



# Standard & Transmission-Based Precautions

Basics of Infection  
Prevention  
2-Day Course  
April 2019





# Objectives

- Discuss hierarchy of infection control measures
- Discuss standard, enhanced and transmission-based isolation precautions
- Discuss goal and appropriate use of personal protective equipment

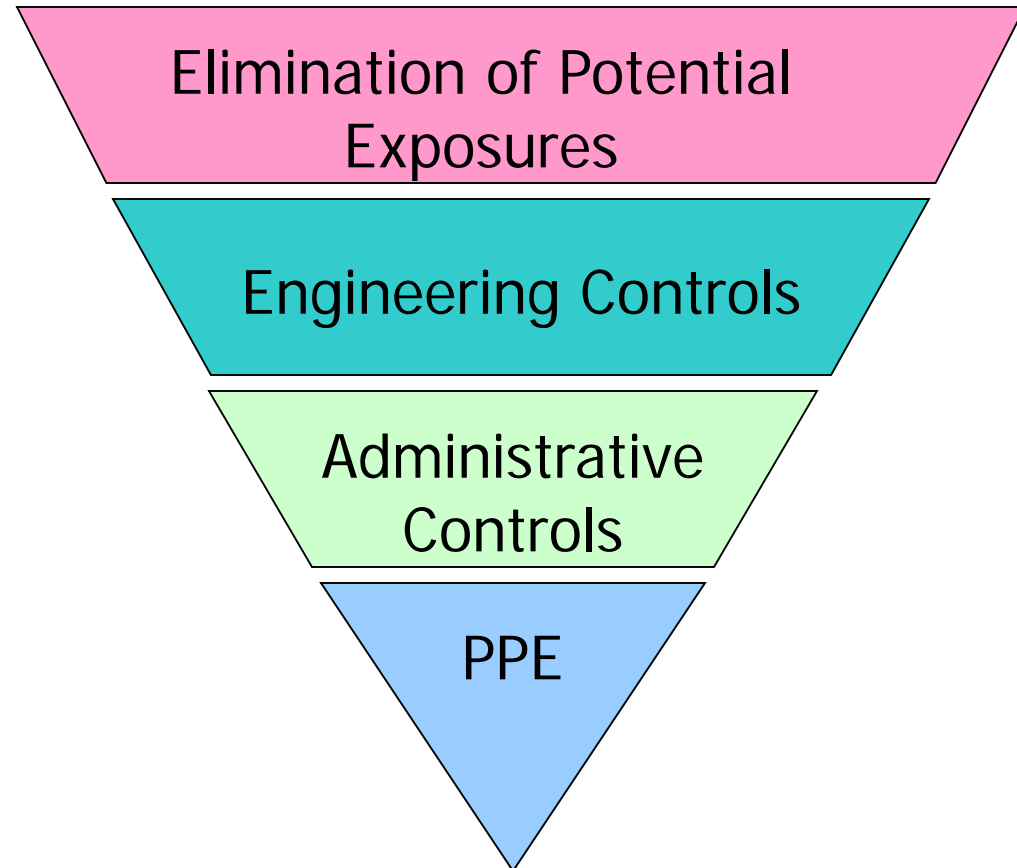


There are **two tiers of HICPAC/CDC precautions** to prevent transmission of infectious agents

- Standard Precautions
- Transmission-Based Precautions

# Hierarchy of Controls (with examples)

- Eliminate exposure being able to result in disease
  - Immunize HCWs against vaccine-preventable diseases
- Reduce/eliminate exposure at the source
  - Airborne isolation rooms
  - HEPA filter
- Rules are only as good as enforcement
  - Policies/Procedures, Mandates
    - Wear mask if not vaccinated against influenza
    - Staff do not work when ill
- Least effective; depend upon individual compliance
  - Donning PPE





