

NEW EMPLOYEE ORIENTATION TOOLKIT: PRINCIPALS & PRACTICES OF INFECTION PREVENTION

DEVELOPED BY:

NC STATEWIDE PROGRAM FOR INFECTION CONTROL AND EPIDEMIOLOGY (SPICE)

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PRINCIPALS & PRACTICES OF INFECTION CONTROL & PREVENTION

- ▶ Chain of Infection
- ▶ Hand Hygiene
- ▶ Personal Protective Equipment
- ▶ Standard & Transmission Based Precautions
- ▶ Environmental Cleaning
- ▶ Safe Injection Practices
- ▶ Disinfection & Sterilization



CHAIN OF INFECTION

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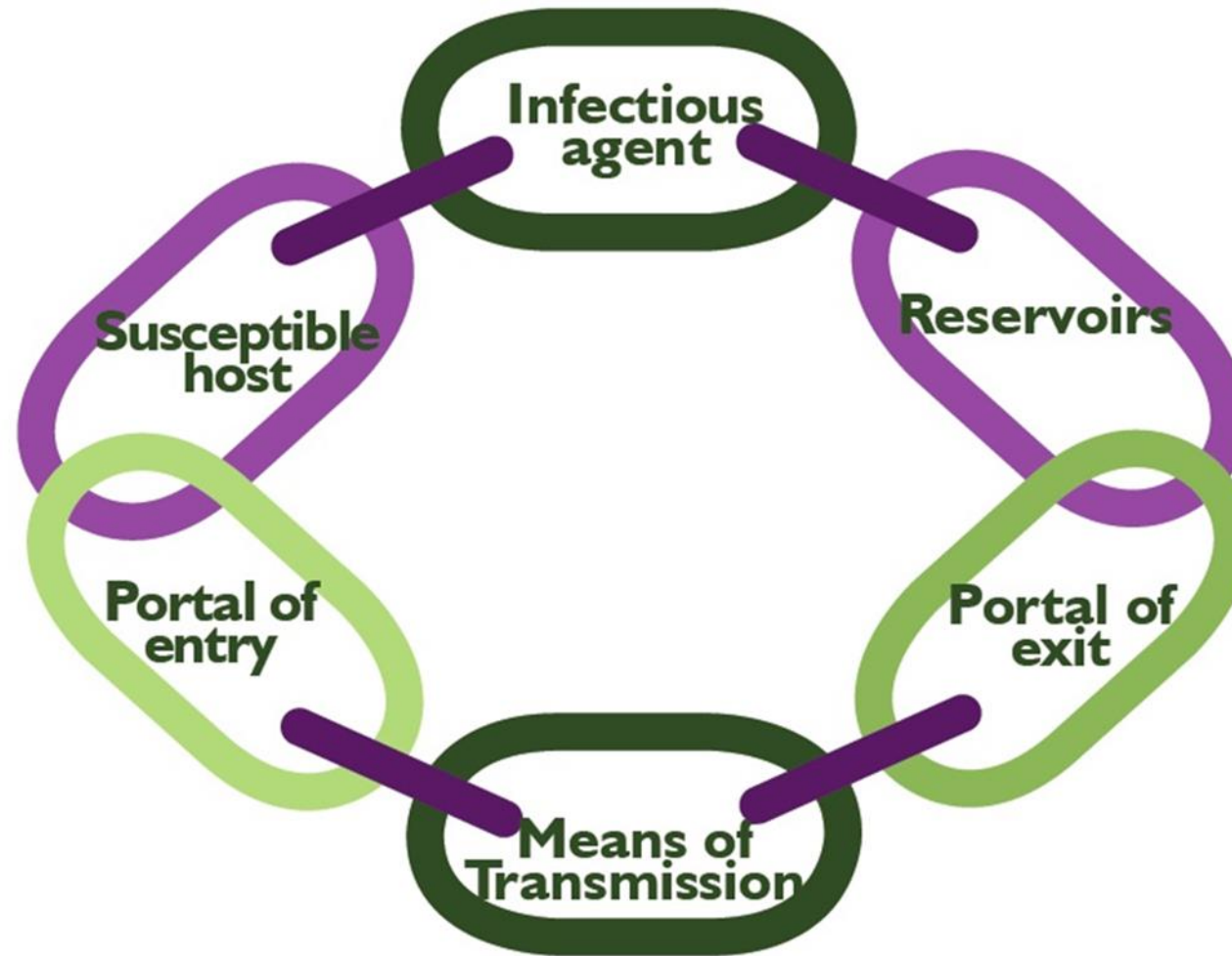
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CHAIN OF INFECTION OBJECTIVES

- ▶ Understand the chain of infection
- ▶ Be able to describe each link in the chain of infection
- ▶ Recognize how to break each link using core infection practices



CHAIN OF INFECTION



INFECTIOUS AGENT OR “THE HARMFUL GERM”

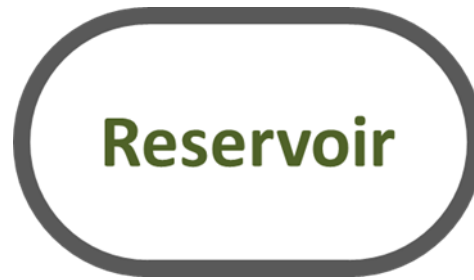
- ▶ Bacteria (MRSA, VRE)
- ▶ Viruses (Influenza, Norovirus)
- ▶ Fungi (Candida, Aspergillus)
- ▶ Parasites (Giardia, pinworms)
- ▶ Arthropods (mites)
- ▶ Infestations, not infections

**Infectious
Agent**

RESERVOIR OR “HIDING PLACE”

