

Standard and Transmission-Based Precautions

Last Updated 2017

Basics of Infection Prevention
Healthcare-Associated Infections Program
Center for Health Care Quality
California Department of Public Health



Objectives

- Discuss preventing infection
- Discuss preventing transmission
- Review standard precautions
- Review transmission-based isolation precautions
- Discuss hierarchy of infection control measures

Prevent Infection

- Avoid introduction of pathogens into sterile body sites, such as during placement of a medical device or during surgery
 - Avoid introducing patient's own flora into a sterile site
 - Avoid introducing any pathogens acquired in the hospital

Prevent Transmission

- Avoid the transfer of pathogens from person-to-person
 - Avoid Health Care Personnel (HCP)-to-patient transmission, such as via contaminated hands of HCP
 - Avoid patient-to-HCP transmission of infectious diseases, such as by using appropriate isolation precautions

Standard Precautions

- Basic practices that apply to all patient care, regardless of a patient's suspected or confirmed infectious state
- Apply to all settings where care is delivered
- Protect healthcare personnel and prevent healthcare personnel or the environment from transmitting infections to other patients.

Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings – CDC HICPAC Recommendations, 2016

<https://www.cdc.gov/hicpac/pdf/core-practices.pdf>

What are the Standard Precautions?

1. Hand hygiene
2. Injection and medication safety
3. Risk assessment and use of appropriate personal protective equipment (PPE) based on activities being performed
 - e.g., gloves, gowns, face masks
4. Minimizing potential exposures
 - e.g., respiratory hygiene and cough etiquette
5. Environmental cleaning and disinfection
6. Reprocessing of reusable medical equipment between each patient and when soiled

Core Infection Prevention and Control Practices - CDC HICPAC, 2016

<https://www.cdc.gov/hicpac/pdf/core-practices.pdf>

Personal Protective Equipment

- Ensure proper selection and use of PPE based on
 - The nature of the patient interaction
 - Potential for exposure to blood, body fluids or other infectious material
- Types of PPE
 - Gloves
 - Gowns
 - Face masks and respirators
 - Goggles and face shields





PPE - Gloves

- Wear gloves when it can be reasonably anticipated that you may have hand contact with
 - Blood or other potentially infectious material
 - Mucous membranes
 - Non-intact skin
 - Potentially contaminated skin
 - Potentially contaminated equipment



PPE - Gowns

- Wear a gown during procedures and activities that could cause contact with blood, body fluids, secretions, or excretions
 - Appropriate to the task
 - To protect skin
 - To prevent soiling of clothing



PPE – Masks and Protective Shields

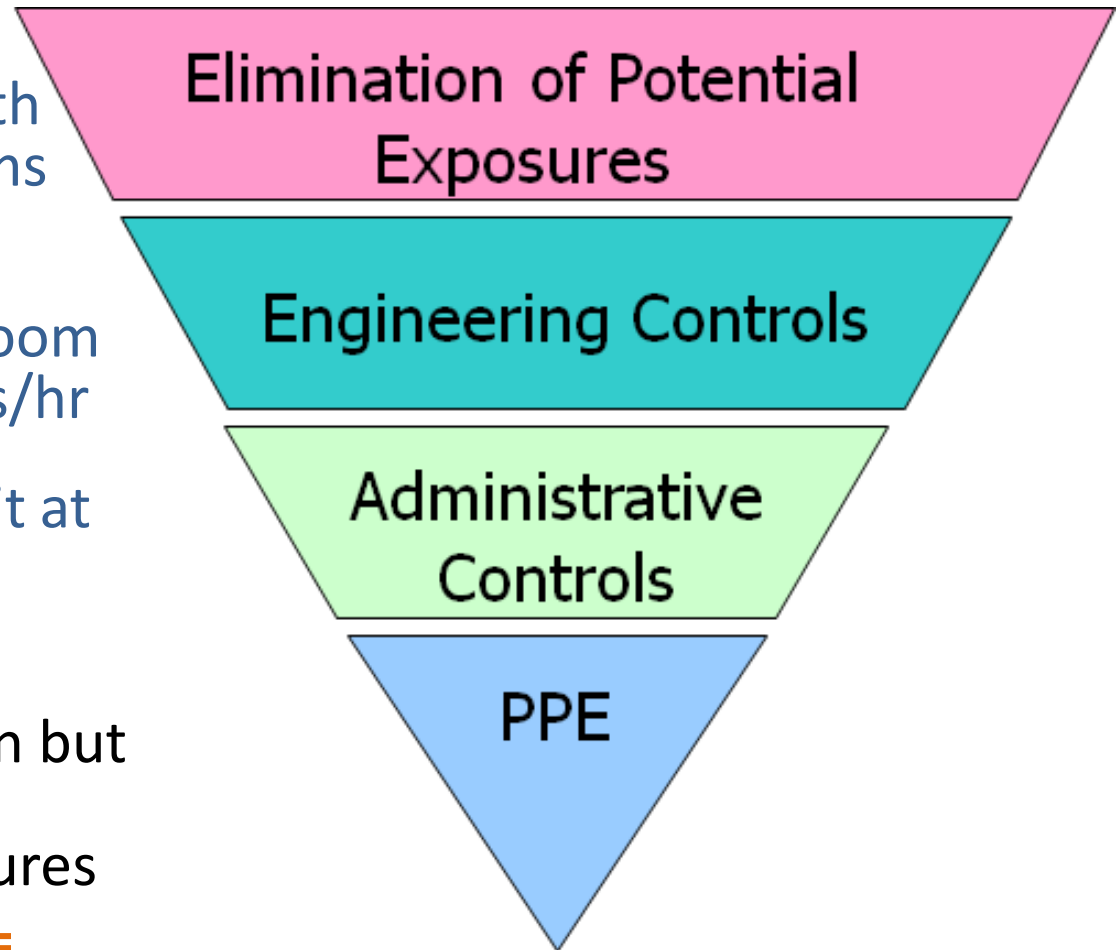
- Use protective eyewear and a mask, or a face shield
 - To protect the mucous membranes of the eyes, nose and mouth
 - During procedures and activities that could generate splashes or sprays of blood, body fluids, secretions and excretions
- Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed

