by the Centers for Disease Control and Prevention, along with safe injection practices. Anyone with cough, congestion, runny nose, or secretions should cover their mouth and nose when coughing; a mask should be worn by the coughing person when tolerated (usually not suitable for young children). Safe injection practices include the use of a new sterile needle or cannula each time medication or fluid is withdrawn from a vial or bag and for each injection. Reuse of needles/cannulas in multidose vials and IV bags has resulted in transmission of hepatitis and other infections.

**Transmission-based precautions** are designed for patients with documented or suspected infection or colonization (presence of microorganisms in or on patient but without clinical signs and symptoms of infection) with highly transmissible or epidemiologically important pathogens for which additional precautions beyond standard precautions are needed to interrupt transmission in hospitals. There are three types of transmission-based precautions: airborne precautions, droplet precautions, and contact precautions. They may be combined for diseases that have multiple routes of transmission (Box 20-2). They are to be used in addition to standard precautions.

## **Box 20-2**

## Types of Precautions and Patients Requiring Them

## **Standard Precautions for Prevention of Transmission of Pathogens**

Use standard precautions for the care of all patients.

## **Airborne Precautions**

In addition to standard precautions, use airborne precautions for patients known or suspected to have serious illnesses transmitted by airborne droplet nuclei. Examples of such illnesses include measles, varicella (including disseminated zoster), and tuberculosis.