# 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



# What is the Standard Precautions?

- 1. Hand Hygiene**
- 2. Environmental cleaning and disinfection**
- 3. Injection and medication safety**
- 4. Personal protective equipment (e.g., gloves, gowns, face masks)**
- 5. Respiratory hygiene and cough etiquette**
- 6. Reprocessing of reusable medical equipment**

Core Infection Prevention and Control Practice-CDC HICPAC, 2016

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

# 1. Hand hygiene

## Impact of Hand Hygiene on HAIs

- 722,000 patients acquire HAI every year<sup>1</sup>
  - 75,000 die as a direct result
- **Most common mode of transmission is via hands of HCP<sup>2</sup>**
- Studies show that some healthcare personnel (HCP) perform hand hygiene less than half the times they should<sup>2</sup>



Image from ThinkStock

1. <http://www.cdc.gov/hai/surveillance/index.html>

2. <http://www.cdc.gov/features/handhygiene>

## Hand Hygiene (2)

- Unless hands are visibly soiled, **an alcohol-based hand rub is preferred over soap and water in most clinical situations due to evidence of better compliance compared to soap and water.**
- Hand rubs are generally less irritating to hands and are effective in the absence of a sink.



“CDC Guideline for Hand Hygiene in Health-Care Settings” or “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007”





## Hand Hygiene (3) - Reasons for Poor Adherence

- Both individual and system factors contribute to poor adherence with hand hygiene
  - Lack of knowledge/value of handwashing
  - Increased demands with less time
  - Irritated and/or dry hands
  - Shortage of soap, paper towels, and/or sinks
  - Forgetfulness / “patient needs come first”
  - Belief that wearing gloves avoided need for handwashing
  - *No consequences for not performing hand hygiene*

# Hand Hygiene (4) - Definition of Terms

- **Hand hygiene:**
  - Performing hand washing, antiseptic hand wash, alcohol-based hand rub, or surgical hand antisepsis
- **Handwashing:**
  - Washing hands with water and plain soap
- **Antiseptic hand wash:**
  - Washing hands with water and soap containing an antiseptic agent (i.e. alcohols, chlorhexidine, iodine, ~~triclosan~~<sup>1</sup>)
- **Alcohol-based hand rub:**
  - Rubbing hands with alcohol-containing solution (60-95%)



1. <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm517478.htm>



# Hand Hygiene (5) - Techniques

- **Alcohol-based rub:**
  1. Apply product (per manufacturer's recommendation)
  2. Rub all surfaces together until dry (15-20 seconds)
- **Soap and water:**
  1. Wet hands with water
  2. Apply product (per manufacturer's recommendation)
  3. Rub all surfaces together vigorously (at least 15 seconds)
  4. Rinse hands until no product remains
  5. Dry hands with disposable towel (use to turn off faucet)

1. Widmer, A. F., Dangel, M., & RN. (2007). Introducing alcohol-based hand rub for hand hygiene: the critical need for training. *Infection Control and Hospital Epidemiology*, 28(1), 50-54.

2. Guideline for Hand Hygiene in Health-care Settings. *MMWR* 2002; vol. 51, no. RR-16

# Indications for Appropriate Hand Hygiene (I)

- Using **soap and water**:
  - Hands visibly soiled or contaminated
  - Before eating
  - After using the bathroom
  - Exposed to spore-forming bacteria (i.e. CDI), certain non-enveloped viruses (i.e. norovirus), protozoan oocysts, and prions.

1.Guideline for Hand Hygiene in Health-care Settings. *MMWR* 2002; vol. 51, no. RR-16



Image from ThinkStock

# Indications for Appropriate Hand Hygiene (II)

## WHO 5 Moments for Hand Hygiene

- Using alcohol-based hand rub:
  - Before and after patient care
  - Before donning sterile gloves
  - Before inserting invasive devices
  - After contact with patient's skin (intact and non-intact), body fluids, and wound dressings
  - After removing gloves
  - After contact with close objects/equipment
  - Moving from contaminated to clean site on same patient



# WHO Hand Hygiene

- CDC Hand Hygiene Educational Material

### How to handrub? WITH ALCOHOL-BASED FORMULATION

Apply a palmful of the product in a cupped hand and cover all surfaces.

