Laboratory Test Utilization

The LABORATORY DIAGNOSIS of INFLUENZA

It was announced recently that scientists for the first time had re-constructed a living, killing copy of the “Spanish” 1918 Influenza Virus strain that caused the deadliest outbreak in history. This achievement culminated over 50 years of work that has been aimed at warding off another worldwide pandemic.

Pandemic or not, Influenza cannot be taken lightly. There were thousands of deaths in the last flu season. The killing power of this virus comes from its ability to mutate easily and rapidly. Of the three known types, A, B and C, the one we fear most is also most prevalent – Type A. Influenza seasons in which influenza Type A viruses predominate are associated with a higher mortality. (The avian flu virus is a type A.) Type B can also be deadly.

THE RAPID ANTIGEN TEST

The influenza A/B antigen screen is a rapid test used by our laboratory for detecting influenza virus in symptomatic patients. It identifies influenza and also differentiates between Types A and B. Differentiation is necessary in order to make the right therapeutic decision. Antiviral drugs differ in their route of administration, dosage regimen, side effects, and … indications for use e.g. influenza Type A or B, patient age, and cost.

- **Sensitivity** for detection of type A is 92%; 98% for type B.
- **Specificity** for either type A or B is 100%.
- **Acceptable specimen** is a (Dacron or Rayon tipped) swab of throat or nasal-pharynx, or a nasal wash.
- **Optimum collection time is within 48 hours of symptom onset.**
  The longer time after the onset of symptoms that the specimen is collected---the greater the likelihood of a false negative.
  Early diagnosis can reduce inappropriate use of antibiotics and provide the option of using antiviral therapy.
- **Test Turnaround Time:**
  - Routine: 12 hours
  - Stat: 30 minutes
**2005 Viral Influenza Season***

- **Total Flu Tests Ordered**
- **Total Positive Results**

*Data from Metropolitan Medical Laboratory, PLC*

**% Viral Influenza Type A/Type B***

- **Type A Influenza Virus**
- **Type B Influenza Virus**

<table>
<thead>
<tr>
<th>Age</th>
<th>Type A</th>
<th>Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>1-6</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>7-12</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>13-18</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>19-40</td>
<td>69</td>
<td>7</td>
</tr>
<tr>
<td>41-60</td>
<td>75</td>
<td>4</td>
</tr>
<tr>
<td>61-80</td>
<td>70</td>
<td>5</td>
</tr>
<tr>
<td>81+</td>
<td>34</td>
<td>20</td>
</tr>
</tbody>
</table>

**NEW***

**Community Influenza Prevalence Data Available on our Website**

To provide up-to-date information regarding the prevalence in our community of the influenza virus and the type, this information will be posted on our website ([www.metromedlab.com](http://www.metromedlab.com)). The information will be updated every two weeks during the flu season.