

# STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

Office of Origin: Department of Hospital Epidemiology and Infection Prevention (HEIP)

## I. PURPOSE

- A. Prevent the transmission of infectious agents in healthcare settings. Standard and Transmission-Based Precautions protect healthcare personnel and prevent healthcare personnel or the environment from transmitting infections to other patients.
  - 1. *Standard Precautions* are the basic practices that apply to all patient care in all settings where healthcare is delivered, regardless of the patient's diagnosis or suspected or confirmed infection status.
  - 2. *Transmission-based Isolation Precautions* are designed for patients with suspected and/or confirmed infection or colonization with organisms that require practices in addition to Standard Precautions to prevent transmission.

### **II. REFERENCES**

- A. Centers for Disease Control and Prevention. CDC's Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings. <u>https://www.cdc.gov/infection-control/hcp/corepractices/index.html</u>
- B. California Code of Regulations, Title 8, Section 5199, Aerosol-Transmissible Diseases.
- C. UCSF Health Aerosol Transmissible Disease Exposure Control Plan Policy 3.1.2 Environment of Care
- D. <u>UCSF Health Bloodborne Pathogens Exposure</u>, Response and Control Plan Policy 3.1.1 Environment <u>of Care</u>
- E. <u>Management of Healthcare Workers Exposed to Bloodborne Pathogens</u> HEIP Policy 3.3
- F.Patient and/or Visitor Exposure to Blood or Body Fluids HEIP Policy 7.4
- G. <u>Hand Hygiene</u> HEIP Policy 1.2
- H. <u>Policies and Procedures for Patients with Suspected or Confirmed Human Prion Disease</u> HEIP Policy 4.2
- I. Return to Work Clearance Human Resources Policy 4.02.09
- J. <u>Siegel JD</u>, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

#### **III. DEFINITIONS**

- A. Aerosol-transmissible disease (ATD) or aerosol transmissible pathogen (ATP). A disease or pathogen for which droplet or airborne isolation are required.
- B. Aerosol-transmissible pathogen -- laboratory (ATP-L). A pathogen that meets one of the following criteria: (1) the pathogen appears on the list in Appendix D of the CalOSHA Aerosol Transmissible Diseases Standard, (2) the Biosafety in Microbiological and Biomedical Laboratories (BMBL) recommends biosafety level 3 or above for the pathogen, (3) the biological safety officer recommends biosafety level 3 or above for the pathogen, or (4) the pathogen is a novel or unknown pathogen.
- C. Airborne infection isolation (AII). HEIP procedures as described in Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings. These procedures are designed to reduce the risk of transmission of airborne infectious pathogens and apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route.
- D. Airborne infection isolation room or area (AIIR). A room, area, booth, tent, or other enclosure that is maintained at negative pressure to adjacent areas in order to control the spread of aerosolized *M*.



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Policy 1.1 Patient Care Issued: 03/06 Last Approval: 9/24

*tuberculosis* and other airborne infectious pathogens and that meets the requirements stated in subsection (e)(5)(D) of this standard.

- E. Airborne infectious disease (AirID). Either: (1) an aerosol transmissible disease transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the disease agent for which AII is recommended by the CDC or CDPH, or (2) the disease process caused by a novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that the pathogen is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.
- F. Airborne infectious pathogen (AirIP). Either: (1) an aerosol transmissible pathogen transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the infectious agent, and for which the CDC or CDPH recommends AII, or (2) a novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that it is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.
- G. CalOSHA: California Occupational Safety and Health Administration.

### **IV. POLICY**

- A. All UCSF Health employees including staff, faculty, and learners will consistently implement practices included in Standard and Transmission-Based Precautions as specified in the Procedures below.
- B. Use Standard Precautions in all patient care in all settings where healthcare is delivered, regardless of a patient's diagnosis or suspected or confirmed infection status. The required elements include:
  - 1. Adequate hand hygiene at all appropriate times
  - 2. Disinfecting surfaces and equipment between patient uses
  - 3. Appropriate use of Personal Protective Equipment (PPE) (e.g., gowns, gloves, mask, eye protection) for reasonably anticipated contact with body substances or contaminated equipment. Standard Precautions take into consideration the task being performed, e.g. gloves and mask with face shield for emptying drainage bags.
  - 4. Safe injection practices
  - 5. Respiratory Hygiene/Cough Etiquette
  - 6. Infection prevention practices for special lumbar puncture situations
- C. Use Transmission-based Isolation Precautions in addition to Standard Precautions for patients with suspected or confirmed infections listed in the <u>HEIP Isolation Table</u>. Maintain appropriate Transmission-based until the condition has been ruled out or the criteria for removal from isolation have been met.
  - 1. The five types of Transmission-based Isolation may be used alone, or in combination for any disease(s) that have multiple routes of transmission:
    - a. Contact Isolation
    - b. Enteric Contact Isolation
    - c. Droplet Isolation
    - d. Airborne Isolation
    - e. Novel Respiratory Isolation

## V. PROCEDURES Section 1: Standard Precautions

A. <u>Hand Hygiene</u>: refer to <u>HEIP 1.2 Hand Hygiene Policy</u>



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## B. <u>Personal Protective Equipment (PPE)</u>

