

# Standard Precautions and Safe Practices for Patient Care Management

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## Abstract

Standard precautions are meant to reduce the risk of transmission of blood borne and other pathogens from both recognized and unrecognized sources. They are the basic level of infection control precautions to be used, as a minimum, in the care of all patients in the hospital and community settings. Hand hygiene is very important in standard precautions and one of the most effective methods to prevent transmission of pathogens associated with health care. Along with hand hygiene, the use of personal protective equipment should be used according to the risk assessment and the extent of contact anticipated with blood and other body fluids, or pathogens. In addition to practices carried out by health workers when providing care, all individuals (including patients and visitors) should comply with infection control practices in health-care settings. The control of spread of pathogens from the source is key to avoid transmission.

**Keywords:** Standard precautions; Safe practices; Nosocomial infection.

## Introduction

Standard precaution and safe practices for patient care in the hospital are not new and really we are already doing in our daily nursing practices, but it never hurts to be reminded that patient safety is our first concern and should be taken seriously. It includes errors of not doing (omission) or errors of doing (commission), it also includes faults and mistakes of the patient care processes (involving drugs and equipments) or the environment where these processes are carried out. 5-10 percent of patients admitted to acute care hospitals acquire one or more nosocomial infection.[6]

### *Definition: Standard Precautions*

Standard precautions are a set of infection control practices used to prevent transmission of diseases

that can be acquired by contact with blood, body fluids, non-intact skin (including rashes), and mucous membranes. These measures are to be used when providing care to all individuals, whether or not they appear infectious or symptomatic.[7]

### *Important Points To Be Followed: (WHO)[8]*

- Promotion of a safety climate is a cornerstone of prevention of transmission of pathogens in health care.
- Standard precautions should be the minimum level of precautions used when providing care for all patients.
- Risk assessment is critical. Assess all health-care activities to determine the personal protection that is indicated.
- Implement source control measures for all persons with respiratory symptoms through promotion of respiratory hygiene and cough etiquette.

### *Standard Precautions[1]*

1. Contact Precautions
2. Airborne Precautions
3. Droplet Precautions

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4. Three more elements have been added to standard precautions. They are:
  - 4.1 Respiratory hygiene/cough etiquette
  - 4.2 Safe injection practices
  - 4.3 Use of masks for insertion of catheters or injection into spinal or epidural areas.

#### 1. Contact Precautions

- Clean, non-sterile gloves are usually adequate for routine care.
- Use gloves before providing care to patient.
- Change gloves after contact with infective material.
- After providing care, remove gloves and wash hands.
- Follow proper use of protective gown in case of direct contact with patient with potentially contaminated environmental surfaces and observe hand hygiene.
- Limit the movement or transport of the patient from the room.
- Make sure any infected or colonized areas are contained or covered.
- Ensure that patient care items, bedside equipment and frequently touched surfaces receive daily cleaning.

#### 2. Airborne Precautions

- Used to prevent or reduce the transmission of micro-organisms that are airborne in small droplet nuclei (5  $\mu$  or smaller in size) or dust particles containing the infectious agent.
- Place the patient in private room that has negative air pressure, with 6-12 air changes/per hour.
- If not available, cohort with patient with active infection with same microorganism
- Use of respiratory protection.
- Limit movement and transport of the patient.
- Use a mask on the patient if they need to be moved.

- Keep patient room door closed.

#### 3. Droplet Precautions

- Used to reduce the risk of transmission of microorganisms transmitted by large particle droplets (larger than 5 in size).
- Droplets usually travel 3 feet or less within the air and thus special air handling is not required, however newer recommendations suggest a distance of 6 feet be used for safety.
- Place the patient in a private room.
- Use of respiratory protection such as a mask when entering the room recommended and definitely if within 3 feet of patient.
- Limit movement and transport of the patient.
- Use a mask on the patient if they need to be moved and follow respiratory hygiene/cough etiquette.
- Keep patient at least 3 feet apart between infected patient and visitors.
- Room door may remain open.

#### 4.1 Respiratory Hygiene/Cough Etiquette[4]

- Informing personnel if they have any symptoms of respiratory infection.
- Health educate patients and visitors to cover their mouth/nose while coughing and sneezing Proper disposal of used materials, during coughing and sneezing.
- Use of surgical masks on coughing person when appropriate.
- Providing alcohol-based hand-rubbing dispensers and supplies for hand hygiene and educating patients and staff in their use.
- Encouraging hand hygiene after coughing or sneezing.
- Separating coughing persons at least 3 feet away from others in a waiting room or have separate locality.
- Instructing patients and providers not to touch eyes, nose, or mouth.

