Virology Proficiency Testing Program

Comprehensive Category
January 2015

Summary of scores, responses, and statistics for Comprehensive Category

Disclaimer

The use of brand and/or trade names in this summary does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health
The New York State Proficiency Testing Program January 2015
Comprehensive Category Evaluation Reports are available on the Health
Commerce System via EPTRS and can be printed for your records.

This summary is based on scores and responses in the Electronic Proficiency
Test Reporting System.

Sample Description:

The January 2015 Comprehensive panel contained three simulated patient specimens that
were viral isolates from patient specimens, and two no virus samples. All NYSDOH
Proficiency Test samples were prepared from isolates of viruses cultured from clinical
specimens received in the Virology Laboratory at the Wadsworth Center.

NYS PT Sample 1596 Parainfluenza, type 1. The virus was originally isolated in
2011 from nasal and throat swabs collected from a three year old female.

NYS PT Sample 1597 Respiratory syncytial virus. The virus was originally
isolated in 2011 from nasopharyngeal and oropharyngeal swabs collected from a three
month old female.

NYS PT Sample 1598 was a No Virus specimen.

NYS PT Sample 1599 Influenza virus, type A. The virus was originally isolated in
2013 from nasopharyngeal and oropharyngeal swabs collected from a thirty-nine year old
male.

NYS PT Sample 1600 was a No Virus specimen.

Sample Scoring and Validation

The scores and analysis from the January 2015 Comprehensive Panel are shown
below. Federally mandated validation criteria require a sample to be correctly identified
by at least 80% of participating laboratories. CLIA and CLEP established a passing
grade for participating laboratories at 80% or greater. All five samples are valid and the
identities of Samples 1596, 1597, and 1599 were also confirmed by reference
laboratories (all are public health laboratories).

Please be aware that scoring is based on the number of samples your facility tested.
No credit will be given for samples not tested. For example, if a facility tested four of
the five PT samples, the total score would be based on four responses, each worth, 25%.
Therefore, if one response was incorrect, the total score would be 75%, a failing grade.
January 2015 Comprehensive Event

Scoring Analysis:
31 Participating Laboratories

<table>
<thead>
<tr>
<th>Sample #</th>
<th>1596**</th>
<th>1597**</th>
<th>1598*</th>
<th>1599**</th>
<th>1560*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Identification</td>
<td>Parainfluenza, Type 1</td>
<td>RSV</td>
<td>No virus</td>
<td>Influenza, type A</td>
<td>No virus</td>
</tr>
<tr>
<td>Titer (TCID₅₀) Log 10/ml</td>
<td>3.5</td>
<td>3.8</td>
<td>0</td>
<td>5.5</td>
<td>0</td>
</tr>
<tr>
<td>Laboratories Scoring 100%</td>
<td>30</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

*Laboratory reported “Specimen source not tested.”
**Laboratory reported “Specimen source not tested.”

Comprehensive Grade Distribution

<table>
<thead>
<tr>
<th>Total Score For Panel</th>
<th>100%</th>
<th>80%</th>
<th>70%</th>
<th>60%</th>
<th>50%</th>
<th>40%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Laboratories</td>
<td>29</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Culture Methods Reported by Laboratories

<table>
<thead>
<tr>
<th># of Responses Using Each Method/Sample</th>
<th>Sample 1596**</th>
<th>Sample 1597**</th>
<th>Sample 1598*</th>
<th>Sample 1599**</th>
<th>Sample 1600*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Centrifugation Enhanced</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Conventional &amp; Centrifugation Enhanced</td>
<td>14</td>
<td>14</td>
<td>13</td>
<td>14</td>
<td>11</td>
</tr>
</tbody>
</table>

*Laboratory reported “Specimen source not tested.”
**Laboratory reported “Specimen source not tested.”
### Virus Detection in Cell Lines Reported by Laboratories

<table>
<thead>
<tr>
<th>Cell Lines</th>
<th>1596 Inoculated</th>
<th>1596 Detected In</th>
<th>1597 Inoculated</th>
<th>1597 Detected In</th>
<th>1599 Inoculated</th>
<th>1599 Detected In</th>
</tr>
</thead>
<tbody>
<tr>
<td>A549</td>
<td>7</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>A549 SV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGMK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BGMK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caco-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CV-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-Mix</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELVIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H &amp; V Mix</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEL</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEP-2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<td>HFF</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>MDCK</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
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<td>MKCy</td>
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</tr>
<tr>
<td>MRC-5</td>
<td>16</td>
<td>4</td>
<td>17</td>
<td>2</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>MRC-5 Shell Vial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRHF</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>pRK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Mix</td>
<td>7</td>
<td>10</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>R-Mix Too</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>RhMK</td>
<td>11</td>
<td>16</td>
<td>10</td>
<td>14</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Super E-Mix</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Vero</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WI-38</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

To generate the above data, the first two selections listed in the EPTRS submitted information have been captured from each laboratory. The additional selections by laboratories that inoculated more than two cell lines have not been included.

“Cell Line Inoculated” or “Detected In” data is not included in the above chart for Sample 1598 and Sample 1600, No virus.
Confirmation Reagent data is not included in the below charts for Samples 1598 and 1600, No virus.

