Infection in the Immunosuppressed Patient

Your blood cells – what are they?
There are three different kinds of cells in your blood – red blood cells, white blood cells and platelets. Red blood cells carry oxygen and iron to all parts of your body. Platelets help your blood to clot so bleeding will stop. White blood cells fight infection.

White blood cells – how do they work?
They ...
• Eat bacteria and foreign matter
• Break down harmful protein substances and make them harmless
• Clean up the affected area

Infection – what is it?
Infection occurs when your body is invaded by “germs.” Germs invade the body tissues and can grow in large numbers. These germs can cause infection.

When one or more of the white blood cells are lacking or too low, the immune system, which fights infection, will become weak. This can cause a greater risk for infection to occur.

Types of infections
Acute: happens rapidly; usually a high fever is present

Chronic: happens more slowly with symptoms usually lasting longer than those of an acute infection

Signs and symptoms of an infection
• Fever
• Mouth tenderness, sore gums
• Sore throat
• Congestion
• Painful or frequent urinating
• Skin inflammation or sores, swelling
• Vaginal discharge or itching
• Loose bowels (diarrhea)
• Chills/sweating
• White mouth patches or plaque
• Cough with mucus
• Painful rectum
• Cloudy, foul-smelling urine
• “Cold” symptoms
• Swollen, red, warm skin area painful to touch

Ways to prevent or control infection
• Check daily for fever using an oral thermometer. If above 100.5°F, call your doctor. Do not take aspirin or medicine that contains aspirin without your doctor’s approval.
• Avoid contact with people who have a cold, flu, or other contagious disease. Avoid crowds.
• Do not get any immunizations without first checking with your doctor. Ask your doctor about a pneumonia shot and yearly flu shot.
• Avoid scratches and/or cuts in your skin. You may choose to use an electric razor instead of a hand razor.
• Exercise to the point of feeling well-exercised and only slightly tired and only as prescribed by your doctor.
• Eat well balanced meals high in calories and protein. Consider talking to a dietician about this. Avoid raw fruits and vegetables.

Continued
• Wear shoes to prevent injuries, cuts or sores.
• Good mouth care:
  – Clean your mouth after meals, bedtime and as needed using a soft toothbrush
  – Check with your doctor before any dental work is done. Rinse mouth with warm water or salt water.
• Keep clean
  – Don’t rub.
  – Apply lotion freely to dry skin areas. Dry skin may become cracked and easily infected.
  – Change pajamas/clothing daily or more often.
  – Use deodorant if needed, instead of antiperspirant.
• Clean between legs after each urination or bowel movement. Wipe from front to back only.

• Wash hands for 15 seconds with soap and water after each urination or bowel movement and before eating.
• Avoid taking rectal temperature, enemas and suppositories.
• Use sanitary pads instead of tampons.
• Avoid direct contact with animal or human bowel movement or aquarium water.
  – Wear rubber gloves and face masks when cleaning the cat litter or bird cage or have someone else clean it for you.
  – Find someone else to clean your fish tank.
  – Make sure your pets are taken for yearly exams.
• Alcohol, cigarettes and street drugs weaken the immune system. Avoid them.
• Avoid prolonged stress. Get support from people around you.
• Wash fruits and vegetables with water and a scrub brush. Meat must be cooked throughout. Ask your doctor about eating fruits or vegetables that have a peel.
• Avoid fresh flowers/plants.

### Urinary Tract

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Upper Respiratory Tract</th>
<th>Lower Respiratory Tract</th>
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</thead>
<tbody>
<tr>
<td>• Feeling of having to urinate all the time</td>
<td>• Sore, painful throat</td>
<td>• Fever</td>
</tr>
<tr>
<td>• Painful burning with urination</td>
<td>• Chills</td>
<td>• Chills</td>
</tr>
<tr>
<td>• Low abdominal pressure or discomfort</td>
<td>• Headache</td>
<td>• Difficulty breathing</td>
</tr>
<tr>
<td>• Low back pain</td>
<td>• Tiredness</td>
<td>• Shortness of breath</td>
</tr>
<tr>
<td>• Fever</td>
<td>• Nausea/vomiting</td>
<td>• Chest pain</td>
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</tbody>
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<tr>
<th>Signs</th>
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<tbody>
<tr>
<td>• Blood in urine</td>
<td>• Red throat</td>
<td>• Cough</td>
</tr>
<tr>
<td>• Cloudy urine, may have shreds of mucus</td>
<td>• Enlarged tonsils</td>
<td>• Coughing up rust-colored or bloody sputum</td>
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<tr>
<td></td>
<td>• Swollen uvula</td>
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<tr>
<td></td>
<td>• White or yellow patches over tonsils and throat</td>
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</tbody>
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### Additional symptoms

• Diarrhea
• Redness/swelling/drainage to any tube
• Pus from a sore on your skin