

Standard Precautions: Following

What Are Standard Precautions?

- › According to the Centers for Disease Control and Prevention (CDC) in the United States, standard precautions (previously referred to as universal precautions) are the minimum infection-control measures that should be utilized for all patients in all healthcare settings, regardless of whether the patient has a known communicable infection (CDC, 2016). When following standard precautions, each patient is considered potentially infectious
- *What:* Standard precautions are first-line infection-control measures designed to prevent the transmission of pathogens that can be acquired by contact with blood, body fluids (e.g., amniotic fluid), broken skin, mucous membranes, and contaminated surfaces. Use of standard precautions protects the clinician from infection and prevents the clinician from passing pathogens from one patient to another
 - Transmission-based isolation precautions (i.e., droplet precautions, contact precautions, airborne precautions) should be used in addition to standard precautions when working with patients with known infections (Siegel et al., 2019) (for information, see *Social Work Practice & Skill ... Infection Prevention: Following Isolation Precautions -- an Overview* or the related series of *Social Work Practice & Skills* papers)
- *How:* Following standard precautions includes (McConachie, 2018)
 - meticulous hand hygiene
 - use of appropriate personal protective equipment (PPE; e.g., gloves, gown, mask, eye protection; also referred to as barrier precautions)
 - use of safe injection practices
 - safe handling and proper disposal of contaminated materials
 - reinforcing respiratory hygiene/cough etiquette
- *Where:* Standard precautions should be followed in all inpatient, outpatient, and home-care settings where patient care is provided
- *Who:* All healthcare providers, including clinicians, assistive medical personnel, and administrative personnel, should adhere to standard precautions. In addition, patients and visitors should be instructed in proper hand hygiene, respiratory hygiene (e.g., covering the mouth/nose when coughing and sneezing), and the use of PPE, as indicated, to minimize the likelihood of infection spread

What Is the Desired Outcome of Following Standard Precautions?

- › The goal of following standard precautions is to promote the safety of healthcare personnel and patients by reducing the risk for disease transmission and healthcare-associated infections (HAIs)

Why Is Following Standard Precautions Important?

- › Adherence to standard precautions is mandated by the U.S. Occupational Safety and Health Administration (OSHA) and advocated by the CDC (CDC, 2016; OSHA, 2011). Guidelines issued by each organization emphasize the importance of following standard precautions to prevent the spread of infection in the healthcare setting that can occur by exposure to blood, body fluids, broken skin, mucus membranes, and contaminated surfaces and/or equipment

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- Bloodborne infection and HAIs can be acquired through exposure to pathogens in blood and body fluids and on contaminated surfaces and/or equipment. Poor compliance with standard precautions increases the risk for occupationally associated bloodborne infection and HAIs
- › Hospitalized patients are vulnerable to infection because of their impaired immune status and their confinement with persons who are infected with pathogens. In the United States approximately 1.7 million patients acquire HAIs each year, resulting in approximately 98,000 deaths annually (Haque et al., 2018)

