Introduction

Thank you for participating as a submitting site for the Association of Public Health Laboratories/Centers for Disease Control and Prevention (APHL/CDC) Vaccine Preventable Disease Reference Laboratory Project. This project was 100% funded with federal funds. This project has been set up to test the concept and utility of shared molecular and serology testing services for vaccine preventable diseases.

Following receipt of the specimens, the Minnesota Department of Health-Public Health Laboratory (MDH-PHL) will examine specimens for quality and perform the bacterial VPD testing indicated on the requisition form (PCR, serology, serotyping, serogrouping, and/or genotyping). The MDH-PHL will report results from the PCR, serology, serotyping, serogrouping, and/or genotyping to the submitting laboratories with patient identifiers.

Results will be reported back to the submitting public health laboratory by secure fax and will be messaged to CDC. Your laboratory will be responsible for submitting results to the necessary epidemiologists. Submitting states’ epidemiologists must continue to report suspect and/or confirmed cases to CDC.

Your public health laboratory will be submitting bacterial VPD specimens to:

Minnesota Department of Health
Public Health Laboratory
601 Robert St. N
St. Paul, MN 55155

MDH-PHL contacts

Dave Boxrud (please send email notification that samples are being shipped)
Dave.boxrud@state.mn.us
651-201-5257

Sara Vetter
Sara.vetter@state.mn.us
651-201-5255
### Specimen Types Accepted and Storage Recommendations

## Test Menu

<table>
<thead>
<tr>
<th>Specimen Storage Recommendations</th>
<th>Anticipated Turn Around Time</th>
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</thead>
<tbody>
<tr>
<td><strong>B. pertussis PCR</strong></td>
<td><strong>PCR: 2 business days</strong></td>
</tr>
<tr>
<td>Nasopharyngeal swab or aspirate, or isolate</td>
<td>Swab: store at 4°C as soon as possible. Ship on cold packs. Aspirates can be refrigerated or frozen at -20°C. Ship on cold packs or frozen on dry ice. Isolate: store refrigerated in Regan-Lowe transport medium or frozen on cryobeads. Ship on cold packs or frozen.</td>
</tr>
<tr>
<td>Serum</td>
<td>Separate and refrigerate at 4°C within 24 hours of collection and stored for up to 7 days. Ship on cold packs. If stored longer than 7 days, freeze serum at -20°C. Ship frozen.</td>
</tr>
<tr>
<td><strong>S. pneumonia PCR</strong></td>
<td><strong>PCR: 2 Business days</strong></td>
</tr>
<tr>
<td>CSF or isolate</td>
<td>CSF: refrigerate at 4°C or freeze. Ship on cold packs or frozen. Isolate: on blood or chocolate agar, in transport media or store as glycerol stock.</td>
</tr>
<tr>
<td><strong>S. Pneumonia Serotyping</strong></td>
<td><strong>5 business days</strong></td>
</tr>
<tr>
<td>CSF or isolate</td>
<td>CSF: refrigerate or freeze. Ship on cold packs or frozen. Isolate: on blood or chocolate agar, in transport media or store as glycerol stock.</td>
</tr>
</tbody>
</table>
**N. Meningitidis PCR and Serogrouping**

| CSF or isolate | CSF: 500µL | CSF: freeze at -40°C. Ship frozen. **Isolate:** store for transportation on agar slants, or frozen stock stored at ambient temperature. | **PCR:** 2 business days  
**Serogrouping:** 5 business days |
|----------------|------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------|

**H. Influenzae PCR and Serotyping**

| CSF or isolate | CSF: 500µL | CSF: freeze at -40°C. Ship frozen. **Isolate:** store for transportation on agar slants, or frozen stock stored at ambient temperature. | **PCR:** 2 business days  
**Serotyping:** 5 business days |
|----------------|------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------|

**Pertussis Serology:** Collection of specimen should occur two weeks after cough onset.

**Special Note for Bacterial VPDs**
If a culture is performed at submitting laboratory for bacterial VPDs, submit the isolate to reference laboratory.

**Genotyping**
Genotyping will be performed on all **PCR positive** specimens unless otherwise indicated as a part of a larger outbreak.

**General Specimen Submission Note**
Each test method has been validated on the specimen types listed in the table below. Alternate specimen types may be submitted to CDC for testing. See the CDC Test Directory for further information: [http://www.cdc.gov/laboratory/specimen-submission/list.html](http://www.cdc.gov/laboratory/specimen-submission/list.html).

