

Severe Pandemic Influenza Infection Control Draft Recommendations
For the
Healthcare Setting including Emergency Medical Situations

San Francisco Department of Public Health

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The recommendations contained in this document comprise one component of an overall set of infection control recommendations developed by the San Francisco Department of Public Health to be used only for a severe influenza pandemic (Pandemic Severity Index 4 or greater). The Healthcare Setting recommendations are intended to guide infection control professionals and healthcare workers in healthcare settings. For the purposes of this document, the healthcare setting is broadly defined as a setting whose primary purpose is to attend to the needs of those requiring medical attention where patients suspected or confirmed with pandemic influenza will seek care, or will be provided care. This may include an acute care hospital, a sub-acute care facility, a long term or rehabilitation facility, an urgent care center, an ambulatory clinic, a physician office, and/or an Emergency Medical Service such as ambulance. The San Francisco Department of Public Health has developed separate infection control recommendations for other settings whose primary purpose is not the provision of medical care, such as homes, correctional facilities, and other workplace settings and for other groups, such as the general public. When not at work, the SFDPH Severe Pandemic Influenza Infection Control Recommendations for the General Public in Public Settings should be followed. These healthcare infection control recommendations do not supersede guidance from OSHA, JCAHO or other regulatory bodies, such as the OSHA Guidance on Preparing Workplaces for an Influenza Pandemic.

At any time in a severe pandemic situation, there is the assumption that there may be staff and equipment shortages, so this document presents the ideal infection control methods to limit transmission of influenza in healthcare settings during a severe pandemic with the recognition that global and location situations at the time of a pandemic may limit the ability of healthcare workers to implement them. For this reason, the document also includes recommended strategies to maintain the best possible infection control practices when the implementation of any of the recommendations is not feasible due to the lack of staffing, equipment or supplies. It is expected that each healthcare facility or setting has its own specific pandemic influenza plan and will use these recommendations to guide modifications to those plans. Health care workers should be familiar with their facility's pandemic influenza plan and should also have a personal/family pandemic influenza preparedness plan.

At the beginning of a severe influenza pandemic the exact modes of transmission may not be known, therefore these recommendations are based on providing a maximal level of protection, which may be decreased if further evidence at the time of the pandemic indicates that certain precautions or procedures are not necessary to reduce transmission. In healthcare settings, persons suspected or confirmed to have a novel influenza strain during a severe pandemic should be cared for using Standard, Airborne, Contact precautions, and Eye Protection as long as resources allow. Hand Hygiene and Respiratory Hygiene/Cough Etiquette strategies should be implemented as well. Those in the healthcare setting should maintain infection control standards and practices as much as possible in a severe pandemic situation for as long as feasible.

Patients who have pandemic influenza infections requiring hospitalization or ongoing medical care for medical reasons should be managed with these infection control

precautions for at least **14*** days (*Duration of infectiousness, incubation and isolation period will be determined at the time based on available epidemiology) after onset of symptoms with clinical improvement unless an alternative diagnosis is established or infection with a novel influenza strain has been excluded. These infection control precautions may be extended for longer period if there is no clinical improvement, or for pediatric or immune-compromised persons suspected or confirmed to have a novel influenza strain.

During a severe influenza pandemic, the general public may be instructed to wear a face mask when outside the home. A face mask refers to a surgical type of mask that covers the nose and mouth and either ties at the back or has loops around the ears. In addition to the use of face masks, the SFDPH will be recommending the strategies outlined in the next paragraph for the entire public; these strategies form the basic foundation for all of the components in the set of infection control recommendations for severe pandemic influenza. Consult the Severe Pandemic Influenza Infection Control Recommendations for the General Public document for further specific details. Healthcare-specific strategies are discussed in detail in the remainder of this document.

