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Infection Prevention & Control

2022 - 2023

What is Infection and Prevention and Control?

The Program at University Hospital consists of surveillance, assessment of effectiveness of interventions, staff education, and performance improvement projects. All these efforts result in a safer health care environment for our patients and staff.

Main Office Extensions

2-5790 or 2-7081

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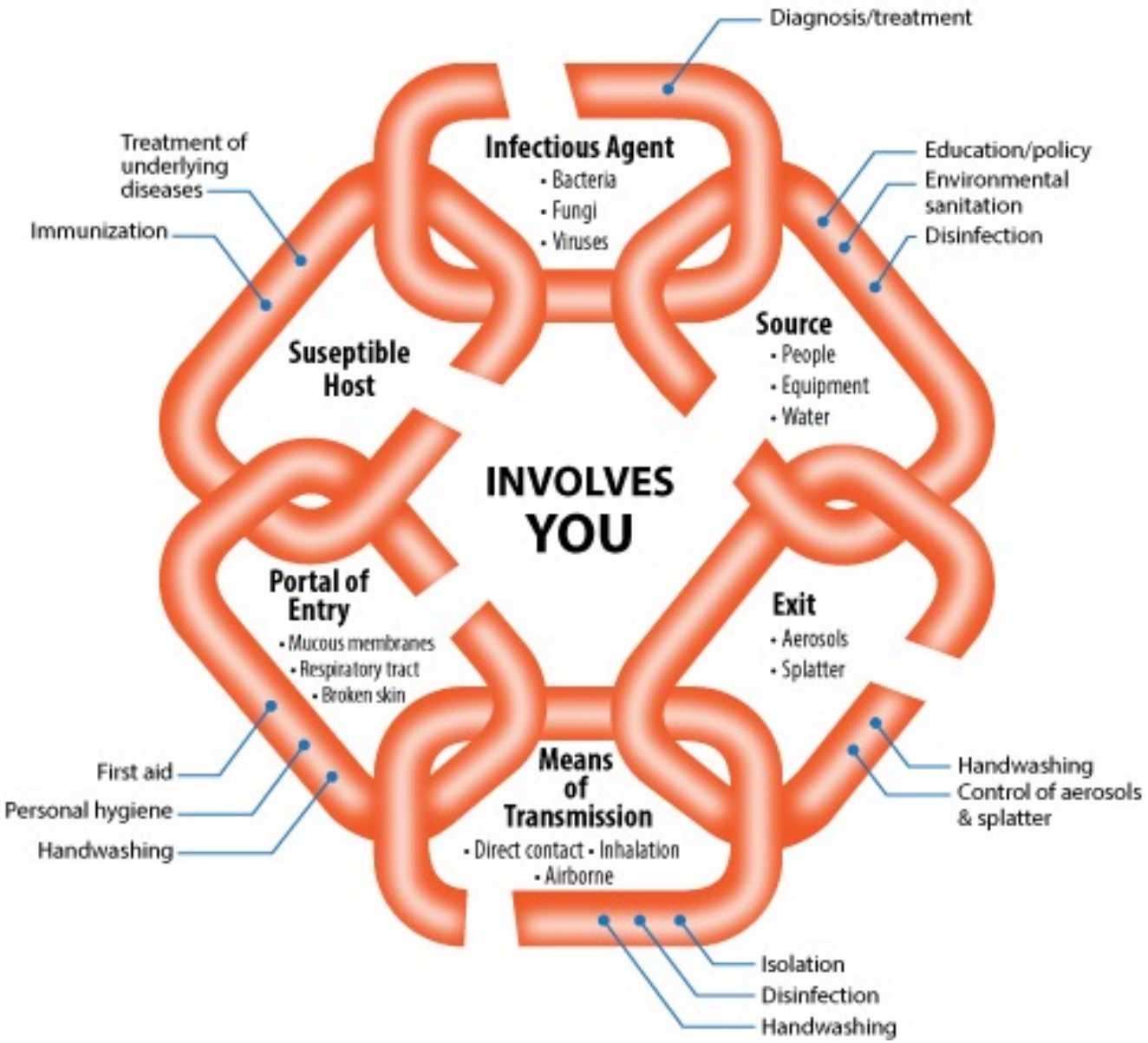
Breaking the Chain of Infection



Standard Precautions

Standard precautions are the foundation of infection prevention.

- Used for every patient, every encounter
- Intended for the protection of the patients and the health care workers
  - Patients are AT RISK for infection
  - Patients can be THE SOURCE of infection

3 Major Components of Standard Precautions:

Hand Hygiene

Proper use of Personal Protective Equipment

Surface Disinfection

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So Why All the Fuss About Hand Hygiene?

Most common mode of transmission of pathogens is via hands!

- Hand hygiene reduces hospital-acquired infections
- Hand hygiene reduces spread of antimicrobial resistance

Golden Rules for Hand Hygiene

Hand hygiene must be performed exactly where **you** are delivering health care to patients (at the point-of-care)

During health care delivery, there are 5 moments (indications) when it is essential that **you** perform hand hygiene (**"My 5 Moments for Hand Hygiene"** approach)

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Golden Rules for Hand Hygiene (continued)

- **You** must perform hand hygiene using the appropriate technique and time duration.

