St. Elizabeth
HEALTHCARE

Training & Education Center

INFECTION CONTROL UPDATE

All Clinical Associates

2024 Version

Content expert: **Infectioncontrol@stelizabeth.com**

Revised: 10/2023

Infection Control

Edgewood: 301-2155

Florence: 212-4399

Fort Thomas: 572-3688

Dearborn: 812-496-7656

Objectives

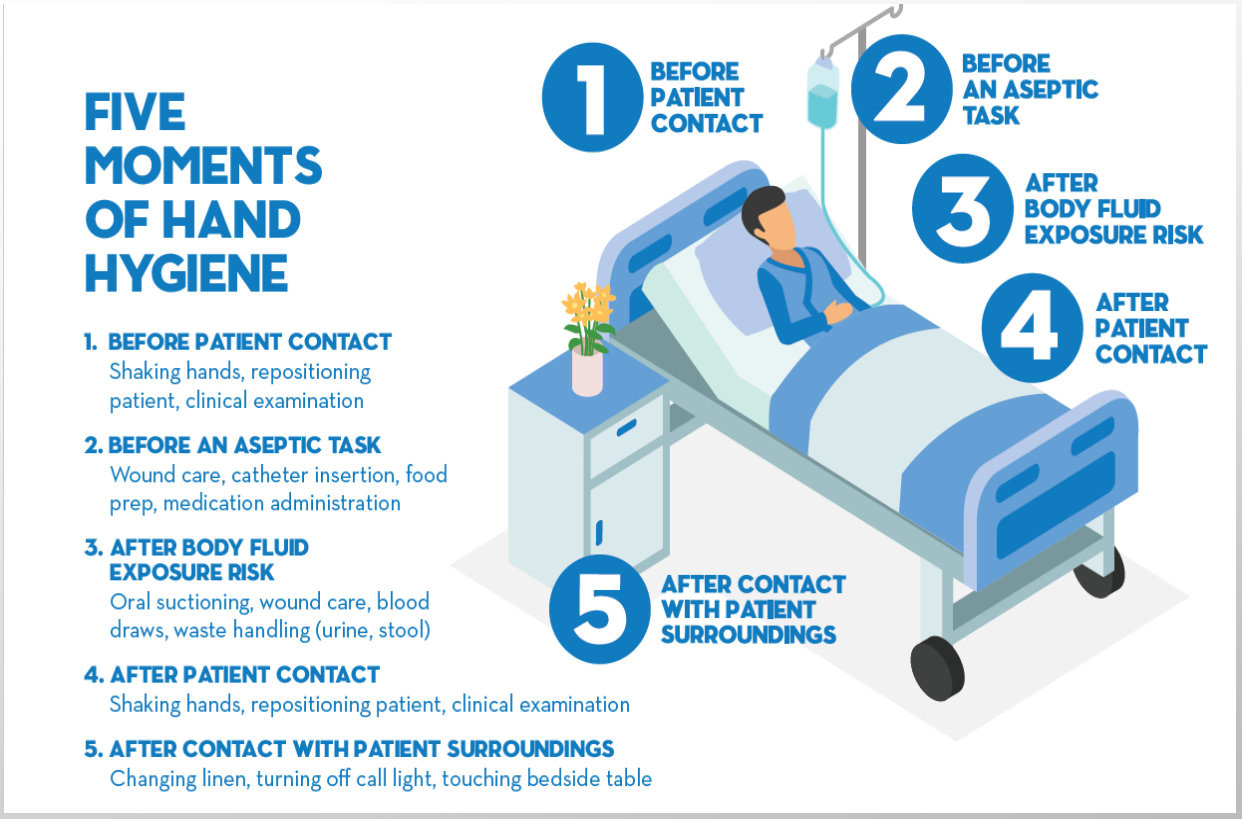
- **Review TJC National Patient Safety Goals Related to Infection Control**
- **Hospital Acquired Infections**
- **Understand the 2 tiers of Infection Prevention**
  - Standard precautions
  - Transmission Based precautions
    - MDRO
- **OSHA Work Practice Controls/ Engineering Controls**
- **OSHA Bloodborne pathogens**
- **OSHA Tuberculosis**

HAND HYGIENE PRACTICES

The Joint Commission's national patient safety goals related to Infection Control is focused on hand hygiene.

- Hand hygiene is one of the most important factors in preventing the spread of infection.
- The World Health Organization (WHO) has identified 5 key moments for hand hygiene.
- Remember to provide the patient with opportunities to perform hand hygiene (before eating, toileting, and before leaving their room.

HAND HYGIENE MONITORING IS DONE ROUTINELY AT ALL FACILITIES



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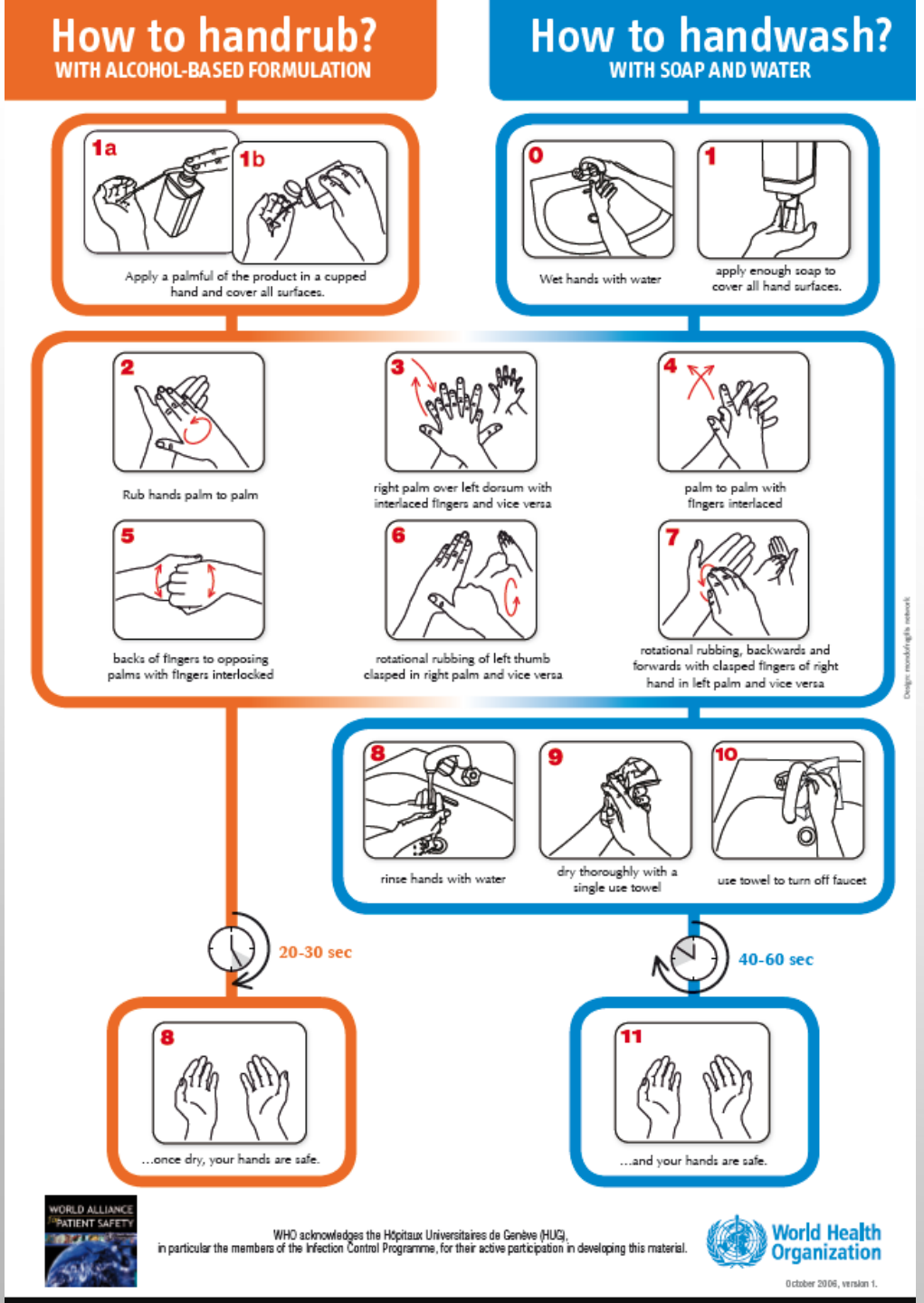