While Personal Protective Equipment (PPE), appropriately selected and worn correctly, provides some protection for the wearer from contact with pandemic influenza virus, the use of PPE is only a component of the basic strategies a person can take to decrease disease transmission. These strategies include:

- A. **Do not go to work when ill.**
- B. **Minimize contact with sick persons**, to decrease the amount of exposure to the virus.
- C. **Keep hands clean** - influenza virus is primarily a respiratory droplet transmissible disease, and cleaning hands with soap and water or an alcohol-based sanitizer as often as possible decreases the potential of contaminating objects and surfaces, as well as removing virus from hands after potential contact with viruses that have settled onto surfaces.
- D. **Avoid touching eyes, nose and mouth** with un-washed hands – hands that have not been washed can bring the virus into contact with the mucous membranes.
- E. **Wear a mask to cover nose and mouth** to limit transmission of the influenza virus.
- F. **Ask every unmasked person to wear a mask**, as tolerated. If mask cannot be tolerated, use tissue or cloth to cover the nose and mouth, especially when coughing or sneezing.

Because these recommendations have been developed in advance, the SFDPH will update the recommendations at the time of a pandemic based on the best epidemiologic information available at that time, and specifically will update any sections that are highlighted in yellow.

A. Identify and Isolate Confirmed or Suspected Cases

To reduce the transmission of any respiratory infections, including influenza, in healthcare settings, visual alerts (in appropriate languages) should be posted at entrances instructing patients and persons who accompany them to inform healthcare personnel of symptoms of a respiratory infection when they register for care.

1. Triage/Initial Assessment

- 1.1 Health care workers should don respiratory protection (an N95 or higher) mask prior to coming in close contact with symptomatic persons.
- 1.2 Offer a face mask to all symptomatic (fever, coughing and/or sneezing) persons including but not limited to patients, household members, visitors, etc. to wear if it can be tolerated. Otherwise, instruct the person to cover the mouth and nose with a tissue or cloth, especially when coughing and sneezing.
- 1.3 Place the symptomatic person in a single room or away from others if possible.
- 1.4 Otherwise, separate the symptomatic person at least 3 - 6 feet from others.
- 1.5 Hands must be washed or sanitized before and after caring for the patient.

2. Transporting Patient to an Acute Care Facility

- 2.1 Healthcare settings that do not provide in-patient care may need to transport the suspected or confirmed pandemic flu patient to an acute care facility.
- 2.2 The acute care facility should be notified prior to transfer of the patient so proper precautions can be taken at the receiving area of the acute care facility, **when feasible (this recommendation may change later in the course of a pandemic).**
- 2.3 Instruct the patient to wear a mask if tolerated. If not, ask the patient to cover the nose and mouth with a tissue during transport.
- 2.4 Unless medically indicated, do not remain in the same transport compartment with the patient. If the health care worker must stay with the patient, the healthcare worker should don respiratory protection (of an N95 level of mask or higher) during transport.

- 2.5 Advise the patient's family members to ride in a separate vehicle if possible. Family members should ride in the same transport vehicle only for the health and well being of the patient (e.g. a dependent) and should don a mask when riding in the same vehicle.
- 2.6 If the vehicle doesn't have a separate ventilation system or separate compartments, turn up the ventilation system to the maximum in the transport vehicle.
- 2.7 Provide tissues for the coughing/sneezing patient to use, and a trash bag for disposal of tissues.
- 2.8 Instruct the patient to clean hands using hand sanitizer after coughing, sneezing or blowing the nose.
- 2.9 Transport vehicles that are soiled with respiratory secretion should be cleaned according to protocol prior to next use. Use diluted bleach or other disinfectant according to manufacturer's recommendation.
- 2.10 All trash can be discarded in the regular waste stream.
- 2.11 Healthcare workers hands must be cleaned at the end of the transport.

3. Patient Placement or Isolation

- 3.1 All persons suspected or confirmed to have pandemic influenza should not remain in a waiting room but should be taken immediately to an airborne isolation room if available. An airborne isolation room is a private room that at a minimum has: 1) monitored negative air pressure in relation to the surrounding areas; 2) 6 to 12 air changes per hour; and 3) appropriate discharge of air to the outdoors or monitored high-efficiency filtration of room air before the air is circulated to other areas in the hospital. Keep the door closed and place a sign on the door warning persons to check with staff prior to entering.
- 3.2 If an airborne isolation room is not available, place the patient in a private room with High Efficiency Particulate Air (HEPA) filtration unit. Keep the door closed and place a sign on the door warning persons to check with staff prior to entering.
- 3.3 If a private room with HEPA filtration is not available, place the patient in a private room at the end of the ventilation circuit. Keep the door closed and place a sign on the door warning persons to check with staff prior to entering.
- 3.4 If a private room at the end of the ventilation circuit is not available, place the patient in a private room. Keep the door closed and place a sign on the door warning persons to check with staff prior to entering.