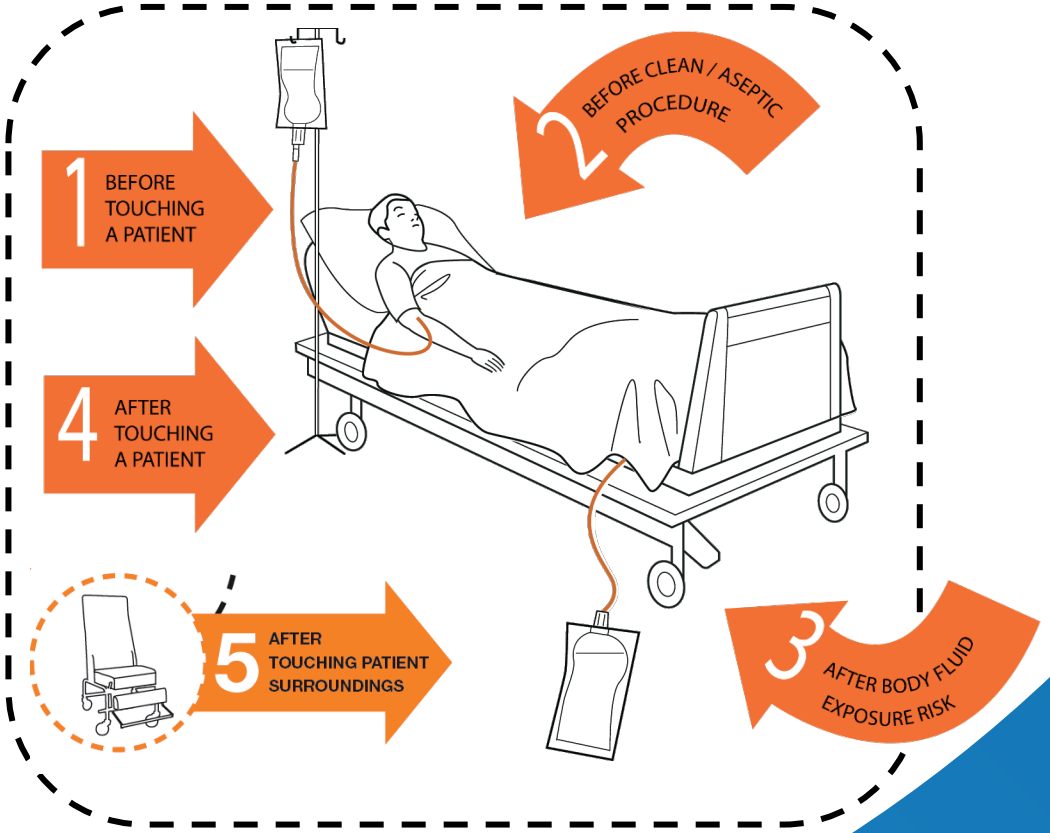
Alcohol hand sanitizer

Rub your hands together until the product is fully absorbed into the skin for a minimum of 20-30 seconds.

Soap and Water

For soap and water wash, CDC recommends scrubbing your hands for at least 40-60 seconds. (Need a timer? Hum the “Happy Birthday” song from beginning to end twice.)

The 5 Moments apply to any setting where healthcare involving direct contact with patients takes place



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Another Way of visualizing the patient zone

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Definitions of patient zone and healthcare area

- Focusing on a single patient, the healthcare setting is divided into two virtual geographical areas, the **patient zone** and the **healthcare area.**

- **Patient zone**: Includes the patient and some surfaces and items that are temporarily and exclusively dedicated to him or her such as all inanimate surfaces that are touched by or in direct physical contact with the patient e.g.

- bed rail
- bedside table
- bed linen
- Chairs
- infusion tubing
- Monitors
- knobs and buttons
- other medical equipment

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Healthcare area: Includes all surfaces in the healthcare setting outside the patient zone i.e., not touched by, or in physical contact with the patient

A clear example would be touching the door handle and then shaking the patient's hand:

- The door handle belongs to the healthcare area outside the patient zone, and the patient's hand belongs to the patient zone
- Therefore, hand hygiene must take place after touching the door handle and before shaking the patient's hand
- The healthcare area is contaminated with microorganisms that might be foreign and potentially harmful to the patient

How do I perform Hand Hygiene?

Palm to Palm

Right palm over left dorsum, then left palm right over dorsum

Palm to palm fingers interlaced

Backs of Fingers to opposite palms with fingers interlocked

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

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

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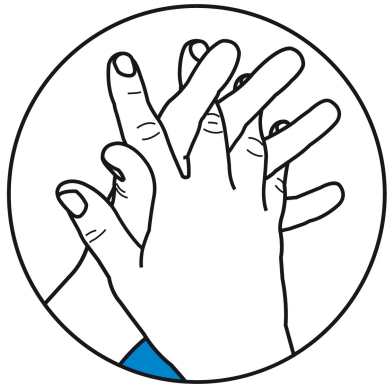
Hand Hygiene and Glove Use

- The use of gloves does not replace the need for cleaning your hands!
- You should remove gloves to perform hand hygiene.



GLOVES PLUS
HAND HYGIENE
= CLEAN HANDS

GLOVES WITHOUT
HAND HYGIENE
= GERM TRANSMISSION

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Fingernail Guidelines

Natural fingernails

- Tips no longer than ¼ inches
- Smooth without rough edges

Nail polish

- Cannot be chipped or peeling

Artificial fingernails

- No artificial nails or decorations such as tips, nail gel, acrylic nails, nail jewelry are permitted

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Personal Protective Equipment (PPE)

- Use PPE carefully – DON'T cross contaminate!
- Do not wear PPE outside treatment area or in hallways
- Don before contact with patient
- Remove and discard carefully, either at the doorway or immediately outside patient room
- Remove respirator outside room
- Perform hand hygiene before donning and after doffing

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STEPS FOR PUTTING ON (DONNING) & REMOVING (DOFFING) PERSONAL PROTECTIVE EQUIPMENT

PPE DONNING SEQUENCE

#1: Hand hygiene

#2: Gown

Completely secure at neck and tie at waist in back

#3: Mask/Respirator

Completely adjust & fit check Respirator

#4: Goggles/Faceshield

#5: Gloves

Pull over cuffs of gown

PPE DOFFING/REMOVAL SEQUENCE

#1: Gloves

Peel off first glove inside out and fold into gloved hand; tuck finger inside cuff of gloved hand and peel off inside out

#2 Goggles/Faceshield (if worn)

Note: If patient is on droplet precautions, remove after leaving room/area.