HOW TO PERFORM HAND HYGIENE

Hand hygiene can be performed with **<u>either</u>** facility provided soap & water or ABHR (alcohol-based hand rub).

<u>Soap and Water</u>

- Wet hands with water and apply soap
- Rub hands together, covering all surfaces, focusing on fingertips and fingernails
- Rinse under running water and dry with disposable towel
- Use the towel to turn off the faucet

➢ ***Use soap and water after using the restroom, before eating, and when hands are visibly soiled.***

<u>ABHR</u>

- Apply a palmful of the product in a cupped hand.
- Rub hands together, covering all surfaces, focusing on the fingertips and fingernails, <u>until dry.</u>

Adhere to fingernail policy as referenced by Policy HR-ER-05

HOSPITAL ACQUIRED INFECTION (HAI)

Hospital acquired infections (HAI) are infections that are **not present** upon admission

Examples of reportable hospital acquired infections include:

- Central line associated bloodstream infections (CLABSI)
- Catheter associated urinary tract infection (CAUTI)
- Ventilator associated events (VAE) – ICU only
- Clostridioides difficile (C-diff)
- Methicillin resistant staph aureus blood stream infection (MRSA)

DEVICE RELATED INFECTIONS

PREVENTION IS KEY: Remove a device as soon as it is no longer needed and consider alternatives. The sooner a device is removed, the less likely the chance of infection

CAUTI BUNDLE

Maintain the 6 C's

Consider alternatives: external devices (Purewick, condom cath)

Connect with a securement device

Keep it clean, keep it closed

Call for a bladder scan

Culture only when an indication is clear to avoid treating colonization

CLABSI BUNDLE

Change dressing every 7 days and prn with CHG dressing. Keep the site clean, dry, intact

Application of CHG daily

Line necessity assessment daily

Apply port protectors

Scrub site with chloraprep during dressing changes

Initial and date all central line dressings and tubing

VAP BUNDLE

Spontaneous awakening trial bid

Spontaneous breathing trial daily

RASS every 1-2 hours

HOB elevation 30 degrees

NG/OG insertion to low wall suction

Oral care every 2 hours

Obtain respiratory cultures within 48 hours of intubation

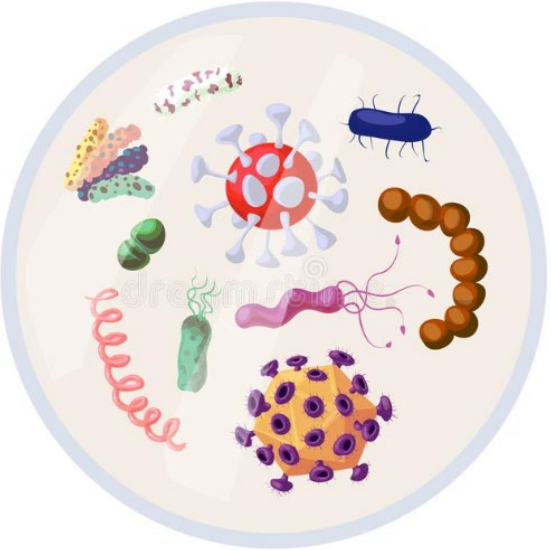
SURGICAL SITE INFECTIONS (SSI)

Surgical site prevention practices

- ✓ CHG application preop
- ✓ Pre-op hair removal through clipping (not shaving)
- ✓ Prophylactic antibiotic given within one hour prior to surgical incision (correct antibiotic selection)
- ✓ Maintaining peri-operative normal body temp
- ✓ Prophylactic antibiotic discontinued within 24 hours after surgery [48 hrs. For CABG/cardiac cases]
- ✓ Controlling post-op blood glucose in cardiac surgery patients
- ✓ Removing the urinary catheter on post-op day 1 or 2

CLOSTRIDIOIDES DIFFICILE (C-DIFFICILE)

- **Spore-forming bacteria.** Symptoms include watery diarrhea, fever, loss of appetite, nausea, and abdominal pain.
- Transmission occurs via feces. Any surface that becomes contaminated with feces may serve as a reservoir for the c-difficile spores (toilets, counter tops, bed rails, call lights). **Can last for several months on surfaces.**
- Can also be transferred to patients via the hands of healthcare personnel who have touched a contaminated surface.
- Common cause of antibiotic associated diarrhea, can be prevented by using infection control recommendations and appropriate antibiotic use.
- Requires contact isolation – clean and disinfect equipment with **bleach** products.



C-DIFFICILE: ISOLATION & TESTING PROTOCOL

The purpose of this protocol is early identification, isolation, and treatment to decrease the transmission of C difficile infections.