**Labeling Specimens**
- Label specimens with labels available at your laboratory and follow your procedures for labeling.
- Please include the submitting laboratory name on the label as well as patient identifiers.

**Packaging Specimens**
Specimens should be shipped overnight to MDH-PHL packaged according to the relevant packaging requirements as stated above. The specimen should be clearly labeled with unique patient identifier(s) and the submitting laboratory’s name. The MDH-PHL form must be completed and included in the shipment.
Requisition Forms
The attached requisition form is to be included in the specimen shipment. See Appendix A.

Shipping Specimens
Prior to shipping the specimens, the submitting laboratory should notify the point of contact at the reference laboratory. Specimens should be sent overnight to ensure sample integrity.

Point of contact: Dave Boxrud
Email: Dave.boxrud@state.mn.us
Phone: 651-201-5257

The submitting site should ensure that all Federal regulations for shipping potentially infectious substances under Division 6.2 are met.

Specimen shipments are to be scheduled and made using MDH-PHL FedEx Account. Please use 331346985 as the account number.

Results Reporting
MDH-PHL will report results from the indicated PCR, serology, serotyping/serogrouping, and/or genotyping to the submitting laboratories with patient identifiers. All results will be reported via secure facsimile (fax) after PCR results are available within the turnaround time stated in the test menu. Submitters must indicate a secure fax number on submission form. Serology and serotyping/serogrouping results will be available within 5 business days and also reported by facsimile. Genotyping results will be available within 10 business days of specimen receipt. Please contact MDH-PHL to discuss genotyping results.

Rev. 04/2017
Clinical Testing and Submission Form

Last name: ___________________________  First name: ___________________________
MI: ___________________________
Address: ___________________________
City: ___________________________  State: ___  Zip: _____
DOB (mm/dd/yyyy): _______/_____/______  Sex: □ M  □ F  □ U

Facility name: ___________________________
Address: ___________________________
City: ___________________________  State: ___  Zip: _____
Submitter #: ___________________________
Name of person filling out form: ___________________________

Specimen or Isolate Source Information

□ Specimen  □ Isolate
Lab sample #: ___________________________
Collection date: ___________________________
Collection time: ____________ □ a.m. □ p.m.
Ship date to MDH: _______/_____/______  Volume: _______

□ Blood  □ Serum  □ [acute] □ convalescent
□ Plasma  □ BAL  □ CSF  □ Stool  □ Urine
□ Swab  □ buccal  □ NP  □ throat
□ combined throat/NP  □ NP aspirate  □ Extracted nucleic acid
□ Other approved source:

Test Requested

- [ ] 1200 Measles Virus IgM
- [ ] 2600 Measles Virus RT-PCR
- [ ] 2605 Measles Virus Genotyping
- [ ] 2620 Mumps Virus RT-PCR
- [ ] 2625 Mumps Virus Genotyping
- [ ] 2760 Rotavirus PCR
- [ ] 2780 Rubella Virus RT-PCR
- [ ] 2785 Rubella Virus Genotyping
- [ ] 2970 Varicella-zoster Virus PCR
- [ ] 2975 Varicella-zoster Virus Genotyping

Submitter Lab Results

Test  Results

- [ ] 1230 B. pertussis Anti-PT IgG
- [ ] 2100 Bordetella species PCR
- [ ] 2400 H. influenzae PCR
- [ ] 2405 H. influenzae Serotyping
- [ ] 2630 N. meningitidis PCR
- [ ] 2635 N. meningitidis Serogrouping
- [ ] 2900 S. pneumoniae PCR
- [ ] 2905 S. pneumoniae Serotyping

Culture: ___________________________
PCR: ___________________________
Serology IgM: ___________________________
Serology IgG: ___________________________

Patient Clinical Info

Was patient vaccinated for tested disease?  □ Yes  □ No  □ Unknown
If YES, date of last vaccination: _______/_____/______
Vaccine type:  □ MMR  □ MMRV  □ Varicella
                           □ DTap  □ Tdap  □ Rotavirus
                           □ PCV13  □ PPSV23
                           □ MCV4  □ MSPV4  □ Hib

Symptoms: ___________________________
Date of symptom onset: _______/_____/______
Date of rash onset: _______/_____/______
Antibiotic treatment: ___________________________
(if administered prior to specimen collection)
Cough duration: ___________________________
(for pertussis specimens only)

Submitting laboratory’s comments:

Apr 2013 v1.0