Recognizing and Managing Influenza

In the northern hemisphere, the typical influenza season starts as early as October and can last until May, affecting individuals in all age groups, with the highest rates of infection among children. The highest rates of serious morbidity and mortality occur in individuals age 65 and older and those with chronic medical conditions who are at risk for complications.

Influenza infection is caused by influenza viruses, which spread easily from person to person via coughing, sneezing, nasal secretions, or even talking. Large particle droplets can travel up to six feet and transmission can also occur via contact with infectious particles on a contaminated surface or object.

Identifying Influenza

Common signs and symptoms in a person with influenza often include:

- Fever, however not everyone will present with fever
- Headache
- Fatigue
- Sore throat
- Dry cough
- Chills
- Body aches
- Stuffy or runny nose

Influenza differs from a cold in that symptoms generally appear suddenly and some of the symptoms may or may not be present at all, or with the same intensity.

<table>
<thead>
<tr>
<th>Signs &amp; Symptoms</th>
<th>Influenza</th>
<th>Cold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Sudden</td>
<td>Gradual</td>
</tr>
<tr>
<td>Fever</td>
<td>Common; 3-4 days duration</td>
<td>Rare</td>
</tr>
<tr>
<td>Aches</td>
<td>Common; often severe</td>
<td>Slight</td>
</tr>
<tr>
<td>Chills</td>
<td>Common</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Common</td>
<td>Occasionally</td>
</tr>
<tr>
<td>Nasal congestion/sneezing/sore throat</td>
<td>Occasionally</td>
<td>Common</td>
</tr>
<tr>
<td>Cough</td>
<td>Common; can be severe</td>
<td>Mild to moderate; hacking at times</td>
</tr>
</tbody>
</table>
Diagnosing Influenza

While viral culture is the gold standard for confirming influenza infection and can distinguish between influenza A and B, diagnosis is often based on clinical presentation, especially when influenza viruses are circulating in the community. Testing for influenza is recommended when a patient is being admitted to the hospital or when results would influence management. Depending on the type of diagnostic test used, the source of the specimen and the timeframe for expected results varies.

- **Rapid influenza diagnostic tests (RIDTs)**
  - Nasopharyngeal swab, aspirate or wash; nasal swab, aspirate or wash; throat swab
  - Results within 15 minutes
- **Rapid molecular assays**
  - Nasopharyngeal swab, nasal swab
  - Results in 15 to 30 minutes
- **Immunofluorescence assay**
  - Nasopharyngeal swab or wash; bronchial wash; nasal or endotracheal aspirate
  - Results in two to four hours
- **Viral culture**
  - Nasopharyngeal swab; throat swab; nasopharyngeal or bronchial wash; nasal or endotracheal aspirate; sputum
  - Results in one to eight days

RIDTs and rapid molecular assays are more practical, producing results in less than an hour. However, they are not as accurate as the other methods and false negative results may occur.

Treating Influenza

Treatment for influenza is often symptomatic and includes rest, analgesics, hydration, and proper nutrition. Early antiviral treatment may shorten the duration of fever and other symptoms, and may reduce the risk of complications.

Antiviral treatment is recommended within 48 hours of symptom onset for anyone who is hospitalized; anyone with severe, complicated, or progressive illness; and anyone at high risk for complications, including young children, adults aged 65 years and older, pregnant women, and people with certain chronic medical conditions.

The following medications are recommended for management of influenza:

- oseltamivir (Tamiflu®) – prevention and treatment
- inhaled zanamivir (Relenza®) – prevention and treatment
- intravenous peramivir (RapiVab®) – treatment only
Preventing Influenza

The best way to prevent influenza is through annual vaccination of everyone six months or older, and especially for those at increased risk for complications. Some antiviral agents are indicated for prevention as well, but they should not be used as a substitute for annual vaccination. They may be indicated for patients for whom vaccination is contraindicated, such as anyone who has had a severe reaction to an influenza vaccination.

In addition, core methods for preventing disease include:

- Proper respiratory hygiene and cough etiquette
- Adherence to infection control precautions in the healthcare setting
  - Droplet precautions for seven days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms
- Patient education, especially:
  - Avoiding contact with sick people
  - Covering one’s nose and mouth when coughing or sneezing
  - Washing hands with soap and water throughout the day
  - Avoiding touching one’s eyes, nose, and mouth
  - Cleaning and disinfecting surfaces and objects that may be contaminated with germs
  - Staying home for at least 24 hours after a fever is gone without medication (unless necessary to get medical care)
  - Practicing healthy habits such as getting adequate sleep, staying active, drinking plenty of fluids, and eating a healthy balanced diet.

References:


