Report the number of specimens tested and the number of specimens positive for influenza, RSV, rapid strep and rotavirus each week throughout the year.
- Please report weekly even if no tests were performed.
- If you discontinue testing in the spring, please notify us so that our data accurately reflects testing in Wisconsin.
- We encourage web-based reporting; instructions are provided in this packet. Alternatively, a FAX reporting is also included in this packet.
- Contact your local health department and ask if they would like you to report your first positives to them.

Contact Mary Wedig (608-224-4274, email WCLN@mail.slh.wisc.edu) if you have questions.
Influenza Confirmatory Testing

Biosafety Considerations

The WSLH recommends the following actions when performing rapid “EIA-like” tests for influenza:

1. **Evaluate biosafety at your testing site using a risk assessment:**
   Due to increased awareness of and concern about novel and emerging respiratory diseases (e.g., H3N2v, avian influenza, etc.), we recommend that rapid influenza testing sites do the following:

   - **Perform a risk assessment:**
     - Review your testing practices and lab environment and consider the following strategies to minimize potential staff exposures to aerosols when performing rapid influenza tests.
       - Use a biosafety cabinet or benchtop splatter-shield;
       - Use personal protective equipment (e.g., face shield, gloves, lab coat);
       - Locate your testing in a less-heavily trafficked area to sequester the testing and reduce potential exposures.

   - **Collect recent history of travel including that of outside the U.S.**
     - Communicate to your healthcare providers the need for patient travel history to minimize staff exposure to possible emerging respiratory infections. This information allows the laboratory staff to evaluate the need for additional precautions or forwarding the specimen to a laboratory that can apply additional precautions during testing.
     - **If there is a history of travel to a country with human cases of avian influenza within 10 days prior to onset of illness**, contact the Wisconsin Division of Public Health (WDPH) to evaluate the need to submit the specimen to the WSLH for fee-exempt avian influenza testing.
     - Contact WDPH at 608-266-5326 (during business hours) or at 608-258-0099 (after business hours) to receive prior approval for testing.
     - Collect one throat swab and one /nasopharyngeal swab in a single vial of viral transport medium for testing. Maintain the sample at refrigerator temperature (4°C to 8°C) during transport.
     - Arrange transport of the specimens on a priority basis, to be received at the WSLH within 24 hours of collection to assure a timely diagnosis. Call the WSLH emergency number at 608-263-3280 if you need assistance in arranging prompt delivery of the specimens.
Weekly Reporting Lab Testing Data to WSLH

Weekly reporting of diagnostic testing data to WSLH is important so that the public health stakeholders know what communicable diseases are impacting community health in Wisconsin.

WSLH highly encourages you to report your rapid antigen test and PCR data to the WSLH using the web-based reporting system. Alternatively, the paper-based FAX reporting system is also acceptable, according to your preference. These testing data are compiled weekly and made available on the WSLH website (graphs) and used in the bi-weekly Laboratory Surveillance Report.

Regardless of which reporting method you choose, we ask that you begin reporting as soon as possible and continue reporting weekly throughout the year. If you discontinue testing in the spring, please notify us so that our data accurately reflects testing in Wisconsin. Please also report the test method and your detailed test results (e.g. GeneXpert Flu: InfA+, 2009H1N1 +).

It is no longer necessary for you to report to the National Respiratory and Enteric Virus Surveillance System (NREVSS). The WSLH is now reporting this data to NREVSS directly for all labs.

For Web-Based Reporting: Instructions for web-based reporting are included in this packet. Report the number of specimens tested and the number of specimens positive for influenza, RSV, rotavirus, respiratory pathogens, gastrointestinal pathogens and Group A streptococcus each week. If no tests were performed that week, simply report “0” for the number tested for each of the agent(s). You will need your “Lab ID”, which is included in the FAX report form.