- Staff should initiate the CDIFF order panel when a patient has 3 OR MORE **unexpected** diarrhea stools (Bristol stool chart type 6 or 7)
- The CDIFF order panel includes an order for testing and an order for contact isolation
- Ordering protocol is **only to be used during the first *two days* of a patients' admission.** Beyond 48 hours the RN will no longer be able to enter the order. The physician must enter the order.
- Refer to the diarrhea decision tree to determine if testing is appropriate. (available under epic resource links)

INFECTION CONTROL PRECAUTIONS

TO PREVENT THE SPREAD OF INFECTION IN HEALTHCARE, THERE ARE 2 TIERS OF RECOMMENDED PRECAUTIONS: **STANDARD PRECAUTIONS** AND **TRANSMISSION-BASED PRECAUTIONS**.

Standard Precautions are used for all patient care.

Common sense practices and personal protective equipment use that protect healthcare providers from infection and prevent the spread of infection from patient to patient.

Examples include:

Hand Hygiene, PPE, Cough Etiquette, Cleaning and Disinfection of Equipment, Handling of Soiled Linens, Safe Infection Practices, Sharps and Waste Handling.

Transmission-Based Precautions are used in addition to Standard Precautions.

For patients who may be infected or colonized with certain infectious agents for which additional precautions are needed to prevent infection transmission.

We follow CDC Guidelines for Isolation Precautions:

- Airborne Precautions
- Contact Precautions
- Droplet Precautions

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- PPE is designed to protect the skin, eyes, mucous membranes, airways, and clothing from contact with infectious agents

- Selection of PPE is made based on the tasks being performed and anticipated level of exposure
- PPE includes:
  - Gloves
  - Fluid resistant gowns
  - Respirator devices
  - Protective eyewear
  - Masks

PPE GLOVES/ GOWN/ GOGGLES

Gloves: used when anticipated touching of mucous membranes or nonintact skin of a patient or any patient blood, body fluids, secretions, or excretions

- Indirect contact to blood or body fluids
- When handling or touching equipment or environmental surfaces that have been contaminated.

Goggles/face shields: *The OSHA bloodborne pathogen standard requires face and eye protection when there is potential for splashing, spraying or splattering of blood or other body fluid onto facial mucous membranes.*

- Use to protect the eyes and face from sprays of respiratory secretions, blood, or body fluids. ***Eyeglasses are not considered acceptable eye protection***

Gowns: used when anticipated patient care activities in which exposed skin or clothing are likely to be exposed to any patient blood, body fluids, secretions, or excretions.

Barrier masks/barrier masks with shields:

•With any anticipated spray of blood or body fluids (respiratory secretions or patients with poor cough etiquette).

The use of gloves does not replace the need for hand hygiene!

Hand hygiene should always be performed immediately after gloves are removed.

N95 AND PAPR HOOD

N95 RESPIRATORS:

- HCWs must be fit tested annually for proper fit and required to receive instructions prior to the use of the respirator
- A “user seal check” must be performed each time an N95 respirator is used, (mask is only effective if there is a tight seal around the nose and mouth)

PAPR HOOD:

- HCWs who are not candidates for fit testing will be trained to use a PAPR instead of an N95 respirator
- HCW with facial hair cannot be appropriately fitted to an N95 respirator and must use a PAPR hood
- The PAPR and hood are available to order from Central Supply
- Hoods may be kept for re-use by the same person. Hoods are to be cleaned & disinfected, marked with the employee's name, and stored in a paper bag.

TRANSMISSION- BASED PRECAUTIONS

Used for patients who are known or suspected to be infected or colonized with infectious pathogens. These pathogens require additional control practices used in addition to standard precautions to prevent transmission.

St. Elizabeth's isolation precautions are based on the CDC guidelines for isolation.

- Contact precautions
- Droplet precautions
- Airborne precautions
- Contact & Airborne precautions

FOR ALL ISOLATION:

- Use dedicated or disposable equipment when available
- Clean and disinfect all reusable equipment
- Take only necessary supplies into the patient's room

Isolation Precaution Quick Guide

Organism	Isolation
Bed Bugs	Contact – 24 hours or until it is determined no evidence of bed bugs. Remove and tightly secure all patient's belongings. Notify EVS
Candida auris	Contact
C. Difficile and R/O C. diff	Contact
COVID	Contact and Airborne (20 days)
CRE (carbapenem resistant organisms)	Contact
ESBL (Extended Spectrum beta-lactamase)	Contact
Influenza (seasonal)	Droplet (may call Infection Control to re-evaluate after 7 days of onset)
Lice/Scabies	Contact (for 24 hours after initiation of effective therapy)
MDRO – Multi drug-resistant organism (i.e. infection or colonization of: Pseudomonas, Klebsiella, Acinetobacter, etc.)	Contact
Measles	Airborne
Meningitis (confirmed bacterial or R/O)	Droplet (Until 24 hours after initiation of effective therapy)
MRSA – infection or colonization	Contact
RSV – Respiratory syncytial	Contact (for infants or immunocompromised patients) Call Infection Control to determine if needed
Shingles – (Herpes zoster, Varicella zoster)	Contact and Airborne – if patient immunosuppressed or rash disseminated (multiple areas involved) until lesions dry and crusted. Standard precautions if patient immune system intact
TB or R/O TB	Airborne
Varicella/Chickenpox	Airborne
VRE	Contact
Wounds (any wound with drainage not able to be covered with a dressing)	Contact

Call Infection Control with any questions regarding initiating or discontinuing Isolation.

Edgewood – 859-301-2155 Florence – 859-212-4399 Ft. Thomas – 859-572-3688 DBN – 1-812-537-8411

Contact Isolation

Infections are spread through touch with infectious particles from patients or items/surfaces in the patient environment

Private room is recommended

Gown and Gloves are **required** to enter the room beyond the ***safe zone*** & should be removed before exiting room

Patient should perform hand hygiene and be placed in clean gown before transport.