Facts and Figures

- › Adherence to standard precautions is suboptimal
 - Researchers in the United States collected data from 11 units in five hospitals. Although 94% of healthcare providers reported “always” or “often” adhering to standard precautions, adherence was observed in just 62% of 540 patient encounters (Hessels et al., 2016)
 - In a study conducted in a hospital in Ethiopia, just 12% of healthcare workers always complied with standard precautions. Factors associated with increased compliance included being female, having higher infection-risk perception, having been trained on standard precautions, having access to PPE, and having support from management (Haile et al., 2017)
- › The authors of a systematic review of the literature published during 2005–2014 identified numerous factors that contribute to lack of adherence to standard precautions by healthcare providers, including overwork, forgetfulness, lack of agreement with some of the recommendations, lack of material resources, failure to perceive risk, and poor quality of PPE (Porto & Marziale, 2016)
- › Evidence regarding the effectiveness of interventions to improve compliance with standard precautions is lacking. Cochrane reviewers who evaluated eight studies with a total of 673 participants concluded that education appears to slightly improve healthcare workers’ adherence to standard precautions, while peer evaluation and checklists and colored cues “probably” improve adherence (Moralejo et al., 2018)
- › The use of standard precautions might be insufficient to prevent infections with antibiotic-resistant organisms (AROs) in patients with burn injury. Researchers in Canada analyzed data from 340 patients admitted to a tertiary burn unit and found that the prevalence of ARO infections was 27.9% before contact precaution implementation and 27.6% afterwards (Ho et al., 2017)
- › A majority of nurses, physicians, and other healthcare workers do not consistently decontaminate hands when performing patient care (Haque et al., 2018), cleaning their hands less than half of the instances in which they should (CDC, 2019)
 - Poor compliance with proper hand hygiene among healthcare workers contributes significantly to HAIs (Fouad et al., 2018). Researchers have found that approximately 40% of HAIs are from improper handwashing in healthcare facilities. (Stilo et al., 2016)
 - Each year in the United States approximately 1 in 25 patients acquires a HAI while being treated in hospital facilities for other conditions. HAIs caused by ARO’s may lead to sepsis or death (CDC, 2017)

What You Need to Know Before Following Standard Precautions

- › Standard precautions must be strictly adhered to when contact with a patient is anticipated, regardless of the infectious status of the patient, to reduce the risk for transmission of bloodborne and other pathogens
 - Maintaining proper hand hygiene has been described by WHO and the CDC as the most important method of preventing the spread of infection (WHO, 2009; CDC, 2019). Hand hygiene is at the core of standard precautions. It involves not only washing the hands but avoiding contaminating the hands by unnecessary touching of potentially contaminated surfaces (for general information on hand hygiene, see *Evidence-Based Care Sheet: Hand Hygiene* ; for information on how to perform hand hygiene, see *Social Work Practice & Skill ... Hand Hygiene: Performing Antiseptic Handwashing*)
 - Hand hygiene must be performed
 - before and following all patient care activities
 - when hands are visibly soiled
 - when contamination is suspected
 - when moving from a dirty to a clean body area or activity
 - after using the bathroom
 - before and after glove removal
 - The CDC and WHO recommend the use of an alcohol-based hand rub containing 60–95% alcohol for hand hygiene because it is effective against a broad range of pathogens and because of the increased compliance in healthcare settings with hand hygiene when using an alcohol-based hand rub rather than soap and water (WHO, 2009; CDC, 2019) (for more information, see *Social Work Practice & Skill ... Hand Hygiene: Antisepsis Using an Alcohol-Based Rub --Performing*)

