### STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

POLICY 1.1 Issued: 03/06 Last Approval: 04/21

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

#### **STANDARD**

#### **PURPOSE**

**Standard Precautions** are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in healthcare settings. Standard Precautions apply to all patients and in all situations, regardless of diagnosis or presumed infection status. Because all patients can serve as reservoirs for infectious agents, adhering to Standard Precautions during the care of all patients is essential to interrupting the transmission of microorganisms.

#### REFERENCES

- 1. Abbott, D and JS McGurk. Authority and Responsibility of Local Health Officers in Emergencies and Disasters. September 30, 1998. *The local health authority, San Francisco Department of Public Health (SFDPH), is the ultimate authority in a public health emergency. UCSF will implement precautions and use personal protective equipment according to SFDPH guidance.*
- 2. Administrative Policy 1.03.14 Visitors: Identification, Hours and Control
- 3. Administrative Policy 02.01.02 Patient Care Equipment Cleaning In-Patient and Diagnostic Testing Areas
- 4. California Code of Regulations, Title 8, Section 5199, Aerosol-Transmissible Diseases.
- 5. California Department of Public Health HAI program CRE webpage: <a href="https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/CRE">https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/CRE</a> InfectionPreventionStrategies.aspx
- 6. Centers for Disease Control and Prevention. Guidance for Control of Carbapenem-resistant Enterobacteriaceae. Toolkit 2015. http://www.cdc.gov/hai/organisms/cre/cre-toolkit/
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- 8. Environment of Care Manual, Policy 3.1.1 Bloodborne Pathogens Exposure Control Plan
- 9. General Conditions and Specific Organisms Requiring Transmission-Based Precautions
- 10. Hayden, et al Clin Infect Dis. 2015; 60:1154-1161
- 11. Hoover, C et al. <u>SFDPH DRAFT Scenario-based Recommendations for Acute Care Hospitals for CRE</u> prevention and management. 7/24/15 (unpublished)
- 12. Horwich-Scholefield, S and E. Epson. Carbapenem Resistant Enterobacteriaceae (CRE): An Emerging Pathogen in the Bay Area. May 13, 2015. Healthcare Associated Infections Program. Center for Healthcare Quality. California Department of Public Health.
- 13. <u>Infection Prevention Policy 4.2</u>, Human Prion Disease
- 14. Infection Prevention Policy 1.2, Hand Hygiene
- 15. Jacob, JT et al. <u>Vital Signs: Carbapenem-Resistant Enterobacteriaceae</u>. Centers for Disease Control and Prevention. March 5, 2013. <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6209a3.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6209a3.htm</a>
- 16. Occupational Health Return to Work Clearance (HR Policy 4.02.09) guidance for HCW
- 17. Safety devices: Materiel Services. https://supplychain.ucsf.edu/
- 18. <u>Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings</u>
- 19. Won S Y et al. Clin Infect Dis. 2011;53:532-540

#### **POLICY**

Staff, faculty, and students will assess situations and implement Standard and Transmission-Based Precautions as noted in the Practices below.

Standard Precautions are sufficient to interrupt the spread of most infectious agents. Transmission-based precautions are used in addition to Standard Precautions.

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Transmission of infection requires three elements:

- a source of infecting microorganisms
- a susceptible host
- a means of transmission for the microorganism

<u>Standard Precautions</u> are practices to reduce healthcare associated infections are used with all patients, regardless of diagnosis or isolation status, and apply to interacting with blood, body fluids, secretions, and excretions *except sweat*, regardless of whether they contain visible blood, non-intact skin and mucous membranes. 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

### A. Hand Hygiene: refer to HEIP 1.2 Hand Hygiene Policy

### B. Personal Protective Equipment (PPE)

- 1. Symptoms, condition, and expected interaction with each patient must be critically assessed when determining appropriate PPE use.
- 2. 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.
- 3. Routinely remove and discard all PPE and CLEAN HANDS prior to leaving the patient care zone, defined as the patient's room, or in open bay situations, the immediate patient care area.
- 4. 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 Contact Isolation.
- 5. Remove and discard PPE and perform hand hygiene at the completion of the task, and when moving from a contaminated body site to a clean body site. Do not wear the same pair of gloves for the care of more than one patient, and do not wash gloves between uses with different patients.
- 6. Gloves: Glove use does not replace the need for hand hygiene. Wear gloves:
  - a. To provide a protective barrier and to prevent gross contamination of the hands
  - b. For anticipated contact with mucous membranes and non-intact skin
  - c. For invasive procedures
- 7. 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 clean, non-sterile disposable gown 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.
  - b. 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.
  - c. Remove and discard gown at completion of task, and clean hands to avoid transfer of microorganisms to other patients or environments.