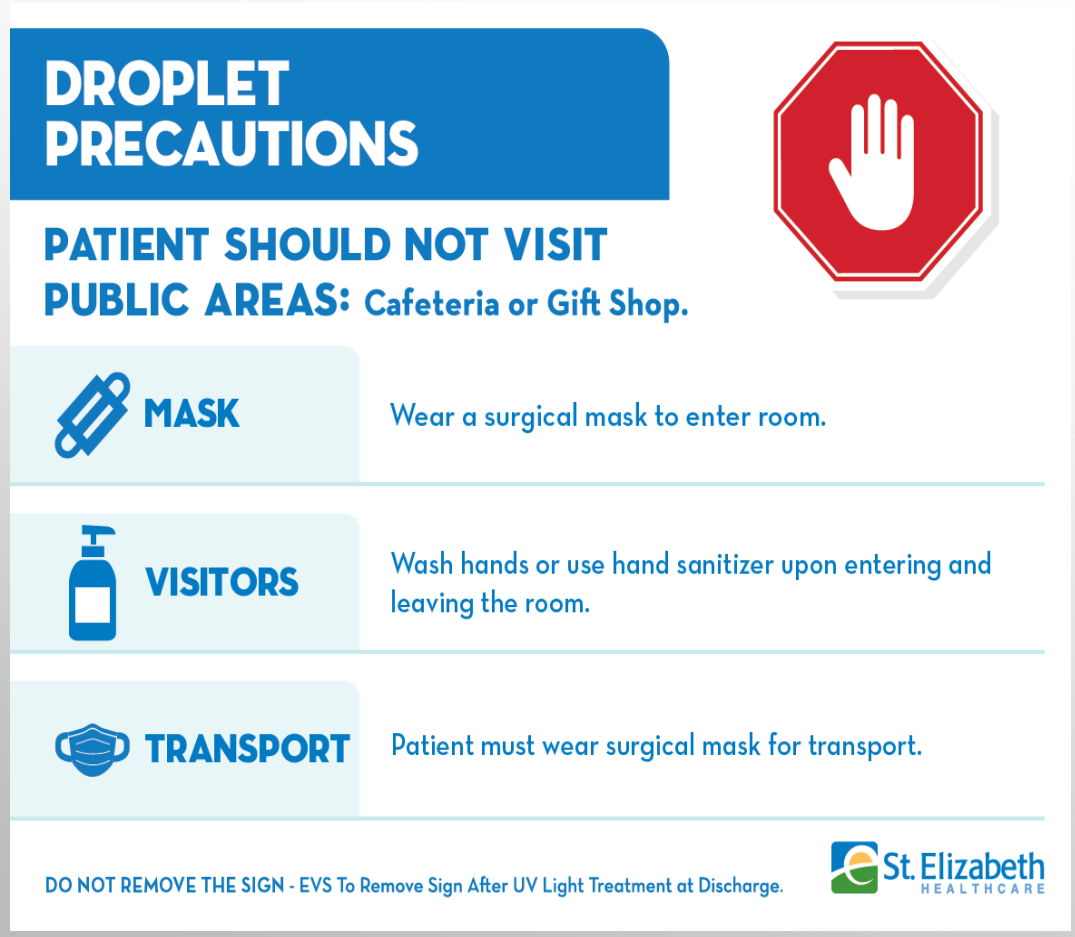
Instruct the patient/family on isolation. Visitors should follow contact precautions to help prevent transference of pathogens to guests.

Examples of conditions requiring this type of isolation include:

- **Resistant bacteria: MRSA, VRE, Pseudomonas, ESBL and other MDRO's, C-difficile, Candida auris**
- **Wounds with drainage that cannot be contained with a dressing**
- **Bed Bugs/Lice – until controlled**

Droplet Precautions

Transmission occurs primarily through coughing, when respiratory droplets are spread onto the facial mucous membranes of a susceptible person. These droplets do not remain suspended in the air and generally fall within a 3-6-foot range.



Private room recommended; no special ventilation is required.

Staff wears a *surgical mask* to enter the room.

Educate the **patient** about isolation, **cough etiquette**, hand hygiene, and to wear a *surgical mask* when out of the room for testing.

A patient in droplet precautions should not visit public areas such as cafeteria or gift shop.

Visitors should wear surgical mask while in the room.

Examples of diseases requiring this type of isolation include:

Seasonal Influenza

Bacterial meningitis

Mumps, Pertussis, Rubella

Airborne Precautions

Acquired by inhalation of infectious particles.

A negative pressure, 100% exhaust room is required.

Staff required to wear an N95 or PAPR hood to enter the room.

Transfer to appropriate isolation room must occur within 5 hours of this order of isolation.

Educate the patient about isolation, cough etiquette, and hand hygiene. Limit transport to medical necessity only. If a patient must leave the room for medical necessity, the patient is to wear a surgical mask if able to do so. Patients should not visit public areas such as the cafeteria or gift shop.

Procedures done outside of the patient room should be coordinated with the host department at a time of low patient census/activity (end of the day)

Examples of diseases requiring this type of isolation include:

TB

Measles

Airborne and Contact Precautions

A private negative pressure, 100% exhaust room is required.
Staff must wear an N95/PAPR hood, gown, gloves, AND eye protection

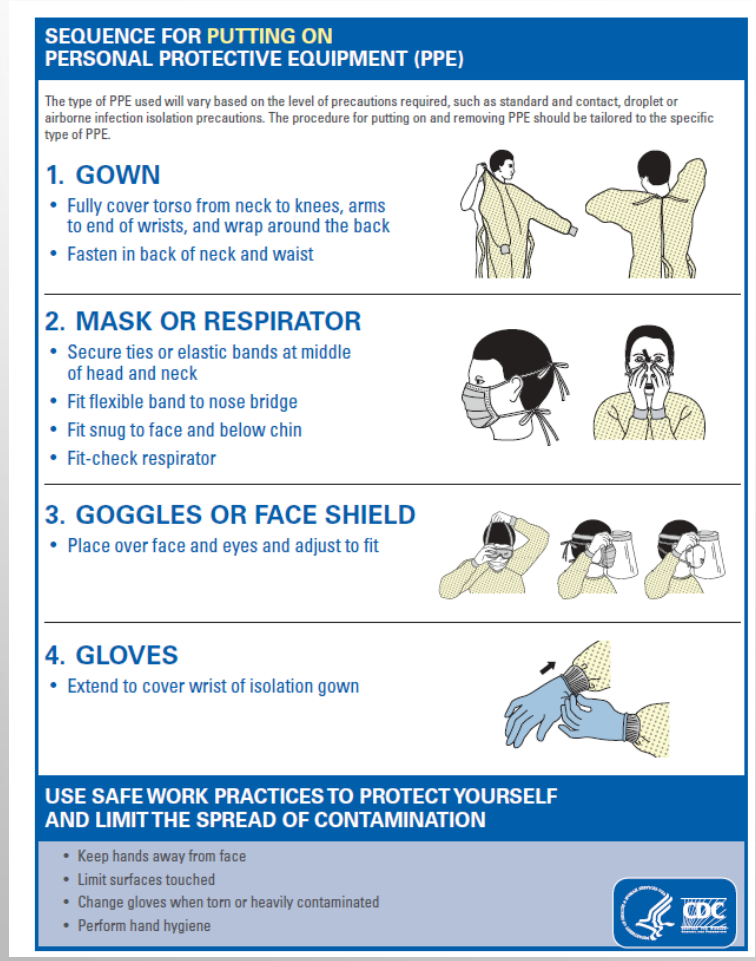
There is no safe zone designated for this type of isolation
Transfer to appropriate isolation rooms must occur within 5 hours of the order of isolation.