- 3.5 If no private room is available, direct all persons suspected or confirmed to have pandemic influenza to sit as far away as possible (at least 3 - 6 feet) from others while wearing a mask. If masks are not available or are not able to be used, the person suspected or confirmed to have pandemic influenza should cover their mouth and nose with a tissue or other cloth as much as possible, especially when coughing or sneezing.
- 3.6 When resources are limited, consider re-prioritizing patients with other types of infectious diseases requiring a negative pressure airborne isolation room, consider converting a unit to “isolate” all the patients with a novel influenza strain where HVAC can be adjusted as needed, consider isolating one wing/ward, if available, to cohort these patients.

B. Control and Prevent Transmission

1. Hand Hygiene/Handwashing

- 1.1 At entrance points, post signs and instructions for everyone entering the facility to sanitize hands using alcohol based hand sanitizer. Ensure there are adequate numbers of hand sanitizer stations for the number of employees and visitors to the facility, and replace empty bottles as needed. For example, if the hand sanitizer bottles need to be replaced during a shift, more bottles may be needed.
- 1.2 Hand sanitizer should have at least 60% alcohol content in order to be effective.
- 1.3 Wash hands with soap and water or use hand sanitizer if hands are not visibly soiled after contact with persons suspected or confirmed to have pandemic influenza and/or environmental surfaces close to the person suspected or confirmed to have pandemic influenza. Ensure that adequate hand washing and/or alcohol hand sanitizer supplies are available throughout the facility.
- 1.4 Instruct those in contact with the person suspected or confirmed to have pandemic influenza not to touch the mucous membranes of their own nose, eyes, or mouth with potentially contaminated hands.
- 1.5 Wash or sanitize hands **before**:
 - i) Having direct contact with patients
 - ii) Donning sterile gloves before sterile procedures
 - iii) Moving from a contaminated-body site (e.g. open wound, mucus membranes, or a body site with blood or body fluids on it) to a clean-body site during patient care
 - iv) Moving from one patient to another
 - v) Eating
- 1.6 Wash or sanitize hands **after**:

- i) Contact with the patient's blood, body fluids, secretions or excretions, mucous membranes, skin, wound dressings
 - ii) Removing gloves
 - iii) Removing other Personal Protective Equipment such as masks, gowns, etc.
 - iv) Using a restroom or assisting a person using the restroom or diapering
- 1.7 When resources are limited, consider allowing staff to bring in their own cloth towels and soap or providing personal bar soap and personal cloth towels for hand drying. Or, staff may carry a bottle of hand sanitizer for personal use.

2. Masks

- 2.1 Healthcare workers should wear an N95 mask or higher level of respiratory protection when entering the room and caring for a person suspected or confirmed to have pandemic influenza.
- 2.2 Asymptomatic visitors must wear a face mask while in the healthcare facility. Visitors must be kept to a minimum and be allowed only for the health or well-being of the patient. Symptomatic visitors who do not require healthcare services should not be allowed in the facility unless authorized by the healthcare team. Symptomatic visitors who are allowed in the facility must wear a face mask at all times.
- 2.3 For aerosol generating procedures such as intubation and bronchoscopy, use of a powered air purifying respirator (PAPR) is recommended if available, if such procedures cannot be avoided or postponed. All visitors and non-essential personnel must leave the room during the performance of aerosol generating procedure. PAPR must be cleaned and disinfected after use according to the manufacturer's recommendation. When a PAPR is not available, then respiratory protection of at least N95 level should be used.
- 2.4 When resources are limited, consider extending use of N95 masks where feasible, or use a shield over the mask to minimize splattering or splashing of fluids so the mask may be re-used.