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- d. Do not save and re-use gowns used in Contact or Enteric Isolation environments.
- 8. Mask and Eye Protection
  - a. Wear a mask to cover the nose and mouth, and eye protection (i.e., goggles or a face shield) during procedures and patient care activities that are likely to generate splashes or sprays of blood or body fluids.
  - b. 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.
    - c. Wear a fit tested N-95 respirator and eye protection or a CAPR/PAPR when performing "aerosol generating procedures" on people with confirmed or suspected airborne infection (see Appendix III. High Risk Medical Procedures, Policy 3.1.2 Environment of Care Aerosol-Transmissible Diseases Exposure Control Plan) such as sputum induction, bronchoscopy, open system suctioning or delivering nebulized medications to patients with suspected or confirmed Aerosol-Transmissible Diseases (ATD).
  - d. Wear a mask when placing a catheter or injecting material into the spinal canal or subdural space (i.e., during myelograms, lumbar puncture).
  - e. Wear a mask while performing a central line insertion or dressing change.

### C. Surface Disinfection and Reusable Equipment

Administrative Policy 02.01.02 "Patient Care Equipment Cleaning: Inpatient, Ambulatory and Diagnostic Testing Areas" details responsibilities for and frequency of cleaning and disinfection of patient care equipment. Departmental procedures detail the processes by which all equipment will be cleaned/disinfected.

- 1. All patient care items and surfaces used for multiple patient contacts will be cleaned/disinfected between uses. A hospital-approved detergent disinfectant will be applied and maintained wet for the label-claim period before the next patient contact using impregnated 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 detergent disinfectant is used for routine room and equipment cleaning.
- 5. Specialty equipment may require exceptions to this policy; procedures are developed collaboratively between HEIP and users of specialty equipment.

### D. Safe Injection Practices

- 1. Scrub the cap or port of invasive lines with alcohol using friction before injecting an IV medication.
- 2. Use a sterile, single-use disposable needle and syringe for each injection given.
- 3. Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed.
- 4. 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 contaminated once used to enter or connect to a patient's intravenous infusion bag or administration set.
- 5. Use single-dose vials for parenteral medications whenever possible.
- 6. Do not administer medications from single-dose vials or ampules to multiple patients or combine leftover contents for later use.
- 7. If multidose vials (MDV) must be used, both the needle or cannula and syringe used to access the MDV must be sterile.
  - a. Date every MDV
  - b. Check date every time you use a MDV to ensure it is in-date.
- 8. Before each withdrawal from a MDV, scrub the surface of the rubber diaphragm with alcohol using friction.

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- 9. Do not keep MDV in the immediate patient treatment area; store MDV according to the manufacturer's recommendations; discard if sterility is compromised or questionable.
- 10. Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients.

### E. Respiratory Hygiene and Cough Etiquette

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. Elements are implemented 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. Post 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, ideally >6 feet, 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 HCW.

### F. Infection Prevention Practices for special lumbar puncture situations

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

### G. Special Considerations During Pandemic Response

1. <u>Depending on mode of transmission</u>, additional recommendations and requirements may be in place (e.g. universal masking and eye protection). Please see Pandemic-related guidelines on the HEIP Website

### **H. Other 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, *Clostridium 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 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: <a href="https://supplychain.ucsf.edu/">https://supplychain.ucsf.edu/</a>.
- 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

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- 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 Sterile Processing 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 (353-STIC), and then to the area supervisor. Refer to the EOC Policy 3.1.1 Bloodborne Pathogens Exposure Control Plan.
- 9. **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 in HEIP Policy 4.2.
- 10. Items from inpatient in-room storage: discard items and clean interior and exterior of storage unit

### TRANSMISSION-BASED ISOLATION

### **PURPOSE**

*Transmission-based Isolation* are designed for patients with symptoms and/or documented or suspected infection or colonization with one of the organisms listed on the <u>Isolation Table</u>

### **POLICY**

- Use Transmission-based Isolation in addition to Standard Precautions for patients with suspected or confirmed diseases listed in the "General Conditions and Specific Organisms Requiring Transmission-Based" table. Maintain appropriate Transmission-based until the condition has been ruled out or the criteria for removal from isolation have been met.
- 2. The four 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 Isolation
  - c. Droplet Isolation
  - d. Airborne isolation
- 3. Anyone may institute the appropriate when suspicion of a condition triggers a test for the causative agent.
- 4. 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.
- 6. Patient/representative education: <u>Infection Prevention Standard Precautions and Transmission-Based</u>
  <u>Isolation</u>
- 7. For Ambulatory areas, refer to Ambulatory Isolation Signs (<u>Appendix B</u>) for specific isolation procedures in the outpatient setting.

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

Contact, or touch, is the most common and most significant mode of transmission of infectious agents. Contact transmission can occur by directly touching the patient, through contact with the patient's

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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.

