

# INFECTION CONTROL SNAPSHOT

## Transmission Based Precautions



Using Standard Precautions is the primary infection control strategy and is designed for **all** patients regardless of their diagnosis or presumed infectious status. Standard Precautions are sometimes referred to as the first tier of precautions because when patients present with documented or suspected infection with highly transmissible pathogens additional measures, or a second tier of precautions, are necessary to prevent the potential spread of these diseases. In other words, when the routes of transmission cannot be completely interrupted with Standard Precautions alone, it is necessary to use Transmission Based Precautions. There are three categories of Transmission Based Precautions: **Airborne**, **Droplet**, and **Contact** which mirror the modes of disease transmission. More than one Transmission Based Precaution category may apply because some diseases are spread by multiple routes of transmission. **It is important to note that when used alone or in combination, Transmission Based Precautions are always used in addition to Standard Precautions.**

Transmission Based Precautions
contact
droplet
airborne

■ **Contact** Precautions are intended to prevent transmission of infectious agents spread by direct or indirect contact with the patient or the patient’s environment.

- Examples of Diseases/Conditions Requiring Contact Precautions: *Clostridium difficile*, Herpes simplex, H1N1 influenza\*, Methicillin-resistant *Staphylococcus aureus* (MRSA), Severe acute respiratory syndrome (SARS)\*, Smallpox\*, and Varicella Zoster (chicken pox)\*

■ The goal of **Droplet** Precautions is to prevent transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions. Person-to-person transmission can occur when an infected person coughs, sneezes, or talks and generates large particle droplets (> 5 µm). Spatter of blood and saliva are frequently generated during dental treatment and if these materials from an infected patient contact unprotected broken skin or mucous membranes, disease transmission may occur. Generally, special ventilation requirements are not needed to prevent droplet transmission because these pathogens do not remain infectious over long distances in a health care facility.

- Examples of Diseases/Conditions Requiring Droplet Precautions: Seasonal Influenza, H1N1 influenza\*, Mumps, Rubella, Pertussis, and Severe acute respiratory syndrome (SARS)\*

■ **Airborne** transmission involves smaller particles (< 5µm) called droplet nuclei or aerosols. Transmission occurs when these particles, which can remain suspended in the air for long periods of time, are inhaled by dental health-care personnel or patients. Exposure to aerosols containing microorganisms from patient’s blood or saliva may occur when using rotary instruments including dental handpieces or ultrasonic scalers. Airborne Precautions are used to prevent transmission of infectious agents that remain infectious over long distances when suspended in the air.

- Examples of Diseases/Conditions Requiring Airborne Precautions: H1N1 influenza\*, Measles, Severe acute respiratory syndrome (SARS)\*, Smallpox\*, Tuberculosis (confirmed pulmonary or laryngeal), and Varicella Zoster (chicken pox)\*

\* More than one Transmission Based Precaution category applies because some diseases are spread by multiple routes of transmission.

### Just a few things to think about

- Can you name the three categories of Transmission Based Precautions?
- Do your dental and/or medical infection control operating instructions discuss transmission based precautions?
- Can you name an example of a disease or condition requiring the use of transmission based precautions?

### If you want more info



- CDC Guidelines for Infection Control in Dental Health-Care Settings ([www.cdc.gov/oralhealth](http://www.cdc.gov/oralhealth)).
- Harte JA. Standard and transmission-based precautions: an update for dentistry. J Am Dent Assoc 2010;141:572–581.
- Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings, 2007.