- 1. Ensure proper selection and use of personal protective equipment (PPE) based on the nature of the patient interaction and potential for exposure to blood, body fluids and/or infectious material.
- 2. Symptoms, condition, and expected interaction with each patient must be critically assessed when determining appropriate PPE use.
- 3. Use of protective equipment (i.e., gowns, gloves, masks, eye protection) is mandated by the OSHA bloodborne pathogens final rule to reduce the risk of exposures to bloodborne pathogens under specified circumstances.
- 4. PPE is single use and should be discarded after use, except where specified
- 5. Routinely remove and discard all PPE and perform hand hygiene prior to leaving the patient care zone, defined as the patient's room or in open bay situations, the immediate patient care area.
- 6. It is acceptable to wear appropriate PPE while performing a task beyond the patient care zone while hands are occupied and there is reasonable anticipation that contact with blood or body fluid may occur, or during transport of a patient on specific transmission-based isolation.
- 7. Remove and discard PPE, other than respirators, upon completing a task before leaving the patient's room or care area. If a respirator is used, it should be removed and discarded (or reprocessed if reusable) after leaving the patient room or care area and closing the door.
- 8. Do not use the same gown or pair of gloves for care of more than one patient.
- 9. Gloves: Glove use does not replace the need for hand hygiene. Wear gloves:
  - a. When it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, non-intact skin, potentially contaminated skin or contaminated equipment could occur.
  - b. To provide a protective barrier and to prevent contamination of the hands from blood or other body fluids, secretions, or excretions.
  - c. For invasive procedures.
  - d. Remove and discard disposable gloves upon completion of a task, when moving from a contaminated body site to a clean body site, or when soiled during the process of care then perform hand hygiene.
- 10. Gown use may reduce the opportunity for transmission of pathogens from patients or items in their environment to other patients or environments; when gowns are worn for this purpose, remove the gown and clean hands when leaving the patient's environment.
  - a. Wear a gown that is appropriate to the task to protect skin and prevent soiling of clothing during procedures and activities that could cause contact with blood, body fluids, secretions, or excretions.
  - b. Wear a clean, non-sterile own to protect skin and to prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
  - c. Unanticipated soiling of skin and/or clothing may occur upon close physical contact with a patient. A gown may be worn when physically moving a patient to or from a transport device such as a gurney or wheelchair, and is required when the patient is in Contact Isolation or Enteric Isolation.
  - d. Remove and discard gown at completion of task, and clean hands to avoid transfer of microorganisms to other patients or environments.
  - e. After gown removal, do not re-use.
- 11. Mask and Eye Protection
  - a. Wear protective eyewear (i.e., goggles) and a mask, or a face shield, to protect mucous membranes of the eyes, nose, and mouth during procedures and activities that could generate splashes or sprays of blood, body fluids, secretions, and excretions. Select masks,



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goggles, face shields, and combinations of each according to the need anticipated by the task performed.

- b. Eyeglasses are not a substitute for protective eyewear.
- c. Wear a mask and eye protection when providing care in the room/care area of a patient who is coughing, sneezing, spitting, or being suctioned using open system suctioning. For pediatric patients, wear a gown and gloves in addition to a mask and eye protection for patients with upper respiratory infection symptoms.
- d. Wear a mask when placing a catheter or injecting material into the spinal canal or epidural or subdural space (i.e., during myelograms, lumbar puncture
- e. Wear a fit tested N95 respirator and eye protection or a CAPR/PAPR when performing "aerosol generating procedures" such as sputum induction, bronchoscopy, open system suctioning or delivering nebulized medications on patients with suspected or confirmed Aerosol-Transmissible Diseases (ATD). See <u>Guidance for use of PPE and room criteria for Aerosol Generating Procedures</u> for additional details.

### C. Surface Disinfection and Reusable Equipment

Administrative Policy 02.01.02 Patient Care Equipment Cleaning: Inpatient, Ambulatory and Diagnostic Testing Areas describes groups responsible for and specifies frequency of cleaning and disinfection for some common categories of patient care equipment. Departmental procedures detail the processes by which all equipment will be cleaned/disinfected.

- All patient care items and surfaces used for multiple patient contacts will be cleaned and disinfected between uses. A hospital-approved detergent disinfectant (see <u>HEIP Policy 5.5 Agents</u> <u>Available for Disinfection and Antisepsis</u>) will be applied and maintained wet for the label-claim period before the next patient contact using hospital-approved disinfectant wipes or solutions per manufacturers' instructions.
- 2. Hospitality Services provides regular disinfection of all restrooms, countertops, furniture, public televisions, public telephones, elevators, meeting rooms and lounges according to established departmental policies and procedures.
- 3. Office equipment and storage units are cleaned by their owners/users as needed.
- 4. Hospital-approved disinfectants are used for routine room and equipment cleaning.
- 5. Specialty equipment may require exceptions to this policy based on manufacturer's instructions for use; procedures are developed collaboratively between HEIP and users of specialty equipment.

## E. Safe Injection Practices

- 1. Prepare medications in a designated clean medical preparation area that is separated from potential sources of contamination, including sinks or other water sources.
- 2. Disinfect the access diaphragms of medication vials with an alcohol swab before inserting a device into the vial.
- 3. Scrub the cap or port of invasive lines with alcohol or CHG swab using friction before injecting an IV medication.
- 4. Use needles and syringes for one patient only (this includes manufactured prefilled syringes and cartridge devices such as insulin pens).
- 5. Enter medication containers with a new needle and a new syringe, even when obtaining additional doses for the same patient.
- 6. Use a sterile, single-use disposable needle and syringe for each injection given.
- 7. Ensure single-dose or single-use vials, ampules, and bags or bottles of parenteral solution are used for one patient only.
- 8. Use single-dose vials for parenteral medications whenever possible.