See Web Reporting Instructions

For FAX Reporting: A report form with faxing instructions is included in this packet. Report the number of specimens tested and the number of specimens positive each week for influenza, RSV, rotavirus, and streptococcus. If no tests were performed during a week, simply report “0” for the number tested for the agent(s).

Please FAX (844-390-6233) by noon Wednesday of each week to:
Erik Reisdorf or Mary Wedig
Wisconsin State Laboratory of Hygiene

Note: If you are reporting PCR test data by either web-based or FAX-based reporting, please include the number tested and the number positive for influenza & other respiratory pathogens, enteroviruses, vaccine preventable diseases, gastrointestinal pathogens and B. pertussis/parapertussis.

Questions or Problems?
Please email us at WCLN@mail.slh.wisc.edu or call 800-862-1013
Please FAX by **noon Wednesday** of each week to:
Erik Reisdorf or Mary Wedig, Wisconsin State Laboratory of Hygiene at **844-390-6233**
Contact Mary Wedig (608-224-4274) or Erik Reisdorf (608-224-4261) with questions.
Please report the number of specimens tested and the number of specimens positive for each **Sunday through Saturday** week throughout the year even if no specimens were tested.

### WISCONSIN TESTING FAX REPORT

<table>
<thead>
<tr>
<th>Identification Number:</th>
<th>Your Institution’s Name, Address &amp; Telephone Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>«Lab_ID»</td>
<td>«InstitutionName» «Address» «City», «St» «Zip» «Telephone_»</td>
</tr>
</tbody>
</table>

Change of Institution Address: ________________________________________________________________

**Report For Week (Sunday through Saturday) Ending:**

<table>
<thead>
<tr>
<th>Rapid Testing - Virus / Bacteria</th>
<th>Number Tested</th>
<th>Number Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A and B (Differentiated)</td>
<td></td>
<td>Influenza</td>
</tr>
<tr>
<td>Testing provides 2 results – 1 result for A &amp; 1 result for B</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Influenza (Type Not Known)</td>
<td></td>
<td>Unknown</td>
</tr>
<tr>
<td>Testing provides 1 result; could be A or B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapid Strep (Streptococcus Group A)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PCR - Virus / Bacteria</th>
<th>Number Tested</th>
<th>Number Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A and B (Differentiated)</td>
<td></td>
<td>Influenza</td>
</tr>
<tr>
<td>Influenza A (only)</td>
<td></td>
<td>A Only</td>
</tr>
<tr>
<td>RSV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bordetella</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal Pathogen Panel</td>
<td></td>
<td># Positive / Positive Pathogen</td>
</tr>
<tr>
<td>Test Used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>Number Positive</td>
</tr>
</tbody>
</table>

Please indicate the test used at your institution on the following page.

*Thank you for your report!*
Identification Number: «Lab_ID»

Your Institution’s Name, Address & Telephone Number:
«InstitutionName»
«Address»
«City», «St» «Zip»

**Influenza Rapid Test Used:** Please check all that apply.

- [ ] BD Veritor Influenza A+B
- [ ] BinaxNOW Influenza A&B
- [ ] Directigen EZ Flu A+B
- [ ] QuickVue Influenza
- [ ] QuickVue Influenza A+B
- [ ] SAS FluAlert A&B
- [ ] Sofia Flu A&B
- [ ] Other

(specify): ____________________________

**RSV Rapid Test Used:** Please check all that apply.

- [ ] BD Veritor RSV
- [ ] Binax NOW RSV
- [ ] Clearview RSV
- [ ] Directigen EZ RSV
- [ ] QuickVue RSV
- [ ] SAS RSVAlert
- [ ] Sofia RSV
- [ ] Solana RSV/hMPV
- [ ] Sure-Vue RSV
- [ ] Xpect RSV
- [ ] Other