#3: Gown

Completely remove tie at neck and waist

#4 Mask/Respirator

Always remove forward away from face

NOTE: For Airborne Isolation, remove N95 Respirator after exiting room

#5: Perfomr Hand Hygiene

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Remember

GMGG (Donning)
GGGM (Doffing)

QUICK TIPS

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

DONNING

Hand hygiene
Gown Mask/Respirator (Goggles) Gloves

DOFFING

Gloves (Goggles) Gown Mask/Respirator
Hand Hygiene

GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash you hands or use hand sanitizer followed by soap and water as soon as possible
- Using gloved hand, grasp the palm area of he 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

GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use hand sanitizer followed by soap and water as soon as possible
- 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 into a waste container

Take Home Points

- Hand hygiene and proper PPE prevents hospital-acquired infections
- Be responsible about hand hygiene
- Be responsible about proper PPE
- Help promote a culture where best practices for patient safety are adhered to and encouraged
- Educate patients and families/visitors about infection transmission and hand hygiene
- Infection Prevention perform hand hygiene audits and when they observe a missed opportunity, you will receive real time feedback on your performance

Surface Disinfection

- The effective use of disinfectants on surfaces is part of a multi-barrier strategy to prevent healthcare associated infections.
  - All patient care items and surfaces used for multiple patient contacts must be adequately disinfected between uses.
  - Visible soiling must be removed.
  - A hospital-approved detergent disinfectant must be applied and allowed to air dry before the next patient contact.
  - Follow label direction for surface contact/air dry time.
  - Items you carry with you and/or use frequently are also targets for surface disinfection.

How long are surfaces contaminated?

Organism	Duration of persistence
Acinetobacter	3 days – 5 months
C. Difficile	5 months
Enterococcus (including VRE)	4 months
Klebsiella	>30 months
Pseudomonas	16 months; on dry floor – 5 weeks
S. Aureus (including MRSA)	7 months
Hepatitis A virus	60 days
Hepatitis B virus	>1 week
HIV	>7 days
Influenza virus	1-2 days
RSV	Up to 6 hours
Norvirus (Cruise Ship virus)	7 days

Transmission-based Precautions*

- ***See Transmission-based Precautions policy for detailed information**
  - **Airborne**
  - **Droplet**
  - **Contact**
  - **Special Contact**
  - **Enhanced Precautions**
  - **Protective Precautio**

Be mindful that isolation requirements are followed when the patient is taken from his/her room!

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In general, Isolation Precautions require:

- Private Room
- Appropriate door signage
- Dedicated, equipment (e.g., stethoscope, blood pressure cuff, thermometer, etc.). If shared equipment is used, it must be cleaned with hospital disinfectant after each use
- Education for the patient/representative should be documented in the electronic medical record

Airborne Precautions are used for diseases such as:

- TB
- Chickenpox
- Disseminated herpes zoster in immunocompetent patients(in addition to Contact Precautions)
- Localized herpes zoster in immunosuppressed patients (In addition to Contact Precautions)
- Measles

Precauciones Aerotransportadas

AIRBORNE PRECAUTIONS

Visitors: Please report to Nursing Station before entering this room

Visitantes: Por favor ir a la estación de personal antes de entrar esta habitación

Hand hygiene upon entering and exiting the patient room		Utilice desinfectante de manos al entrar y salir de la habitación del paciente
N95 Mask before entering, Remove mask after leaving room and closing door		Utilice la máscara de la marca N95 antes de entrar la habitación; quite la máscara despues de salir de la habitación y cerrar la puerta
Keep Door CLOSED at all times Use anteroom if available		Mantenga la puerta cerrada en todo momento. Use la antesala si está disponible
Limit patient activities outside of room to necessary medical treatment		Limite las actividades del paciente al tratamiento medico necesario

FOR TERMINAL CLEANING, LEAVE SIGN IN PLACE UNTIL ROOM CLEANED BY EVS

Healthcare Worker Guidelines

Checklist

- ☐ Isolation sign on door
- ☐ Negative pressure room
- ☐ Keep door closed
- ☐ Equipment Cleaning: Use disinfectant with appropriate kill claim
- ☐PPE: N95 Mask / PAPR
- ☐Transport: Limit patient activity outside of room to necessary medical treatment. Patient must have clean hands and clothing. Send with Ticket-to-Ride

Definition

Airborne Precautions are used to reduce or eliminate the risk of transmission of microorganisms/illness that are spread by inhaling tiny infectious airborne bacteria or viruses generated during coughing, talking or sneezing.

Common microorganisms requiring Airborne Precautions include:

- Known or suspected tuberculosis (TB)
- Measles
- Chickenpox
- SARS

Protocol for Discontinuation of Isolation

Isolation	Disease/Symptom	Duration of Precautions
	Contact Infection Prevention for Discontinuation of Isolation	
AIRBORNE	• Measles • Chickenpox • Disseminated Herpes Zoster in patients with intact immune system • Localized Herpes Zoster in immunosuppressed patients • SARS (also use Droplet & Contact Precautions)	Contact Infection Prevention for assistance
	• Tuberculosis—Pulmonary, confirmed or suspected, or laryngeal disease	**CONFIRMED:** Discontinue precautions only when patient on effective therapy is improving clinically and has three consecutive sputum smears negative for acid-fast bacilli collected at least 8-24 hours apart with one being an early morning specimen. **SUSPECTED:** Discontinue precautions only when the likelihood of infectious TB disease is deemed negligible, and either 1) there is another diagnosis that explains the clinical syndrome or 2) the result of three

Droplet Precautions are used for diseases such as:

- Rhinovirus
- Pertussis
- Meningococcal meningitis
- Influenza
- R/O Respiratory Panel

Precauciones de Gotitas

DROPLET PRECAUTIONS

Visitors: Please report to Nursing Station before entering this room

Visitantes: Por favor ir a la estación de personal antes de entrar esta habitación

Hand hygiene upon entering and exiting the patient room		Utilice desinfectante de manos al entrar y salir de la habitación del paciente
Mask, gown, gloves and eye protection before entering; Remove PPE upon exiting.	  	Utilice una mascara, bata, guantes y protección de ojos antes de entrar la habitación; quite la mascara, bata, guantes y protección de ojos *antes* de salir de la habitación.

Healthcare Worker Guidelines

Checklist

- ☐ Isolation sign on door
- ☐ **Private room for patient.** If private room not available, only group with patient(s) with the same germ(s).
- ☐ **Equipment:** Use hospital-approved disinfectant on equipment for recommended contact time
- ☐ **PPE:** Procedure mask, gown, gloves, eye protection
- ☐ **Transport:** Limit patient activity outside of room to necessary medical treatment. Patient must have clean hands and clothing and wear a surgical mask.

