

periods) or dust particles containing the infectious agent. Microorganisms carried in this manner can be dispersed widely by air currents and may become inhaled by or deposited on a susceptible host within the same room or over a longer distance from the source patient, depending on environmental factors. Special air handling and ventilation are required to prevent airborne transmission. Airborne precautions apply to patients with known or suspected infection with pathogens transmitted by the airborne route, such as measles, varicella, and tuberculosis.

**Droplet precautions** reduce the risk of droplet transmission of infectious agents. Droplet transmission involves contact of the conjunctivae or the mucous membranes of the nose or mouth of a susceptible person with large-particle droplets (>5 mm) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism. Droplets are generated from the source person primarily during coughing, sneezing, or talking and during procedures such as suctioning and bronchoscopy. Transmission requires close contact between source and recipient persons because droplets do not remain suspended in the air and generally travel only short distances, usually 3 feet or less, through the air. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission. Droplet precautions apply to any patient with known or suspected infection with pathogens that can be transmitted by infectious droplets (see [Box 20-2](#)).

**Contact precautions** reduce the risk of transmission of microorganisms by direct or indirect contact. Direct-contact transmission involves skin-to-skin contact and physical transfer of microorganisms to a susceptible host from an infected or colonized person, such as occurs when turning or bathing patients. Direct-contact transmission also can occur between two patients (e.g., by hand contact). Indirect contact transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, in the patient's environment. Contact precautions apply to specified patients known or suspected to be infected or colonized with microorganisms that can be transmitted by direct or indirect contact.

### **Nursing Alert**