Hierarchy of Controls

Examples:

- Separate patient with respiratory symptoms from others ASAP
- Airborne isolation room with 6 air exchanges/hr
- ED/urgent care “wait at home” programs

PPE can be effective barriers to transmission but are secondary to more effective control measures





PPE Removal

- Remove and discard PPE, other than respirators, upon completing a task before leaving the patient's room or care area.
 - If a respirator is used, it should be removed and discarded (or reprocessed if reusable) after leaving the patient room or care area and closing the door.
- Do not use the same gown or pair of gloves for care of more than one patient.
- Remove and discard disposable gloves upon completion of a task or when soiled during the process of care
 - Do not wash gloves for the purpose of reuse

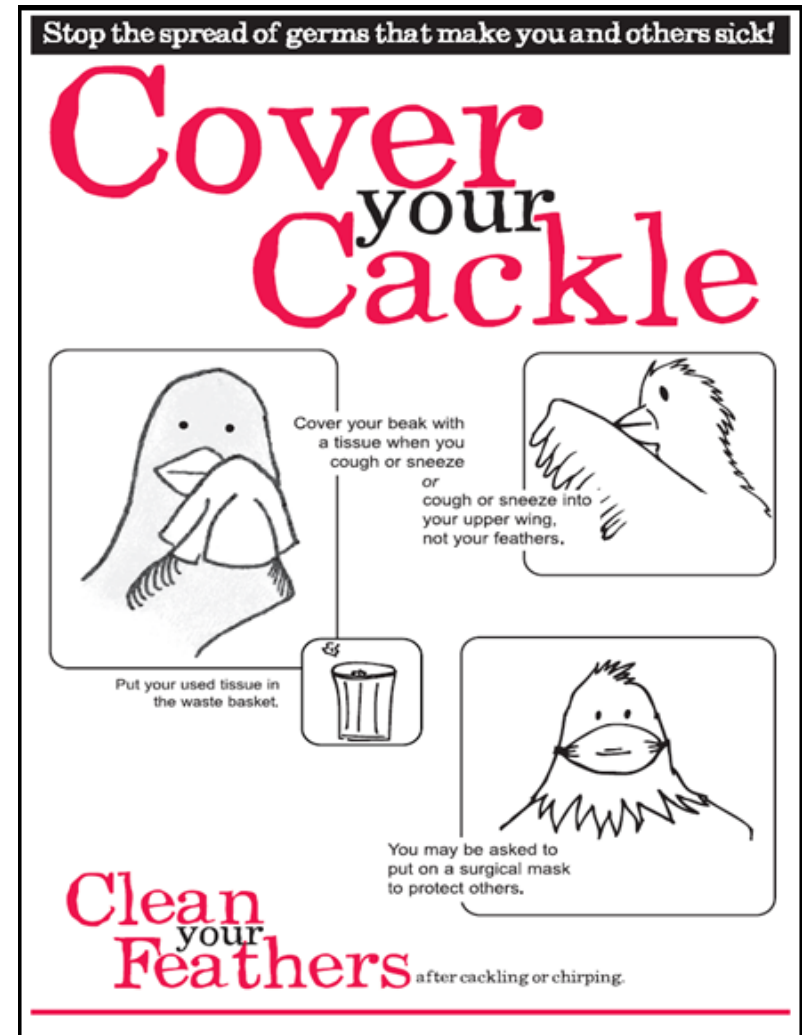


PPE Training

- Ensure that healthcare personnel have immediate access to and are trained and able to select, put on, remove, and dispose of PPE in a manner that protects themselves, the patient, and others

Respiratory Hygiene and Cough Etiquette

- Prompt patients and visitors to
 - Contain their respiratory secretions
 - Perform hand hygiene after contact with respiratory secretions
- Provide
 - Tissues, masks, hand hygiene supplies
 - Instructional signage at points of entry and throughout facility



What are Transmission-based Precautions?