Educate the patient about isolation, cough etiquette, and hand hygiene.
Patients should also be encouraged to wear a surgical mask if able.
Patients should not visit public areas such as the cafeteria or gift shop.
Visitation per hospital policy

Limit transport to medical necessity. If transport is necessary- instruct/assist patient to wear a mask. Procedures done outside of the patient room should be coordinated with the host department at a time of low patient census/activity (end of the day)

Examples of conditions requiring this type of isolation include:
COVID-19
Chickenpox
Disseminated and/or immunocompromised patient with shingles
Monkeypox

Donning: Put on Personal Protective Equipment (PPE)



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

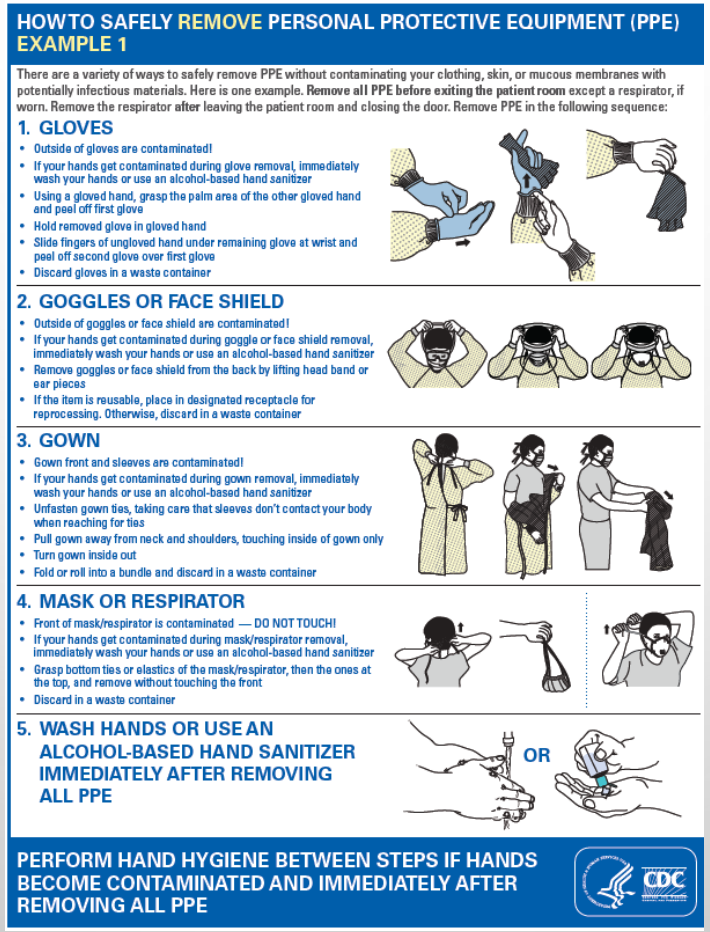
2. MASK OR RESPIRATOR
- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator

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

Doffing: Remove Personal Protective Equipment (PPE) – Ex. 1



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

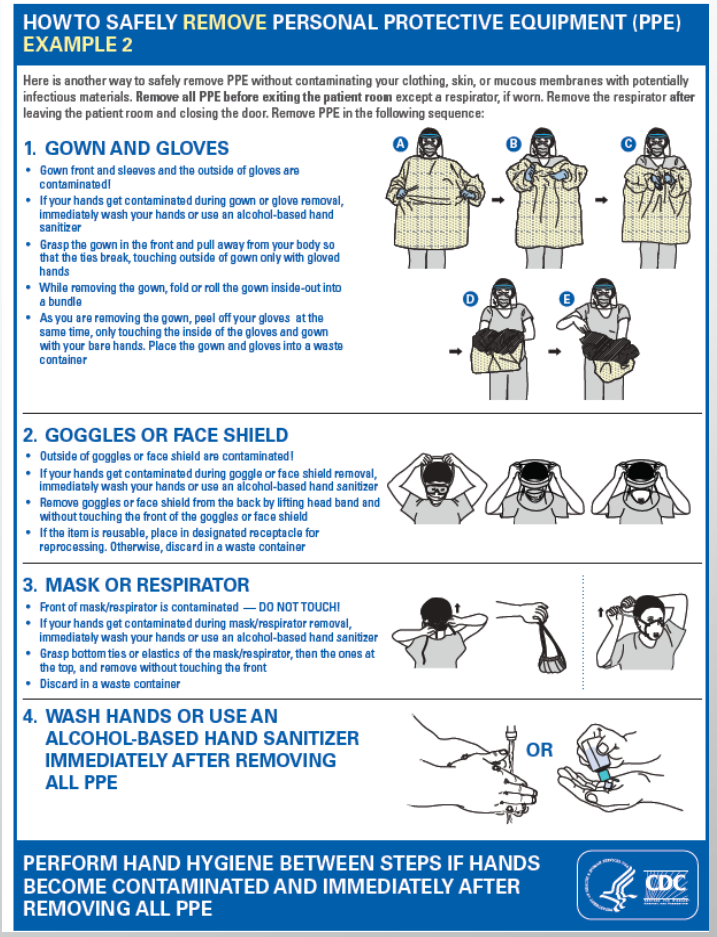
4. MASK OR RESPIRATOR
- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove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

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

OR

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

Doffing: Remove Personal Protective Equipment (PPE) – Ex. 2



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

OR

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

Click on image to enlarge or see *Resources tab*

MULTI DRUG RESISTANT ORGANISM

THESE ARE RESISTANT GERMS WHICH ARE NOT EASILY TREATED BY THE USUAL ANTIBIOTICS, MEANING WE HAVE REDUCED OPTIONS FOR TREATMENT.

- **Examples include:**
  - MRSA (Methicillin resistant Staphylococcus aureus)
  - VRE (Vancomycin resistant enterococcus)
  - ESBL (Extended spectrum beta-lactamases)
  - CRE (Carbapenem-resistant Enterobacteriaceae)
  - **Candida auris**

MDROs are increasing in the community and in healthcare settings.