- Health care workers should use standard precautions with all patients.

#### 4.2 Safe Injection Practices[4]

- Correct disposal in appropriate container.
- Avoid re-sheathing needle.
- Avoid removing needle.
- Discard syringes as single unit.
- Avoid over-filling sharps container.

#### 4.3 Use of Masks for Insertion of Catheters or Injection into Spinal or Epidural Areas.

#### *Safe Practices in Patient Care [5]*

1. Aseptic technique
2. Isolation
3. Safer Handling of Sharps
4. Linen handling and disposal
5. Waste disposal
6. Handling Biological Spills
7. Environmental cleaning
8. Risk assessment
9. Staff health

#### 1. Aseptic technique

- *Medical Asepsis* – Clean technique; procedures used to reduce & prevent spread of microorganisms.

#### *Hand washing*

- Hand hygiene procedures include the use of alcohol-based hand rubs (containing 60-95% alcohol) and hand washing with soap and water.
- Alcohol-based hand rub is the preferred method for decontaminating hands, except when hands are visibly soiled (e.g., dirt, blood, body fluids), or after caring for patients with known or suspected infectious diarrhea (e.g., *Clostridium difficile*, norovirus), in which case soap and water should be used.

#### *Personal protective equipment (PPE)*

- Assess the risk of exposure to body substances or contaminated surfaces before any health-care activity.
- Make this a routine!
- Select PPE based on the assessment of risk:
  - Clean non-sterile gloves
  - Clean, non-sterile fluid-resistant gown
  - Mask and eye protection or a face shield.

- *Surgical Asepsis* – Sterile technique, procedures used to eliminate microorganisms.

Use of sterile PPE such as sterile gown, gloves are used in surgical asepsis.

#### 2. Isolation

##### *Source or Protective*

- ❖ *Source* - Isolation of infected patient is mainly to prevent airborne transmission via respiratory droplets. Patients with SARS, pulmonary tuberculosis etc.
- ❖ *Protective* - Isolation of immune-suppressed patient.

#### 3. Safer Handling of Sharps

*Prevention Aspects* - Handle with much care - correct disposal in appropriate container  
*Management* - follow hospital policy

#### 4. Linen Handling and Disposal

- Bed making and linen changing techniques.
- Appropriate laundry bags.
- Hazards of on-site ward-based laundering

#### 5. Waste Disposal

- Clinical waste - HIGH risk
- Potentially/actually contaminated waste

including body fluids and human tissue °  
yellow plastic sack, tied prior to incineration

- Follow hospital policy

#### 6. *Handling Biological Spills*

- Cover area with hypochlorite solution for several minutes.
- Clean area with warm water and detergent, then dry.
- Treat waste as clinical waste - yellow plastic sack.
- Follow hospital policy.

#### 7. *Environmental Cleaning[3]*

- “Hospitals should do the sick no harm” (Nightingale, 1854) A study conducted by Moore *et al*, 2011- High touched sites in an hospital environment.
- Blood pressure cuff sites: 88%.
- Bedside rails: 100%.
- Toilets: 63%.
- Bedside Table: 63% .

#### 8. *Risk Assessment*

- No risk - routine care.
- Low or moderate risk - wear gloves and plastic apron.
- High risk (Contact/splashing) - wear gloves, plastic apron, gown, eye/face protection.

#### 9. *Staff health[2]*

Risk of acquiring and transmitting infection

##### *Acquiring infection*

- Immunization
- Cover lesions with waterproof dressings
- Restrict non-immune/pregnant staff

##### *Transmitting infection*

- Advice when suffering infection
- Report accidents/untoward incidents
- Follow hospital policy

##### *Staff Health - Hand Care*

- Nails
- Rings
- Hand creams
- Cuts & abrasions
- Skin Problems

#### **Summary**

Preferably, all contagious patients are isolated in separate rooms, but when such patients must be nursed in a ward with others, screens are placed around the bed or beds they occupy. The nurses wear gowns, masks, and sometimes rubber gloves, and they observe strict rules that minimize the risk of passing on infectious agents.

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