PEOPLE AS RESERVOIRS

- ▶ Blood
- ▶ Skin
- ▶ Digestive tract
 - ▶ Mouth, stomach, intestines
- ▶ Respiratory tract
 - ▶ Nose, throat, lungs
- ▶ Urinary tract



ENVIRONMENT AS RESERVOIRS

- ▶ Doorknobs
- ▶ Light switches
- ▶ Phones
- ▶ Pens
- ▶ Tables/counter tops
- ▶ Patient/resident personal items
- ▶ Area surrounding patient/residents

PORTAL OF EXIT OR “THE WAY OUT”

▶ Nose and mouth

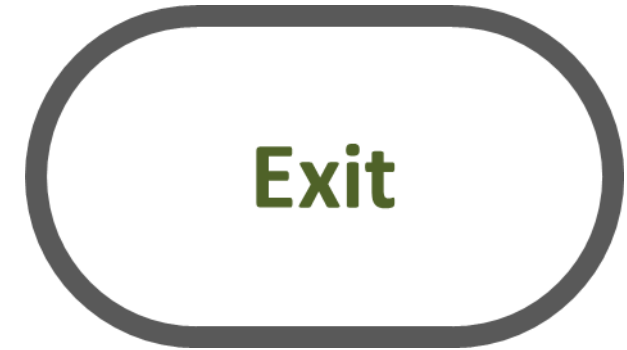
- ▶ Allows germs to leave in mucous droplets, and saliva or spit

▶ Gastrointestinal tract

- ▶ Allows for germ to leave in stool and/or vomit

▶ Skin

- ▶ Allows for germs to leave through direct contact, in blood, pus, or other substances that come from the body



MODES OF TRANSMISSION

- ▶ Contact - Individual comes in contact with source
 - ▶ Direct – Physical contact between source and susceptible host
 - ▶ Indirect – Susceptible host contacts contaminated inanimate objects
- ▶ Droplet - Direct contact with droplets or indirect contact with secretions
- ▶ Airborne - Inhalation of aerosols or droplet nuclei
- ▶ Vectors - Ticks and mosquitos

Transmission

PORTAL OF ENTRY OR “THE WAY IN”

▶ Nose and mouth

- ▶ Allows germs to enter in mucous droplets and saliva or spit

▶ Gastrointestinal tract

- ▶ Allows for germs to enter via ingestion

▶ Skin

- ▶ Allows for germs to enter through direct contact with blood, pus, or other substances that come from the body



SUSCEPTIBLE PERSON OR PERSON AT RISK

- ▶ Age: Very young or old
- ▶ Stress
- ▶ Fatigue
- ▶ Poor nutrition
- ▶ Chronic illnesses
- ▶ Unvaccinated
- ▶ Open cuts/wounds & skin breakdown
- ▶ Medications

**Susceptible
Host**



BREAKING THE CHAIN

► Infectious Agent:

- Vaccinations/immunizations

► Reservoir:

- Environmental cleaning
- Disinfection/sterilization
- Hand Hygiene

► Portal of Exit:

- Source control
- Keeping wounds covered
- Contain secretions/bodily fluids
- Standard/Transmission based precautions



BREAKING THE CHAIN

► Mode of Transmission:

- Standard/Transmission based precautions
- Hand hygiene
- Handling linen properly
- Insect repellent

► Portal of Entry:

- Standard/Transmission based precautions
- Hand hygiene
- Remove indwelling devices

► Susceptible Host:

- Good nutrition
- Adequate rest
- Vaccinations/immunizations
- Glycemic control



HAND HYGIENE

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HAND HYGIENE OBJECTIVES

- ▶ Basic understanding of hand hygiene definitions
- ▶ Understand when to perform hand hygiene
- ▶ Understand the difference between both hand hygiene methods and when to use each method
- ▶ Awareness of certain myths & misconceptions surrounding hand hygiene

DEFINITIONS & TERMS

- ▶ **Hand hygiene:** is a general term that applies to either handwashing, antiseptic handwash, alcohol-based handrub, or surgical hand hygiene/antisepsis.
- ▶ **Handwashing:** refers to washing hands with plain soap and water.
- ▶ **Alcohol-based handrub:** refers to the alcohol-containing gel or foam that is applied to the hands to reduce the number of living germs.
- ▶ **Surgical antisepsis:** refers to an antiseptic handwash or antiseptic handrub that is done before surgery by surgical staff to remove germs on the hands.



HAND HYGIENE IS # 1



<https://phil.cdc.gov/Details.aspx?pid=8584>



WHICH IS BEST?

Good



Best



POTENTIAL PROS

ALCOHOL-BASED HAND RUBS

- ▶ Requires less time than hand washing 20-30 sec. vs. 50-60 sec.
- ▶ Acts quickly to kill germs on your hands
- ▶ It is better at killing those germs than hand washing with soap and water
- ▶ Made more available than sinks
- ▶ Less irritating to skin than soap and water and can even improve condition of skin





EXCEPTIONS

Plain Soap & Water



- ▶ After caring for a person with a diarrheal illness like *Clostridioides difficile* & Norovirus
- ▶ Before and after eating or making food
- ▶ Before and after touching medication
- ▶ After using the restroom, changing a diaper, or incontinence pad
- ▶ When hands are visibly soiled with dirt, blood, or other body fluids

WHEN TO PERFORM HAND HYGIENE

- ▶ Immediately before touching a patient/resident
- ▶ Before performing a germ-free task such as placing a urinary catheter, or handling medical devices
- ▶ Before moving from work on a dirty body site to a clean body site on the same patient/resident
- ▶ After touching a patient/resident or their surroundings
- ▶ After contact with blood, body fluids, or dirty surfaces
- ▶ Immediately after glove removal