- After applying the alcohol-based hand rub, the WHO recommends rubbing the hands together for 20–30 seconds until dry; the CDC recommends rubbing the hands together until dry, but gives no time estimate
- Alcohol-based hand rubs are ineffective in removing visible contaminants or spores; therefore, hand hygiene using soap and water is recommended when hands are noticeably soiled, when the patient has or might have infectious diarrhea (e.g., norovirus infection), after using the restroom, or when contamination with spore-forming pathogens (e.g., *Clostridium difficile*) is suspected
 - When washing hands with soap and water, the WHO recommends rubbing the hands together for 40–60 seconds; the CDC recommends rubbing the hands together for at least 20 seconds
 - Avoid wearing artificial fingernails or extenders when working with high-risk patients (e.g., surgical patients, patients cared for in the ICU). Ideally, artificial fingernails should be avoided in all patient care areas. Natural nails are kept short (< 1/4 inch long), unpolished, and neatly filed because chipped nail polish and artificial nails can harbor bacteria
 - Keep rings and other jewelry to a minimum and wear watches well above the wrist. Wearing rings in the healthcare setting has been shown to increase risk for bacterial contamination of the hands (Patel, 2018)
- The selection of PPE should be made based on the clinical situation and the risk for exposure to blood or body fluids; use of PPE should not be limited to gloves for every situation. Clinicians must be educated regarding the proper use, donning, and removal of PPE
 - The correct order for donning PPE is as follows:
 - Gown
 - Gowns must be worn if the clinician's skin or clothing might contact blood or body fluids, nonintact skin, mucous membranes, or contaminated surfaces. Gowns should be changed between patients to prevent transferring microorganisms that could harm vulnerable patients
 - Mask
 - Masks must be worn if there is a risk for splashing or spraying of blood or body fluids, or when inserting a catheter or injecting materials in the epidural/subdural space, to prevent contamination of the site by the clinician's oropharyngeal secretions
 - Eye protection or face shield
 - Eye protection (e.g., goggles, protective glasses) or face shield must be worn if there is a risk for splashing or spraying of blood or body fluids
 - Gloves
 - Gloves must be worn if the clinician's hands might contact blood or body fluids, nonintact skin, mucous membranes, or contaminated surfaces (for more information, see *Social Work Practice & Skill ... Gloves, Nonsterile: Using_NEW*)
 - The correct order for removing (doffing) PPE is as follows:
 - Gloves
 - Gloves are removed first, as they are most likely to be contaminated
 - Eye protection or face shield
 - Gown
 - Mask
 - The mask is removed last in case there was aerosolization of pathogens when removing other PPE
- Safe injection practices when preparing or administering parenteral medications are intended to reduce the risk of transferring pathogens between patients as well as prevent the transfer of pathogens between the patient and the clinician. Safe injection practices include use of aseptic technique when preparing and administering medications and not reusing syringes or accessing medication vials for more than one patient
 - General aseptic non-touch technique (ANTT; i.e., a form of aseptic technique in which anything sterile does not come into contact with anything nonsterile before use and the skin is not touched with anything nonsterile following skin preparation) is typically used when preparing and administering parenteral medications
 - Many facilities have replaced needles with needleless devices to reduce the risk for needlestick injuries. Safety needles should be used, if available, when needles or other sharps must be used (e.g., to administer injections); recapping needles should be avoided and the device/syringe/needle should be disposed of in an appropriate sharps container (
- Healthcare facilities must institute routine cleaning and disinfecting of environmental surfaces; emphasis should be placed on surfaces that are most likely to be contaminated with pathogens (e.g., bedrail, doorknob, light switch). Materials that are soiled with blood or body fluids should be disposed of in appropriate biohazard bags or other containers
- Reusable equipment should be cleaned and disinfected or sterilized, as appropriate, according to manufacturer instructions; equipment that is not intended by the manufacturer for reuse must be appropriately discarded after use Respiratory hygiene/cough etiquette should be implemented when a patient who has signs and symptoms of respiratory infection (e.g., cough,

congestion, increased sputum production, rhinorrhea) first enters care. Respiratory hygiene/cough etiquette should also be implemented for visitors who have signs and symptoms of respiratory infection. The goal of respiratory hygiene/cough etiquette is to prevent the transmission of respiratory infection to healthcare personnel and to patients. Respiratory hygiene/cough etiquette should be self-performed by healthcare personnel as indicated (e.g., when sneezing)

–Placing posters describing the elements of respiratory hygiene/cough etiquette in patient care areas can help remind patients, visitors, and healthcare personnel of the importance of respiratory hygiene/cough etiquette

› Preliminary steps that should be performed before using standard precautions include:

- Review facility/unit-specific protocol for standard precautions, if one is available
 - Become familiar with antimicrobial hand soaps, hand rubs, and PPE used in your facility
 - Become familiar with and follow procedures for environmental cleaning
 - Become familiar with the storage locations and procedures to be followed when reusable equipment is to be sent for cleaning and disinfection or sterilization
- Review treating clinician orders for procedures to be performed and any medications to be administered
- Review the patient’s medical history/medical record for
 - indications that respiratory hygiene/cough etiquette procedures should be initiated
 - information about allergies (e.g., to latex, medications, or other substances); use alternative materials, as appropriate

