

TITLE: PERSONAL PROTECTIVE EQUIPMENT

PURPOSE: To provide guidance on the proper use of personal protective equipment in Harris Health System Facilities; and To provide additional guidance for personal protective equipment in implementing standard precautions and transmission-based precautions (i.e., contact, droplet, airborne) to prevent infection).

POLICY STATEMENT:

Harris Health System (Harris Health) follows the Center for Disease Control (CDC), 25 Texas Administrative Code Chapter 133, and Association of Peri-Operative Registered Nurses (AORN) guidelines, for the use of personal protective equipment by healthcare workers to prevent exposure to blood, body fluids, and other hazards, excluding personal protective equipment for emergency management for hazardous materials.

POLICY ELABORATIONS:

DEFINITIONS:

- A. **APRON:** Disposable or reusable covering to protect the upper torso, lower torso and thighs from blood or other body fluids.
- B. **BUNNY SUIT:** Disposable jumpsuit to completely cover all outer clothing in order to enter an Operating Room restricted area in lieu of scrubs.
- C. **FACE SHIELDS:** Clear plastic barrier covering the face including eyes, nose, and mouth.
- D. **GOWN:** Water resistant or impervious apparel that covers the arms, body and upper legs to prevent exposure to blood and other body fluids.
- E. **GLOVES:**
 - 1. **EXAM:** Non sterile clean disposable gloves used for protection during non-invasive procedures or treatments; and
 - 2. **STERILE:** Sterile disposable hand covering used in invasive procedures;

- F. **GOGGLES:** Eye protection to prevent splashing to the eyes.
- G. **HAIR COVERS:** Disposable bouffant or skull caps that cover the hair.
- H. **HEALTH CARE PERSONNEL (HCP):** All paid and unpaid persons providing direct patient care and/or services or having direct patient contact in health-care settings at Harris Health facilities who have the potential for exposure to patients and/or to infectious materials, including body fluids/substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or contaminated air. This policy shall include affiliates, contractors, and vendors who have direct contact with patients.
- I. **LEGGINGS/BOOTS:** Water impervious covers to protect lower extremities and shoes from exposure to splashing of blood or body fluids.
- J. **MASKS (SURGICAL):** A disposable low particulate covering for mouth and nose that can be worn by HCP or patients. Surgical masks, worn by HCP, prevent inhalation or splashing to mouth and nose; if worn by a patient, prevent the escape of droplet nuclei.
- K. **N95 RESPIRATORS:** A high particulate filter that covers healthcare workers' mouths and nose to prevent exposure to airborne illnesses. (i.e., Tuberculosis).
- L. **PERSONAL PROTECTIVE EQUIPMENT (PPE):** A physical protective barrier that prevents direct contact with body fluids or contaminated surfaces. This includes gloves, gown, masks, respirators, face shields, hair covers, shoe covers, and leggings.
 - 1. **Donning:** Putting on PPE; and
 - 2. **Doffing:** Safely removing or taking off PPE
- M. **SHOE COVERS:** Water impervious cover to protect shoes from exposure to splashing of blood or body fluids.
- N. **SLEEVES:** Plastic disposable arm covering.

II. RESPONSIBILITIES:

All staff, physicians, students and other HCPs shall be responsible for the following:

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- A. Donning protective equipment when there is a likelihood that they may come into physical contact with blood, body fluids, fomites or other hazards; and
- B. Know how to properly
 - 1. Select appropriate PPE; and
 - 2. Don, doff, adjust, and wear PPE. (See Appendix A)

III. PROCEDURES:

See Appendix A and Appendix B.

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REFERENCES/BIBLIOGRAPHY:

2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. CDC Available On-Line:

http://www.cdc.gov/bicpac/2007ip_part4.html

http://www.cdc.gov/bicpac/2007ip_table4.html

<http://www.aornstandards.org/content/1/SEC23.body?sid=a7bba70a-72d3-4bab-8e4b-372daf8b5d93>

<http://dass-b/Emergency%20Management/Shared%20Documents/Support%20Documents/DECON%20PROCESS.pdf>

[https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=T&app=9&p_dir=F&p_rloc=173026&p_tloc=44484&p_ploc=29578&p_pg=4&p_tac=&ti=25&pt=1&ch=133&rl=41](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=T&app=9&p_dir=F&p_rloc=173026&p_tloc=44484&p_ploc=29578&p_pg=4&p_tac=&ti=25&pt=1&ch=133&rl=41)