HOW TO WASH YOUR HANDS WITH SOAP AND WATER

- ▶ Wet your hands with clean running water
- ▶ Lather your hands with soap
- ▶ Scrub all parts of your hands for at least 20 seconds
- ▶ Rinse your hands under clean running water
- ▶ Dry with paper towel
- ▶ Use paper towel to turn off water



HAND HYGIENE WITH SOAP AND WATER

Hand Washing



HOW TO HANDRUB WITH ALCOHOL-BASED HAND SANITIZER

- ▶ Use alcohol-based hand sanitizer that contains at least 60 - 95% alcohol
- ▶ Use enough sanitizer to cover all surfaces of your hands
- ▶ Rub your hands together until they feel dry (20 seconds)
 - ▶ Do not wipe or rinse off sanitizer before it is dry, it may not work as well against germs

HAND HYGIENE WITH ALCOHOL BASED HAND RUB (ABHR)

Hand Rubbing



FAQS & MYTHS ANSWERED

- ▶ Can I wear fake nails, tips and or extensions? NO
- ▶ Can I use MY hand lotion at work? NO
- ▶ If I wear gloves, do I have to do hand hygiene? YES
- ▶ Do I have to wash my hands with warm/hot water? NO
- ▶ Do alcohol-based hand sanitizers lead to antibiotic resistance? NO



PERSONAL PROTECTIVE EQUIPMENT (PPE)

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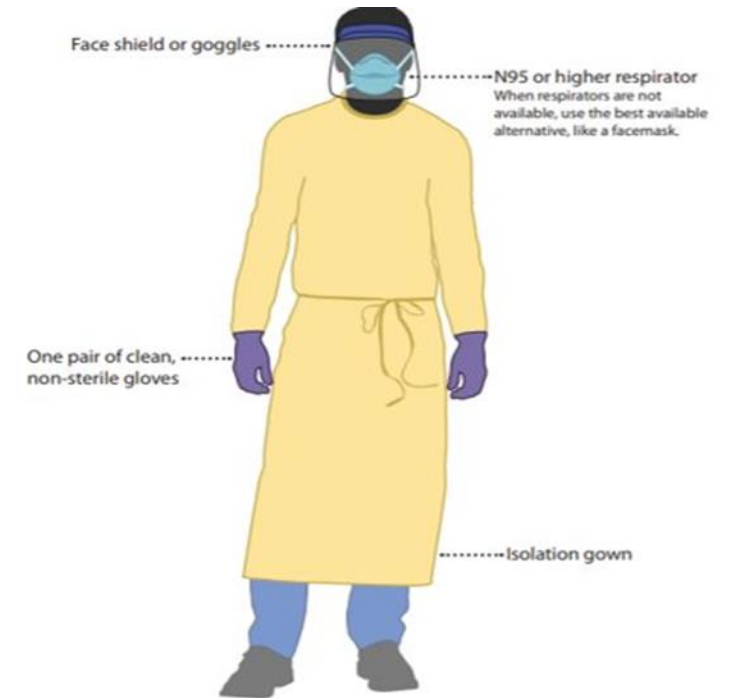
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PERSONAL PROTECTIVE EQUIPMENT (PPE) OBJECTIVES

- ▶ Be able to define personal protective equipment (PPE)
- ▶ Understand the regulations and recommendations regarding PPE
- ▶ Understand the correct selection and use of PPE based on the task being performed
- ▶ Understand the correct way to don and doff PPE safely

PERSONAL PROTECTIVE EQUIPMENT DEFINITION

- ▶ Specialized clothing or equipment worn by an employee for protection against infectious materials” (OSHA)
- ▶ PPE is available to protect you from exposure to infectious agents in the healthcare workplace
- ▶ Know what type of PPE is necessary for the duties you perform and use it correctly



GLOVES

- ▶ Purpose: patient/resident care, environmental services, other
- ▶ Glove material: vinyl, latex, nitrile, other
- ▶ Sterile or nonsterile



GLOVES

DOS

- ▶ Do work from clean to dirty
- ▶ Do limit opportunities for “touch contamination” to protect yourself, others and the environment
- ▶ Do change gloves if torn or heavily soiled & between patients/residents
- ▶ Do discard in appropriate receptacles

DONTS

- ▶ Don't touch your face or adjust PPE with contaminated gloves
- ▶ Don't touch environmental surfaces except as necessary during patient/resident care
- ▶ Don't wash or reuse disposable gloves

GOWNS & APRONS

- ▶ Purpose: to protect skin and clothing from contamination
- ▶ Material: Can be reusable or disposable & resistant to fluid
- ▶ Clean or sterile



FACE PROTECTION

- ▶ **Masks - protect nose and mouth**
 - ▶ Should fully cover nose and mouth and prevent fluid penetration
- ▶ **Goggles - protect eyes**
 - ▶ Should fit snugly over and around eyes
 - ▶ Personal glasses not a substitute for goggles
 - ▶ Anti-fog feature improves clarity
- ▶ **Face Shields – protects face, nose, mouth & eyes**
 - ▶ Should cover forehead, extend below chin and wrap around side of face
 - ▶ Face shields are not as effective at protecting you or the people around you from respiratory droplets.