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- 9. Do not administer medications from single-dose vials or ampules to multiple patients or combine leftover contents for later use.
- 10. Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed.
- 11. Dedicate multidose vials (MDV) to a single patient whenever possible. If MDV are used for more than one patient, restrict the medication vials to a centralized medication area and do not bring them into the immediate patient treatment area (e.g., operating room, patient room). Store MDV according to the manufacturer's recommendations; discard if sterility is compromised or questionable.
- 12. If multidose vials (MDV) must be used, use both a new needle or cannula and new syringe for each entry into the MDV, even when obtaining additional doses for the same patient.
  - i. Date every MDV
  - ii. Check date every time a MDV is used to ensure it is in-date.
- 13. Before each withdrawal from a MDV, scrub the surface of the rubber diaphragm with alcohol or CHG swab using friction.
- 14. Use fluid infusion and administration sets (i.e., intravenous bags, tubing, and connectors) for one patient only and discard appropriately after use. Consider a syringe or needle/cannula to be contaminated once it is used to enter or connect to a patient's intravenous infusion bag or administration set.

#### F. <u>Respiratory Hygiene and Cough Etiquette</u>

This section applies to patients and accompanying family members and friends with undiagnosed transmissible respiratory infections and applies to any person with signs of illness including cough, congestion, rhinorrhea, or increased production of respiratory secretions when entering a healthcare facility.

- 1. Implement these elements in inpatient and ambulatory points of entry:
  - a. Educate healthcare personnel on the importance of source control measures to contain respiratory secretions to prevent droplet and fomite transmission of respiratory pathogens, especially during seasonal outbreaks of viral respiratory tract infections (e.g., influenza, RSV, adenovirus, parainfluenza virus) in communities - this information is included in the Infection Prevention Educational Module, required to be completed annually by all hospital personnel.
  - b. Display Respiratory Etiquette signs, in language(s) appropriate to the population served, with instructions to patients and other persons with symptoms of a respiratory infection to cover their mouths/noses when coughing or sneezing, use and discard tissues, and perform hand hygiene after hands have been in contact with respiratory secretions.
  - c. Offer masks to coughing patients and other symptomatic persons (e.g., persons who accompany ill patients) upon entry into the facility or medical office. Instruct patient to ensure both mouth and nose are covered by mask.
  - d. Encourage spatial separation between those with respiratory infections in common waiting areas when possible.
  - e. Move coughing or sneezing patients into exam rooms as soon as possible.
- 2. Refer to Occupational Health's" Return to Work Clearance (HR Policy 4.02.09) guidance for healthcare personnel (HCP).

### G. <u>Infection Prevention Practices when placing a catheter or injecting material into the epidural or</u> <u>subdural space</u>



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1. Wear a mask when placing a catheter or injecting material into the spinal canal or epidural or subdural space (e.g., during myelograms, lumbar puncture).

#### H. Special considerations when responding to new and emerging infectious diseases

1. <u>Depending on mode of transmission, additional recommendations and requirements may be</u> implemented (e.g. universal masking and eye protection).

#### I. Other Foundational Infection Prevention Safety Practices

- 1. **Patient Placement**: Appropriate patient assessment and placement is imperative to controlling infection. Place patients with confirmed or suspected highly transmissible and/or epidemiologically important microorganism (e.g. tuberculosis, influenza, *Clostridioides difficile*, chickenpox) in a private room.
- 2. Needles and Sharps: Discard all used needles and sharps in designated puncture-resistant containers. Containers should be located in all patient rooms, treatment rooms, delivery rooms, nurseries, OR suites, critical care cubicles, laboratory workstations, and ED cubicles. Sharps containers must be stabilized at all times, and they must be closed and discarded when filled to the "full" line. Additional information on safety devices available at UCSF Medical Center can be found on the Material Services website: <u>https://supplychain.ucsf.edu/</u>.
- **3. Solid Waste:** Discard all trash in impervious plastic bag lined waste receptacles. Regulated ("red bag") waste includes liquid blood wastes, containers of bloody body fluids, pathological waste, laboratory and microbiology waste, dialysis waste and full, closed sharps containers.
- **4.** Linen: Handle used textiles and fabrics with minimum agitation to avoid contamination of air, surfaces, and persons; place soiled linen in designated linen bags. Upon discharge or room transfer, unused linen stored in that patient's room will be considered soiled. When linen bag is 2/3 full or less, it should be tied securely for transport to the laundry.
- 5. Reusable procedure trays and equipment contaminated with blood and/or body fluids will be returned to the Sterile Processing Department for reprocessing in case carts or in impermeable bags or containers.
- 6. Laboratory specimens: All specimens will be considered potentially infectious and will be placed in a container that is securely closed, labeled, and will be placed in a "Biohazard" labeled impervious bag, size permitting.
- 7. Blood spills: Environmental surfaces contaminated with blood or body substances will be immediately cleaned with a hospital-approved detergent disinfectant. Personnel will wear personal protective equipment during the cleaning process to protect them from exposure. Refer to the Rainbow Chart in your area.
- 8. Bloodborne Pathogens Exposures: First aid and thorough washing or flushing of the exposed site is essential at the time of the exposure. After sufficiently washing the site, blood and body substance exposures will be immediately reported to Occupational Health Services via the Needlestick & Exposure Hotline (415-353-STIC), and then to the area supervisor. Refer to the EOC Policy 3.1.1 Bloodborne Pathogens Exposure Control Plan.
- Deceased patient: Standard Precautions will be followed when preparing a deceased patient for moving and transport. Exceptions to this policy in the care of a patient with suspected or confirmed human prion disease are addressed <u>HEIP Policy 4.2 Policies and Procedures for Patients</u> with Confirmed or Suspected Human Prion Disease
- 10. Items from inpatient in-room storage: discard items and clean interior and exterior of storage unit upon patient discharge or transfer