(specify): ____________________________

**Rotavirus Rapid Test Used:** Please check all that apply.

- [ ] Immunocard Stat!
- [ ] Premier RotaClone
- [ ] Sure-Vue
- [ ] Xpect

(specify): ____________________________

**Strep Rapid Test Used:** Please check all that apply.

- [ ] Acceava Strep A
- [ ] Alere i Strep A
- [ ] ICON DS Strep A
- [ ] Binax NOW Strep A
- [ ] BD Veritor A Strep
- [ ] ImmunoCard STAT! Strep A
- [ ] OSOM Ultra Strep A
- [ ] QuickVue Strep A
- [ ] SAS StrepAlert
- [ ] Solana Strep A
- [ ] Sure-Vue Strep A
- [ ] Quidel Sofia Strep A
- [ ] Other (specify): ____________________________

**Influenza Molecular Test Used:** Please check all that apply.

- [ ] Cepheid Xpert Flu/RSV
- [ ] BioFire Respiratory Panel
- [ ] GenMark ePLEX
- [ ] Luminex NxTAG Respiratory Panel
- [ ] Nanosphere Verigene RV+
- [ ] ProFlu+
- [ ] ProFlu Fast
- [ ] Abbott NOW (Alere i) Flu (R)*
- [ ] Cepheid Xpress Flu (R)*
- [ ] Cobas LIAT (R)*
- [ ] Quidel Solana (R)*
- [ ] Quidel Lyra (R)*
- [ ] Silaris Influenza (R)*
- [ ] Mesa Accula Influenza (R)*
- [ ] Other (specify): ____________________________

*(R) Rapid Molecular Test
Go to the WSLH website [http://www.slh.wisc.edu/wcln-surveillance/surveillance/](http://www.slh.wisc.edu/wcln-surveillance/surveillance/) then click on “**Click here to report Wisconsin Test Data**”

**OR**


**Enter** your laboratory’s identification number (“**Lab ID**”); **this is a required field**.

- Your “**Lab ID**” is a series of letters and numbers that is included on the fax reporting form in this packet. The letters in your Lab ID must be capitalized.
- If you cannot find your “**Lab ID**”, please contact us at [WCLN@mail.slh.wisc.edu](mailto:WCLN@mail.slh.wisc.edu) or call 800-862-1013.
- Your institution’s name, address, city and telephone number will be entered automatically.

**Review** the institution name, address and telephone number for accuracy.

- If any of the information is not accurate, enter the correct information and check the box at the bottom of the form “**Check here if any pre-filled information on this page was changed**”.

If you have questions or problems reporting test data by either the web-based system or the fax system, please email us at [WCLN@mail.slh.wisc.edu](mailto:WCLN@mail.slh.wisc.edu) or call Mary Wedig at 608-224-4274.
Select the “Week Ending Date” for which you wish to report data.

- Click on the “v” symbol; click on the date in the drop-down list. **This is a required field.** It is critical that you select the correct week ending date!

**Week Ending - 2019/2020 Season** (Saturday)

Reporting week is Sunday to Saturday

[Please Select]

Check “Antigen Detection”, “PCR” or “Rapid Molecular” method for the data you would like to enter and click “Next”.

Select the method below to enter data; you must also select "Next".

- Antigen Detection
- PCR
- Rapid Molecular (Alere/Abbott ID Now Flu, Solana, Xpert Xpress Flu, LIAT, Silaris Influenza, Mesa Biotech Accula Flu)

If you chose Ag Det (above or on page 5, page 6, or page 7):

- Report the number tested and number positive for each of the listed agents for which you perform testing on-site. **There is no need to enter data for tests referred to in-state or out-of-state laboratories. There is also no need to enter data for confirmatory testing of rapid Strep tests.**

- **If you do not perform a test on-site and/or refer specimens to another laboratory**, skip that agent/test section **without entering any data.**

- **If you normally perform that testing on site, but did not test any specimens** that week, **enter zero “0” for the number tested.** If the “number tested” is “0”, you can skip the “number positive” field.