RESPIRATORY PROTECTION

- ▶ Purpose – protect from inhalation of infectious aerosols (e.g., *Mycobacterium tuberculosis*)
- ▶ PPE types for respiratory protection
 - ▶ Particulate respirators
 - ▶ Half- or full-face elastomeric respirators
 - ▶ Powered air purifying respirators (PAPR)
- ▶ In Order to use Respiratory Protection Equipment
 - ▶ Medical evaluation
 - ▶ Fit testing
 - ▶ Training
 - ▶ Fit Check before use



REGULATIONS AND RECOMMENDATIONS FOR PPE

- ▶ Occupational Safety and Health Administration (OSHA) issues workplace health and safety regulations. Regarding PPE, employers must:
 - ▶ Provide appropriate PPE for employees
 - ▶ Ensure that PPE is disposed of properly, or reusable PPE is cleaned, laundered, repaired and stored after use
- ▶ OSHA also specifies circumstances for which PPE is indicated
- ▶ CDC recommends when, what and how to use PPE

Accessible version: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>



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

Last update: July 2019

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
<https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>

FACTORS INFLUENCING PPE SELECTION

- ▶ Type of exposure anticipated
 - ▶ Splash/spray versus touch
 - ▶ Category of isolation precautions
- ▶ Durability and appropriateness for the task
 - ▶ Inspect PPE to ensure it is intact
 - ▶ Fluid resistant gown vs. cloth/paper gown
- ▶ Fit
 - ▶ Does it fit
 - ▶ Does it fit correctly
 - ▶ Comfort
 - ▶ Fit tested?



DONNING PPE

- ▶ Gown first
 - ▶ Select appropriate size
 - ▶ Opening is in the back
 - ▶ Secure at neck & waist
- ▶ Mask or respirator
 - ▶ Place over nose, mouth and chin
 - ▶ Fit flexible nose piece over nose bridge
 - ▶ Secure on head with ties or elastic
 - ▶ Adjust to fit
- ▶ Goggles or face shield
 - ▶ Position goggles over eyes and secure to the head using the earpieces or headband
 - ▶ Position face shield over face and secure on brow with headband
 - ▶ Adjust to fit comfortably
- ▶ Gloves
 - ▶ Don gloves last
 - ▶ Select correct type and size
 - ▶ Insert hands into gloves
 - ▶ Extend gloves over isolation gown cuffs

**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



DONNING A PARTICULATE RESPIRATOR

- ▶ Select a fit tested respirator
- ▶ Place over nose, mouth and chin
- ▶ Fit flexible nose piece over nose bridge
- ▶ Secure on head with elastic
- ▶ Adjust to fit
- ▶ Perform a fit check –
 - ▶ Inhale – respirator should collapse
 - ▶ Exhale – check for leakage around face



THINGS TO REMEMBER WHEN DOFFING PPE

- ▶ Contaminated – outside front

- ▶ 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

DOFFING GLOVES

► Order of Doffing PPE:

► Gloves first:

- Grasp the first glove on the outside edge near wrist
- Peel away from hand, turning glove inside-out
- Hold in opposite gloved hand
- Slide ungloved finger under the wrist of the remaining glove
- Peel off remaining glove
- Discard



DOFFING GOGGLES/FACE SHIELD

► Goggles or shield second:

- Grasp ear head pieces with ungloved hands
- Lift away from face
- Place in designated receptacle for reprocessing or disposal



DOFFING GOWN

► Gown next:

- Unfasten ties
- Peel gown away from neck and shoulder
- Turn contaminated outside toward the inside
- Roll into a bundle
- Discard



DOFFING MASK OR RESPIRATOR

► Then mask:

- Untie the bottom, then top tie
(If using a mask with ear loops, grab each ear loop and remove)
- Remove from face
- Discard



► For respirator:

- First lift bottom elastic over head
- Then lift top elastic
- Discard



THINGS TO REMEMBER ABOUT PPE

- ▶ Keep gloved hands away from face
- ▶ Avoid touching or adjusting other PPE
- ▶ Remove gloves if they become torn:
 - ▶ Perform hand hygiene
 - ▶ Don new pair of gloves
- ▶ Limit surfaces you touch
- ▶ Remove PPE at doorway, before leaving patient/resident room/care area
- ▶ Remove respirator outside room, after door has been closed
- ▶ Perform hand hygiene immediately after removing PPE



STANDARD AND TRANSMISSION BASED PRECAUTIONS

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STANDARD AND TRANSMISSION BASED PRECAUTIONS OBJECTIVES

- ▶ Describe standard precautions to include:
 - ▶ Elements of standard precautions
 - ▶ When to use standard precautions
 - ▶ How to use standard precautions
 - ▶ Importance of standard precautions to reduce spread of infections

- ▶ Describe transmission-based precautions to include:
 - ▶ Types of transmission-based precautions
 - ▶ When to use each type of precautions
 - ▶ How to implement each type of precaution and know the PPE needed
 - ▶ Importance of each type of precaution

STANDARD PRECAUTIONS

What is Standard Precautions?

- ▶ Standard precautions are common sense practices and PPE use to protect the healthcare staff from infection and prevent the spread of infection from patient to patient.
- ▶ The minimum infection prevention practices that apply to ALL patient care regardless of the suspected or confirmed infection status of the patient in any setting where healthcare is delivered.

Elements of Standard Precautions:

- ▶ Hand hygiene
- ▶ Use of personal protective equipment
- ▶ Respiratory hygiene/cough etiquette
- ▶ Safe injection practices
- ▶ Infection Control Practices for Special Lumbar Puncture Procedures (use of a mask)
- ▶ Properly clean and disinfection of the environment, patient care equipment, and instruments/devices
- ▶ Safe handling of potentially contaminated equipment
- ▶ Safe handling of sharps

When to use Standard Precautions?




- ▶ All patients, all the time.

STANDARD PRECAUTIONS: HAND HYGIENE

- ▶ Use hand lotions/creams compatible with soap, ABHRs, and gloves.
- ▶ Do not wear artificial nails when providing direct clinical care
- ▶ Natural nails should be short, approximately ¼ inch in length.