#### Section 2: Transmission-Based Isolation Precautions



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- A. Anyone may institute the appropriate isolation precautions when suspicion of a condition triggers a test for the causative agent.
  - 1. A physician's order is not required to initiate Transmission-Based Isolation, though electronic medical record functionality may require an order be written. Cohorting patients may be considered only after consultation with HEIP.
  - 2. Patient/representative education: <u>Infection Prevention Standard Precautions and Transmission-Based Isolation</u>
  - 3. For Ambulatory areas, refer to Ambulatory Isolation Signs (<u>Appendix B</u>) for specific isolation procedures in the outpatient setting.
- B. Implement Transmission-Based Isolation based on the patient's clinical presentation and likely infection diagnoses (e.g., syndromes suggestive of transmissible infections such as diarrhea, meningitis, fever and rash, respiratory infection) as soon as possible after the patient enters the healthcare facility (including reception or triage areas in emergency departments, ambulatory clinics or physicians' offices) then adjust or discontinue precautions when more clinical information becomes available (e.g., confirmatory laboratory results).

## C. Contact Isolation (For patients with diarrhea, see B. Enteric Contact Isolation)

1. Contact transmission can occur by directly touching the patient, through contact with the patient's environment, or by using contaminated gloves or equipment. Patients in Contact Isolation include those with confirmed or suspected contact-transmitted organisms deemed significant by HEIP.

### 2. Patient placement:

- a. Private Room unless a shared space has been approved by HEIP
- b. Dedicated, disposable equipment (e.g., stethoscope, blood pressure cuff, thermometer, etc.). If shared equipment is used, it must be cleaned with hospital-approved disinfectant (e.g. disposable detergent disinfectant-impregnated wipes) after each use.
- c. Appropriate door signage (see Appendices A and B)

#### 3. Healthcare workers must:

- a. When entering the patient's room/area.
  - i. Perform hand hygiene
  - ii. Put on and secure a clean gown (do not save/reuse gowns)
  - iii. Put on gloves
- b. When exiting a patient's room/area:
  - i. Remove and discard gloves then remove gown in a manner that avoids touching the outside (potentially contaminated side) of the gown.
  - ii. Perform hand hygiene with alcohol-based hand rub (ABHR) (preferred method) or soap and water.
- 4. **Patients** on Contact Isolation are not allowed in communal spaces (playroom, school room, solarium), but may ambulate in hallways after donning a clean hospital gown, covering affected area as applicable (e.g. wound), and cleaning hands with soap and water or ABHR.
- 5. **Transport:** Notify receiving department of patient isolation status prior to transport.
- 6. Room cleaning: Routine room cleaning and disinfection as described above.
- 7. **Visitors** may choose to but are not required to wear the same PPE as HCWs. Provide hand hygiene education to family and visitors.

#### 8. Discontinuing isolation:

- a. For patients on Contact Isolation because of diarrhea (excluding diarrhea caused by *Clostridioides difficile* or Norovirus): Isolation can be discontinued when patient's diarrhea has resolved. (See <u>Diarrhea Decision Tree</u>)
- b. Other conditions/diseases: see <u>HEIP Isolation Table</u> or consult with HEIP.



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## D. Enteric Contact Isolation

1. Diarrheal illness due to *C. difficile* and Norovirus can cause substantial morbidity in hospitalized patients. Because these organisms are relatively resistant to killing by alcohol-containing hand hygiene products, perform hand hygiene using soap and water after patient contacts. Transmission can occur by directly touching the patient or the patient's environment, or by using contaminated gloves or equipment.

# 2. Patient placement:

- a. Private Room unless a shared space has been approved by HEIP
- b. Dedicated, disposable equipment (e.g., stethoscope, blood pressure cuff, thermometer, etc.). If shared equipment is used, it must be cleaned with hospital-approved disinfectant (e.g. disposable detergent disinfectant-impregnated wipes) after each use.
- c. Appropriate door signage (see Appendix A; Ambulatory areas use Contact signage).

# 3. Healthcare workers must:

- a. When entering the patient's room/area:
  - i. Perform hand hygiene
  - ii. Put on and secure a clean gown (do not save/reuse gowns)
  - iii. Put on gloves
- b. When exiting the patient's room/area:
  - i. Remove and discard gloves then remove gown in a manner that avoids touching the outside (potentially contaminated side) of the gown.
  - ii. Clean hands with soap and water. Alcohol-based hand rub can be used after handwashing.
  - iii. Turn off faucet using a paper towel.
- 4. **Patients** on Enteric Contact Isolation are not allowed in communal spaces (play room, school room, solarium), but, if continent and cooperative, may ambulate in hallways after donning a clean hospital gown and cleaning hands with soap and water
- 5. Transport: Notify receiving department of patient isolation status prior to transport.
- 6. Room cleaning: Routine room cleaning and disinfection as described above.
- 7. **Visitors** may choose to but are not required to wear the same PPE as HCWs. Provide hand hygiene education to family and visitors.

## 8. Discontinuing isolation:

- a. Diarrhea caused by *Clostridioides difficile* or norovirus: (See <u>Diarrhea Decision Tree</u>)
  - i. Adult patients on 11 or 12 Long and patients on the pediatric BMT unit: Enteric Contact Isolation to continue for the duration of hospitalization.
  - ii. All others: Enteric Contact isolation can be discontinued if (1) patient has had no loose stools for  $\geq$ 48 hours, (2) patient has been bathed, AND (3) patient has been transferred to clean room.

