Cold and Flu Season

PSHVI Transplant Support Group
Common Cold
aka Viral Rhinitis

- Contagious
- Respiratory spread

- Symptoms
  - Nasal congestion and discharge
  - Headache (mild)
  - Sore throat
  - Malaise
Common Cold

- Causes
  - Coronavirus
  - Rhinovirus
- Usually self-limited, although may be more severe and prolonged in Tx patients

- No curative treatment
- Supportive measures
  - Decongestants
  - Nasal sprays
  - Nasal steroids
  - Rest, analgesics
- Antibiotics only for secondary bacterial infections
Other Respiratory Infections

- Sinusitis
- Bronchitis
- Otitis media (ear infection)
- Viral pneumonia
- Adenovirus
- RSV
- Para-influenza Virus
Influenza Virus

“The Flu”

- Highly contagious
- Spread via respiratory droplets
- Subtypes A, B, and C
  - Major culprit is type A
  - A and B cause indistinguishable syndrome
  - Type C usually causes a minor illness
- Epidemics and Pandemics (ie 1918)
- Generally affects young, old, and the medically ill
Influenza Virus
“The Flu”

• Symptoms
  – Fever, chills, malaise
  – Cough, muscle aches, headache
  – Nasal inflammation, congestion, discharge

• Complications
  – Pneumonia – primary and secondary
  – Pericarditis, myocarditis
  – Toxic shock
Influenza Virus
“The Flu”

• Treatment
  – Bed rest
  – Cough suppressants and analgesics
  – Amantadine, rimantidine
  – Neuraminidase inhibitors
    • Tamiflu, Relenza
  – Drug therapy must be given early to have an effect on duration and outcome
  – Antibiotics for secondary bacterial infections
Influenza Virus
“The Flu”

• Prevention
  – Hygienic practice
  – Prophylactic anti-virals
    • Early use important – within 48-72 hours of exposure
  – Vaccination

- Wash your hands with soap and water
- Cover up when you cough or sneeze
- Clear and disinfect shared surfaces
- Stay at home if you are sick
- Get your annual flu shot
Influenza Virus Vaccination

• Provides partial immunity for up to 1 year
  – Protect against influenza type A
• Components change yearly and are based on prevalent strains from the previous year
• Best administered October through November
• Reduces morbidity and mortality
• **Not to be given in those with allergy to eggs, those with acute illness, those with certain neurologic or hematologic conditions**
• IM injection consisting of killed virus
• **Live, nasally administered viral vaccine also available – not recommended for immunosuppressed patients**
Who should get flu shots?
The Centers for Disease Control has the following guidelines for who should get a flu vaccination. The CDC is considering revising these guidelines due to the shortage of supply announced Tuesday. Check with your physician for more information on how they apply to you or your family.

* People 50 and older
* Children 6 to 23 months old
* Women pregnant during flu season
* Health care providers who can spread flu to those at risk
* People with chronic heart or lung conditions, including asthma
* People with weakened immune systems
* People hospitalized during the previous year with diabetes or chronic kidney disease
* Children 2 to 18 years old on long-term aspirin therapy

Source: CDC

<table>
<thead>
<tr>
<th>Flu shot</th>
<th>Nasal spray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administered through a needle – you’ll need a shot</td>
<td>Administered through a spray – you won’t need a shot</td>
</tr>
<tr>
<td>Contains killed viruses – you can’t pass the flu along to anyone else</td>
<td>Contains weakened live viruses that won’t give you the flu but that can, in rare cases, be transmitted to others</td>
</tr>
<tr>
<td>Approved for use in people 6 months of age and older</td>
<td>Approved for healthy people ages 5 to 49</td>
</tr>
<tr>
<td>Can be used in people at increased risk of flu-related complications, including pregnant women, as well as those with chronic medical conditions</td>
<td>Given only to non-pregnant healthy people, not to those with chronic medical conditions, suppressed immune systems or to children and adolescents receiving aspirin therapy</td>
</tr>
</tbody>
</table>
Flu Pandemic of 1918

- March 1918 – June 1920
- Spanish flu
- 25 million deaths in first 25 weeks
  - AIDS – 25 million deaths in 25 years
- 2x fatalities of WWI
- Nearly 20% of world population affected to some degree
- Most fatalities due to secondary bacterial infections
- High proportion of young, healthy adults
# COLD OR FLU?

