A CLOSER LOOK: Tuberculosis Diagnosis

What is the difference between having the disease and having latent TB? When a person is given a TB test **(purified protein derivative [PPD]),** the skin test result is positive in both TB disease and latent TB. The difference is that those patients with latent TB do not have any signs of active disease such as changes to their chest radiographs. They have been exposed to the disease and the tubercles are in their bodies but are not making them sick. Prophylactic administration of antibiotics helps to keep the disease from becoming active.

Antiviral Medications

As discussed in Chapter 17, antiviral medications are used to prevent the growth of a virus. Although a virus cannot be killed, its replication can be inhibited. Antibiotics cannot kill a virus and may actually cause harm by increasing the patient's risk of developing an infection resistant to antibiotic treatment. Antiviral medications are usually administered to decrease the duration of a viral illness and/or minimize the symptoms. Medications can ease the signs and symptoms of influenza. These medications are usually taken for 2 to 5 days. Although prevention of influenza through vaccination is preferred, anti-influenza agents can reduce the severity of influenza symptoms and shorten the duration of the illness. Examples of drugs used to treat influenza include zanmivir (Relenza) and oseltamivir phosphate (Tamiflu). Relenza is a powder that is delivered via an inhaler, and Tamiflu is taken by mouth as a capsule or liquid. These medications do not cure influenza or prevent patients from spreading it to others.

In addition, **respiratory syncytial virus (RSV)** is a common virus that affects premature and other small infants adversely because of the extremely thick secretions associated with this viral illness. Small infants who have other risk factors, such as being immunocompromised or those with congenital birth defects, may be at risk of developing complications such as pneumonia or bronchiolitis. These infants are therefore given an antiviral drug called ribavirin (Virazole) (Drug Spotlight 18.1). This drug is given as an aerosol treatment continuously for approximately 3 to 5 days. Exposure to these medications has serious side effects, so visitors and health-care workers must be educated and monitored closely during administration of this medication.

Drug Spotlight 18-1 *Ribavirin (Virazole)*

Classification	Antiviral
Indications	Respiratory syncytial virus (RSV). Used primarily in infants and children at risk for developing complications such as pneumonia from underlying chronic illness or prematurity
Adverse Reactions/ Side Effects	Thickened secretions leading to potential respiratory distress, rash, eye irritation
Contraindications/ Precautions	Possible risk to developing fetus, so women who are possibly pregnant or trying to become pregnant (including parents and health-care workers) should avoid being in room where drug is administered
Implementation	Aerosol treatment administered via a tent for 3 to 5 days
Special instructions	Remove contact lenses before entrance into the room because of the possibility of damage to the contacts and increased eye irritation