- **For influenza**, select the test for which you should report as follows:
  - “Influenza A & B (Differentiated)”: Report your data here if your influenza test provides a result for influenza A **and** a result for influenza B.
  - “Influenza A (Only)”: Report your data here if your influenza test provides a result only for influenza A.
  - “Influenza B (Only)”: Report your data here if your influenza test provides a result only for influenza B.
  - “Influenza (Type Not Known)”: Report your data here if your influenza test provides a single test result, but does not specify influenza A or influenza B.
Review for accuracy the test(s) that have been pre-marked for your institution.

Please verify that the test(s) marked below are accurate.

- If the marked test is not the test your facility used, click on the marked test to “uncheck” it, then click on the correct test. Please check the box at the bottom of the form “Check the box below if any pre-filled information on this page was changed.”

To make a copy of the data you have entered, you must do so before you leave the page.

- Right-click the computer mouse and left-click on “Select All” in the drop-down list
- Right-click the computer mouse on any highlighted area and left-click on “Copy” in the drop-down list.
- Open a Word document and right-click to see the drop-down list, then left-click on “Paste”.
- Edit the document and save or print.
Web-based Reporting of Test Results to WSLH

- Check “PCR” or “Rapid Molecular” to enter more data or check “Finished entering data” to finish, and then click “Next”.

Select the method below to continue entering data or select “Finished entering data” if done; you must also select "Next".

- PCR
- Rapid Molecular (Alerei/Abbott ID Now Fiu, Solana, Xpert Xpress Fiu, LIAT, Silans influenza, Mesa Biotech Accula Fiu)
- Finished entering data

If you chose “Finished entering data” (above or on page 5, page 6, or page 7):

- To save and submit your data, click on “Submit”. You will be returned to the WSLH Laboratory-Based Surveillance web page. The data you entered will not be saved or transmitted until you click “Submit”. Do not use the red “X” button to close or the data you entered will not be saved or submitted.

If you want to report data for another week, you must access the website again, enter your “Lab ID” again, and repeat the data entry process for the new week. To save and submit your data report for the additional week, again click on “Submit”. You will again be returned to the WSLH Laboratory-Based Surveillance web page.
Web-based Reporting of Test Results to WSLH

**If you chose PCR (on page 2, page 4, page 6, or page 7):**

- **Report** the number tested and number positive for each of the listed agents for which you provide on-site tests. *There is no need to enter data for tests referred to in-state or out-of-state laboratories. There is also no need to enter data for confirmatory testing of rapid Strep tests.*

- **If you do not perform a test on-site and/or refer specimens to another laboratory**, skip that agent/test section *without entering any data.*

- **If you normally perform that testing on site, but did not test any specimens** that week, *enter zero “0” for the number tested.* If the “number tested” is “0”, you can skip the “number positive” field.

---

**PCR Reporting**

<table>
<thead>
<tr>
<th>Bordetella Testing by PCR</th>
<th>Number Tested</th>
<th>Number Positive for B pertussis</th>
<th>Number Positive for B parapertussis</th>
<th>Number Positive for B pertussis/B parapertussis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Viral PCR Testing - Respiratory Specimens**

<table>
<thead>
<tr>
<th></th>
<th>Number Tested</th>
<th>Number Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenovirus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocavirus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coronavirus 229E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coronavirus HKU1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coronavirus NL63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Check** “Antigen Detection” or “Rapid Molecular” to enter more data or check “Finished entering data” to finish and then click “Next”.

---

**Select the method below to continue entering data or select "Finished entering data" if done; you must also select "Next".**

- Antigen Detection
- Rapid Molecular (Aerol/Abbott ID Now Flu, Solara, Xpert Xpress Flu, UAAT, Solara Influenza, Mesa Biotech Accula Flu)
- Finished entering data
If you chose Rapid Molecular (above, page 2, page 4, page 5, or page 6):

- **Report** the number tested and number positive for each of the listed agents for which you provide on-site tests. *There is no need to enter data for tests referred to in-state or out-of-state laboratories. There is also no need to enter data for confirmatory testing of rapid Strep tests.*

- **If you do not perform a test on-site and/or refer specimens to another laboratory**, skip that agent/test section *without entering any data.*

- **If you normally perform that testing on site, but did not test any specimens** that week, *enter zero “0” for the number tested.* If the “number tested” is “0”, you can skip the “number positive” field.