## E. Droplet Isolation

 Droplets are formed when a person coughs, sneezes, speaks, spits, sings, or undergoes oral or tracheal/bronchial suctioning. Transmission occurs when droplets from an infected person come in contact with another person's mucous membranes (eyes, nose, or mouth). Droplets do not typically remain suspended in the air and usually require close proximity (e.g., within six feet) for transmission to occur. Infections that require Droplet Isolation can be found in the HEIP <u>Isolation</u> <u>Table</u>.

## 2. Patient placement:

a. Private room, unless a shared space has been approved by HEIP.



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- b. Patients should mainly remain in their rooms except for essential purposes (surgery, tests, treatments, therapy services). Patients may ambulate in the hallway, however, but are not allowed in communal spaces (playroom, school rooms, solarium, cafeteria, etc.).
- c. When patients on Droplet Isolation are outside of their room, they must wear a regular mask (without the eye shield), clean patient gown, and must complete hand hygiene before leaving their room. If the patient is unable or unwilling to wear a mask, the patient must remain in their room except for essential purposes.
- d. Droplet and Contact isolation are required for all patients with pending Respiratory Viral Panel (RVP) and Benioff Children's Hospital-San Francisco patients with upper respiratory infection symptoms and a negative or positive RVP.
- e. Appropriate door signage (see Appendices A and B).

## 3. Healthcare workers must:

- a. When entering the patient's room/area:
  - i. Perform hand hygiene.
  - ii. Put on a mask that completely covers the mouth and nose and eye protection (e.g., goggles, face shield) upon entering the room/area.
- b. When exiting the patient's room/area:
  - i. Perform hand hygiene
  - ii. Remove and discard mask and eye protection
  - iii. Perform hand hygiene again before leaving the patient's room
- 4. **Patients** on Droplet Isolation (and their pediatric family members) are not allowed in communal spaces (playroom, school room, solarium, etc.).
- 5. Transport: Notify receiving department of patient isolation status prior to transport.
- 6. Room cleaning: Routine room cleaning as describe above.
- 7. Visitors:
  - a. Provide education regarding the transmission of diseases requiring Droplet Isolation including:
    - i. The importance of performing consistent hand hygiene upon entering and exiting the patient's room.
    - ii. The importance of using personal protective equipment (i.e. mask with eye shield or mask plus goggles). This equipment will be available for visitors upon request.
  - b. Visitors with upper respiratory symptoms are asked to refrain from visiting. Special consideration may be given to close family members. Symptomatic family members will be required to wear a mask while visiting.
  - c. Nursing staff will instruct family/visitors to perform hand hygiene after contact with patient secretions or contact with immediate patient environment.

## 8. Discontinuing isolation:

a. Droplet Isolation may be discontinued when symptoms resolve and when criteria for discontinuing (see Isolation Table) have been met.

## F. <u>Airborne Isolation</u>

1. When a person infected with an airborne-transmitted disease coughs, sneezes, speaks, spits, sings, or undergoes aerosol-generating procedures, infectious particles can remain suspended in the air and be carried via air currents. This is the rationale for placing these patients into rooms with special ventilation engineering controls. Infections that require Airborne Isolation can be found in the HEIP Isolation Table.

#### 2. Patient placement:

a. Private Airborne Infection Isolation Room (AIIR, aka Negative Pressure Isolation Room [NPIR]).



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- b. Patients should remain in their room except for essential purposes (e.g., surgery, tests, treatments, therapy services),
- c. Patients must wear a mask that covers their nose and mouth at all times when outside the negative pressure environment. Patients with airborne transmitted diseases are not required to wear an N-95 respirator.
- d. Appropriate door signage (see Appendices A and B).
- e. After patient discharge, keep room closed and vacant for appropriate duration to allow complete air exchange (use 1 hour unless the number of air changes per hour allows for a shorter time period). Note: If room entry is required before specified time has elapsed, N95 or PAPR must be worn.
- 3. For Ambulatory areas:
  - a. Refer to Ambulatory isolation signs (<u>Appendix B</u>)
  - b. Patient should wear mask over mouth and nose
  - c. Expedite placing patient in exam room with door closed for the entire visit
  - d. Staff wear PPE per above

## 4. Healthcare workers must:

- a. Before entering the patient's room/area:
  - i. Perform hand hygiene
  - ii. Put on an N95 respiratory that they have been medically cleared and fit-tested to wear or a powered air purifying respirator (PAPR).
- b. After exiting the patient's room/area:
  - i. Perform hand hygiene
  - ii. Remove the N95 respirator or PAPR (do not remove respirators until outside of the AIIR).
- c. When performing a high-hazard procedures (bronchoscopy, sputum induction, elective intubation and extubation, autopsies, open suctioning of airways; and when feasible during emergent situations such as cardiopulmonary resuscitation, emergent intubation) on patients with suspected or confirmed diseases requiring Airborne isolation, healthcare workers should wear a PAPR. See EOC Policy 3.1.2 Aerosol-Transmissible Diseases Exposure Control Plan for additional details.
  - i. Exceptions to wearing a PAPR for aerosol-generating procedures include:
    - 1. Emergent patient conditions that do not allow time to don PAPR equipment.
    - 2. PAPR equipment interferes with the use of medical devices necessary to conduct a procedure.
    - 3. Other exemptions must be submitted to the Office of Environmental Health and Safety on behalf of the department for compilation and annual review.
- 5. When a patient is suspected or confirmed to have an infection with chickenpox, disseminated varicella or measles, susceptible healthcare workers or visitors should not enter the room.
  - a. Immunity to chickenpox (varicella) may be confirmed via:
    - i. Clinical disease demonstrable by serum antibody titer.
    - ii. Two doses of varicella vaccine. NOTE: No vaccine is perfect and breakthrough cases of mild disease are not uncommon in vaccinated people. Vaccinated personnel who care for patients with chickenpox or disseminated zoster should monitor themselves for symptoms following exposure.
- 6. Transport: Notify receiving department of patient isolation status prior to transport.
- 7. Room cleaning:
  - a. For occupied AIIR rooms, Hospitality staff should wear an N95 respirator or PAPR as described above.