3. Respiratory Hygiene/Cough Etiquette

- 3.1 Post visual alerts in appropriate languages at the entrance to healthcare facilities (e.g. emergency departments, physician's offices, outpatient clinics) instructing all patients and the persons accompanying them to inform healthcare personnel when they first register for care about symptoms of a respiratory infection (fever, cough, sore throat or shortness of breath).
- 3.2 If not already done, instruct those suspected or confirmed to have pandemic influenza, and their companions, to wear a face mask over their nose and mouth

at all times while in a healthcare setting if the person is able to tolerate wearing a mask, or until the person is placed in an airborne isolation room (if possible), and told by the staff that it is safe to remove the mask.

- 3.3 Instruct persons with cough to use tissues to contain respiratory secretions and discard them in the nearest lined waste receptacle if they cannot tolerate a mask. Persons should sneeze into a tissue and then discard and clean hands.
- 3.4 Patients and/or healthcare workers should wash or sanitize hands after having contact with respiratory secretions and contaminated objects/materials.
- 3.5 Provide no-touch trash containers to dispose of items contaminated with respiratory secretions such as tissues or used masks.
- 3.6 When resources are limited, consider using tissue or a cotton cloth such as a handkerchief to cover patient's/visitor's mouth and nose. The number of healthcare workers required to have contact with the patient should be kept to a minimum. Refer to Pandemic Flu PPE Options document on suggestions on re-using and/or extending the use of masks, or the **Improvised Masks document (not yet available)** during shortages.

4. Gloves

- 4.1 Wear disposable gloves (clean, non-sterile gloves are adequate) when entering the room of persons suspected or confirmed to have pandemic influenza.
- 4.2 Instruct individuals in contact with persons suspected or confirmed to have pandemic influenza not to touch the mucous membranes of their own nose, eye or mouth with potentially contaminated hands.
- 4.3 Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms.
- 4.4 When wearing gloves and working on multiple sites on the same patient, start work with the least contaminated or soiled areas first. Then work toward the most contaminated areas last while changing gloves and washing hands with soap and water in between each area. Hand sanitizer may be used, if hands are not visibly soiled.
- 4.5 Wear gloves when handling waste, soiled linen and laundry (e.g., bedding, towels, personal clothing).
- 4.6 If a gown is worn, gloves should cover the cuffs.

- 4.7 Remove gloves and clean hands before touching non-contaminated items and surfaces.
- 4.8 Remove gloves and wash hands with soap and water or use hand sanitizer if hands are not visibly soiled before leaving the room. Or, clean hands after leaving the room if sink/sanitizer is available immediately outside room.
- 4.9 After glove removal and hand washing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the patient's room to avoid transfer of microorganisms to other patients or environment.
- 4.10 When resources are limited, consider using other means to create a barrier/protection for the hands, for example, using plastic bags, minimizing the use of gloves when there is no direct contact with blood or body fluids and washing hands immediately after contact, or using the same pair of gloves on the same patient working in order from clean to contaminated to dirty areas.

5. Eye Protection/Face Shield

- 5.1 Eye protection (face shields or goggles) should be worn when in direct face to face contact with a person suspected or confirmed to have pandemic influenza or their environment to protect mucous membranes of the eyes from direct transmission of the virus onto the eye or from indirect transmission from a contaminated hand touching the eye.
- 5.2 If goggles are used, they should fit snugly (but comfortably) around the eyes.
- 5.3 For aerosol-generating procedures (e.g. nebulizer treatments, intubation), a face shield may be worn over goggles and N95 to protect exposed areas of the face but should not be worn as a primary form of eye protection for these procedures. When PAPRs are available, it is assumed that a face shield is part of the design.
- 5.4 When resources are limited, consider assigning each health care worker needing eye protection one eye protection/face shield, consider postponing non-emergency procedures where the use of eye protection is necessary.

