

TRANSMISSION-BASED PRECAUTIONS



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MEDICAL ABBREVIATIONS & ACRONYMS

AIIR - Airborne Infection Isolation Room	OR - Operating Room
ASC - Ambulatory Surgery Center	OSHA - Occupational Safety and Health Administration
CDC - Centers for Disease Control and Prevention	PAPR - Powered Air-Purifying Respirator
CMS - Centers for Medicare & Medicaid Services	PAS - Portable Anteroom System
CPR - Cardiopulmonary Resuscitation	PPE - Personal Protective Equipment
FDA - US Food and Drug Administration	RN - Registered Nurse
HEPA - High-Efficiency Particulate Air	SARS - Severe Acute Respiratory Syndrome
HIV - Human Immunodeficiency Virus	SHEA - Society for Healthcare Epidemiology of America
IFU - Instructions for Use	TB - Tuberculosis
MAUDE - Manufacturer and User Facility Device Experience	TDAP - Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis
MDRO - Multidrug-Resistant Organism	UVGI - Ultraviolet Germicidal Irradiation
NIOSH - National Institute for Occupational Safety and Health	

GUIDELINE FOR TRANSMISSION-BASED PRECAUTIONS

The Guideline for Transmission-Based Precautions has been approved by the AORN Guidelines Advisory Board. It was presented as a proposed guideline for comments by members and others. The guideline is effective December 1, 2018. The recommendations in the guideline are intended to be achievable and represent what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the guideline can be implemented. AORN recognizes the many diverse settings in which perioperative nurses practice; therefore, this guideline is adaptable to all areas where operative or other invasive procedures may be performed.

Purpose

The rapidly changing health care environment presents perioperative personnel with continual challenges in the form of newly recognized pathogens and well-known microorganisms that have become more resistant to today's therapeutic modalities. Protecting patients and personnel from transmission of potentially infectious agents continues to be a primary focus for perioperative registered nurses (RNs). The prevention and control of multidrug-resistant organisms requires that all health care organizations implement, evaluate, and adjust efforts to decrease the risk of transmission.

Three principal elements are required for an infection to occur:

- a source or reservoir,
- a susceptible host with a portal of entry to receive the infectious agent, and
- a method of transmission.¹

This document provides guidance to perioperative RNs for implementing **standard precautions** and **transmission-based precautions** (ie, contact, droplet, airborne) to prevent pathogen transmission in the perioperative practice setting. Additional guidance is provided for personal protective equipment (PPE); bloodborne pathogens; immunization; and activities of health care workers with infections, exudative lesions, and nonintact skin. The reader should refer to the Centers for Disease Control and Prevention (CDC) when seeking the most current information for pathogen-specific guidance, especially during an outbreak when guidance for PPE use and transmission-based precautions may change rapidly. Guidance for prevention of surgical site infections, catheter-associated urinary tract infections, intravascular catheter-

related infections, and ventilator-associated events is outside the scope of this document.

Prevention of pathogen transmission is a priority in the perioperative environment and includes considerations for hand hygiene, environmental cleaning, sharps safety, safe injection practices, surgical attire, sterile technique, and surgical smoke safety. These topics are addressed in other AORN guidelines, and although they are mentioned briefly where applicable (eg, standard precautions), the broader discussions are outside the scope of this document.

Evidence Review

A medical librarian with a perioperative nursing background conducted a systematic search of the databases Ovid MEDLINE®, EBSCO CINAHL®, Scopus®, and the Cochrane Database of Systematic Reviews. The search was limited to literature published in English from 2012 through 2018. At the time of the initial search, weekly alerts were created on the topics included in that search. Results from these alerts were provided to the lead author until April 2018. The lead author requested additional articles that either did not fit the original search criteria or were discovered during the evidence appraisal process. The lead author and the medical librarian also identified relevant guidelines from government agencies, professional organizations, and standards-setting bodies.

Search terms included *airborne precautions*, *biological warfare*, *biological warfare agents*, *bioterrorism*, *blood-borne pathogens*, *chemical terrorism*, *chemical warfare*, *Clostridium difficile*, *communicable diseases*, *disaster planning*, *disease outbreaks*, *disease transmission (horizontal, infectious, patient-to-professional, professional-to-patient)*, *doffing*, *donning*, *droplet precautions*, *drug resistance (microbial)*, *Ebola*, *Ebola virus*, *Ebolavirus*, *emergency preparedness*, *extensively drug-resistant tuberculosis*, *gram-negative bacteria*, *gram-negative bacterial infections*, *gram-positive bacteria*, *hemorrhagic fever (Ebola, viral)*, *HEPA filter*, *hepatitis C*, *hepatitis (viral, human)*, *herpesvirus*, *HIV infections*, *HIV-infected patients*, *infectious disease transmission*, *infectious skin diseases*, *isolation precautions*, *latent tuberculosis*, *meningitis (viral)*, *methicillin resistance*, *methicillin-resistant *Staphylococcus aureus**, *microbial drug resistance*, *multidrug resistant organism*, *needle stick injuries*, *needlestick injuries*, *negative pressure environment*, *patient isolation*, *personal protective equipment*, *quarantine*, *skin diseases (infectious, viral)*, *staging wound closure*, *standard precautions*, *Staphylococcus aureus*, *TB precautions in tissue*, *transmissible infections*, *tuberculosis*, *tuberculosis (central nervous system, cutaneous, gastrointestinal, meningeal, multidrug-resistant, ocular, pulmonary)*, *tuberculosis*