Definition

Droplet Precautions are used to reduce or eliminate the risk of transmission of microorganisms/illness that are spread by contact with infectious droplets generated during coughing and sneezing.

Common microorganisms requiring Droplet Precautions include:

- Bacterial meningitis
- Group A streptococcal Disease
- Human Metapneumovirus
- Influenza, all types
- Mumps
- Mycoplasma pneumonia
- Parvovirus
- Pertussis
- Rubella
- Rhinovirus

Protocol for Discontinuation of Isolation

Isolation	Disease/Symptoms	Duration of Precautions
	Contact Infection Prevention for Discontinuation of Isolation	
DROPLET	Parvovirus B19 (P-B19) —for immunosuppressed patients with chronic infection	Duration of Hospitalization
	• Mycoplasma pneumonia • P-B19 aplastic crisis or anemia • Adenovirus pneumonia • Rhinovirus	Duration of Illness
	Neisseria meningitidis causing meningitis, pneumonia, sepsis, invasive disease • Haemophilus influenza type B causing epiglottis meningitis & pneumonia • Streptococcal Group A causing pneumonia, scarlet fever, serious invasive disease	Until 24 hours after initiation of appropriate antibiotics
	Pertussis	Until 5 days after initiation of effective therapy
	Influenza	7 days from onset of symptoms or 24 hours after resolution of fever or symptoms whichever is first
	Mumps (infectious parotitis)	Until 9 days after onset of swelling

Contact Precautions is used for infection such as:

- Organisms like:
  - MRSA
  - VRE
  - ESBL (Gram Negative bacteria)
- Draining wounds
- Communicable skin conditions such as lice and scabies
- Respiratory Syncytial Virus (RSV)

Precauciones de Contacto

CONTACT PRECAUTIONS

Visitors: Please report to Nursing Station before entering this room

Visitantes: Por favor ir a la estación de personal antes de entrar esta habitación

Hand Hygiene upon entering and exiting the patient room		Utilice **desinfectante de manos** al entrar a la habitación del paciente
Gloves and gown are required before entering room and removed upon leaving*		Se require **guantes y bata** antes de entrar a la habitación y se desechan ***al momento*** de salir
Use **disposable or dedicated equipment** when possible and **disinfect** equipment		Utilice **equipo desechable o dedicado** cuando sea possible, y **desinfecta** el equipo despues de usar

** Dependent upon completion of necessary tasks performed by healthcare worker upon exiting the room*

FOR TERMINAL CLEANING, LEAVE SIGN IN PLACE UNTIL ROOM CLEANED BY EVS

Healthcare Worker Guidelines

Checklist

- ☐ **Isolation sign on door**
- ☐ **Private room.** If private room not available, only group with patient(s) with the same germ(s).
- ☐ **Equipment Cleaning:** Use hospital-approved germicide.
- ☐ **PPE:** Gowns and gloves. Wear mask as needed under Standard Precautions
- ☐ **Transport:** Limit patient activity outside of room to necessary medical treatment. Patient must have clean ha hands and clothing ;Send patient with Ticket-to-Ride

Definition

Contact Precautions are used to reduce or eliminate the risk of transmission of microorganisms that can be spread by direct or indirect contact by our hands or equipment.

Common microorganisms requiring Contact Precautions include:

- Multidrug resistant organism such as MRSA, VRE and other antibiotic resistant bacteria • Lice, scabies and bed bugs • Large draining wounds or skin infections

Protocol for Discontinuation of Isolation

Isolation	Disease/Symptoms	Duration of Precautions
	Contact Infection Prevention for Discontinuation of Isolation	
CONTACT	Multidrug resistant bacteria	See Appendix A of the Transmission-based Precautions policy for specific organisms
	Abscess/Wound/Burn—major draining • Adenovirus* • Bronchiolitis* • Herpes Simplex—neonatal, mucocutaneous, disseminate or primary, severe • Herpes zoster—localized in patient with intact immune system • Human metapneumovirus* • Parainfluenza* • Respiratory Syncytial Virus (RSV)* • Enteroviral meningitis in infants and young children • Herpes Zoster/ Chickenpox (See combined airborne & contact precautions); acute viral conjunctivitis	Duration of Illness For RSV in immunocompromised patients, extend duration of Contact Precautions until patient is asymptomatic with adequate response to therapy due to prolonged shedding; *For respiratory pathogens, use mask and gown as needed under standard precautions
	Lice • Scabies	Until 24 hours after Effective Therapy
	Infectious gastroenteritis in diapered or incontinent patients including, but not limited to: Shigella, Salmonella, Giardia, E. coli, Vibrio, viral gastroenteritis	Duration of Illness—Contact Infection Control for specific organisms; (See Special Contact Precautions for C. Diff and Norovirus)

Special Contact Precautions are used for diseases such as:

- Clostridium Difficile
- Norovirus

Special Contact Precautions require: .

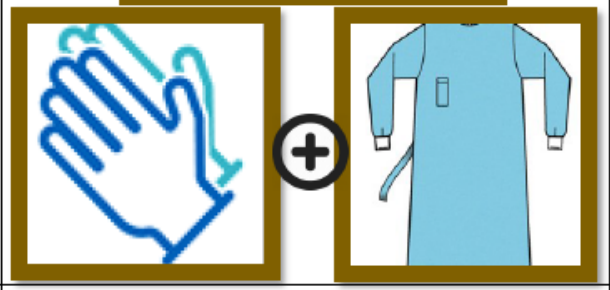
- Hand hygiene with soap and water after contact with the patient and his/her environment
- Use of a bleach-based product for cleaning reusable equipment used on the patient and cleaning of his/her environment

PRECAUCIONES de CONTACTO ESPECIALES

SPECIAL CONTACT PRECAUTIONS

Visitors: Please report to Nursing Station before entering this room

Visitantes: Por favor ir a la estación de personal antes de entrar esta habitación