OFFICE OF PRIMARY RESPONSIBILITY:

Harris Health System Infection Prevention

REVIEW/REVISION HISTORY:

Effective Date	Version # (If Applicable)	Review/ (Indicate Revised)	Revision Reviewed	Date or	Approved by:
		Approved	6/1/2016	(By	Infection Prevention Committee
	1.0	Approved	6/14/2016		Structure and Organizational Standards Committee
		Approved	7/25/2016		Physical Environment Committee
		Approved	10/27/2016		Interdisciplinary Clinical Committee
		Approved	5/18/2018		Infection Prevention System System-wide IP Committee Meeting
		Approved	6/12/2018		Structure and Organizational Standards Committee

APPENDIX A

PROCEDURES

I. Selection of PPE:

A. Gloves:

1. Exam Gloves: Should be used for all direct contact during a non-sterile procedure or treatment including specimen collection;
2. Sterile Gloves: Should be used for invasive procedures including Central or PICC line placement, surgical procedures, and invasive procedures;
3. Gloves are to be worn when contact with blood or body fluids is anticipated;
4. Gloves are to be worn when touching environmental surfaces and/or patient care articles likely to be contaminated or soiled with blood or body fluids;
5. Gloves are to be put on just prior to performing a patient care task that involves contact with blood or body fluids;
6. Gloves should be removed immediately, without touching non-contaminated surfaces, as soon as the patient care task is complete; and
7. When performing multiple procedures on the same patient, gloves should be changed after contact with blood and body fluids that contain high concentrations of microorganisms (e.g., feces, wound drainage or oropharyngeal secretions) and before contact with a clean body site such as non-intact skin and vascular access sites.

B. Gowns:

1. Gowns should be used when there is a likelihood of splashing or if the healthcare worker could be exposed to pathogens, blood and/or body fluids in the environment;
2. Gown should be water impervious; and
3. Gowns should also be worn in Contact or Droplet Isolation rooms.

C. Masks:

1. Surgical Masks: Should be worn by healthcare worker to prevent any splashing to mouth or nose or prevent inhalation of droplet secretions;
2. Surgical masks may be used to cover the mouth and nose of patients or visitors who have a respiratory illness to prevent transmission to others. Note: Patients or visitors should never be given an N95 mask. If a patient arrives with a mask from outside of the hospital/clinic, it is recommended to replace this mask with surgical mask from the department supply;
3. Surgical mask should cover the mouth and nose and be secured in a manner that prevents venting at the sides of the mask. A fresh surgical mask should be donned before the health care worker performs or assists with each new procedure;
4. Surgical mask should be replaced and discarded whenever it becomes wet or soiled or has been taken down;
5. Surgical mask should not be worn hanging around the neck;
6. Surgical Masks should be removed and discarded by handling only the mask ties. All HCPs granted an exemption for the influenza vaccination must wear a surgical mask at all times while unvaccinated and while in any Harris Health patient care or clinical care area at a minimum from November 16th through March 31st of the following calendar year. See Policy 3.55.00; and
7. N95 Respirators: Should be worn only by healthcare workers who have been medically screened and fit tested at hire and annually. N95 masks are never to be placed on patients under any circumstance. They may not be worn in public areas. They should be worn in Airborne Isolation rooms.

D. Face Shields/Eye Shields:

1. Face Shields to be worn when splashing could occur and during procedures when blood or bone could reach the healthcare workers mouth, nose, or eyes.

E. Hair Covers:

Should be worn by healthcare workers during sterile procedures including all surgeries, central line placement, and other invasive procedures. Fabric hair covers must be covered with a bouffant disposable hair cover.

F. Shoe Covers:

Should be worn in places where splashing to the floor is possible. Shoe covers must be removed immediately after use. Shoe covers should NOT be worn in hallways or public areas.