### Rapid Molecular Reporting

#### Influenza A & B Testing - Rapid Molecular

Please report the number of specimens tested and the number positive.

<table>
<thead>
<tr>
<th>Influenza A &amp; B (Differentiated)</th>
<th>Number Tested</th>
<th>Number Positive for Flu A</th>
<th>Number Positive for Flu B</th>
<th>Number Positive for Flu A &amp; B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Influenza Rapid Molecular Test Used: Please check all that apply

- [ ] Alere Influenza A&B
- [ ] LiPT Influenza A/B
- [ ] Other (specify)

#### RSV Testing - Rapid Molecular

Please report the number of specimens tested and the number positive for RSV.

<table>
<thead>
<tr>
<th>RSV</th>
<th>Number Tested</th>
<th>Number Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Check** “Antigen Detection” or “PCR” to enter more data or check “Finished entering data” to finish and then click “Next”.

Select the method below to continue entering data or select "Finished entering data" if done; you must also select "Next".

- [ ] Antigen Detection
- [ ] PCR
- [ ] Finished entering data

---

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Background

Rapid influenza diagnostic tests (RIDTs) are “EIA-like” tests that can detect influenza A and influenza B. They can provide quick test results, are simple to perform and can be valuable for patient management decisions. The data generated from RIDTs are also a valuable component of the influenza laboratory surveillance program in Wisconsin. As with any diagnostic assay there are benefits and limitations. Factors to be considered when interpreting RIDT results are listed in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Circulating Influenza Virus Activity</th>
<th>RIDT Results</th>
<th>Interpretation</th>
<th>Actions</th>
</tr>
</thead>
</table>
| High                                | Positive for Influenza A, B, or A and B | Influenza virus infection is likely | • Additional testing to confirm results, for sub typing of results.  
• Additional diagnostic testing for other respiratory pathogens may be useful. |
| High                                | Negative for Influenza A, B, or A and B | False negative result is more likely  
Influenza virus infection cannot be ruled out | • Clinicians should not use negative results alone for clinical decision making or for decisions on infection control measures.  
• Consider additional more sensitive influenza testing if indicated.  
• Additional diagnostic testing for other respiratory pathogens may be useful. |
| Low                                 | Positive for Influenza A, B, or A and B | False positive result is more likely | • Additional testing to confirm results, for sub typing of results.  
• Additional diagnostic testing for other respiratory pathogens may be useful. |
| Low                                 | Negative for Influenza A, B, or A and B | Influenza virus infection unlikely | • Additional diagnostic testing for other respiratory pathogens may be useful. |
Rapid Influenza Diagnostic Tests (RIDT)


There are some additional limitations that should be taken into consideration when interpreting RIDT results:

1. The accuracy of the results is dependent upon specimen type, age of the patient and the time after onset of specimen collection. Specific information can be found on the CDC website: [http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm](http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm)

2. Patients recently vaccinated with the live attenuated influenza vaccines (LAIV) such as FluMist® may produce a false positive result.

An updated list of available FDA Cleared Rapid Influenza Diagnostic Tests (RIDT's) is available [https://www.cdc.gov/flu/professionals/diagnosis/table-ridt.html](https://www.cdc.gov/flu/professionals/diagnosis/table-ridt.html)

### Resources

For additional information regarding the use of rapid diagnostic testing for influenza, please consult the current CDC information available at: [http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm](http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm)


Background: Any clinical specimen that produces a positive result for influenza A, but fails to subtype as seasonal H3 or 2009 H1N1, may signal the emergence of a novel strain of influenza A virus. It is recommended that laboratories encountering an unsubtypable influenza A virus when subtyping for both 2009 pdm H1N1 and seasonal H3 was attempted:

(a) Repeat testing to verify results;

(b) Notify the Wisconsin State Laboratory of Hygiene if the influenza A fails to subtype after repeat testing and the influenza A Ct <35.