Hand Hygiene upon entering and exiting the patient room.		Utilice **desinfectante de manos** al entrar a la habitación del paciente.
Use **SOAP** and **WATER** when exiting.		Lávese las manos **con AGUA y JABON** al salir de la habitación.
Gloves and gown are required before entering room and removed before leaving*		Se require **guantes y bata** antes de entrar a la habitación y se desechan ***antes*** de salir
Use **disposable or dedicated equipment** when possible and **disinfect** equipment and surfaces with **BLEACH**		Utilice **equipo desechable o dedicado** cuando sea possible, y **desinfecta** el equipo y superficies con **CLORO**

** Dependent upon completion of necessary tasks performed by healthcare worker while exiting the room*

FOR TERMINAL CLEANING, LEAVE SIGN IN PLACE UNTIL ROOM CLEANED BY EVS

Healthcare Worker Guidelines

Checklist

- ☐ **Isolation sign on door**
- ☐ **Private room for patient.** If no private room available, only group with patient(s) who has/have the same germ(s).
- ☐ **Equipment Cleaning:** Use **BLEACH** disinfectant with appropriate kill claim.
- ☐ **PPE:** Gowns and gloves.
- ☐ **Transport:** Limit patient activity outside of room to necessary medical treatment. Patient must have clean hands and clothing. Send patient with Ticket-to-Ride

Definition

Special Contact Precautions are used to reduce or eliminate the risk of transmission of microorganisms that can be spread by direct or indirect contact by hands or equipment.

Common microorganisms requiring Special Precautions include:

- Clostridiodes difficile (a.k.a C. diff)
- Norovirus

Protocol for Discontinuation of Isolation

Isolation	Disease/Symptoms	Duration of Precautions
SPECIAL	**Contact Infection Prevention for Discontinuation of Isolation**	
	Clostridioides difficile (a.k.a C. diff)	**Duration of Illness** Do not repeat C. diff test to discontinue isolation. Patient should be asymptomatic for at least two days after completion of treatment for C. diff before considering discontinuation of isolation (inpatient only)
	Norovirus	**Duration of Illness** Please consult infection prevention for special circumstances

Enhanced Contact Precautions are used for diseases such as:

- Candida auris
- Carbapenem Resistant Acinetobacter
- Extremely drug resistant (XDR) Gram Negative bacteria

- **Enhanced Contact Precautions** require:
- Hand hygiene with alcohol-based hand sanitizer before and after contact with the patient and his/her environment
- Use of a bleach-based product for cleaning reusable equipment used on the patient and cleaning of his/her environment
- Patients on Enhanced Contact Precautions will be maintained on isolation indefinitely

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Precauciones de Contacto Aumentado

ENHANCED PRECAUTIONS

Visitors: Please report to Nursing Station before entering this room

Visitantes: Por favor ir a la estación de personal antes de entrar esta habitación

Hand Hygiene upon entering and exiting the patient room		Utilice **desinfectante de manos** al entrar a la habitación del paciente
Gloves and gown are required before entering room and removed before leaving*		Se require **guantes y bata** antes de entrar a la habitación y se desechan ***antes*** de salir
Use **disposable or dedicated equipment** when possible and **disinfect** equipment and surfaces with **BLEACH**		Utilice **equipo desechable o dedicado** cuando sea possible, y **desinfecta** el equipo y superficies con **LEJIA** despues de usar

** Dependent upon completion of necessary tasks performed by healthcare worker when exiting the room*

FOR TERMINAL CLEANING, LEAVE SIGN IN PLACE UNTIL ROOM CLEANED BY EVS

Healthcare Worker Guidelines

Checklist

- ☐ **Isolation sign on door**
- ☐ **Private room for patient.** If private room not available, only group with patient ho has the same germ(s).
- ☐ **Equipment Cleaning:** Use **BLEACH** disinfectant with appropriate kill claim.
- ☐ **PPE:** Gowns and gloves.
- ☐ **Transport:** Limit patient activity outside of room to necessary medical treatment. Patient must have clean hands and clothing. Send patient with Ticket-to-Ride.

Definition

Enhanced Contact Precautions is used to reduce or eliminate the risk of transmission of microorganisms of extreme concern that can be spread by direct or indirect contact by hands or equipment.

Common microorganisms requiring Enhanced Precautions include:

- Extremely drug resistant (XDR) organisms such as CRE and other antibiotic resistant bacteria
- Candida auris
- Pandemic outbreaks

Protocol for Discontinuation of Isolation

Isolation	Disease/Symptoms	Duration of Precautions
ENHANCED	**Contact Infection Prevention for Discontinuation of Isolation**	
	Carbapenem-resistant bacteria (CRE)	Indefinitely
	Candida auris	
	Multi-drug or Carbapenem Resistant Acinetobacter (CRAB)	
	Vancomycin-intermediate / Vancomycin Resistant S. Aureus (VISA/VRSA)	
	Extremely drug resistant (XDR) gram negative bacteria	

APPENDIX A: Guidelines for Isolation Precautions and Criteria for Discontinuing Isolation Precauti for Multi-Drug Resistant Pathogens

Pathogen	Type of Isolation	Duration of Contact Isolation	Criteria for Discontinuing Isolation
Clostridioides difficile[1]	Special Contact[2]	Minimum of 10 days (special contact)	Completed minimum 10 days of treatment AND resolution of diarrhea for at least 48 hours; Ensure terminal after discharge or transfer; use or enhanced cleaning if patient remains in room after discontinuation of isolation
MRSA[3]	Contact[4]	1 year unless cleared earlier	Off antibiotics for at least 72 hours before surveillance cultures performed AND 1 negative swab from anterior nares
VRE[5]	Contact	1 year unless cleared earlier	Off antibiotics for at least 72 hours before surveillance cultures AND 2 negative swabs from rectum obtained 7 days apart
ESBL E coli, Gram Negatives[6]	Contact	1 year	Resolution of active infection AND at least 12 months since last positive culture.
CRE E coli, Klebsiella oxytoca or pneumoniae or Enterobacter spp.[7]	Enhanced Contact[8]	Indefinitely	Consult Infection Prevention and Control
MDR-Acinetobacter or Carbapenem Resistant Acinetobacter[9]	Enhanced Contact[8]	Indefinitely	Consult Infection Prevention and Control
MDR Gram Negatives[10]	Enhanced Contact[8]	Indefinitely	Consult Infection Prevention and Control
Extremely Drug Resistant (XDR) Gram Negatives[11]	Enhanced	Indefinitely	Consult Infection Prevention and Control
VISA or VRSA[12]	Enhanced Contact	Indefinitely	Consult Infection Prevention and Control
Candida auris and associated organisms[13]	Enhanced Contact	Indefinitely	Consult Infection Prevention