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- b. Perform room cleaning using standard cleaning procedures.
- c. On discharge, Hospitality should wear an N95 respirator or PAPR as described above if entering the room to perform discharge cleaning during the 1 hour following patient discharge. Follow standard procedures for routine daily and discharge patient room cleaning.
- d. Hospitality removes isolation sign when cleaning complete
- e. On discontinuation of isolation or patient discharge, Nursing removes and cleans isolation caddy
- f. Once the room is clean and 60 minutes have elapsed since the patient was discharged, the room is ready for the next occupant. Depending on the number of air changes per hour, the time the room needs to remain closed may be less than 1 hour.

#### 4. Visitors:

- a. Visitors may choose to wear the indicated PPE.
- b. Symptomatic household or other contacts of patient may not visit until medically cleared. If symptomatic contact must visit, a mask will be donned before entering the hospital and worn continuously while in the facility.

#### 5. Discontinuing Airborne isolation:

- a. Consult with HEIP before discontinuing Airborne Isolation.
- b. In addition, for "R/O TB", see <u>TB algorithm</u>.

#### G. Novel Respiratory Isolation (NRI)

- 1. Novel respiratory isolation is used for patients with suspected or confirmed COVID-19 or mpox infection. The risk of transmission is impacted by a number of factors including the infectiousness of the infected patient, proximity to and likelihood of exposure to respiratory droplets generated by the patient, and activities that lead to forceful expelling of infectious respiratory aerosols such as these aerosol-generating procedures.
- 2. Novel Respiratory Isolation requires:
  - a. Private room with the door closed.
    - i. Do not place patients on NRI into a positive pressure/protective environment room.
    - ii. For patients receiving aerosol generating procedures (AGP), placement into a negative pressure/AIIR room is preferred, if available. If a negative pressure/AIIR room is used, submit a work order for Facilities to change and monitor room pressurization daily—see ATD Standard (EOC Policy 3.1.2)
  - b. Patients to remain in their room except for essential purposes (e.g., off-unit testing, surgical procedures, etc.).
  - c. Patients to wear a mask that fits over the mouth and nose when outside of the room.
  - d. Healthcare workers caring for patients in Novel Respiratory Isolation will:
    - i. Use dedicated disposable equipment (e.g., stethoscope, blood pressure cuff, thermometer) when possible
    - ii. Clean non-disposable equipment with hospital-approved disinfecting wipe after each use
    - iii. Perform hand hygiene prior to donning personal protective equipment (PPE)
    - iv. Wear a gown, gloves, and a fit-tested N95 plus eye protection (or a PAPR) upon entry and while inside patient room or care area.
    - v. Wear N95 or PAPR when entering room during and 1 hour after aerosol-generating procedure. A shorter time may be required for rooms engineered to have higher air changes per hour (ACH).
  - e. PPE Removal:
    - i. When exiting the patient room or care area, remove gown and gloves inside, and remove N95 and eye protection or PAPR outside



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- ii. Grasp PPE in a manner that avoids contamination (Outside of PPE is contaminated)
- iii. Clean hands prior to removing N95 and eye protection or PAPR
- iv. Remove and discard disposable PPE (clean reusable eye protection or PAPR helmet with hospital-approved disinfecting wipe)
- v. Perform hand hygiene again after removal of PPE

### f. Transport:

- i. Notify the receiving department of isolation status prior to transport
- ii. Patient wears mask (N95 not required), a clean hospital gown, covers body with a clean sheet, and cleans their hands prior to exiting the patient room or care area. For pediatric patients unable to mask, cover the crib with a clean sheet.
- iii. Transporter wears a fit-tested N95 and eye protection (or PAPR). If direct patient contact is expected, add a gown and gloves.

### g. Room Cleaning:

- i. For occupied NRI rooms, Hospitality staff should wear a gown, gloves, and N95 respirator plus eye protection or PAPR as described above.
- ii. Perform room cleaning and disinfection using standard procedures.
- iii. On discharge, Hospitality should wear PPE for NRI as described above. Follow standard procedures for routine daily and discharge patient room cleaning.
- iv. Hospitality removes isolation sign when cleaning complete
- v. On discontinuation of isolation or patient discharge, Nursing removes and cleans isolation caddy
- vi. Once the room is clean and 60 minutes have elapsed since the patient was discharged, the room is ready for the next occupant. Depending on the number of air changes per hour, the time the room needs to remain closed may be less than 1 hour.

#### h. Visitors

- i. Follow current visitor guidelines
- ii. Approved visitors must adhere to the NRI personal protective guidance during their visit
- iii. Instruct visitors to clean hands and don and doff PPE before entering and exiting patient room or care area

#### i. Discontinuing Novel Respiratory isolation:

- i. Follow novel pathogen-specific guidance and consult with HEIP before discontinuing NRI.
- ii. See also Discontinuing Isolation for Patients with COVID-19

## H. <u>Patients with suspected or confirmed infections that required combinations of Isolation</u> <u>Precautions</u>

- 1. Depending on mode of transmission, specific infections will require combinations of isolation precautions.
  - a. If more than one isolation precautions is required, adhere to all elements for each.