› Gather the necessary supplies, which typically include:

- hand soap/antimicrobial hand rub solution designated by facility protocols
- tissues for performing respiratory hygiene/cough etiquette
- PPE (e.g., gown, gloves, mask, eye protection), as indicated

How to Follow Standard Precautions

› Perform hand hygiene using either

- an alcohol-based hand rub until dry
- soap and water, rubbing the hands together for at least 20 seconds (CDC 2016, CDC 2020)
 - When the hands are visibly soiled or when caring for a patient suspected of infection with a spore-forming pathogen, the hands should be washed with soap and water rather than cleaned using an alcohol-based hand rub (CDC, 2016)

› Don appropriate PPE, in the following order, before patient contact:

- Don a protective gown if contamination of clothing is anticipated (CDC, 2014)
- Don face mask if there is a risk for splashing or spraying of blood or body fluids, or when inserting a catheter or injecting materials in the epidural/subdural space, to prevent contamination of the site by the clinician’s oropharyngeal secretions (CDC, 2016, CDC, n.d.)
- Don eye protection or face shield if there is a risk for splashing or spraying of blood or body fluids (CDC, n.d.)
- Don gloves if contact with blood or body fluids, nonintact skin, mucous membranes, or contaminated surfaces is anticipated (CDC, n.d.)
 - Apply and remove gloves carefully to avoid puncturing or tearing
 - Perform hand hygiene and don a new pair of gloves when moving from a dirty to a clean body area or activity (e.g., after assisting with toileting, perform hand hygiene and apply a new set of gloves before providing oral care)
 - Do not wash or reuse gloves
- Cleanse the top of the medication vial to be accessed with 70% alcohol before use (CDC, 2016)
- Avoid the use of multi-dose vials for more than one patient, whenever possible (CDC, 2016)
- Do not
 - reinsert a used syringe (with or without a new needle) into a medication container (Siegel et al, 2019)
 - use a single-dose vial for more than one patient (CDC, 2016)
 - reuse a syringe to administer medications to more than one patient (CDC, 2016)
 - reuse IV administration sets (CDC, 2016)
- Dispose of sharps at the point of care in an appropriate point-of-care sharps container that is puncture-resistant, leak-proof, and sealable (CDC, 2016)

› Adhere to facility protocols regarding the safe handling and disposal of contaminated materials

- Handle contaminated equipment in a manner that prevents transfer of pathogens to the clinician or the environment
- Promptly dispose of items that are soiled with blood or body fluids in a designated biohazard bag or a facility-approved soiled linen container
- Take contaminated, reusable items to the appropriate location for cleansing and disinfection or sterilization (CDC, 2016)

- Verify that the environment is routinely cleaned and disinfected, particularly those areas that are most likely to be contaminated
- › Adhere to respiratory hygiene/cough etiquette
 - Offer masks to patients and visitors who are symptomatic for infection (CDC, 2016)
 - Provide supplies/resources for patients and visitors to perform hand hygiene as needed
 - Educate symptomatic patients and visitors to
 - cover the nose and mouth with tissue or wear face mask when coughing/sneezing (CDC, 2016, McConachie, 2018)
 - promptly dispose of used tissues and wash hands thoroughly (CDC, 2016, McConachie, 2018, Siegel et al., 2019)
 - sit at least 3 feet away from others if coughing (Siegel et al., 2019)
- › Remove PPE in the following order, and then perform hand hygiene (CDC, n.d.):
 - Gloves
 - Eye protection or face shield
 - Gown
 - Mask
- › Perform hand hygiene and don new PPE before caring for another patient
- › Documentation of following standard precautions is not typically required because it is not a patient care activity alone, but a component of all patient care activity. If patient and/or family education about standard precautions is provided, this should be documented in the patient's medical record

Other Interventions That Might be Necessary Before or After Following Standard Precautions