STANDARD PRECAUTIONS- PPE

| Component | Recommendation |
|---|---|
| Personal Protective Equipment (PPE) | |
| Gloves  | For touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and non-intact skin |
| Gown  | During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated |
| Mask, eye protection  | During procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, especially suctioning, endotracheal intubation |

OTHER POTENTIALLY INFECTIOUS MATERIALS

- ▶ Semen
- ▶ vaginal secretions
- ▶ cerebrospinal fluid
- ▶ synovial fluid
- ▶ pleural fluid
- ▶ pericardial fluid
- Peritoneal fluid
- Amniotic fluid
- Saliva in dental procedures
- Any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

STANDARD PRECAUTIONS: RESPIRATORY HYGIENE AND COUGH ETIQUETTE

- ▶ Cover your mouth and nose with a tissue OR cough into your elbow, not your hands



- ▶ Dispose your tissue after each use



- ▶ Mask if necessary



- ▶ Hand Hygiene



- ▶ Encourage ill patients to sit away from others



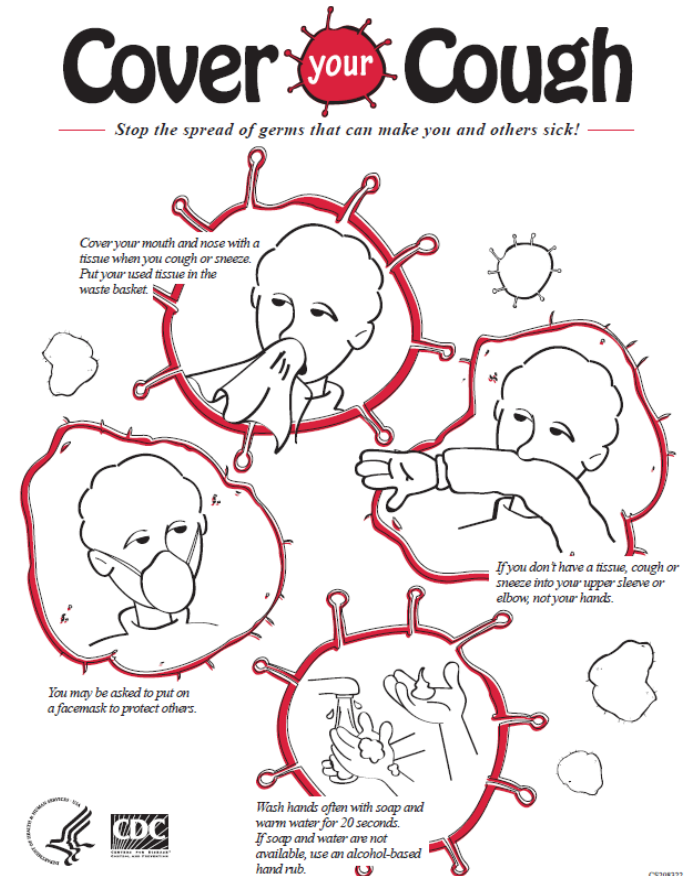
STANDARD PRECAUTIONS: RESPIRATORY HYGIENE AND COUGH ETIQUETTE



STANDARD PRECAUTIONS: RESPIRATORY HYGIENE AND COUGH ETIQUETTE

Healthcare facilities should ensure the availability of materials for adhering to Respiratory Hygiene/Cough Etiquette in waiting areas for patients and visitors.

- ▶ Post visuals at the entrance to all healthcare facilities that instruct patients, visitors, and staff of symptoms of respiratory infection and how to practice respiratory hygiene and cough etiquette.
- ▶ Provide tissues and no-touch receptacles for used tissue disposal.
- ▶ Provide conveniently located dispensers of alcohol-based hand rub; where sinks are available, ensure that supplies for hand washing available.
- ▶ Process must be in place year-round and not just during influenza season!