- *Spread of these germs* can be controlled with:
  - Contact and standard precautions (isolation)
  - Consistent hand hygiene
  - Disinfection of equipment
  - Good housekeeping practices

EQUIPMENT CLEANING & DISINFECTION

- Clean and disinfect all reusable medical equipment including computers, wheelchairs/stretchers and technological devices that enter patient care areas.
- **All equipment** should be cleaned once removed from an isolation room prior to being used on another patient. Use dedicated equipment when possible.
- Wear gloves when handling equipment that is contaminated or visibly soiled and perform hand hygiene immediately after removal of gloves.
- Blood pressure cuffs and stethoscopes are to be cleaned and disinfected at a **minimum** daily, when visibly soiled, after encountering blood/body fluids, or with non-intact skin.
- Glucose meters, coagulation meters, and any other equipment that routinely contacts blood/body fluid must be disinfected after each use.
- Always follow instructions for use (IFU) as provided by the manufacturer.

EQUIPMENT CLEANING AND DISINFECTION

WOWS/KEYBOARDS USED IN CLINICAL AREAS:

- Clean and disinfect daily, or immediately if soiled
- Clean/disinfect before removing from an isolation room (keyboard, mouse, WOW table). Clean (when necessary or visibly soiled) the WOW cart framework
- Perform hand hygiene before touching the computer (after removing gloves or between patient care tasks)
- No food/drinks should ever be placed on or near a WOW

ALARIS IV PUMPS:

Should be sent to central supply for cleaning after each patient use

If your department processes your own IV pumps, please refer to the supply chain management policy and procedure: *CS-D-09 decontamination cleaning/disinfection of IV pumps*. Please utilize your unit's standardized protocol.

EQUIPMENT CLEANING AND DISINFECTION

HANDHELD EQUIPMENT BEING RETURNED TO SPD DECONTAMINATION AREA

- Gross soilage is removed at the point of use. Place equipment in the open or unhinged positions in a red rigid biohazardous container. Ensure all surfaces of the equipment are kept moist to prevent organic soils from drying.

- Required PPE must be worn when handling dirty/contaminated instruments. Items must be transported to the SPD decontamination area for reprocessing in a clean, puncture resistant, labeled, biohazardous container.

- All equipment must be decontaminated by central supply or the user department prior to servicing by the Biomedical Engineering Department. If not possible, a biohazard sign must be placed on the contaminated portions prior to sending for outside servicing.

WHICH DISINFECTANT TO USE

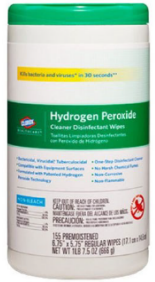
Please check the manufacturer cleaning recommendations before choosing a disinfectant. Read the label on the disinfectant and know the correct contact or wet time for the product you are using.

PDI SUPER SANI CLOTH (purple top—contains 55% alcohol) to be used for routine disinfection of equipment unless it is known that another product is specifically recommended by the manufacturer. ***Leave disinfectant wet on surface for 2 minutes and allow to air dry.***

2 minutes

PDI BLEACH WIPES (orange top) contains bleach and may be used to clean up areas with large amounts of blood, environmental surfaces, and equipment from patients with C. difficile unless contraindicated by manufacturer recommendations. ***Leave disinfectant wet on surface for 4 minutes and allow to air dry.***

4 minutes



CLOROX HYDROGEN PEROXIDE WIPES (green top) for use on equipment per specific manufacturer recommendations. Leave disinfectant wet on surface for 1 minute and allow to air dry. **If known or suspected norovirus, leave wet for 3 minutes.**

1 minute or 3 minutes

PDI SANI CLOTH PLUS (red top) suitable for use on equipment that requires a lower alcohol formula per recommendation by the manufacturer. ***Leave disinfectant wet on surface for 3 minutes and allow to air dry.***

3 minutes

PDI SANI CLOTH HB (green/teal top) to be used only when equipment cannot tolerate bleach or alcohol. ***Leave disinfectant wet on surface for 10 minutes and allow to air dry.***

10 minutes

VIREX II 256 EVS general cleaner/disinfectant. One-step disinfectant cleaner and deodorant. Apply solution to hard, non-porous environmental surfaces.

All surfaces must remain wet for 10 minutes.

10 minutes

HANDLING SOILED LINEN

- Soiled linen must be handled and collected in accordance with OSHA regulations and federal guidelines. This limits potential exposure of patients, hospital personnel, or laundry personnel to bloodborne pathogens or other infectious agents.
- All soiled linen must be assumed to be contaminated.
- Standard precautions must be followed while handling any soiled linen.
- Soiled linen should be collected and handled only as necessary and must not be sorted or rinsed in patient-care areas.
- Place all used linen in the designated laundry bags, only 2/3rd full. Remove air from the bag and tie the top securely before placing in the laundry chute/bin.

SAFE INJECTION PRACTICES

THE FOLLOWING SAFE PRACTICES SHOULD BE FOLLOWED BY ALL HEALTHCARE PROVIDERS WHO ADMINISTER INJECTIONS

- Store and prepare all medications in clean areas
- Always use a sterile, single-use disposable syringe & needle for each injection.
- Perform hand hygiene and use aseptic technique to avoid contamination of sterile injection equipment/medication vials.
- Sterile packaging should be opened immediately prior to use.
- Disinfect the port/hub prior to each iv access
- Do not administer medications from single-dose vials/ampules/syringes to multiple patients
- Do not combine leftover contents for later use on the same patient if multidose vials must be used
- Both the needle/cannula and syringe used to access the multidose vial must be sterile. Do not leave a needle in a multi-dose vial.
- Use single-dose vials for parental medications whenever possible.
- Iv tubing and fluid infusion sets are single patient only.
- Consider a syringe/needle contaminated once it has been used to enter or connect to a patient's iv infusion bag/tubing
- Do not keep multidose vials in the immediate patient treatment area. Discard if sterility is compromised or questionable.
- Dispose of needles/syringes at the point of use in an approved sharps container. Do not store needles, syringes, or solutions outside of their sterile packaging or in pockets/clothing.