## I. <u>Cadaver Handling</u>

- 1. Wear a PAPR when performing aerosol-generating procedures in cadavers with suspected or confirmed diseases requiring Droplet or Airborne Isolation. Exceptions to wearing a PAPR for aerosol generating procedures include:
  - a. APR equipment interferes with the use of medical devices necessary to conduct a procedure.
  - b. Other exemptions must be submitted to the Office of Environmental Health and Safety on behalf of the department for compilation and annual review.



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#### **VI. RESPONSIBILITY**

A. Questions about the implementation of this policy should be directed to Hospital Epidemiology and Infection Prevention.

#### VII. HISTORY OF POLICY

- A. Original policy issued March 2006
- B. Revised by Amy Nichols and Steffanie Lee, Hospital Epidemiology and Infection Prevention, April 2021
- C. Revised by Deborah Yokoe and Steffanie Lee, Hospital Epidemiology and Infection Prevention, August 2024

#### **VIII. APPENDICES**

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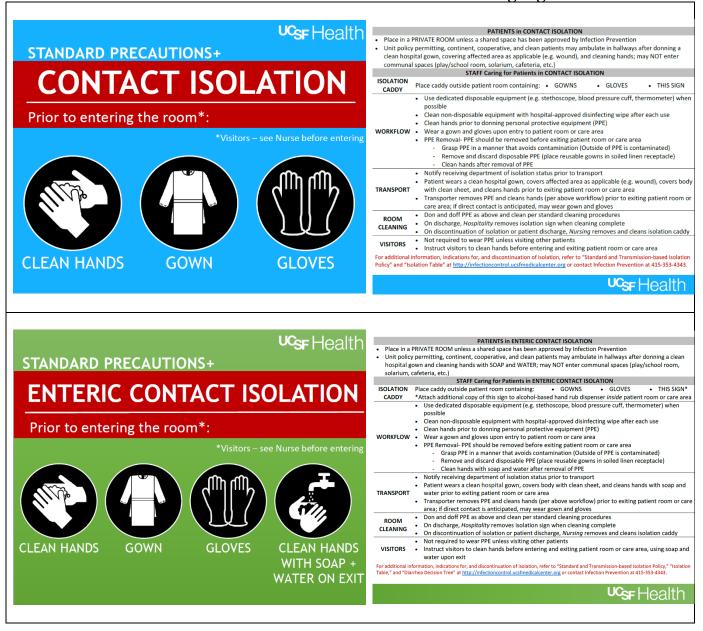


### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

Policy 1.1 Patient Care Issued: 03/06 Last Approval: 9/24

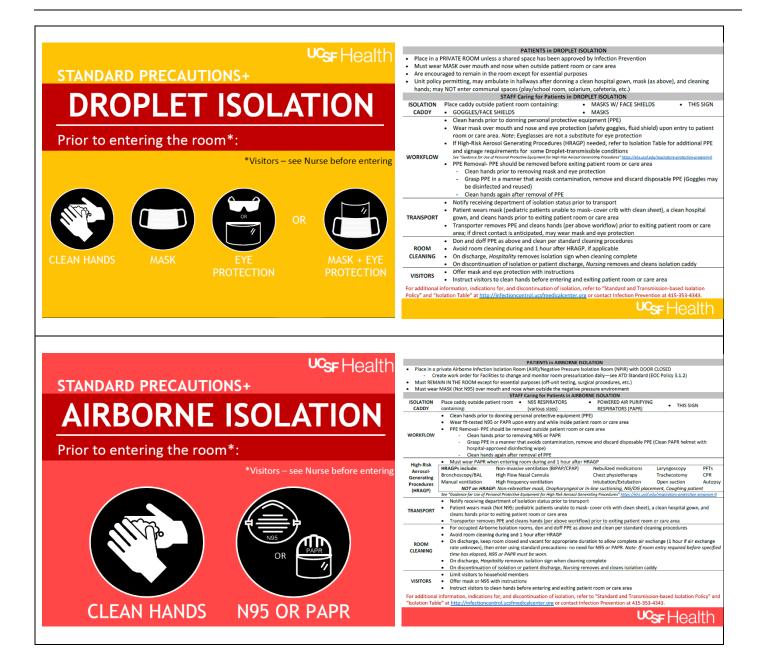
#### Appendix A.