### Contact Isolation requires:

- 1. Private Room unless a shared space has been approved by HEIP
- 2. 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.
- 3. Patients with pending Respiratory Viral Panel (RVP) and children under 2 years who are in Droplet Isolation are also placed in Contact Isolation.
- 4. Appropriate door signage (see Appendices A & B)

### Healthcare workers caring for patients in Contact Isolation must:

- 1. When entering the patient's room.
  - a. Clean hands
  - b. Put on and secure a clean gown (do not save/reuse gowns)
  - c. Put on gloves
- 2. When exiting a patient's room/area:
  - a. Remove and discard gloves and gown in a manner that avoids contact with the outside, which is considered contaminated
  - b. Clean hands with soap and water or alcohol-based hand rub (ABHR)
  - c. Turn off faucet (if applicable)/open door using a paper towel
- 3. Patients on Contact Isolation are not allowed in communal spaces (play room, 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.
- 6. Notify receiving department of patient isolation status prior to transport.
- 7. Receiving department room cleaning: see C. Surface Disinfection and Reusable Equipment above.

**Visitors** may choose to wear indicated PPE. Provide Hand Hygiene education to family and visitors.

### **Discontinuing isolation:**

- 1. Diarrhea, not caused by *Clostridium difficile*: when patient's diarrhea has resolved. (See <u>Diarrhea Decision Tree</u>)
- 2. Other conditions/diseases: consult with HEIP

#### **Admission to Comfort Care Suites/Rooms:**

Patients in Contact Isolation may be admitted to Comfort Care.

#### **B.** Enteric Contact Isolation

Diarrheal illness of infectious etiology is a significant cause of morbidity in hospitalized patients. Transmission can occur by directly touching the patient or the patient's environment, or by using contaminated gloves or equipment.

#### Enteric Isolation requires:

- 1. Private Room unless a shared space has been approved by HEIP
- 2. 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.
- 3. Appropriate door signage (see Appendices A & B; Ambulatory areas use Contact signage).

### Healthcare workers caring for patients in Enteric Contact Isolation must:

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- 1. When entering the patient's room.
  - a. Clean hands
  - b. Put on and secure a clean gown (do not save/reuse gowns)
  - c. Put on gloves
- 2. When exiting a patient's room/area:
  - a. Remove and discard gloves and gown in a manner that avoids contact with the outside, which is considered contaminated
  - b. Clean hands with soap and water
  - c. Turn off faucet/open door using a paper towel
- 3. 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
- 4. Notify receiving department of patient isolation status prior to transport
- 5. Receiving department room cleaning: see C. Surface Disinfection and Reusable Equipment above.

Visitors may choose to wear indicated PPE. Provide Hand Hygiene education to family and visitors.

### **Discontinuing isolation:**

- 1. Diarrhea caused by *Clostridium difficile*: when patient has had no loose stools for 48 hours, bathed, and transferred to a clean room. (See <u>Diarrhea Decision Tree</u>)
- 2. Diarrhea, caused by norovirus:
  - a. Adult and pediatric hematology/oncology/BMT patients: Enteric Isolation to continue for the duration of hospitalization.
  - b. All others: Enteric Contact isolation can be discontinued if (1) patient has had no diarrhea for  $\geq$ 48 hours AND (2) patient has been transferred to clean room.

#### **Admission to Comfort Care Suites/Rooms:**

Patients in Enteric Contact Isolation may be admitted to Comfort Care.

### **B.** 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 are propelled a short distance (3-6 feet), and may come in contact with another person's conjunctivae or mucous membranes (eyes, nose, or mouth). Droplets do not remain suspended in the air and are not transmitted by the airborne route. Table 1 shows a sampling of diseases and conditions identified by CalOSHA as requiring Droplet Isolation. A complete table can be found in the <u>Isolation Table</u>

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### Table 1. Diseases/Pathogens Requiring Droplet Isolation (Cal OSHA)

Diphtheria pharyngeal

Epiglottitis, due to Haemophilus influenzae type b

Haemophilus influenzae Serotype b (Hib) disease/Haemophilus influenzae serotype b -- Infants and children Influenza, human (typical seasonal variations)/influenza viruses
Meningitis

Haemophilus influenzae, type b known or suspected

Neisseria meningitidis (meningococcal) known or suspected

Meningococcal disease sepsis, pneumonia (see also meningitis)

Mumps (infectious parotitis)/Mumps virus

Mycoplasmal pneumonia

Parvovirus B19 infection (erythema infectiosum)

Pertussis (whooping cough)

Pharyngitis in infants and young children/Adenovirus, Orthomyxoviridae, Epstein-Barr virus, Herpes simplex virus,

#### Pneumonia

Adenovirus

Haemophilus influenzae Serotype b, infants and children

Meningococcal

Mycoplasma, primary atypical

Streptococcus Group A

Pneumonic plague/Yersinia pestis

Rubella virus infection (German measles)/Rubella virus

Severe acute respiratory syndrome (SARS)

Streptococcal disease (group A streptococcus)

Skin, wound or burn, Major

Pharyngitis in infants and young children

Pneumonia

Scarlet fever in infants and young children

Serious invasive disease

Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, Crimean-Congo fever viruses (airborne infection isolation and respirator use may be required for aerosol-generating procedures)