### Sample 1596
**Parainfluenza, type 1**

#### Confirmation Reagents

<table>
<thead>
<tr>
<th>Reagent Name</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHI</td>
<td>4</td>
</tr>
<tr>
<td>DHI D² Duet DFA Influenza A/Respiratory Virus Screening Kit</td>
<td>3</td>
</tr>
<tr>
<td>DHI D² Ultra DFA Respiratory Virus Screening &amp; ID Kit</td>
<td>13</td>
</tr>
<tr>
<td>DHI Para 1 Ab</td>
<td>1</td>
</tr>
<tr>
<td>DHI Respiratory ID Abs</td>
<td>1</td>
</tr>
<tr>
<td>Millipore</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Light Diagnostics</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Light Diagnostics Parainfluenza Kit</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Respiratory Viral &amp; ID DFA Kit</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Confirmation Methods*

<table>
<thead>
<tr>
<th>Method</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunofluorescence</td>
<td>28</td>
</tr>
<tr>
<td>Hemadsorption</td>
<td>2</td>
</tr>
</tbody>
</table>

*One laboratory reported “Specimen source not tested.”

### Sample 1597
**Respiratory syncytial virus**

#### Confirmation Reagents

<table>
<thead>
<tr>
<th>Reagent Name</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHI</td>
<td>4</td>
</tr>
<tr>
<td>DHI D² Duet DFA Influenza A/Respiratory Virus Screening Kit</td>
<td>2</td>
</tr>
<tr>
<td>DHI D² Duet DFA RSV/Respiratory Virus Screening Kit</td>
<td>1</td>
</tr>
<tr>
<td>DHI D² Ultra DFA Respiratory Virus Screening &amp; ID Kit</td>
<td>13</td>
</tr>
<tr>
<td>DHI RSV Ab</td>
<td>1</td>
</tr>
<tr>
<td>Millipore</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Light Diagnostics</td>
<td>2</td>
</tr>
<tr>
<td>Millipore Light Diagnostics Respiratory Viral Screening &amp; ID DFA Kit</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Confirmation Methods*

<table>
<thead>
<tr>
<th>Method</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunofluorescence</td>
<td>27</td>
</tr>
<tr>
<td>No Confirmation Testing Performed</td>
<td>2</td>
</tr>
<tr>
<td>Hemadsorption</td>
<td>1</td>
</tr>
</tbody>
</table>

*One laboratory reported “Specimen source not tested.”
Sample 1599
Influenza virus, type A

<table>
<thead>
<tr>
<th>Reagent Name</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHI</td>
<td>4</td>
</tr>
<tr>
<td>DHI D² Duet DFA Influenza A/Respiratory Virus Screening Kit</td>
<td>3</td>
</tr>
<tr>
<td>DHI D² Ultra DFA Respiratory Virus Screening &amp; ID Kit</td>
<td>12</td>
</tr>
<tr>
<td>DHI Flu A Ab</td>
<td>1</td>
</tr>
<tr>
<td>DHI Respiratory ID Abs</td>
<td>1</td>
</tr>
<tr>
<td>Millipore</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Light Diagnostics</td>
<td>1</td>
</tr>
<tr>
<td>Millipore Light Diagnostics Respiratory Viral Screening &amp; ID DFA Kit</td>
<td>3</td>
</tr>
<tr>
<td>Oxoid Imagen Influenza A/B Kit</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes:

- If your laboratory uses a confirmation method that detects and types a virus, it is expected that your laboratory’s result includes the virus type.

- May 2015 Proficiency Test Dates:
  - Influenza Direct Antigen Detection: May 5, 2015
  - Molecular Influenza: May 6, 2015
  - Comprehensive: May 6, 2015
  - Rotavirus and Respiratory Syncytial Virus Direct Antigen Detection: May 12, 2015
For future proficiency test events:

- **Generic worksheets** can be found at:
  [http://www.wadsworth.org/divisions/infdis/virologyPT/instruction_worksheets.shtml](http://www.wadsworth.org/divisions/infdis/virologyPT/instruction_worksheets.shtml)

- **Generic worksheets** can also be printed by logging onto the HPN and navigating to EPTRS, Results page, Print Optional Worksheet.

- **Instruction sheets** can be found at:
  [http://www.wadsworth.org/divisions/infdis/virologyPT/instruction_worksheets.shtml](http://www.wadsworth.org/divisions/infdis/virologyPT/instruction_worksheets.shtml)

- Participants MUST enter responses in ALL fields when reporting electronically; scores may be adversely affected if there are blank fields.

- In the “Virus Isolated” drop down menu, please select “No virus” if your intended answer is “No virus isolated.” The scoring algorithm does not recognize “No virus isolated” and your score may be affected. In the case where “No virus” is selected, please select “Not Applicable: no virus isolated” in the Cell Line Detected In field. For the field, Confirmation Method, select No Confirmation Testing Performed; and in the field, Confirmation Reagents, type NA.

- Participation in EPTRS is mandatory. Laboratories must submit test results electronically by logging into the Health Commerce System, navigating to EPTRS, entering results and clicking the **Submit/Attest** button on the EPTRS Summary Page.

- Please be sure to “Submit” test results. Keeping results as “Saved” is considered non-participation for the event and will automatically result in a failing grade in the electronic system.