Rub hands palm to palm

right palm over left dorsum with interlaced fingers and vice versa

palm to palm with fingers interlaced

backs of fingers to opposing palms with fingers interlocked

rotational rubbing of left thumb clasped in right palm and vice versa

rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

rinse hands with water

dry thoroughly with a single use towel

use towel to turn off faucet

...once dry, your hands are safe.

20-30 sec

### How to handwash? WITH SOAP AND WATER

Wet hands with water

apply enough soap to cover all hand surfaces.

Rub hands palm to palm

right palm over left dorsum with interlaced fingers and vice versa

palm to palm with fingers interlaced

backs of fingers to opposing palms with fingers interlocked

rotational rubbing of left thumb clasped in right palm and vice versa

rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

rinse hands with water

dry thoroughly with a single use towel

use towel to turn off faucet

...and your hands are safe.

40-60 sec

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WORLD ALLIANCE PATIENT SAFETY

WHO acknowledges the Hôpital Universitaire de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

October 2006, version 1.

## CLEAN HANDS COUNT

FOR HEALTHCARE PROVIDERS

**KNOW THE TRUTH TO PROTECT YOURSELF AND PROTECT YOUR PATIENTS**

**TRUTH:**  
Alcohol-based hand sanitizer is more effective and less drying than using soap and water.

**THE NITTY GRITTY:**  
Compared to soap and water, alcohol-based hand sanitizers are better at reducing bacterial counts on hands and are effective against multidrug-resistant organisms (e.g., MRSA). Additionally, alcohol-based hand sanitizers cause less skin irritation than frequent use of soap and water.

BAD GERMS GOOD GERMS

**TRUTH:**  
Using alcohol-based hand sanitizer does NOT cause antibiotic resistance.

**THE NITTY GRITTY:**  
Alcohol-based hand sanitizers kill germs quickly and in a different way than antibiotics. There is no chance for the germs to adapt or develop resistance.

**TRUTH:**  
Alcohol-based hand sanitizer does not kill *C. difficile*, but it is still the overall recommended method for hand hygiene practice.

**THE NITTY GRITTY:**  
Always use gloves when caring for patients with *C. difficile*. In addition, when there is an outbreak of *C. difficile* in your facility, wash your hands with soap and water after removing your gloves.

**TRUTH:**  
Some healthcare providers miss certain areas when cleaning their hands.

**THE NITTY GRITTY:**  
Using alcohol-based hand sanitizer becomes a habit and sometimes healthcare providers miss certain areas.

<https://www.cdc.gov/handhygiene/campaign/promotional.html>



## Skin and Nail Care

- Provide HCP with hand lotions or creams to minimize dryness/irritation
- Select products that do not decrease efficacy of alcohol-based hand rub or antimicrobial soaps
- No:
  - personal lotions/creams
  - artificial nails in clinical areas

# Hand Hygiene - Dispenser Location

- Must strategize placement for convenience and to improve compliance
- Use National Fire Protection Association Life Safety Code for safe placement of dispensers
  - Check with local authorities for restrictions







## 2. Environmental cleaning and disinfection

- Require routine and targeted cleaning of environmental surfaces as indicated by the level of patient contact and degree of soiling.
  - Clean and disinfect surfaces in close proximity to the patient and frequently touched surfaces in the patient care environment
    - Cleaning- removal of visible soil and organic contamination using the physical action of scrubbing
    - Disinfect- use of a chemical procedures that eliminates virtually all recognized pathogenic microorganisms except certain spore forming bacteria (e.g., C. Diff)
  - Promptly clean and decontaminate spills of blood or other potentially infectious materials.