What you need to know about these organisms

- MDR Acinetobacter (Enhanced Precautions)
  - Bacteria commonly found in soil and water, skin of healthy people.
  - High risk patients at risk to develop an infection (seriously ill; hospitalized for long term, on ventilators, multiple antibiotics
  - Drug resistant- hard to treat/fight, very limited antibiotics and the antibiotic has risky side effects
  - High morbidity/mortality.
  - Can survive in the environment for several days

- Candida Auris (Enhanced Precautions)
  - It is often multidrug-resistant, meaning that it is resistant to multiple antifungal drugs commonly used to treat *Candida* infections. Some strains are resistant to all three available classes of antifungals.
  - It is difficult to identify with standard laboratory methods, and it can be misidentified in labs without specific technology. Misidentification may lead to inappropriate management.
  - It has caused outbreaks in healthcare settings. For this reason, it is important to quickly identify *C. auris* in a hospitalized patient so that healthcare facilities can take special precautions to stop its spread.

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Organisms (continued)

- C. Clostridioides (CDIFF) – Special Contact Precautions
  - *C. diff* (also known as *Clostridioides difficile* or *C. difficile*) is a germ (bacterium) that causes severe diarrhea and colitis (an inflammation of the colon).
- Some antibiotic use can cause CDIFF.
- It is **extremely contagious,** and it can be spread very easily. It is often caught by individuals when their hands touch very small amounts of fecal matter that is contaminated by C Diff.
- When leaving patient room, Hand hygiene with soap and water only!!!!
  - Hand sanitizer will not kill spores of CDIFF.
- Clean equipment – wheelchair, carts, etc. with Bleach product.
- Specimen requires collection as soon as ordered, if no diarrhea after order is written, please cancel order.

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TB Exposure Control Plan
Designed to reduce risk of transmission of tuberculosis

Early Recognition

- Recognize signs and symptoms
- Adequate specimen testing
- Initiate and maintain appropriate isolation

Isolation: Airborne Precautions

- Place patient in negative pressure room, if not available, call Equipment Handlers and ask for HEPA Filter, which is a temporary measure until appropriate room is found.
- Masks: N95 respirator masks
  - *Be sure to be fit tested for proper mask before caring for TB patient*.

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Active Pulmonary Tuberculosis

- Positive AFB test with Mycobacterium Tuberculosis
- Abnormal Chest xray
- Symptomatic
- Medications to treat disease: isoniazid, rifampin, ethambutol, pyrazinamide
- Infectious and isolation required

TB in other parts of the body can occur, if it is not in the lungs, most likely does not require isolation unless patient is going in for surgery where part is exposed, and pulsating irrigation could aerosolize it.

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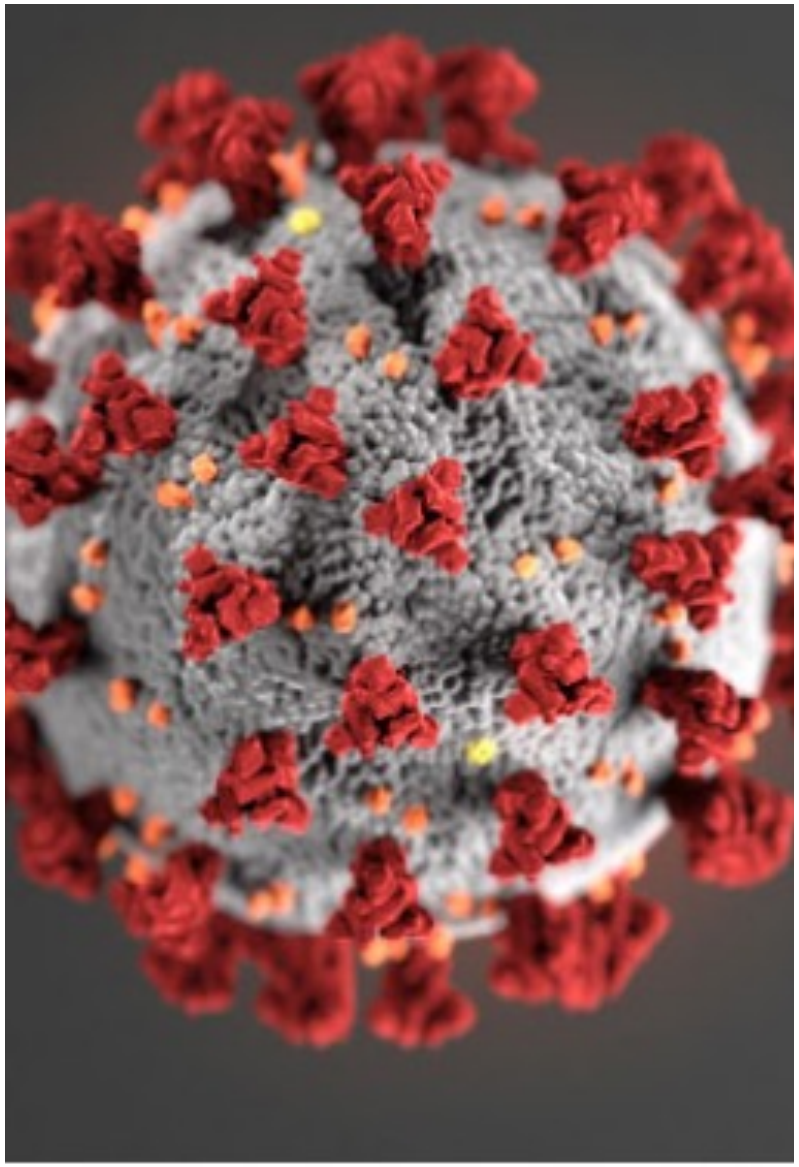

What is SARS-CoV-2?