# **UCSF Transmission-Based Isolation Precautions Signage**



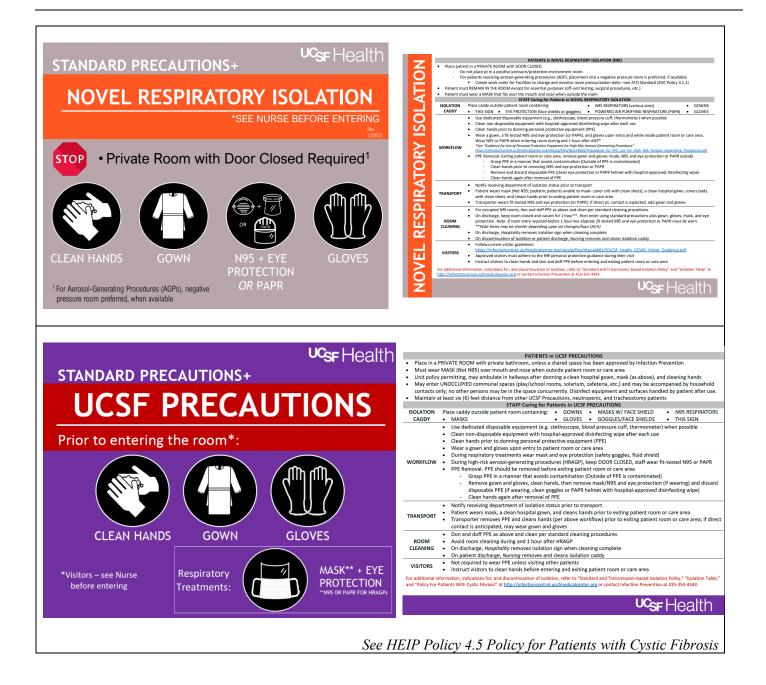


### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION



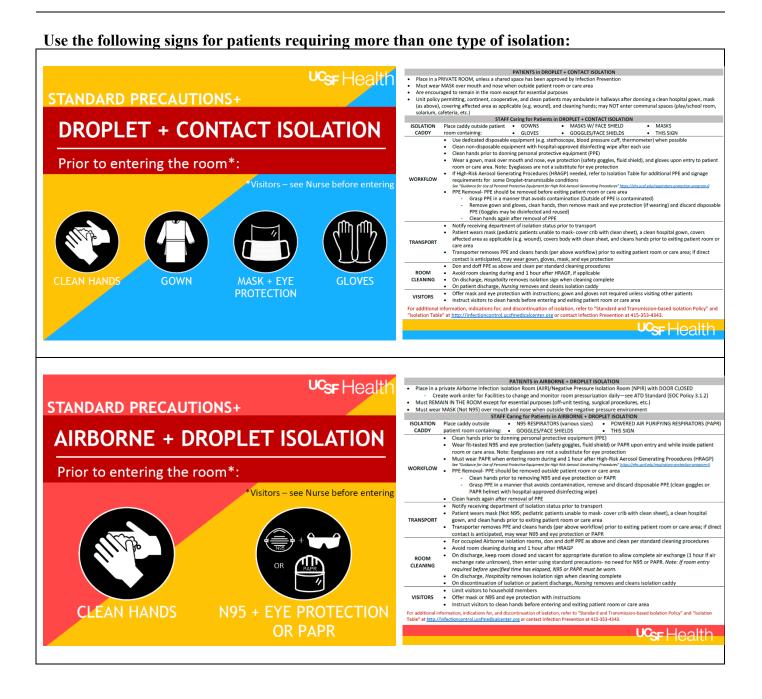


### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION



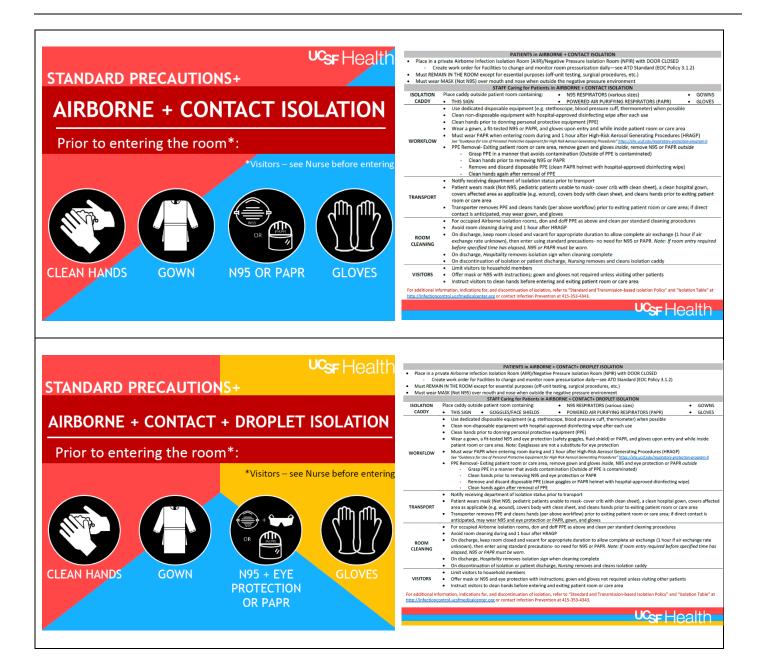


## STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION





### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

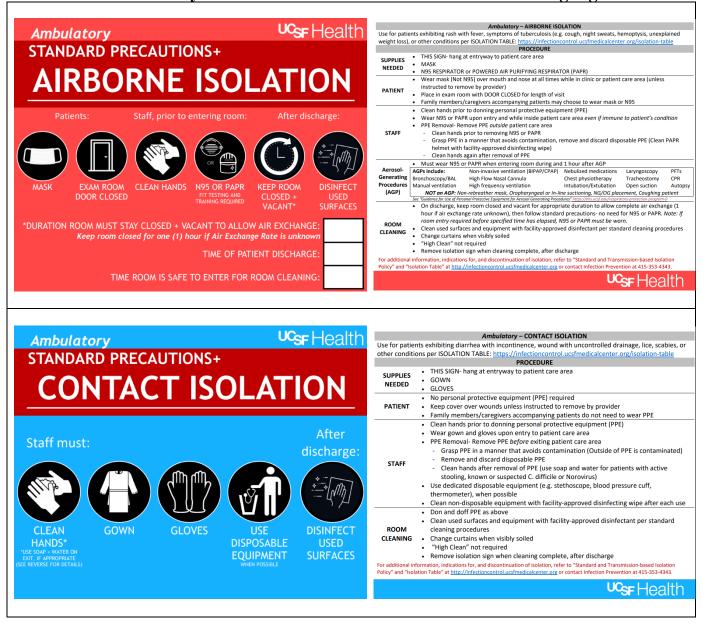




### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

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# Appendix B. UCSF Ambulatory Transmission-Based Isolation Precautions Signage





## STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