## 2. Environmental cleaning and disinfection (2)

- Select EPA-registered disinfectants that have microbiocidal activity against the pathogens most likely to contaminate the patient-care environment.
- Certain pathogens (e.g., rotavirus, noroviruses, *C. difficile*) may be resistant to some routinely used hospital disinfectants—recommend 1:10 dilution of 5.25% sodium hypochlorite (household bleach) and water
- Follow manufacturers' instructions for proper use of cleaning and disinfecting products (e.g., dilution, **contact time**, material compatibility, storage, shelf-life, safe use and disposal).
- Check for contact time (wet time) on the disinfectant bottle.



## 3. Injection and Medication Safety

- Use aseptic technique when preparing and administering medications
- Disinfect the access diaphragms of medication vials before inserting a device into the vial
- Use needles and syringes for one patient only (this includes manufactured prefilled syringes and cartridge devices such as insulin pens).
- Enter medication containers with a new needle and a new syringe, even when obtaining additional doses for the same patient.



## 3. Injection and Medication Safety (2)

- Ensure **single-dose or single-use vials**, ampules, and bags or bottles of parenteral solution are **used for one patient only**.
- Use fluid infusion or administration sets (e.g., intravenous tubing) for **one patient only**
- Dedicate multidose vials to a single patient whenever possible. If multidose vials are used for more than one patient, restrict the medication vials to a centralized medication area and do not bring them into the immediate patient treatment area (e.g., patient room)



## 4. Use of Personal Protective Equipment (PPE)

- **Proper selection and use of PPE** based on
  - the nature of the patient interaction
  - potential for exposure to blood, body fluids and/or infectious material
- PPE can be effective barriers to transmission of infections but are **secondary to the more effective measures such as administrative and engineering controls.**
- **PPE are regulated by OSHA, CMS, TJC**

# Personal Protective Equipment

Goal: Improve personnel safety in the healthcare environment through appropriate use of PPE.

- **Types of PPE**

Gloves

Gowns

Face masks and respirators

Goggles and face shields





## PPE- Gloves

- Wear gloves when it can be reasonably anticipated that contact with
  - blood or other potentially infectious materials
  - mucous membranes
  - non-intact skin
  - potentially contaminated skin or
  - Potentially contaminated equipment
- Change gloves during patient care if the hands will move from a contaminated body-site (e.g., perineal area) to a clean body-site (e.g., face).



## 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
- **Do not** use the same gown or pair of gloves for care of more than one patient.





## 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.



## How to Safely Use PPE

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Remove gloves if they become torn; perform hand hygiene before donning new gloves
- Limit surfaces and items touched
- Perform hand hygiene

# Sequence\* for Donning (Putting on) PPE

1. Gown first
2. Mask or respirator
3. Goggles or face shield
4. Gloves

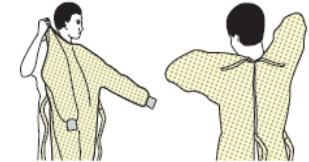
**\*Combination of PPE will affect sequence – be practical**

## SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

### 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



### 2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



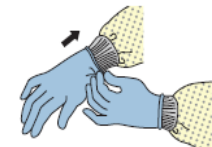
### 3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



### 4. GLOVES

- Extend to cover wrist of isolation gown



## USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



# “Contaminated” and “Clean” Areas of PPE

- **Contaminated – gown front, sleeves, the outside of gloves, outside of goggles or face shield, front of mask/respirator**
  - Areas of PPE that have or are likely to have been in contact with body sites, materials, or environmental surfaces where the infectious organism may reside
- **Clean – inside, outside back, ties on head and back**
  - Areas of PPE that are not likely to have been in contact with the infectious organism



## 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, remove respirator outside room, after door has been closed
- Perform hand hygiene between steps if hands become contaminated and immediately after removing all PPE
- Ensure that hand hygiene facilities are available at the point needed, e.g., sink or alcohol-based hand rub