- Implemented for patients with documented or suspected diagnoses where contact with the patient, their body fluids, or their environment presents a substantial transmission risk despite adherence to Standard Precautions
- Three types:
 - Contact precautions
 - Droplet precautions
 - Airborne precautions

Implementation of Transmission-Based Precautions

- Implementation may differ depending on
 - Patient care settings (e.g., inpatient, outpatient, long-term care)
 - Facility design characteristics
 - Type of patient interaction
- Should be adapted to the specific healthcare setting

Implementation of Transmission-Based Precautions (continued)

- Implement transmission-based precautions
 - Based on the patient's clinical presentation and likely infection diagnoses (e.g., syndromes suggestive of transmissible infections such as diarrhea, meningitis, fever and rash, respiratory infection)
 - As soon as possible after the patient enters the healthcare facility (including reception or triage areas in emergency departments, ambulatory clinics or physicians' offices)
- Adjust or discontinue precautions when more clinical information becomes available (e.g., laboratory results)

Implementation of Transmission-Based Precautions (continued)

- To the extent possible, place patients who may need transmission-based precautions into a single-patient room while awaiting clinical assessment
- Notify accepting facilities and the transporting agency about suspected infections and the need for transmission-based precautions when patients are transferred

Contact Precautions

- Intended to prevent transmission of infectious agents via contact with a patient or contaminated environment
- Used for epidemiologically important microorganisms
- Places a barrier between the HCP and infectious agent
- Used in addition to Standard precautions

Contact Precautions - 2

Includes

- Gown and gloves donned prior to entry into room and discarded prior to exit
 - Hand hygiene prior to donning gloves and after removing gloves
- Single room preferred
 - Alternatives include spatial separation or cohorting

Droplet Precautions

- Intended to prevent transmission of pathogens via respiratory or mucous membrane contact with respiratory secretions
- No special air handling or ventilation required
- Used in addition to Standard precautions

Droplet Precautions - 2

Includes:

- Surgical or procedure mask donned prior to entry into room and discarded prior to exit
- Single room preferred
- Transporting patient in a surgical mask

Airborne Precautions

- Intended to prevent transmission by inhalation of infectious agents that can remain suspended in the air
- Requirements include
 - Increased ventilation rate
 - Air exhausted directly to the outside or through HEPA filtration
 - Facility respiratory protection program: education, fit-testing
- Use in addition to Standard precautions

Airborne Precautions - 2

Includes:

- Respirator (N-95 or PAPR) donned prior to entry into room and removed after exit
- Single room
- Transport patient in a surgical mask

Enhanced Standard Precautions for California LTC Facilities

(Revision Coming Soon)

- Developed by CDPH and the California Association of Health Facilities (CAHF), 2010
- Created a single-tiered approach to prevent transmission in LTC facilities
 - Use in addition to Standard precautions when Standard precautions may be insufficient to prevent transmission
 - Incorporates aspects of contact, droplet, and airborne precautions
- Facilitates transfer communication for patients on contact precautions between acute care hospitals and LTC



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September 7, 2010

AFL 10-27

TO: Long-Term Care Facilities and General Acute Care Hospitals

SUBJECT: Enhanced Standard Precautions (ESP) for Long-Term Care Facilities

The purpose of this All Facility Letter is to distribute the accompanying "Enhanced Standard Precautions for California Long-Term Care Facilities, 2010." This guideline is provided jointly by the California Department of Public Health and the California Association of Health Facilities.

This guideline is intended to be advisory only and has been developed to assist long-term care facility infection control programs in the development of a rational approach to reducing the potential for transmission of pathogens among California long-term care facility residents. It replaces the 1996 "Guideline Prevention and Control of Antibiotic Resistant Microorganisms, California Long-Term Care Facilities." It is also intended to

Reference

2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

Jane D. Siegel, MD; Emily Rhinehart, RN MPH CIC; Marguerite Jackson, PhD; Linda Chiarello, RN MS; the Healthcare Infection Control Practices Advisory Committee

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Suggested citation: Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

2007 Guideline for Isolation Precautions: <https://www.cdc.gov/infectioncontrol/guidelines/isolation>

Summary

- Standard precautions are basic practices that apply to all care settings and all patient care (regardless of a patient's suspected or confirmed infectious state)

Hand hygiene	Respiratory hygiene
Injection safety	Cleaning and disinfection
Risk assessment / PPE use	Reprocessing equipment

- PPE (gloves, gowns, masks) are secondary to more effective measures such as administrative and engineering controls
- Correct use of Standard and Transmission-based precautions prevents disease transmission

Questions?

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