SHARPS HANDLING/DISPOSAL SAFETY

THE FOLLOWING SAFE PRACTICES SHOULD BE FOLLOWED BY ALL HEALTHCARE PROVIDERS PER OSHA GUIDELINES:

- Handle/dispose of needles and sharps in a safe manner in order to protect self, personnel, patients, and visitors from the risk of injury and bloodborne infection.
- Disposable sharps and intact needle/syringe units must be discarded immediately or as soon as possible into a designated sharps disposal container. The user should discard the used sharp.
- Sharps containers must have lids securely attached, be always maintained upright , be puncture & leak resistant, and labeled as *biohazard*.
- Most reusable sharps containers in the healthcare system are routinely exchanged by a contract company. In an emergency, replacement containers are available from the environmental services department.
- Sharps containers are to be securely closed when ¾ full (to fill line).
- Used needles may not be recapped by hand or removed from syringes by hand. If an uncapped needle is found, use an instrument to pick up the needle and place the needle into an approved sharps container

POLICY ACLIN-W-01 AND INF-CNTRL-S-01

Infectious Waste Disposal

- Use red bags for all infectious waste
- Do not overfill (2/3 full)
- Securely tie bags closed -using a goose-neck type tie
- Do not stack bags on top of each other
- Contact EVS for additional infectious waste storage containers when needed for your area

Refer to policy ACLIN-W-01

Clean Up Of Spills

- Minimize your risk of exposure by containing, removing, and disinfecting all blood/body fluid spills as quickly and effectively as possible.
- Use the approved hospital disinfectants.
- Appropriate PPE must be worn during clean up of spills.

Refer to policy SPIL SAF-S-09

OSHA BLOODBORNE PATHOGEN

In accordance with the Occupational Safety and Health Administration (OSHA) regulation, SEH has instituted and maintains controls to eliminate or minimize employee exposure to bloodborne pathogens.

- The objectives of the **bloodborne pathogen program** is to:
  - •Protect employees from the health hazards associated with bloodborne pathogens
  - •Provide appropriate treatment, counseling and recordkeeping should an employee be exposed to bloodborne pathogens
  - •Define terms associated with bloodborne pathogens
  - •Discuss bloodborne pathogens – hepatitis C, hepatitis B, and HIV/AIDS
  - •List what to do in the event of an exposure to a bloodborne pathogen

OSHA WORK PRACTICE CONTROLS

Work practice controls are processes that reduce the risk or eliminate exposure to blood or OPIM (other potentially infectious materials).

Examples of **work practice controls** include:

- Appropriate hand hygiene and use of PPE
- Use of sharps safety products/disposal practices
- Prohibited eating/storage of food in work areas
- Proper specimen handling/transport policies
- Correct handling of soiled equipment, linens and hazardous waste

ADDITIONAL OSHA WORK PRACTICE CONTROLS

- Eating, drinking, applying cosmetics/lip balm, or handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure to bloodborne pathogens.

- Food or drink may not be placed in refrigerators, freezers, shelves, cabinets, or counter tops where blood or other body substances may be present.

- All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, and generation of droplets of these substances.

- Supply carts are to be stored in clean areas and are not to be taken into patient rooms. Carts with clean or sterile supplies are never to be used as receptacles for dirty supplies or items.

OSHA ENGINEERING CONTROLS

Engineering controls are items or equipment that are designed to reduce or eliminate the risk of exposure to blood or body fluids.

Examples of **engineering controls** include:

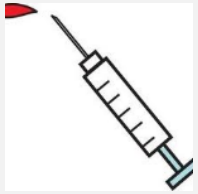
- Sharps safety products
- Leak proof specimen containers
- Laboratory equipment
- Safety shields
- Needle free IV access systems

BIOHAZARD SYMBOL

Biohazard signs are always **red** or **orange** and have the biohazard symbol.

The biohazard symbol is a universal symbol placed on any container or area that may contain infectious waste or potentially infectious material. (soiled utility room doors, laboratory specimen transport devices, linen bags, etc.)

BLOODBORNE PATHOGENS



Bloodborne Pathogen – germs which may be present in blood or other body fluids that can cause diseases. Transmission may occur due to exposure to blood through needle stick and other sharps injuries, mucous membrane, and skin exposures.

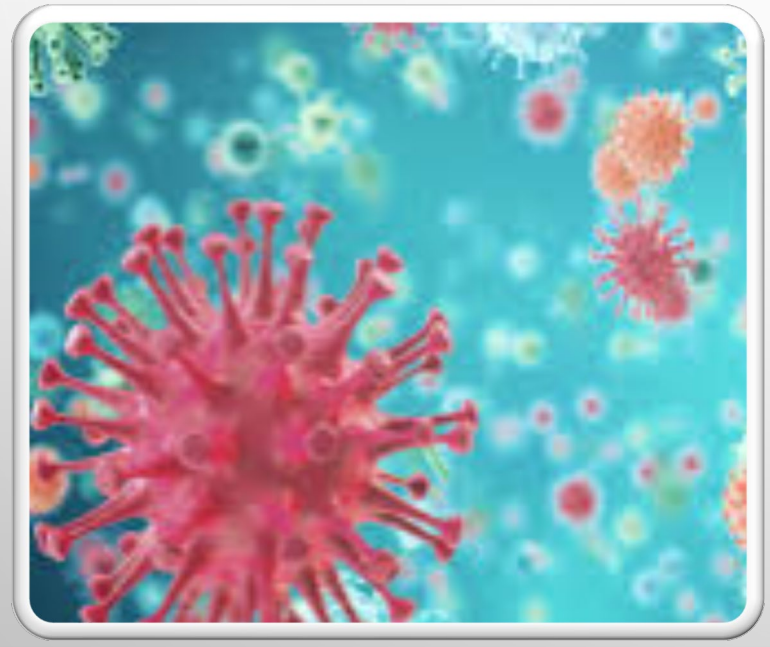
Examples of **Bloodborne Pathogens** include:

Hepatitis C

Hepatitis B

HIV/AIDS

HEPATITIS



- HEPATITIS: inflammation of the liver
- Hepatitis is most often caused by a virus
- In the US, the most common types of viral hepatitis are:
  - HEPATITIS B
  - HEPATITIS C

HEPATITIS B

Hepatitis B transmission occurs when blood from an infected person enters the body of someone who is not infected via sharing needles/razors, birth, needle sticks, sexual contact, direct contact with blood of an infected person.

Can be **acute** (short term illness that occurs within the first 6 months after exposure) or chronic (the Hepatitis B virus lives in the body).

Symptoms include Fever, fatigue, loss of appetite, nausea/vomiting abdominal pain, dark urine, clay colored stool, joint pain, jaundice

Treatment: While there is no "cure", treatment can render the virus inactive to prevent liver damage.

Vaccines are available for Hepatitis B, given as a series of 3 injections over 6 months.

Per the **OSHA guideline**, the vaccine is available to all hospital employees whose job may expose them to blood or other potentially infectious material.

HEPATITIS C

Hepatitis C is spread when blood from an infected person enters the body of someone who is not infected via needle/razor sharing, birth, blood transfusions prior to 1992, needle sticks, sex.