Any other disease for which public health guidelines recommend Droplet Isolation

### **Droplet Isolation** requires:

- 1. Private room, except when directed otherwise by HEIP.
- 2. Patients to remain in their room except for essential purposes (surgery, tests, treatments, therapy services). The patient may ambulate in the hallway, however, are not allowed in communal spaces (playroom, school rooms, solarium, cafeteria, etc.).
- 3. When patients on droplet isolation are out of their room, they must wear a regular mask (without the eye shield), clean patient gown, and must complete hand hygiene (hand gel and/or wash with soap and water) before leaving their room. If the patient is unable or unwilling to wear a mask the patient must remain in their room.
- 4. Patients with pending Respiratory Viral Panel (RVP) and children under the age of 2 years who require Droplet Isolation also require Contact Isolation.
- 5. Appropriate door signage (see Appendices A & B).

### Healthcare workers caring for patients in Droplet Isolation will:

1. Perform hand hygiene with alcohol-based hand rub or soap and water when entering room.

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- 2. Put on a mask that covers the mouth and nose, and eye protection (safety goggles, fluid shield) upon entering the room.
- 3. Wear mask and eye protection when performing 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) for patients with suspected or confirmed diseases requiring Droplet Isolation. Refer to <u>Isolation Table</u> for specific requirements.
- 4. Clean hands, remove and discard mask/eye protection, and clean hands again before leaving the patient's room or, in semi-private room or multi-bed bay situation, before leaving the patient's immediate vicinity. Clean goggles may be reused; clean with a disinfectant wipe after use.
- 5. Notify receiving department of patient isolation status prior to transport.

### **Visitors**

- 1. Visitors will be educated regarding the transmission of diseases requiring Droplet Isolation:
  - a. Perform hand hygiene with alcohol-based hand rub or soap and water regularly and always upon entering and exiting the patient's room.
  - b. Risk of acquisition of diseases requiring Droplet Isolation is reduced through the use of personal protective equipment (i.e. mask with eye shield or goggles). This equipment will be available for visitors upon request.
- 2. 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.
- 3. Nursing staff will instruct family/visitors to clean hands after contact with patient secretions or contact with immediate patient environment.
- 4. Patients on Droplet Isolation (and their pediatric family members) are not allowed in communal spaces (playroom, school room, solarium, etc.)

#### **Discontinuing isolation:**

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

#### **Admission to Comfort Care Suites/Rooms:**

Patients in Droplet Isolation may be admitted to Comfort Care.

#### C. Airborne Isolation

When a person infected with an airborne-transmitted disease coughs, sneezes, speaks, spits, sings, or undergoes oral or tracheal/bronchial suctioning, infectious particles sized 5 microns or smaller, which carry the infectious organism may be released into the air and be carried via air currents. Table 2 shows a sampling of diseases and conditions identified by CalOSHA as requiring Airborne Isolation. A complete table can be found in the <u>Isolation Table</u>.

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### Table 2. Diseases/Pathogens Requiring Airborne Isolation (Cal OSHA)

Aerosolizable spore-containing powder or other substance that is capable of causing serious human disease, e.g. Anthrax/Bacillus anthracis

Avian influenza/Avian influenza A viruses (strains capable of causing serious disease in humans)

Varicella disease (chickenpox, shingles)/Varicella zoster and Herpes zoster viruses, disseminated disease in any patient. Localized disease in immunocompromised patient until disseminated infection ruled out

Measles (rubeola)/Measles virus

Monkeypox/Monkeypox virus

Novel or unknown pathogens

Severe acute respiratory syndrome (SARS)

Smallpox (variola)/Varioloa virus

Tuberculosis (TB)/Mycobacterium tuberculosis -- Extrapulmonary, draining lesion; Pulmonary or laryngeal disease, confirmed; Pulmonary or laryngeal disease, suspected

Any other disease for which public health guidelines recommend airborne infection isolation

Negative pressure air handling (ventilation) is required for isolating patients diagnosed or suspected of having a disease requiring Airborne Isolation.

### **Airborne Isolation** requires:

- 1. Private Airborne Infection Isolation Room (AIIR, aka Negative Pressure Isolation Room [NPIR]).
- 2. Healthcare workers entering the room of a patient with suspected or confirmed diseases requiring Airborne isolation to wear a fit-tested N-95 respirator or Powered Air Purifying Respirator (PAPR) see EOC Policy 3.1.2 Aerosol-Transmissible Diseases Exposure Control Plan.
- 3. The healthcare worker to wear a PAPR when performing 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) for patients with suspected or confirmed diseases requiring Airborne isolation. Exceptions to wearing a PAPR for aerosol-generating procedures include:
  - a. Emergent patient conditions that do not allow time to don PAPR equipment.
  - b. PAPR equipment interferes with the use of medical devices necessary to conduct a procedure.
  - c. Other exemptions must be submitted to the Office of Environmental Health and Safety on behalf of the department for compilation and annual review.
- 4. 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. Immunity to chickenpox (varicella) may be confirmed via:
  - a. Clinical disease demonstrable by serum antibody titer.
  - b. 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.
- 5. Patients to be confined to their room except for essential purposes, in which case, a mask is worn by the patient at all times when outside the negative pressure environment. (Patients with airborne transmitted diseases are not required to wear an N-95 respirator.)
- 6. Keep N-95 respirators and PAPRs on when exiting the room. Clean hands, remove and discard respirator as appropriate outside patient door, then clean hands again.
- 7. Appropriate door signage (see Appendices A & B).
- 8. Notify receiving department of patient isolation status prior to transport.
- 9. For Ambulatory areas:
  - a. Refer to Ambulatory isolation signs (Appendix B)
  - b. Patient should wear mask over mouth and nose