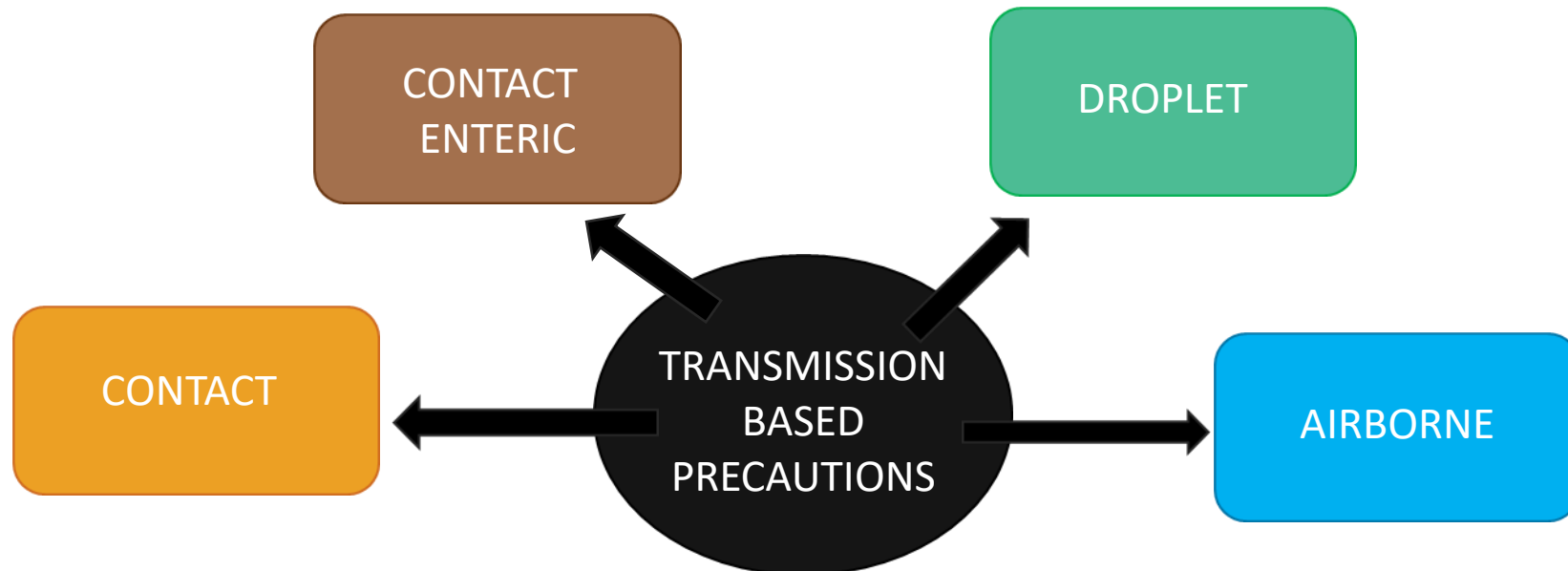


STANDARD PRECAUTIONS

| Component | Recommendation |
|-----------------------|--|
| Soiled equipment | Handle in a manner that prevents transfer of microorganisms to others and to the environment; wear gloves if visibly contaminated; perform hand hygiene |
| Environmental Control | Develop procedures for routine care, cleaning, and disinfection of environmental surfaces, especially frequently touched surfaces in patient-care areas |
| Laundry | Handle in a manner that prevents transfer of microorganisms to others and to the environment |
| Needles and sharps | Do not recap, bend, break, or hand-manipulate used needles; if recapping is required, use a one-handed scoop technique only; use safety features when available; place used sharps in puncture-resistant container |
| Patient Resuscitation | Use mouthpiece, resuscitation bag, other ventilation devices to prevent contact with mouth and oral secretions |

TRANSMISSION BASED PRECAUTIONS

- ▶ Transmission-Based Precautions are for patients who are known or suspected to be infected or colonized with infectious agents, including certain epidemiologically important pathogens, and are used when the route(s) of transmission are not completely interrupted using Standard Precautions alone.



TRANSMISSION BASED PRECAUTIONS

- ▶ Private room or Cohort
- ▶ Gown and gloves before or “upon entry”
- ▶ Hand hygiene (ABHR or soap and water)
- ▶ Dedicate equipment
- ▶ Disinfect shared equipment
- ▶ Limit patient movement

STOP

CONTACT PRECAUTIONS

PRECAUCIONES DE

TRANSMISIÓN POR CONTACTO

ALTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.



Everyone must:

Clean hands before entering and when leaving room.
Todos deben:
Lavarse las manos antes de entrar y antes de salir de la habitación.



All Healthcare Personnel must:
Todo el personal de atención médica debe:

Wear gloves when entering room and remove before leaving room.
Usar guantes al entrar a la habitación y quitárselos antes de salir de la habitación.



Wear a gown when entering room and remove before leaving.
Usar una bata al entrar a la habitación y quitársela antes de salir.



Use patient-dedicated or single-use disposable equipment. If shared equipment is used clean and disinfect between patients.
Usar equipo desechable de un solo uso o designado al paciente. Si se utiliza equipo compartido, limpiar y desinfectar entre pacientes.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/22

TRANSMISSION BASED PRECAUTIONS

- ▶ Suspected or confirmed infectious diarrhea
 - ▶ *Clostridioides difficile*
 - ▶ Norovirus
- ▶ Soap and water hand hygiene
- ▶ Gown and Gloves
- ▶ Proper disinfectant
 - ▶ Dedicate equipment
 - ▶ Disinfect shared equipment



STOP

ENTERIC PRECAUTIONS
PRECAUCIONES DE TRANSMISIÓN POR
ENTÉRICA



ALTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.



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Todo el personal de atención médica debe:
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Usar guantes al entrar a la habitación y quitárselos antes de salir de la habitación.



Wear a gown when entering room and remove before leaving.
Usar una bata al entrar a la habitación y quitársela antes de salir.



Use patient-dedicated or single-use disposable equipment. If shared equipment is used, clean with an EPA K list disinfectant.
Usar equipo desechable de un solo uso o designado al paciente. Si se usa equipo compartido, limpiarlo con un desinfectante de la lista K de la EPA.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

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TRANSMISSION BASED PRECAUTIONS

- ▶ Antiseptic hand wash or antiseptic hand-rub preparations are NOT reliably sporicidal against *Clostridioides* spp. or *Bacillus* spp.
- ▶ Washing hands with soap and water may help to physically remove spores from the surface of contaminated hands.
- ▶ After gloves are removed, hands should be washed with soap and water or sanitized with an alcohol-based hand rub.
- ▶ During outbreaks of *C. difficile*-related infections, washing hands with soap and water after removing gloves is prudent.





TRANSMISSION BASED PRECAUTIONS

- ▶ Surgical mask prior to entry
- ▶ No special ventilation
- ▶ Private room or Cohort
- ▶ Hand hygiene
- ▶ Patients/Residents use mask outside of room

**DROPLET PRECAUTIONS**
**PRECAUCIONES DE TRANSMISIÓN
POR GOTAS**


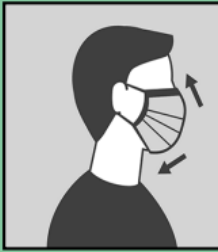
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Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.



Everyone must:
Clean hands before entering and when leaving room.

Todos deben:
Lavarse las manos antes de entrar y al salir de la habitación.



Wear surgical/procedure mask when entering the room and remove after exiting the room.

Usar una mascarilla quirúrgica o para procedimientos al entrar a la habitación y quitársela después de salir de la habitación.