# Sequence for **Removing** PPE (Example 1)

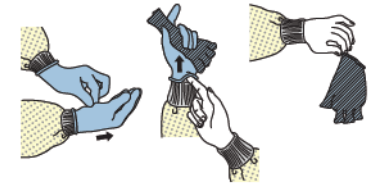
1. Gloves
2. Face shield or goggles
3. Gown
4. Mask or respirator
5. Hand Hygiene

## HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. Remove all PPE before exiting the patient room except a respirator, if worn. Remove the respirator after leaving the patient room and closing the door. Remove PPE in the following sequence:

### 1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



### 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



### 3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

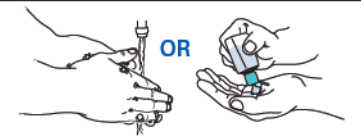


### 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



### 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS  
BECOME CONTAMINATED AND IMMEDIATELY AFTER  
REMOVING ALL PPE



# Sequence for **Removing** PPE (Example 2)

1. Gown and Gloves
2. Goggles or Face shield
3. Mask or respirator
4. Hand Hygiene

## HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Remove all PPE before exiting the patient room except a respirator, if worn. Remove the respirator after leaving the patient room and closing the door. Remove PPE in the following sequence:

### 1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



### 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

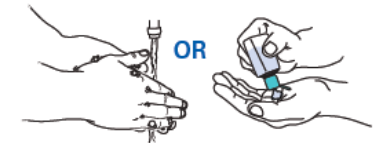


### 3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



### 4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS  
BECOME CONTAMINATED AND IMMEDIATELY AFTER  
REMOVING ALL PPE**

# Removing a Particulate Respirator

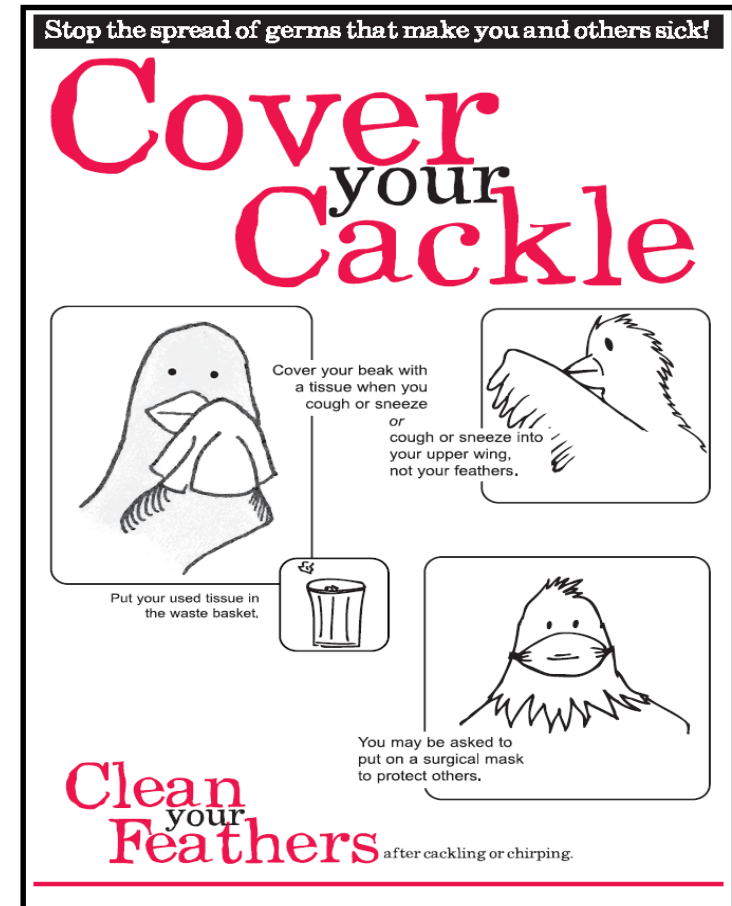
- Follow manufacturer instructions
- **DO NOT TOUCH the front of the respirator!** It may be contaminated!
- Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator
- Discard