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- c. Expedite placing patient in exam room with door closed for the entire visit
- d. Staff wear PPE per above
- e. After discharge, keep room closed and vacant for appropriate duration to allow complete air exchange (1 hour if air exchange rate unknown), then follow standard precautions. Note: If room entry is required before specified time has elapsed, N95 or PAPR must be worn.

#### 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.

### **Discontinuing Airborne isolation:**

Consult with HEIP before discontinuing Airborne Isolation.

In addition, for "R/O TB", consult EOC Policy 3.1.2 Aerosol-Transmissible Diseases Exposure Control Plan

#### **Admission to Comfort Care Suites/Rooms:**

Set the room to negative pressure prior to admission of a patient on Airborne Isolation.

### D. Special Considerations During Pandemic Response

a. Depending on mode of transmission, additional combination isolation may be recommended. Please see Pandemic-related guidelines on the HEIP Website

#### E. Cadaver Handling

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:

- b. Emergent patient conditions that do not allow time to don PAPR equipment.
- c. PAPR equipment interferes with the use of medical devices necessary to conduct a procedure.
- d. Other exemptions must be submitted to the Office of Environmental Health and Safety on behalf of the department for compilation and annual review.

### F. Definitions

- 1. Aerosol-transmissible disease (ATD) or aerosol transmissible pathogen (ATP). A disease or pathogen for which droplet or airborne isolation are required.
- 2. 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.
- 3. 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.
- 4. 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. tuberculosis* and other airborne infectious pathogens and that meets the requirements stated in subsection (e)(5)(D) of this standard.

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- 5. 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.
- 6. 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.
- 7. aka: also known as
- 8. CalOSHA: California Occupational Safety and Health Administration.

### 2021 Revision Team:

Hospital Epidemiology and Infection Prevention S. Lee, A. Nichols, C. O'Neil

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### HOSPITAL EPIDEMIOLOGY AND INFECTION PREVENTION: STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

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Appendix A.

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



#### PATIENTS in CONTACT ISOLATION

- Place in a PRIVATE ROOM unless a shared space has been approved by Infection Prevention
- Unit policy permitting, continent, cooperative, and clean patients may ambulate in hallways after donning a clean hospital gown, covering affected area as applicable (e.g. wound), and cleaning hands; may NOT enter communal spaces (play/school room, solarium, cafeteria, etc.)

#### STAFF Caring for Patients in CONTACT ISOLATION

ISOLATION Place caddy outside patient room containing: • GOWNS GLOVES Use dedicated disposable equipment (e.g. stethoscope, blood pressure cuff, thermometer) when

- possible
- Clean non-disposable equipment with hospital-approved disinfecting wipe after each use Clean hands prior to donning personal protective equipment (PPE)
- WORKFLOW Wear a gown and gloves upon entry to patient room or care area

  - PPE Removal- PPE should be removed before exiting patient room or care area
     Grasp PPE in a manner that avoids contamination (Outside of PPE is contaminated)
    - Remove and discard disposable PPE (place reusable gowns in soiled linen receptacle)
  - Clean hands after removal of PPE

    Notify receiving department of isolation status prior to transport
- Patient wears a clean hospital gown, covers affected area as applicable (e.g. wound), covers body
  - with clean sheet, and cleans hands prior to exiting patient room or care area

    Transporter removes PPE and cleans hands (per above workflow) prior to exiting patient room or
- care area; if direct contact is anticipated, may wear gown and gloves Don and doff PPE as above and clean per standard cleaning procedures
- On discharge, Hospitality removes isolation sign when cleaning complete
  - On discontinuation of isolation or patient discharge, *Nursing* removes and cleans isolation caddy Not required to wear PPE unless visiting other patients

Instruct visitors to clean hands before entering and exiting patient room or care area
 For additional information, indications for, and discontinuation of isolation, refer to "Standard and Transmission-based Isolation Policy" and "Isolation Table" at <a href="http://infectioncontrol.ucsfmedicalcenter.org">http://infectioncontrol.ucsfmedicalcenter.org</a> or contact Infection Prevention at 415-353-4343.