Additional PPE may be required per Standard Precautions.
Es posible que se exija equipo de protección personal adicional según las precauciones estándar.

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REVISED DATE: 1/20/2022



TRANSMISSION BASED PRECAUTIONS

- ▶ Private room only
- ▶ Room requires negative airflow pressure
- ▶ Doors must remain closed
- ▶ Visual air monitors
- ▶ Everyone must wear an N-95 respirator or higher
- ▶ Limit the movement and transport of the patient



**AIRBORNE PRECAUTIONS**
PRECAUCIONES DE TRANSMISION AÉREA

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
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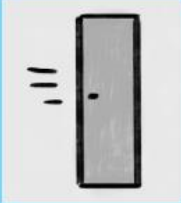
Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.



Everyone must:
Clean hands before entering and when leaving room.
Todos deben:
Lavarse las manos antes de entrar y antes de salir de la habitación.



Wear a respirator (N95) or higher level respirator prior to entering the room. Remove after exiting the room.
Visitors-See nurse for instruction on mask or respirator selection and use.
Usar un respirador (N95) o un respirador de nivel superior antes de entrar a la habitación. Quitárselo después de salir de la habitación.
Visitantes- consulte con la enfermera para obtener instrucciones sobre la selección y el uso de



Keep door closed. (Maintain negative pressure)
Mantenga la puerta cerrada. (Mantener presión negativa)

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

TRANSMISSION BASED PRECAUTIONS

Important to note:

- ▶ Two different types of transmission-based precautions may be needed in some cases.
 - ▶ Example- A colonized MRSA patient or resident who also has influenza
- ▶ It is important to place residents/patients on precautions as soon as an infectious agent is suspected



Cleaning and Disinfection

Ashley Jackson, BSMT, MPH, CIC

<https://spice.unc.edu/>
<https://spice.unc.edu/ask-spice/>

CLEANING AND DISINFECTION OBJECTIVES

- ▶ Describe the difference between cleaning and disinfection
- ▶ Explain importance of disinfectants including:
 - ▶ How to select the right product
 - ▶ The preparation and dilution of disinfectant
 - ▶ Proper application and contact time
 - ▶ Use of PPE with disinfectants

CLEANING AND DISINFECTION

What's the difference?

► Cleaning

- The process of REMOVING debris, dirt, and germs from surfaces.



► Disinfection

- A separate step done after cleaning that KILLS or INACTIVES germs on surfaces or objects
 - Of note some products provide cleaning and disinfection in one step



CLEANING AND DISINFECTION

- ▶ Right product
- ▶ Right preparation and dilution
- ▶ Right application method
- ▶ Right contact time
- ▶ Wear appropriate PPE
 - ▶ *(gloves, gown, mask, eye protection)*

ENVIRONMENTAL CLEANING

Ashley Jackson, BSMT, MPH, CIC

<https://spice.unc.edu/>
<https://spice.unc.edu/ask-spice/>

ENVIRONMENTAL CLEANING OBJECTIVES

- ▶ Understand how pathogens can live on environmental surfaces
- ▶ Describe importance as well as differences between clinical and housekeeping environmental surfaces.
- ▶ Describe how to thoroughly clean a room.
- ▶ Describe how to handle and dispose of laundry and other textiles
- ▶ Describe regulated biohazard waste and how to properly dispose this waste

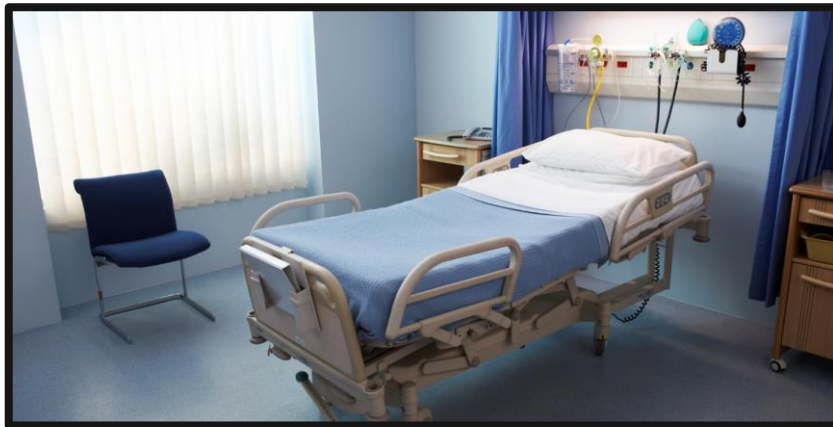
ENVIRONMENTAL CLEANING



ENVIRONMENTAL CLEANING

CLINICAL

- ▶ High potential for direct contamination
- ▶ Spray or splatter
- ▶ Frequent contact with healthcare personnel's hands



HOUSEKEEPING

- ▶ No direct contact with patients or devices
- ▶ Little risk of transmitting infections



ENVIRONMENTAL CLEANING



ENVIRONMENTAL CLEANING

▶ Linen and other textiles

- ▶ Use of appropriate PPE during handling and sorting of contaminated linen
- ▶ Contaminated laundry bagged at point of use
- ▶ Do not shake or agitate linens
- ▶ Use standard precautions when handling all contaminated laundry

ENVIRONMENTAL CLEANING

Regulated waste (OSHA definition)

- ▶ Liquid or semi-liquid blood or other potentially infectious materials
- ▶ Items contaminated that would release blood or OPIM if compressed
- ▶ Items caked with dried blood or OPIM and can release these materials during handling
- ▶ Contaminated sharps
- ▶ Pathological and microbiological wastes containing blood or other potentially infectious materials.



Regulated waste must be placed in a biohazard labeled container and disposed of in accordance with your state medical waste rules.