SARS-CoV-2 is the virus that causes coronavirus disease 2019 (COVID-19)

SARS = severe acute respiratory distress syndrome

Spreads easily person-to-person

Little if any immunity in humans

Incubation Period

- The incubation period is the time between exposure to a virus and the onset of symptoms.
- With COVID-19, symptoms may show 2-14 days after exposure.
- CDC indicates that people are most contagious when they are the most symptomatic.
- Several studies show people may be contagious before developing symptoms.

COVID -19 Can Cause Mild to Severe Symptoms

Most common symptoms include:

- Fever
- Cough
- Shortness of breath

Other symptoms may include:

- Sore throat
- Runny or stuffy nose
- Body aches
- Headache
- Chills
- Fatigue
- Gastrointestinal: diarrhea, nausea
- Loss of smell and taste

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Severe symptoms – emergency warning signs for COVID-19

- Most people will have mild symptoms and should recover at home and **NOT** go to the hospital or emergency room.
- Get medical attention immediately if you have:
  - Difficulty breathing or shortness of breath.
  - Persistent pain or pressure in the chest.
  - New confusion or inability to arouse.
  - Bluish lips or face.

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Protecting Yourself and Others

- Get Vaccinated!!!
- At UH we have a Universal Masking Policy, which requires you to wear surgical mask at all times in the hospital
- You are required to wear an N95 mask and face shield when you are taking care of a patient of unknown COVID status and all positive COVID patients.
- If you have any questions regarding exposure, etc., contact

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How to prevent Catheter Associated Urinary Tract Infections (CAUTI)

<u>CDC Bladder Bundle:</u>

- Do not use the indwelling catheter unless you must
- Condom, penile wrap, purewick, or intermittent catheterization should be used in appropriate patients
- Nurse Driven Protocol
- Bladder scan may assist in avoiding indwelling catheterization
- Aseptic insertion and proper maintenance is paramount
- Early removal of the catheter when discontinue orders appear

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CAUTI

Foley Catheters *are* indicated for:

- Urinary tract obstruction
- Neurogenic Bladder (needs to be written diagnosis in chart)
- Urologic surgery or studies
- Sacral decubiti stage 3,4,and unstageable
- Hospice, comfort or palliative care
- Daily evaluation of foley necessity
- Make sure order with appropriate reason is in place

Foley Catheters are *not* indicated for:

- Incontinence
- Immobility
- Strict I & O's in med surg units

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Central Venous Catheterization (CVC)

- **Common indications for Central Venous Catheterization:**
  - Hemodynamic monitoring
  - Administration of drugs likely to induce phlebitis
  - Temporary cardiac pacemaker
  - Hemodialysis
  - Lack of peripheral venous access

- **Relative contraindications to CVC:**
  - Inexperience, unsupervised operator
  - Local infection
  - Distorted local anatomy
  - Coagulopathy
  - Previous radiation therapy
  - Suspected proximal vascular injury

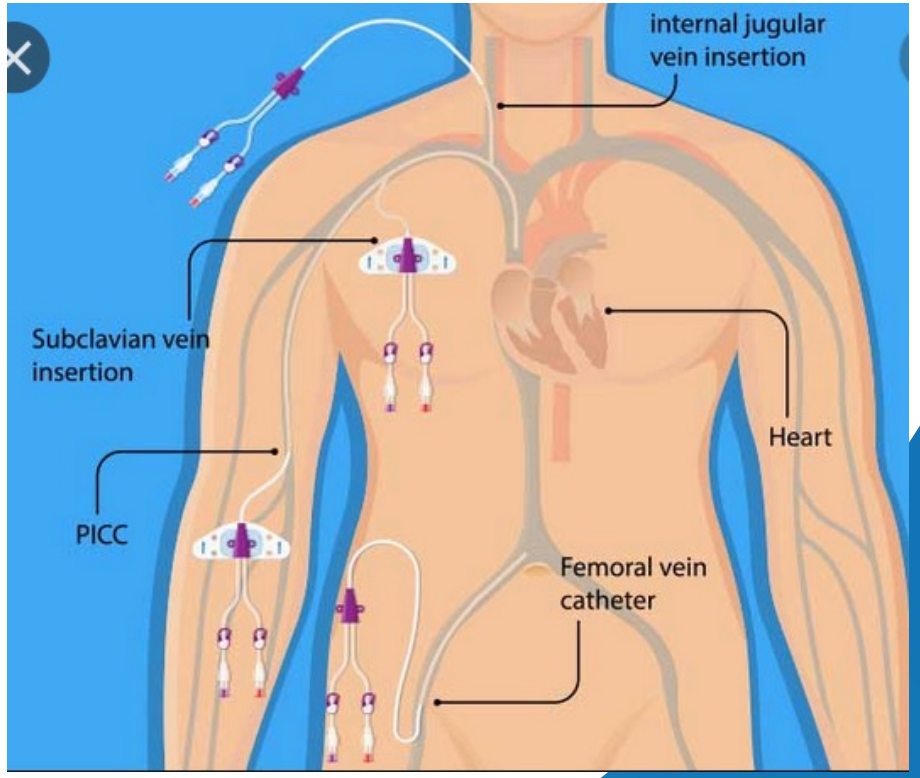
Depending on the availability and urgency, ultrasound guided techniques should be considered in these scenarios.