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#### PATIENTS in ENTERIC CONTACT ISOLATION

Place in a PRIVATE ROOM unless a shared space has been approved by Infection Prevention
Unit policy permitting, continent, cooperative, and clean patients may ambulate in hallways after donning a clean
hospital gown and cleaning hands with SOAP and WATER; may NOT enter communal spaces (play/school room,

- STAFF Caring for Patients in ENTERIC CONTACT ISOLATION

  OLATION Place caddy outside patient room containing: GOWNS GLOVES THIS SIGN\*

  CADDY \*Attach additional copy of this sign to alcohol-based hand rub dispenser inside patient room or care area
  - Use dedicated disposable equipment (e.g. stethoscope, blood pressure cuff, thermometer) when
  - Clean non-disposable equipment with hospital-approved disinfecting wipe after each use
- Clean hands prior to donning personal protective equipment (PPE)
  WORKFLOW
  Wear a gown and gloves upon entry to patient room or care area
  PPE Removal- PPE should be removed before exiting patient room or care area
  Grasp PPE in a manner that avoids contamination (Outside of PPE is contaminated)

  - Remove and discard disposable PPE (place reusable gowns in soiled linen receptacle)

  - Clean hands with soap and water after removal of PPE
    Notify receiving department of isolation status prior to transport
- TRANSPORT
- Patient wears a clean hospital gown, covers body with clean sheet, and cleans hands with soap and water prior to exiting patient room or care area
   Transporter removes PPE and cleans hands (per above workflow) prior to exiting patient room or care
- area; if direct contact is anticipated, may wear gown and gloves
- ROOM
- Don and doff PPE as above and clean per standard cleaning procedures
   On discharge, Hospitality removes isolation sign when cleaning complete
   On discontinuation of isolation or patient discharge, Nursing removes and cleans isolation caddy
- Not required to wear PPE unless visiting other patients
- Instruct visitors to clean hands before entering and exiting patient room or care area, using soap and

For additional information, indications for, and discontinuation of isolation, refer to "Standard and Transmission-based Isolation Policy," "Isolation Table," and "Diarrhea Decision Tree" at <a href="http://infection.control.ucsfmedicalcenter.org">http://infection.control.ucsfmedicalcenter.org</a> or contact Infection Prevention at 415-353-4343.

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#### PATIENTS in DROPLET ISOLATION

- Place in a PRIVATE ROOM unless a shared space has been approved by Infection Prevention Must wear MASK over mouth and nose when outside patient room or care area

- Are encouraged to remain in the room except for essential purposes

  Unit policy permitting, may ambulate in hallways after donning a clean hospital gown, mask (as above), and cleaning hands; may NOT enter communal spaces (play/school room, solarium, cafeteria, etc.)

  STAFF Caring for Patients in DROPLET ISOLATION

  ISOLATION Place caddy outside patient room containing:

  MASKS W/ FACE SHIELDS

  OGGILES/FACE SHIELDS

  AMASKS

  Clean hands prior to donning personal protective equipment (PPE)

- - Wear mask over mouth and nose and eye protection (safety goggles, fluid shield) upon entry to patient room or care area. Note: Eyeglasses are not a substitute for eye protection
     If High-Risk Aerosol Generating Procedures (HRAGP) needed, refer to Isolation Table for additional PPE

- In Ingirenos Aerosol series dung Frocedure's (Invary) referede, refer to Southurn faulte for adultional Preand signage requirements for some Droplet-transmissible conditions
   The Southurn factors (supposed for high this Aeros Generally Invastors' Southurn factors' supposed for PE Removal PPE should be removed before extiting patient in room or care area
   Clean hands prior to removing mask and eye protection
   Grap PPE in a manner that avoids contamination, remove and discard disposable PPE (Goggles may) be disinfected and reused)

- Clean hands again after removal of PPE
   Notify receiving department of isolation status prior to transport
   Patient wears mask (pediatric patients unable to mask-cover crib with clean sheet), a clean hospital gown, and cleans hands prior to exiting patient room or care area
- Transporter removes PPE and cleans hands (per above workflow) prior to exiting patient room or care
  - area; if direct contact is anticipated, may wear mask and eye protection

    Don and doff PPE as above and clean per standard cleaning procedures
    Avoid room cleaning during and 1 hour after HAGP, if applicable
    On discharge, Hospitality removes isolation sign when cleaning complete

- On discontinuation of isolation or patient discharge, Nursing removes and cleans isolation caddy
- Offer mask and eye protection with instructions
- VISITORS
   Other mask and eye protection with instructions
   Instruct visitors to clean hands before entering and exiting patient room or care area.

For additional information, indications for, and discontinuation of isolation, refer to "Standard and Transmission-based Isolation Policy" and "Isolation Table" at <a href="https://infectioncontrol.ucsfmedicalcenter.org">https://infectioncontrol.ucsfmedicalcenter.org</a> or contact Infection Prevention at 415-353-4343.