Please send the sample to the WSLH, according to instructions provided in this packet.

Example Test Results:

<table>
<thead>
<tr>
<th>Inf A result</th>
<th>Seasonal H3</th>
<th>2009 pdm A/H1</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (Ct&lt;35)</td>
<td>Neg</td>
<td>Neg</td>
<td>Notify WSLH</td>
</tr>
</tbody>
</table>

Notification: If you encounter an influenza A virus which fails to subtype (InfA Ct <35) please notify the WSLH Virology Laboratory by email virus@slh.wisc.edu or call 800-862-1013.

Shipping: There is NO cost for shipping influenza surveillance specimens, including specimens which fail to subtype, when the instructions included in this packet are followed. Please follow the shipping guidelines included in this packet.

Packages should be addressed to:

Wisconsin State Laboratory of Hygiene
Communicable Disease Division
2601 Agriculture Dr
PO Box 7904
Madison, WI 53718
In the 2014-2015 influenza season, there were several hundred cases of parotitis with confirmed influenza infection reported to the CDC. Many of these cases were from Wisconsin. CDC reported that parotitis after influenza infection appears to occur in people of all ages, but is most common in school-aged children and in males. Parotitis appears to occur more often after infection with influenza A (H3N2) viruses. Among patients who had parotitis with influenza during the 2014-2015 influenza season, more than 80% had one respiratory symptom or more (cough, sore throat, or runny nose); most had mild illness. There is no evidence of increased severity of illness and no deaths have been reported in patients with influenza-associated parotitis (CDC, 2018).

If you have any questions regarding mumps, please contact the Wisconsin Immunization Program at 608-267-9959.

For questions on influenza and other respiratory viruses, please contact the Communicable Diseases Epidemiology Section at 608-267-9003.

**Resources**

2016-2017 Influenza Update for Health Care Providers: Parotitis and Influenza (CDC, 2018) Available at: [https://www.cdc.gov/flu/about/season/health-care-providers-parotitis.htm](https://www.cdc.gov/flu/about/season/health-care-providers-parotitis.htm)
Situational Update:

In late 2014, avian influenza H5N2 and H5N8 emerged in North America commercial poultry flocks. In 2015, numerous Wisconsin commercial poultry farms were infected. Sporadic flock infections continue to occur. Although there have been no documented human cases, people that have close contact with sick poultry infected with avian influenza (H5Nx) may be at increased risk for severe disease.

Additionally, influenza H7N9 and H9N2 continues to cause human infections in China, mainly in persons with close contact with poultry.

If you suspect a patient is at increased risk for acquiring Avian Influenza notify the Wisconsin Division of Public Health (WDPH)

7:45 AM - 4:30 PM Monday-Friday, call 608-266-5326

After-hours, ask for “Communicable Disease Epidemiologist on-call” at 608-258-0099

Specimen Collection Recommendations:

- Obtain one oropharyngeal (throat) swab AND one nasopharyngeal swab; place in the same tube of viral transport medium (VTM). Use swabs with a Dacron or polyester tip and aluminum or plastic shaft.

- For patients with lower respiratory illness, a lower respiratory tract specimen is also recommended (e.g. BAL).
Laboratory Guidance for Testing for Avian Influenza

- Place specimens at 4°C (40°F) immediately, and maintain specimens at refrigerator temperatures during transport.

- Complete Wisconsin State Lab of Hygiene (WSLH) OUTBREAK INVESTIGATION FORM found on the WSLH website: http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/

- Arrange transport so that specimens arrive at the WSLH within 24 hours of collection. Testing is usually completed within 24 hour after receipt.

There is NO cost for specimen shipping or testing for WDPH-approved specimens.

Please contact Erik Reisdorf at 608-224-4261 or the WSLH Customer Service Department at 800-862-1013 or if you have questions regarding laboratory testing.