G. Leggings/Boots:

1. Should be worn in environments where there is a possibility of exposure to large volumes of body fluids, such as Labor and Delivery, surgery, and trauma rooms. They should never be worn outside of those rooms and must be immediately removed after use;

*Refer to Harris Health System Mass Decontamination Procedures and for how to properly select PPE for patients that have been compromised by residual biological agents, chemical or radiologic contamination

<http://dass-b/Emergency%20Management/Shared%20Documents/Support%20Documents/DECON%20PROCESS.pdf>;

2. Proper Locations to wear PPE; and

3. Isolation Rooms: All PPE as directed by the ordered isolation category (See Harris Health System Policy 3000.

II. PUBLIC AREAS INCLUDING HALLWAYS:

A. Hair covers may be worn in public areas;

B. Gowns or gloves may not be worn in public areas unless. Performing a task which requires PPE. Example: Transporting a trauma patient; Masks (surgical only) maybe worn by anyone who has an infectious respiratory illness only; and

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- C. All other location that exposure, to blood, body fluids, fomites, splashes and other hazards are anticipated. I.e. Surgical suites, Decontamination Rooms, dishwashing room in kitchen, etc.

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APPENDIX B

PROCEDURES

SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required; e.g., Standard and Contact, Droplet or Airborne Infection Isolation.

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
- Check seal, respirator



3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



SECUENCIA PARA PONERSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

El tipo de PPE que se debe utilizar depende del nivel de precaución que sea necesario; por ejemplo, equipo Standard y de Contacto o de Aislamiento de Infecciones transmitidas por gotas, o por aire.

1. BATA

- Cubre con la bata toda el torso desde el cuello, hasta las rodillas, los brazos, hasta la muñeca, y cubra, alrededor de la espalda
- Cúselo por detrás a la altura del cuello y la cintura

2. MÁSCARA O RESPIRADOR

- Ajuste las correas o la banda elástica en la parte de la cabeza y en el cuello
- Ajuste la banda flexible en el puente de la nariz
- Ajuste la máscara en la cara y por debajo del mentón
- Verifique el ajuste del respirador

3. GAFAS PROTECTORAS O CARETAS

- Colóquelas sobre la cara y ajústelas

4. GUANTES

- Extienda los guantes para que cubran la parte del puño en la base de el aislamiento

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

UTILICE PRÁCTICAS DE TRABAJO SEGURAS PARA PROTEGERSE A SÍ MISMO Y LIMITAR LA PROPAGACIÓN DE LA CONTAMINACIÓN

- Mantenga las manos alejadas de la cara
- Limite el contacto con superficies
- Cambie los guantes si se rasgan o están demasiado contaminados
- Realice la higiene de las manos

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glove
- Discard gloves in waste container



2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing, or in waste container



3. GOWN

- Gown front and sleeves are contaminated!
- Untie/tie
- Roll away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



SECUENCIA PARA QUITARSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

Con la excepción del respirador, quite el PPE en la entrada de la puerta o en la antecámara. Quite el respirador después de salir de la habitación del paciente y de cerrar la puerta.

1. GUANTES

- ¡El exterior de los guantes está contaminado!
- Agarre la parte exterior del guante con la mano opuesta en la que todavía tiene puesto el guante y deslícelo
- Sujete el guante que se quitó con la mano enguantada
- Deslice los dedos de la mano sin guante por debajo del otro guante que no se ha quitado todavía a la altura de la muñeca
- Quite el guante de manera que cubra el primer guante
- Tire los guantes en el recipiente de deshecho

2. GAFAS PROTECTORAS O CARETA

- ¡El exterior de las gafas protectoras o de la careta está contaminado!
- Para quitarlas, sujete por la parte de la banda de la cabeza o de las piezas de las orejas
- Colóquelas en el recipiente designado para reprocesar o en un contenedor de deshecho

3. BATA

- ¡La parte delantera de la bata y los mangos están contaminados!
- Desate/desata
- Desátese, alejándose el interior de la bata (páase por encima del cuello y de los hombros)
- Voltee la bata al doblar
- Doble o enrólese y deséchela

4. MÁSCARA O RESPIRADOR

- La parte delantera de la máscara o respirador está contaminada — ¡NO LA TOQUE!
- Primero agarre la parte de abajo, luego los cordones o banda elástica de arriba y por último quite la máscara o respirador
- Déjelos en el recipiente de deshecho

PERFORM HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE

EFECTÚE LA HIGIENE DE LAS MANOS INMEDIATAMENTE DESPUÉS DE QUITARSE CUALQUIER EQUIPO DE PROTECCIÓN PERSONAL