Place in a private Airborne infection isolation Room (AIRI)/Negative Pressure isolation Room (NPIR) with DOOR CLOSED

- Create work order for Facilities to change and monitor room pressurrisation daily—see ATD Standard (EOC Policy 3.1.2)
Must REMAIN IN THE ROOM except for essential purposes (off-wint testing, surgical procedures, etc.)
Must wear MASK (Not NS5) over mouth and nose when outside the negative pressure environment

STAFF Canaging For Patients in AIRBROONE (SOLATION

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CADDY

Clean hands prior to donning personal protective equipment (PPE)

- Wear fit-tested NS5 or PAPR upon entry and while inside patient room or care area

- PPER Removal- PPE should be removed outside patient room or care area

- PPER armoval- PPE should be removed outside patient room or care area

- Clean hands prior to removing MS5 or PAPR

- Grasp PPE in a manner that avoids contamination, remove and discard disposable PPE (Clean PAPR helmet with hospital-approved disinfecting wipe)

- Must wear PAPR when entering room during and 1 hour after HRAGP

Cash hands again after removal of PPE

Must were PAR when entering room during and 1 hour after HRAGP

HRAGP PAR when entering room during and 1 hour after HRAGP

HRAGP includes:

Non-invalient were provided by the provided prov High-Risk Aerosol-Generating Procedures (HRAGP)

- CLEANING

  - On discontinuation of isolation or patient discharge, Nursing removes and cleans isolation caddy
- - Offer mask or N95 with instructions
     Instruct visitors to clean hands before entering and exiting patient room or care area

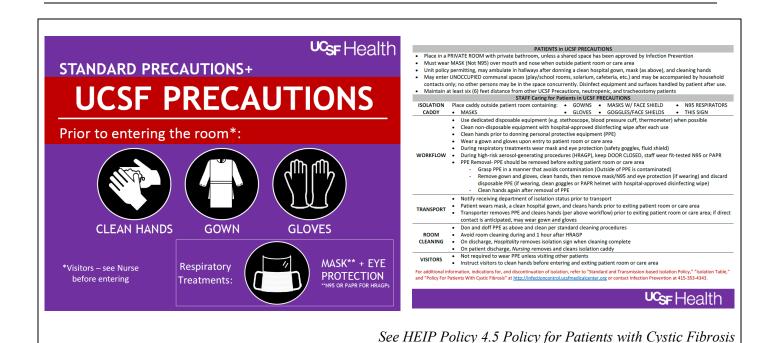
For additional information, indications for, and discontinuation of isolation, refer to "Standard and Transmission-bas Isolation Table" at <a href="http://infectioncontrol.ucsfmedicalcenter.org">http://infection.prevention at 415-353-4343</a>. n-based Isolation Policy" and

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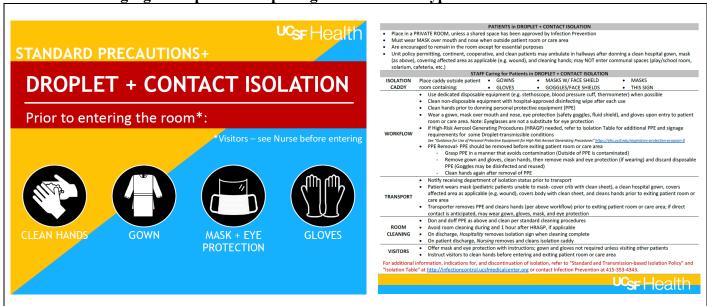


# HOSPITAL EPIDEMIOLOGY AND INFECTION PREVENTION: STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

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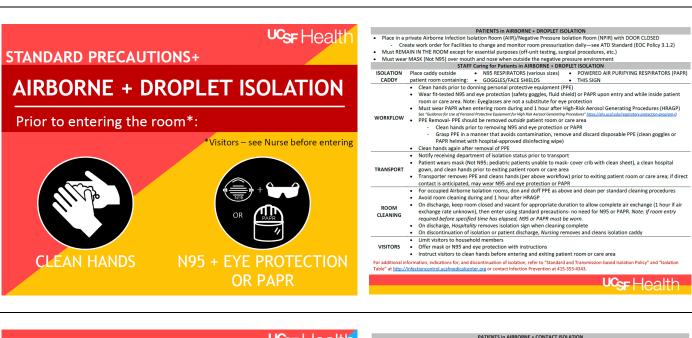
Use the following signs for patients requiring more than one type of isolation:



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PATIENTS In AIRBORNE + CONTACT ISOLATION

Place in a private Airborne Infection Isolation Room (AIRI)/Negative Pressure Isolation Room (NPIR) with DOOR CLOSED

- Create work order for Facilities to change and monitor room pressurization daily—see ATD Standard (EOC Policy 3.1.2)

- Must REMAIN IN THE ROOM except for essential purposes (off-unit testing, surpical procedures, etc.)

- Must wear MASK (Not NS5) over mouth and nose when outside the negative pressure environment

STAFF Caring For Patients in AIRBORNE + CONTACT SIOLATION

ISOLATION

| Flace caddy outside patient room containing:
- NS5 RESPIRATORS (various size)

- Clann non-disposable equipment (e.g. sethoscope, blood pressure cuff, thermometer) when possible

- Clean non-disposable equipment with hospital-approved disinfecting when after each use

- Clean hands prior to domining personal protective equipment (PEP)

- Wear a gown, a fit-tested NS5 or PAPR, and gloves upon entry and while inside patient room or care area.