## 5. Minimizing Potential Exposures (e.g. 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 point of entry and throughout facility



## 6. Reprocessing of reusable medical equipment between each patient and when soiled

- Clean and reprocess (disinfect or sterilize) reusable medical equipment (e.g., blood glucose meters and other point-of-care devices, blood pressure cuffs, oximeter probes) prior to use on another patient and when soiled.
  - a. Consult and adhere to manufacturers' instructions for reprocessing.
- Maintain separation between clean and soiled equipment to prevent cross contamination.





# Transmission-Based Precautions

- Used in addition to Standard Precautions when SP may be insufficient to prevent transmission
- Implemented for patients with documented or suspected diagnosis where contact with the patient, their body fluids, or environment presents a substantial transmission risk despite adherence to SP
- Include
  - **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 (2)

- **Based on the patient's clinical presentation and likely infection diagnoses** (e.g., syndromes suggestive of transmissible infections such as diarrhea, fever and rash, respiratory infection)
- **As soon as possible after the patient enters the healthcare facility or identified at the facility**
- **Adjust or discontinue precautions when more clinical information becomes available** (e.g., confirmatory laboratory results).



## Implementation of Transmission-Based Precautions (3)

- 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
  - CRE colonized/infected
  - C. Diff, Norovirus, Scabies
- Used for “epidemiologically important” microorganisms
- Used in addition to Standard Precautions
- Places a barrier between the HCW and infectious agent

## Contact Precautions (2)

**STOP** **CONTACT PRECAUTIONS**  
Visitors must report to Nursing Station before entering.

- ✓ Perform hand hygiene before entering and before leaving room
- ✓ Wear gloves when entering room or cubicle, and when touching resident's intact skin, surfaces, or articles in close proximity
- ✓ Wear gown when entering room or cubicle and whenever anticipating that clothing will touch resident items or potentially contaminated environmental surfaces
- ✓ Use resident-dedicated or single-use disposable shared equipment or clean and disinfect shared equipment (BP cuff, thermometers) between residents

**ALTO** **Precauciones Ambientales**  
Los visitantes deben presentarse primero al puesto de enfermería antes de entrar.

- Lávese las manos con agua y jabón.
- Póngase guantes al entrar al cuarto.

Disclaimer: This isolation sign is provided as visual example of what a facility could use and may be modified as necessary to meet a specific LTCF's needs. Any isolation sign used must be compliance with CMS F tag 241 section 485.176i, state requirements, and specific facility policy.

Includes

- Gown and gloves should be **donned prior** to entry into room, **discarded prior** to exit
  - Hand hygiene prior to donning gloves and after removing gloves
- Single room preferred; alternatives are spatial separation or cohorting with the same infection



# Droplet Precautions

- Intended to prevent transmission of pathogens via respiratory or mucous membrane contact with respiratory secretions
  - Influenza virus, adenovirus, rhinovirus, N. meningitides, and group A streptococcus
- No special air handling or ventilation required
- Used in addition to Standard Precaution



**STOP** **DROPLET PRECAUTIONS**  
Visitors must report to Nursing Station before entering.

- ✓ Perform hand hygiene before entering and before leaving room
- ✓ Wear mask when entering room

① Visitors and health care workers

**ALTO** **Precauciones de Gotas Diminutas**  
Los visitantes deben presentarse primero al puesto de enfermería antes de entrar.

- Lávese las manos.
- Póngase máscara al entrar al cuarto.

Disclaimer: This isolation sign is provided as visual example of what a facility could use and may be modified as necessary to meet a specific IICP's needs. Any isolation signs used must be compliant with CMS F (eg 24) section 485.17(a), state requirements, and specific facility policy.