Both the common cold and influenza are upper respiratory infections caused by viruses. But there the similarities end. Flu is a much more acute and dangerous affliction, at the root of some of the most devastating epidemics in history. The following chart outlines the differences between these diseases.

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>COLD</th>
<th>FLU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>Rare</td>
<td>Characteristic, high (102°-104°), sudden-onset, lasts 3-4 days</td>
</tr>
<tr>
<td>Headache</td>
<td>Mild</td>
<td>Prominent</td>
</tr>
<tr>
<td>General aches and pains</td>
<td>Slight</td>
<td>Usual, often quite severe</td>
</tr>
<tr>
<td>Fatigue and weakness</td>
<td>Quite mild</td>
<td>Extreme, can last up to 2-3 weeks</td>
</tr>
<tr>
<td>Prostration</td>
<td>Never</td>
<td>Early and prominent</td>
</tr>
<tr>
<td>Runny or stuffy nose</td>
<td>Common</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Sneezing</td>
<td>Usual</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Sore throat</td>
<td>Common</td>
<td>Common</td>
</tr>
<tr>
<td>Chest congestion, cough</td>
<td>Mild to moderate, hacking cough</td>
<td>Common, can be severe</td>
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**COMPlications**

**COLD**

- Sinusitis
- Ear infection

**FLU**

- Bronchitis
- Sinusitis
- Pneumonia
- Can be life-threatening

**Prevention**

**COLD**

- Personal hygiene, such as washing hands and blocking coughs and sneezes

**FLU**

- Annual vaccinations for types A and B
- Oral amantadine for type A

**TREATMENT**

**COLD**

- Temporary symptomatic relief (intranasal interferon and oral anti-inflammatories are in experimental use)

**FLU**

- Bed rest, fluids, oral amantadine for type A

*Courtesy of the National Institutes of Health and Dr. Jack Gwaltney, University of Virginia School of Medicine.*
What the Transplant Patient Needs to Know
Medications Considered Safe

- Expectorant
  - guaifenesin
- Cough suppressants
  - Dextromethorphan
    - Robitussin
- Tylenol
- Anti-histamines
  - Claritin (loratidine)
  - Zyrtec (cetirizine)
  - Benadryl (diphenhydramine)
  - Chlor-Trimeton (chlorpheniramine)
- Nasal steroids
What the Transplant Patient Needs to Know
Medications to Avoid

• Medications with “D”
• Medications with “Cold”
• Pseudoephedrine or Phenylephrine
  – Sudafed or generic equivalents
  – Nyquil/Dayquil or generic equivalents
• Nasal sprays ie Afrin
• NSAIDs
What the Transplant Patient Needs to Know
Antibiotics

• No effect against common cold or flu
  – Can treat secondary bacterial infections
• Antibiotic resistance
• Drug interactions, particularly with cyclosporine and Prograf
  – Rifampin
  – Erythromycin
What the Transplant Patient Needs to Know

- Vitamins
- Zinc
- Natural products
- Flu meds appear safe in patients with heart disease and do not interact with transplant medications
Cold and Flu Season

• Prevention
  – Avoidance
  – Hand washing, cleaning, disinfecting

• Vaccinations

• There are treatment options available
# Cold or Flu?

How do you know if you have a cold or the flu? Here are symptoms of the two illnesses:

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<td>Rare</td>
<td>Usually high, sudden onset</td>
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<td></td>
<td></td>
<td>Lasts 3 - 4 days</td>
</tr>
<tr>
<td>Headaches</td>
<td>Rare</td>
<td>Frequent</td>
</tr>
<tr>
<td>Aches &amp; Pains</td>
<td>Slight</td>
<td>Usual often quite severe</td>
</tr>
<tr>
<td>Weakness</td>
<td>Rare / mild</td>
<td>Moderate to extreme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can last up to one month</td>
</tr>
<tr>
<td>Bedridden</td>
<td>Rarely</td>
<td>Frequently lasts 5 to 10 days</td>
</tr>
<tr>
<td>Sniffles</td>
<td>Common</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Sneezing</td>
<td>Usual</td>
<td>Sometimes</td>
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<td>Sore Throat</td>
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</tr>
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<td>Cough</td>
<td>Sometimes Mild to moderate</td>
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<td>Complications</td>
<td>Sinus or ear infection</td>
<td>Pneumonia, kidney failure, heart failure, can be life threatening</td>
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