- Worker of the wear PAPR when entering room during and 1 hour after High-Risk Aerosol Generating Procedures (HRACP)

- Wear a gown, a fit-tested NS5 or PAPR, and gloves upon entry and while inside patient room or care area.

- Worker of the Control of th

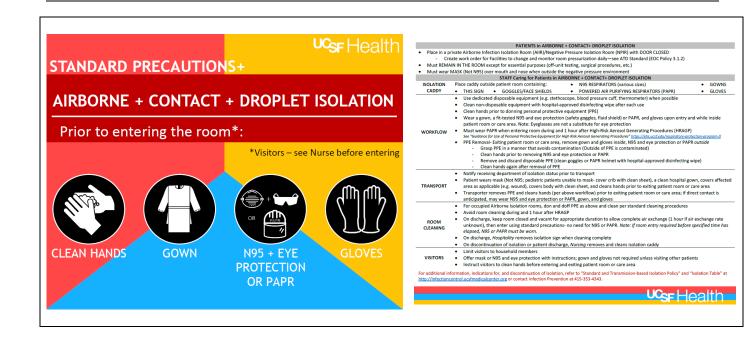
ications for, and discontinuation of isolation, refer to "Standard and Transi dicalcenter.org or contact Infection Prevention at 415-353-4343.

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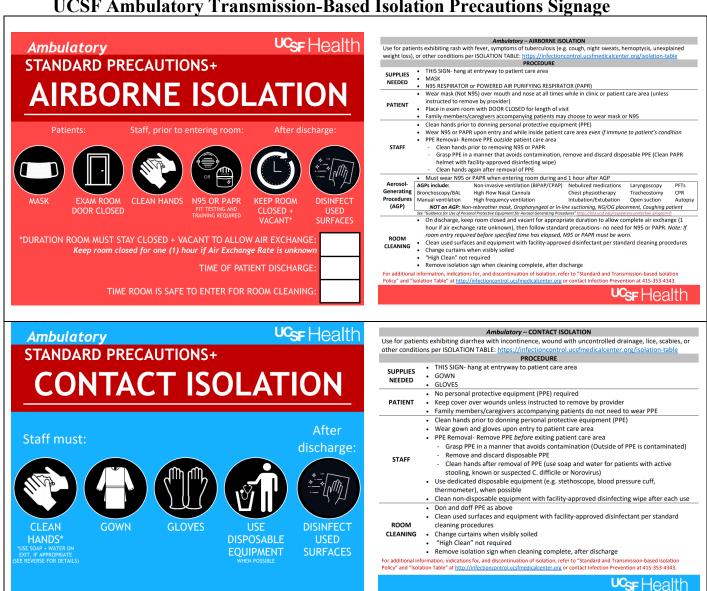


### HOSPITAL EPIDEMIOLOGY AND INFECTION PREVENTION: STANDARD PRECAUTIONS AND TRANSMISSION-BASED ISOLATION

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Appendix B.

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



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Ambulatory – DROPLET ISOLATION **UCSF** Health **Ambulatory** Use for patients exhibiting symptoms of upper respiratory infection, including cough and fever, or other conditions per ISOLATION TABLE: <a href="https://infectioncontrol.ucsfmedicalcenter.org/isolation-table">https://infectioncontrol.ucsfmedicalcenter.org/isolation-table</a>
PROCEDURE STANDARD PRECAUTIONS+ \* THIS SIGN- riding at Cons., ...

MASK WITH FACE SHIELD OF THIS SIGN- hang at entryway to patient care area **DROPLET ISOLATION**  MASK and EYE PROTECTION (goggles/face shield) Wear mask over mouth and nose at all times while in clinic or patient care area PATIENT (unless instructed to remove by provider) Family members/caregivers accompanying patients may choose to wear mask Clean hands prior to donning personal protective equipment (PPE) Wear mask and eye protection upon entry to patient care area Note: Eyeglasses are not a substitute for eye protection PPE Removal- Remove PPE before exiting patient care area - Clean hands prior to removing mask and eye protection Grasp PPE in a manner that avoids contamination, remove and discard disposable PPE Goggles may be disinfected and reused Clean hands again after removal of PPE · Don and doff PPE as above Clean used surfaces and equipment with facility-approved disinfectant per standard ROOM cleaning procedures CLEANING • Change curtains when visibly soiled · "High Clean" not required Remove isolation sign when room cleaning complete, after discharge For additional information, indications for, and discontinuation of isolation, refer to "Standard and Transmission-based isolation Policy" and "Isolation Table" at <a href="https://infectioncontrol.ucsfmedicalcenter.org">https://infectioncontrol.ucsfmedicalcenter.org</a> or contact Infection Prevention at 415-353-4343.