Additional Information:
Wisconsin Division of Public Health (2015). Avian Influenza (H5N2)-Bird Flu General Information. Available at: https://www.dhs.wisconsin.gov/influenza/avian-h5n2.htm


Accessed on: 7 September 2016
Situational Update

Sporadic cases of influenza “variant” viruses continue to be reported in multiple states each summer. All of these cases were directly related to swine exposure. If a patient with suspected influenza has come in contact with swine, please contact the Wisconsin Division of Public Health for guidance.

Background

Influenza viruses normally circulate in pigs and are referred to as swine influenza viruses. When one of these swine influenza viruses infects a human it is termed a variant influenza virus. On occasion, influenza viruses from pigs can infect humans as was the case with the emergence of influenza H3N2v in 2011 and in subsequent years. These variant viruses are denoted with a “v” at the end of the name (e.g. H1N2v and H3N2v).

Transmission

Influenza viruses from swine normally do not infect humans; however, cases do occur sporadically and are typically associated with close contact with infected pigs as has occurred with the H3N2v and H1N2v cases. There have been no reports of sustained human transmission of t H3N2v or H1N2v as of August 2019. Public health officials are closely monitoring the current situation through enhanced surveillance activities.

Human cases

According the Centers for Disease Control and Prevention (CDC), there have been sporadic human cases of H3N2v and H1N2v in the US since 2012 including some identified in Wisconsin. The majority of cases have occurred in children.

Specimen Collection

There are no special requirements for specimen collection from suspect cases. Nasopharyngeal (NP) and/or oropharyngeal (Throat) specimens should be collected with Dacron or polyester tipped plastic shafted swabs respectively and placed together in virus transport medium (VTM) for PCR testing at WSLH. Specimens should be refrigerated after collection and transported using cold packs to maintain the cold chain.
Transport

WSLH provides no cost specimen transport if your facility does not have a courier system. Shipping instructions using Gold Cross Courier can be found in this packet.

Specimen collection supplies (e.g. VTM) and specimen shippers are also available at no cost. Orders can be placed by contacting the WSLH Clinical Orders department at 800-862-1088 or email HMspecimenreceivingclinicalordersstaff@slh.wisc.edu.

Laboratory Diagnostic Testing

Rapid Influenza Diagnostic Tests (RIDTs):

The CDC has evaluated the performance characteristics of some of the commercial RIDTs to detect the H3N2 variant viruses. The result of this study are published in the Morbidity and Mortality Weekly Report (MMWR) and are available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a4.htm?s_cid=mm6132a4_w

PCR Tests:

The performance characteristics of commercial PCR assays to detect the H3N2v virus have not been evaluated at this time. However, clinical laboratories performing PCR may not be able to distinguish seasonal H1 and H3 from the H3N2v and H1N2v viruses. The PCR assay that WSLH and other public health labs use provided by the CDC has the capability to distinguish these viruses. Clinicians that suspect H3N2v from patients with close contact to swine should contact their local health departments or the Wisconsin Division of Public Health for approval for testing at WSLH.

Additional Information

The WSLH provides weekly updated information throughout the year on influenza activity on our website:

Laboratory Surveillance Data: http://www.slh.wisc.edu/wcln-surveillance/surveillance/virology-surveillance/

The CDC also has many guidance documents and information pertaining to the H3N2v outbreak on its website:

Influenza A (H3N2)v Information: http://www.cdc.gov/flu/swineflu/variant.htm

Contact Information

Please contact Erik Reisdorf at 608-224-4261 or the WSLH Customer Service Department at 800-862-1013 or if you have questions regarding laboratory testing for influenza variant viruses.
MERS-Coronavirus Information

Middle Eastern Respiratory Syndrome-Coronavirus (MERS-CoV) Testing

**Background**

Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV) poses a significant risk to public health. The virus was first reported in Saudi Arabia in 2012. Many of the infected patients have had a severe illness with symptoms including fever, cough, and shortness of breath. The MERS-CoV is genetically different from other common coronaviruses and the SARS-Coronavirus that emerged in 2003.