- › In addition to standard precautions, expanded precautions can be necessary when caring for patients who are confirmed or suspected of infection with certain bacterial or viral diseases (e.g., tuberculosis, meningitis, *C. difficile* infection). Refer to facility protocols for indications for and implementation of contact, airborne, or droplet precautions
- › Document in the client's record any care or counseling provided
 - Time and date performed
 - Any interventions that were utilized
 - Outcome of any meetings
 - Any education that was provided
- › The social worker needs to be comfortable moving between medical systems and social services systems and communicating with all the parties involved, including the interdisciplinary care team
- › Internationally, social workers should practice with awareness of and adherence to the social work principles of respect for human rights and human dignity, social justice, and professional conduct as described in the International Federation of Social Workers (IFSW) Global Social Work Statement of Ethical Principles, as well as the national code of ethics that applies in the country in which they practice (IFSW, 2018). For example, in the United States, social workers should adhere to the National Association of Social Workers (NASW) Code of Ethics core values of service, social justice, dignity and worth of the person, importance of human relationships, integrity, and competence. They should become knowledgeable of the NASW ethical standards as they apply standard precautions and practice accordingly (NASW, 2015)

What Social Work Models are Used and What to Expect After Following Standard Precautions

- › Standard precautions are followed as outlined by CDC and OSHA guidelines and in accordance with facility policies. The patient will remain free of infection from contaminated hands, and pathogens will not be transmitted to other patients or to caregivers by manual contact. Social workers often use multiple modalities when working with patients. Social workers tend to be solution-focused while providing their patients with supportive care. Often they utilize a strengths-perspective focus within the systems model, the premise of which is that everyone has inherent strengths he or she can utilize to better his or her life within the environment he or she inhabits. In addition, cognitive behavioral approaches are commonly used in conjunction with this model to help teach patients new techniques that promote the use of standard precautions, educate the client regarding the risk of infection, enhance perception of health threats, and promote self-efficacy. All of these approaches can be utilized in promoting the use of standard precautions

- › Social workers need to identify relevant cultural factors that may impact adherence to standard precautions and adopt skills and techniques that are culturally appropriate

Red Flags

- › Although facility policies vary regarding whether artificial nails can be worn by medical personnel, the CDC recommends against artificial nails because they can harbor infectious bacteria
- › Adhere to facility guidelines and the manufacturer's instructions for use of antimicrobial hand rubs. Not allowing the rub to dry before applying gloves can affect the integrity of the gloves. Alcohol-based hand rubs should not contain methanol because of its toxicity. Oral, pulmonary, and/or skin exposure to methanol can result in systemic toxicity and death (Chan & Chan, 2018)
- › Because some religions (e.g., Sikhism, Hinduism) prohibit the use of alcohol, alcohol-based hand rub may be inappropriate for healthcare workers who do not want to have contact with alcohol or who are concerned about alcohol absorption via the skin (WHO, 2009). Although alcohol can be absorbed through dermal contact and inhalation when using alcohol-based hand rubs, it is not absorbed in measurable quantities (WHO, n.d.)
- › In general, performing more frequent hand hygiene is advantageous because it minimizes risk for surface bacteria. However, frequent use of certain antimicrobial soaps/rubs can cause excessive drying of the skin, which results in irritant contact dermatitis. Use of soaps and hand rubs that contain an emollient can prevent excessive dryness of the skin

What Do I Need to Tell the Patient/Patient's Family?

- › Inform patients and their families about the various measures that are included in standard precautions, and how standard precautions aid in infection control
- › Instruct patients, family members, and visitors regarding how they can help control the spread of infection by adhering to respiratory hygiene/cough etiquette guidelines. Provide written information about respiratory hygiene/cough etiquette to families and visitors, if available. Provide patients and families with written information and online resources regarding infection prevention; <https://www.health.state.mn.us/people/cyc/cybceng.pdf>, <https://www.cdc.gov/handwashing/materials.html>, <https://www.cdc.gov/handwashing/when-how-handwashing.html>

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