Central Line Associated Infections (CLABSI)

- Hand hygiene
- Maximal barrier precautions
- Use a Central Line Cart/Insertion Kit
- Chlorohexidine/Alcohol skin antisepsis
- Optimal Catheter site selection, subclavian vein as the preferred site for non-tunneled catheters
- Femoral lines placed only in emergency

site change within 24 hours of insertion

- Daily review of line necessity



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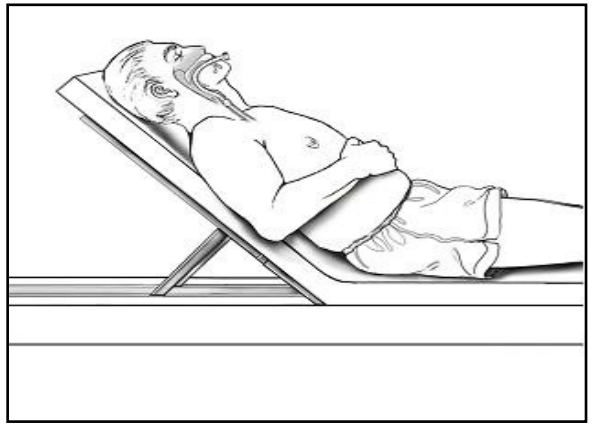
Prevention: Surgical Site Infection

- Prophylactic antibiotic received within one hour prior to surgical incision (2 hours for vancomycin)
- Prophylactic antibiotic selection for surgical patients
- Prophylactic antibiotics discontinued within 24 hours after surgery end time
- Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose
- Surgery patients with appropriate hair removal
- Urinary catheter removed on postoperative day 1 or postoperative day 2 (with day of surgery being day zero)
- Surgery patients with peri-operative temperature management

Prevention: Ventilator Associated Event (VAE)

Quality Indicators

- Head of bed elevated to 30-45 degrees
- Oral care every 4 hours
- Daily “sedation vacation” and daily assessment of readiness to extubate
- Peptic ulcer prophylaxis
- DVT prophylaxis



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OSHA Blood-borne Pathogen Standard

- OSHA Law – Effective 07/1992
- Based on Universal Precautions (AKA Standard Precautions)
- Blood & other body fluids treated as infectious until proven noninfectious

- **Focuses on prevention of infection with:**
  - HIV
  - HBV
  - HCV
  - Syphilis

Bloodborne Pathogens Exposure Control Plan

- **Purpose:**
- To provide a safe working environment and reduce the risk of exposure to blood-borne pathogens
- **The Exposure Control Plan can be accessed by clicking on the following link. Login is required:**
- https://universityhospital.ellucid.com/documents/view/2408/5931

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BBP – Bloodborne Pathogens

BBP are spread by contact with blood & body fluids.

Healthcare workers can be exposed….

- **Percutaneously** by accidental sharps injury with needles, scalpels etc.
- By **mucous membranes** by splashes to the eyes, nose and mouth
- Via **non-intact skin** such as chapped hands, lesions , psoriasis etc.

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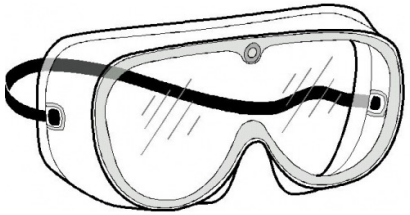
Preventing a BBP exposure

- Know how to engage safety devices properly
- Once you have used device, immediately, discard in sharps container
- Call 1500 immediately if you notice sharps container is full
- Preempt task you are performing and wear proper PPE, for example eye or face shield when splashes might occur



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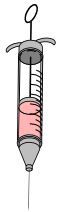
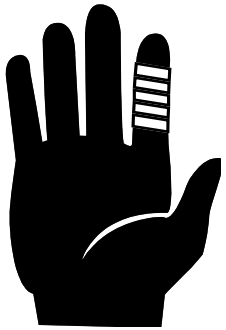
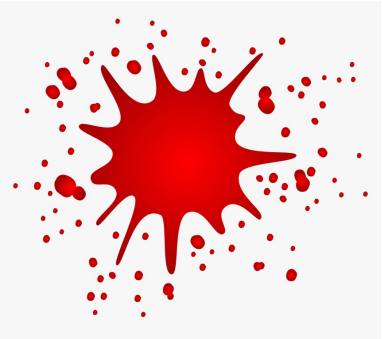
After a BBP Exposure

- **Wash** the area with soap and water immediately.
- If a mucous membrane was exposed, flush with water.
- For UH employees report to the Employee Health Office(G level) Ext.2-3066 Monday – Friday 7:30am – 3:30pm. For Rutgers employees, report to Occupational Medicine at 65 Bergen Street (Stanley Bergen Building). Ext.2- 2900 If you are seen at the ED, make sure to complete Incident Report and bring to EH and/or Occupational Medicine during next business hours.
- **<u>Be sure the source patient status is known !!!!!</u>**







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After a Bloodborne Pathogen Exposure

- **Evaluation will determine the need for postexposure prophylaxis for Hepatitis B and/or HIV based on:**
  - – Type and severity of exposure
  - – Source patient’s medical history and risk factors for
  - – Source patient’s Hepatitis B&C and HIV status (if available)
  - – Exposed worker’s Hepatitis B immune status
- **Testing of the exposed worker for HIV, HCV, and HBV (if not known to be immune) is recommended at baseline and at 6, 12, and 24 weeks.**

SHARPS

- Needles, scalpel blades, blood vials, test tubes, broken glassware, lancets, inoculating needles, loops, pipettes, plastic pipettes, scissors
- Do not attempt to remove the safety mechanism from the device.
- Report problems or device malfunction to your supervisor/manager
- UH performs an ongoing review of sharps to determine if there are safer devices out on the market.

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Regulated Medical Waste

- Handling and disposal of medical waste is regulated by the New Jersey State Department of Health and the EPA.
- The OSHA Blood borne Pathogen Standard also applies to Regulated Medical Waste.
- Disposed in containers labeled “Regulated Medical Waste” (a.k.a. Red Bag or red containers)
  - items dripping with blood
  - all blood bags and blood tubing
  - all rigid containers (e.g., pleurovacs, hemovacs) regardless of fluid amount

Influenza Vaccination

- Vaccination is the primary measure to prevent infection or development of illness from influenza. It limits transmission of influenza and prevents complications from influenza

- **University Hospital requires annual influenza vaccination for all staff**

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Infection Prevention and Control Policies

- Are located at the following web address: https://universityhospital.ellucid.com

- **The safety of Patients and Staff depends on All of Us.**
- **If you have Questions or Concerns, Contact an Infection Preventionist by calling the IP&C department main number (2-5790).**

- **Infection Preventionists are here as your partners in the interest of patient and your safety.**

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