**Transmission**

The MERS-CoV has been shown to spread from person-to-person through close contact. Public health officials are closely monitoring the current situation through enhanced surveillance activities.

**Human cases**

According the World Health Organization as of July 2019, a total of 2,458 cases have been confirmed in people worldwide with 848 deaths.

**UPDATED! Specimen Collection (HAN00380)**

To date, little is known about pathogenicity and transmission dynamics; therefore the CDC recommends collecting multiple specimen types from suspect patients. These can include the following:

1. Nasopharyngeal and oropharyngeal (throat) swabs combined in virus transport medium (VTM) for patients with symptoms <14 days post-onset.
2. Lower respiratory tract (e.g. BAL) for patients with symptoms <14 days post-onset.
3. Serum

Stool specimens are NOT recommended for MERS-CoV testing.


Specimens should be refrigerated after collection and expeditiously transported to WSLH using cold packs to maintain the cold chain.
Transport

WSLH provides no cost specimen transport if your facility does not have a courier system. Shipping instructions using the courier supported by WSLH can be found in this packet.

Specimen collection supplies (e.g. VTM) and specimen shippers are also available at no cost. Orders can be placed by contacting the WSLH Clinical Orders department at 800-862-1088 or email HMspecimenreceivingclinicalordersstaff@slh.wisc.edu.

Laboratory Diagnostic Testing

PCR Test:

In June of 2013, the US Food and Drug Administration (FDA) granted an emergency use authorization (EUA) for the CDC novel coronavirus 2012 rRT-PCR assay for in-vitro diagnosis of MERS-CoV. Testing is now available at the WSLH.

Clinicians that suspect MERS-CoV from patients should contact their local health departments or the WDPH for approval for testing.

Wisconsin Division of Public Health (WDPH)

7:45 AM - 4:30 PM Monday-Friday, call 608-266-5326

After-hours, ask for “Communicable Disease Epidemiologist on-call” at 608-258-0099

Additional Information

Wisconsin Division of Public Health. Middle East Respiratory Syndrome Coronavirus. Available at: http://www.dhs.wisconsin.gov/communicable/DiseasePages/MERS.htm

MERS-Coronavirus Information

CDC. Middle East Respiratory Syndrome. Available at:

WHO. Global Alert & Response: Coronavirus. Available at:

US Food & Drug Administration (FDA). Emergency Use Authorizations. Available at:
http://www.fda.gov/MedicalDevices/Safety/EmergencySituations/ucm161496.htm

Contact Information

Please contact Erik Reisdorf at 608-224-4261 or the WSLH Customer Service Department at 800-862-1013 or if you have questions regarding laboratory testing for MERS-Coronavirus.
Number of Specimens Tested and Positive for Influenza by PCR at Wisconsin Laboratories

Number of Specimens Tested and Positive for Influenza by Wisconsin Antigen Detection Sites
Laboratory Surveillance Graphs, 2018-2019

Number of Specimens Tested, Positive and the Percent Positive for RSV by PCR at Wisconsin Laboratories

Number of Specimens Tested, Positive and Percent Positive for RSV by Wisconsin Antigen Detection Sites

Number of Specimens Tested and Positive for hMPV by PCR at Wisconsin Laboratories
Number of Specimens Tested, Positive and Percent Positive for Bordetella by PCR at Wisconsin Laboratories

Number of Specimens Tested, Positive and Percent Positive for Streptococcus Group A by Wisconsin Rapid Testing Sites
Number of Specimens Tested and Positive for Parainfluenza by PCR at Wisconsin Laboratories

Number of Specimens Tested and Positive for Enterovirus/Rhinovirus by PCR at Wisconsin Laboratories

Number of Specimens Tested, Positive and Percent Positive for Coronavirus by PCR at Wisconsin Laboratories