SHARPS AND SAFE INJECTION PRACTICES

Ashley Jackson, BSMT, MPH, CIC

<https://spice.unc.edu/>
<https://spice.unc.edu/ask-spice/>

SHARPS AND SAFE INJECTION PRACTICES OBJECTIVES

- ▶ Describe how to properly handle and dispose of sharps
- ▶ Discuss safe injection practices
- ▶ Describe consequences of unsafe injection practices

SHARPS AND SAFE INJECTION PRACTICES

▶ Sharps

Includes:

- ▶ Needles
- ▶ Lancets
- ▶ Razors
- ▶ Dental wires
- ▶ Laboratory slides
- ▶ Glass ampules
- ▶ Other items made from glass that could break and form sharp edges

▶ AVOID needle sticks!

- ▶ Never bend, break, recap, or hand manipulate contaminated needles.
- ▶ Use safety devices

▶ Dispose sharps in puncture resistant containers.

- ▶ Never place sharps in a trash bag or other containers that can be punctured.

SHARPS AND SAFE INJECTION PRACTICES

Safe injection practices

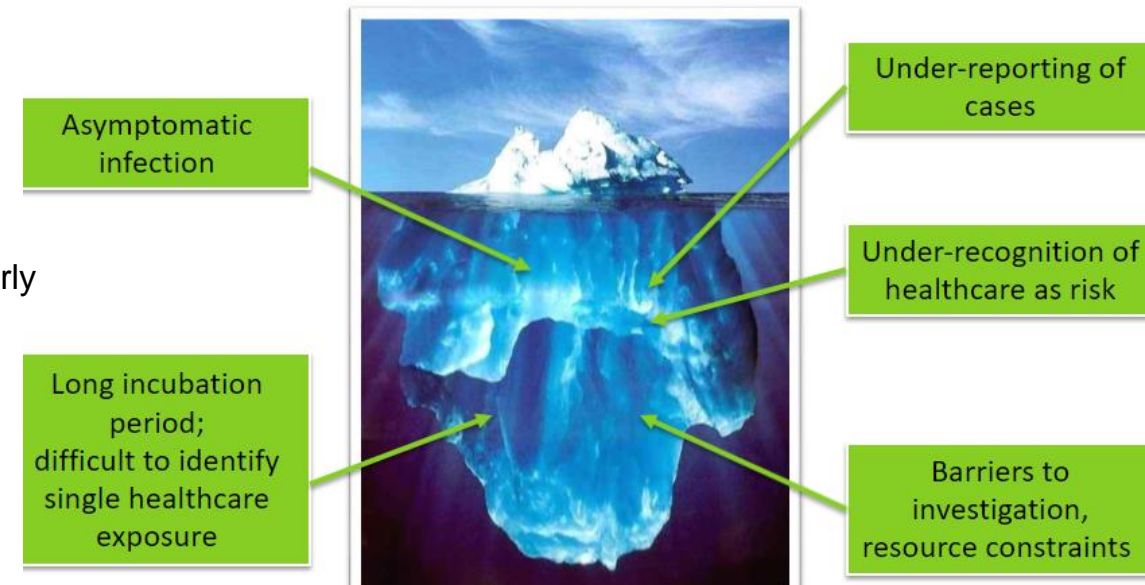
- ▶ Not optional

Consequences of unsafe injection practices

- ▶ Outbreaks of bloodborne pathogen and bacterial infections
 - ▶ Many are never detected
- ▶ Patient illness and death
 - ▶ Since 2001, discovery of unsafe injection practices, have prompted nearly 200,000 patients to seek testing for bloodborne pathogen (<https://www.cdc.gov/injectionsafety/one-and-only.html>)
- ▶ Legal charges and malpractice suits
- ▶ Loss of license

The BIG FOUR UN-SAFE injection practices:

- ▶ 1. Syringe re-use, directly or indirectly
- ▶ 2. Inappropriate use of single dose or single use vials
- ▶ 3. Failure to use aseptic technique (contamination of injection equipment)
- ▶ 4. Unsafe diabetes care/ assisted blood glucose monitoring (ABGM)



SHARPS AND SAFE INJECTION PRACTICES

Inappropriate
Reuse of Syringes



SHARPS AND SAFE INJECTION PRACTICES



SHARPS AND SAFE INJECTION PRACTICES



Syringe reuse (direct and indirect)

- Never administer medications from the same syringe to multiple patients
- Do not reuse a syringe to enter a medication vial or solution
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible



Misuse of single-dose/single-use vials

- Do not administer medications from a single dose vial or IV solution bag to more than one patient, more than one time

SHARPS AND SAFE INJECTION PRACTICES



Failure to use aseptic technique

- Use aseptic technique when preparing or administering medications



Unsafe diabetes care

- Use insulin pens and lancing devices for only one patient
- Dedicate glucometers to a single patient. If they MUST be shared, clean and disinfect after each use

THANK YOU!

SPREAD THIS KNOWLEDGE AND NOT THE GERMS!



REFERENCES

- ▶ <https://www.cdc.gov/hai/prevent/ppe.html>
- ▶ <https://www.cdc.gov/handhygiene/>
- ▶ <https://www.cdc.gov/handhygiene/providers/index.html>
- ▶ <https://www.cdc.gov/handhygiene/science/index.html>
- ▶ <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>
- ▶ <https://www.cdc.gov/oralhealth/infectioncontrol/faqs/hand-hygiene.html>
- ▶ <https://www.osha.gov/healthcare/standards>
- ▶ <https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>
- ▶ <https://www.cdc.gov/injectionsafety/one-and-only.html>
- ▶ <https://spice.unc.edu/>
- ▶ <https://spice.unc.edu/ask-spice/>