Acute Hepatitis C infection – short term illness that occurs within 8 weeks to 6 months after exposure.

Chronic Hepatitis C infection – Long term illness that occurs when the Hepatitis C virus lives in the body. Hepatitis C infection can cause liver problems; for example, cirrhosis (scarring of the liver).

Symptoms include fever, fatigue, loss of appetite, nausea/vomiting, abdominal pain, dark urine, clay colored stool, joint pain, jaundice

Treatment: There are several medications available to treat chronic Hepatitis C.
There is no current vaccine available for Hepatitis C; however, research is underway.

HIV/AIDS

HIV (Human Immunodeficiency Virus) is the virus that causes AIDS.

AIDS (Acquired Immune Deficiency Syndrome) is a blood borne viral illness caused by the Human Immunodeficiency Virus (HIV).

HIV/AIDS can be transmitted via:

- Direct contact with blood or OPIM of an infected person (*i.e. needle stick*)
- IV drug use/sharing needles
- Tattoos
- Birth
- Intimate relations with an infected partner

HIV and bloodborne diseases are **NOT** spread through:

- Casual contact, *e.g. hugging or shaking hands, using public restrooms, etc.*
- Donating blood
- Bites from mosquitoes or other insects.

EXPOSURE TO BLOOD/BODY FLUIDS

WHAT IS AN EXPOSURE?

An exposure is direct, unprotected contact with blood, blood derived fluids, or other potentially infectious materials (OPIM) in eyes, mouth or other mucous membranes, non-intact skin, or a parenteral route such as a sharps injury.

Body fluids on clothing or intact skin are not considered an exposure.

STEPS TO FOLLOW FOR AN EXPOSURE

- ❑ **Immediately** perform site care: for a wound, wash with soap and water, rinse copiously. If mucous membranes, flush with water. Flush eyes with water or saline solution. Do NOT apply caustic agents, or inject antiseptics or disinfectants into the wound
- ❑ Promptly notify Employee Health during office hours. Notify the nursing house supervisor if after hours.
- ❑ Complete the OPIM exposure incident checklist and the employee incident report.
- ❑ Include source patient's name and date of birth if available.
- ❑ Promptly take the above documents to the outpatient lab. If after hours: go to the ED registration
- ❑ Testing will be ordered by the lab on both the employee and the source (if available)
- ❑ Employee Health will provide the written test results of the known source and associates' baseline tests within 15 days of completion of tests. Directions for appropriate follow-up protocols will be provided at that time.

CONTACT EMPLOYEE HEALTH FOR ADDITIONAL QUESTIONS

859-301-6265 M-F 7AM-4P

375 Thomas More Parkway suite 205

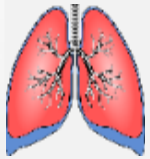
Policy/procedure HR-HS-12: ***Exposure to blood or other potentially infectious material (OPIM).***

TUBERCULOSIS OBJECTIVES

- The Occupational Safety and Health Administration (OSHA) publishes and enforces national guidelines for TB infection control.

- The primary emphasis of the tb exposure control plan is to achieve three goals:
  - Early detection
  - Prompt isolation
  - Prompt treatment

TB TRANSMISSION



Pulmonary TB spreads from the lungs of an infected person to another person through the air via:

- Coughing
- Sneezing
- Singing
- Talking
- Or anytime air is forcibly expelled from the lungs

People can become infected when they breathe in air containing TB germs. These germs can stay in the air for several hours depending on the environment.

Individuals who may be at risk for developing TB include:

- Elderly
- Persons living in under- developed countries
- Alcoholics
- Intravenous drug user (IVDU)
- Homeless persons
- People with chronic diseases
- Persons with certain medical conditions including HIV, cancer, and diabetes are at a higher risk of developing active TB disease if infected

TUBERCULOSIS

TB symptoms include:

- feelings of sickness or weakness
- weight loss
- Fever
- night sweats
- coughing/coughing up blood (>3 weeks)
- chest pain

Persons suspected are evaluated in the following ways:

- A physical examination
- A tuberculin skin test (sometimes called a PPD)
- A chest x-ray
- A sputum smear and culture

Once infected, TB may remain dormant (asleep) in the body while the immune system is strong.

TB disease may develop shortly after inhaling the TB germ, later as the immune system slows down, or never develop active disease.

ACTIVE VS LATENT TUBERCULOSIS

• Active TB

Bacteria become active and multiply if the immune system cannot stop them from growing.

- Capable of spreading the infection to others and require **airborne isolation** (must be in a designated negative pressure ventilated room)
- Can usually be treated with a course of several anti-tuberculosis drugs (6-9 months)
- It is very important that people who have TB disease finish the medicine and take the drugs exactly as prescribed. If they stop taking the drugs too soon, they can become sick again.

• Latent TB

Persons who have the TB germ in their body but do not become ill

- Have no symptoms and don't feel sick/ can't spread TB bacteria to others
- Usually have a positive TB skin test reaction or positive TB blood test
- May develop TB disease if they don't receive treatment.

TB ISOLATION GUIDELINES

DISCONTINUATION OF ISOLATION FOR TB PATIENTS

Airborne precautions may be discontinued by the physician or Infection Control when:

- TB has been ruled out by the physician and another clinical diagnosis is made that explains the clinical syndrome
- TB positive patient shows clinical improvement, patient has been on appropriate anti-tubercular therapy for at least one week, and each of three consecutive sputum specimens, obtained 8-24 hours apart with at least one early morning specimen, or smear negative for AFB

AFTER DISCHARGE:

- Room should remain closed and unused for one hour
- Airborne isolation sign should remain on the door to the room
- HCW should not enter without respiratory protection.

TB ANNUAL TESTING

ROUTINE TESTING OF HEALTHCARE WORKERS IS REQUIRED AND MANAGED BY EMPLOYEE HEALTH

- Associates working in potential risk areas will receive an annual TB screening. All other associates will be exempt from annual screening. Refer to POLICY STAT to determine if your department is potential risk or exempt from annual testing.
- Tuberculin skin test negative responders will be retested at intervals appropriate to their work areas.
- Tuberculin skin test positive responders will be assessed via medical history for symptoms at intervals appropriate to their work areas.

TB POST EXPOSURE EVALUATION

- Infection control will notify Employee Health of any potential exposure situations
- Employee exposures will be screened according to their skin test status, and at appropriate intervals after exposure.

CONCLUSION

We hope this CBL has been both informative and helpful.

Review this material until confident and proceed to the test.

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Attestation Statement

I have read this module and agree to abide by the expectations of this module.

St. Elizabeth HEALTHCARE
Training & Education Center