## Droplet Precautions (2)

Includes:

- Surgical or procedure mask **donned prior** to entry into room and **discarded prior** to exit (a respirator is not necessary)
- Single room preferred, however if a single-patient room is not available, assess the various risks associated with other patient placement options (e.g., cohorting, keeping the patient with an existing roommate)
  - Spatial separation of  $\geq 3$  feet and drawing the curtain between patient beds is especially important for patients in multi-bed rooms with infections transmitted by the droplet route
- Transporting patient in a surgical mask

# Airborne Precautions

## AIRBORNE PRECAUTIONS

Visitors must report to Nursing Station before entering.

Perform hand hygiene before entering and before leaving room

Wear N95 respirator when entering room

! See nurse for instructions on proper use

Keep door closed

Dietary may not enter

### Precauciones Ambientales

Los visitantes deben presentarse primero al puesto de enfermería antes de entrar.

• Lávese las manos.	• Mantenga la puerta cerrada.
• Póngase máscara N95 confiltra al entrar al cuarto.	• No debe entrar el dietista.

Disclaimer: This isolation sign is provided as a visual example of what a facility could use and may be modified as necessary to meet a specific LTCF's needs. Any isolation signs used must be compliant with CMS § 483.243 section 483.216), state requirements, and specific facility policy.

- Intended to prevent transmission by inhalation or infectious agents that can remain suspended in the air
  - Tuberculosis, Measles, Chickenpox
- Requirements include
  - Increased ventilation rate
  - Air exhausted directly to the outside or through HEPA filtration
  - Facility respiratory protection program (education, fit-testing, user seal checks in place)



## Airborne Precautions (2)

Includes: [used in addition to Standard Precautions](#)

- Respirator (N-95 or PAPR) donned prior to entry into room and **removed after exit**
- **A single-patient room that is equipped with special air handling and ventilation capacity**
- Transport patient in a surgical mask



# LTCF Enhanced Standard Precautions (Revision Coming Soon)

- Enhanced standard precautions guidance specific to Long-term care facilities in California: AFL 10-27



MARK B HORTON, MD, MSPH  
Director

State of California—Health and Human Services Agency  
California Department of Public Health



ARNOLD SCHWARZENEGGER  
Governor

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



## LTCF Enhanced Standard Precautions (2)

(Revision Coming Soon)

- Developed in 2010 by CDPH and the California Association of Health Facilities (CAHF)
- To create a single-tiered approach to prevent transmission of all infectious agents in California
  - Use in addition to Standard Precautions when Standard precautions may be insufficient to prevent transmission
  - Incorporates aspects of contact, droplet, and airborne precautions
- Facilitate transfer of patients on contact precautions between acute care hospitals and LTCFs

# Summary

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

Hand Hygiene	personal protective equipment
Environmental cleaning and disinfection	respiratory hygiene and cough etiquette
Injection and medication safety	Reprocessing of reusable medical equipment

- **Transmission-Based Precautions** used in addition to SP when SP may be insufficient to prevent transmission- Contact, Droplet, Airborne
- Correct use of Standard and Transmission-based precautions prevent disease transmission



## References

- Core Infection Prevention and Control Practice-CDC HICPAC, 2016  
<https://www.cdc.gov/hicpac/pdf/core-practices.pdf>
- CDC Guideline for Hand Hygiene in Health-Care Settings  
<https://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf>
- CDC Guidelines for Environmental Infection Control in Health-Care Facilities (Last update: February 15, 2017- online version)  
<https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines.pdf>
- CDC Guideline for Disinfection and Sterilization in Healthcare Facilities (Last update: February 15, 2017-online version)  
<https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines.pdf>
- CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007 (Last update: October 2017 -online version)  
<https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines.pdf>
- Occupational Safety and Health Administration (OSHA) requirements  
[https://www.osha.gov/SLTC/healthcarefacilities/infectious\\_diseases.html](https://www.osha.gov/SLTC/healthcarefacilities/infectious_diseases.html)





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# Questions?

**Thank you**