6. Gowns and Protective Apparel

- 6.1 Wear a gown (a clean, non-sterile, disposable gown that fully covers the front torso and arms and ties in the back is adequate) when entering the room if contact with the patient, environmental surfaces, or items in the patient's room is anticipated.
- 6.2 Select a gown that is appropriate for the activity and amount of fluid anticipated.

- 6.3 Remove the gown and wash hands with soap and water or use hand sanitizer if hands are not visibly soiled before leaving the patient's environment.
- 6.4 After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces to avoid transfer of microorganisms to other patients or environment.
- 6.5 When resources are limited, consider using plastic coverings such as garbage bags to protect clothing from gross contamination by blood and body fluids. Discard in trash followed by hand hygiene.
- 6.6 When resources are limited, consider re-using gown by leaving the used gown inside the patient room. Gown should be hung with the inside surface away from the patient. Avoid touching the inside surface with un-cleaned hands.

7. Cleaning and Disinfection of the Environment

- 7.1 Environmental services personnel should wear N95 or above level of respiratory protection, gloves, gown and eye protection as indicated in this document when within 6 feet of by patients with a confirmed or suspected pandemic flu cases while cleaning rooms. (See Attachment A for sequence of donning PPE.)
- 7.2 Keep cleaning supplies outside the patient's room and bring only what is needed for the task.
- 7.3 Consider using a checklist (see sample Attachment C) to promote accountability for the thoroughness of cleaning.
- 7.4 Clean and disinfect patients' rooms at least daily and more often when visible soiling or visible amounts of respiratory sections are seen, or when gross contamination occurs.
- 7.5 Give special attention to frequently touched surfaces (e.g., bedrails, bedside and over-bed tables, TV control, call button, telephone, lavatory surfaces including safety/pull-up bars, doorknobs, commodes, ventilator surfaces) and equipment in the immediate vicinity of the patient, in addition to floors and other horizontal surfaces.
- 7.6 Environmental services personnel should perform all routine and additional cleaning with an EPA-approved disinfectant. Alternatively **when an EPA-approved disinfectant is unavailable**, use regular bleach by adding 1 part of bleach to 9 parts of water, made up fresh daily or before use.
- 7.7 If use of carpeted rooms cannot be avoided, steam cleaning should be done on a routine basis and when the carpet becomes soiled. Cleaning personnel should wear the recommended Personal Protective Equipment (PPE) that was noted for

other healthcare personnel in this section. When steam cleaning carpet, it is preferred that the room is empty, remove as much furniture as possible, do it at the end of the shift and allow sufficient time for the carpet to dry before resuming use.

- 7.8 Remove trash from the room at the end of cleaning. See section on Trash/Waste Disposal.
- 7.9 Remove and discard mask, gloves, gown and eye protection (if disposable) upon leaving the patient's environment in the order noted in Attachment B – Removing of PPE. Wash hands with soap and water.
- 7.10 Environmental services personnel should be trained in proper procedures for the use and removal of PPE and on the importance of hand hygiene. See Appendices A and B for the donning and removing of PPE.

8. Patient-care Equipment and Personal Articles

- 8.1 When possible, dedicate the use of non-critical patient-care equipment (such as stethoscopes, disposable blood pressure cuff, thermometers, etc.) to a single person suspected or confirmed to have pandemic influenza to avoid sharing between patients.
- 8.2 If use of common equipment or items is unavoidable, then adequately clean and disinfect them according to the manufacturer's recommendation before use on another patient (e.g. use alcohol pad to wipe the diaphragm of the stethoscope after use on one patient and before using it on another patient).
- 8.3 Keep areas around the patient free of unnecessary supplies and equipment to facilitate cleaning.
- 8.4 Patient-care equipment such as IV poles, walkers, etc. should be cleaned, disinfected and/or sterilized after use as per the manufacturer's recommendations.

9. Patient Dishes, Glasses, Cups & Eating Utensils

- 9.1 Wear disposable gloves (clean, non-sterile gloves are adequate) when handling used patients' trays, dishes, and utensils.
- 9.2 Wash reusable dishes and utensils in dishwasher with recommended water temperature and detergent.
- 9.3 Use of disposable plates and cups is not necessary.

- 9.4 When gloves are in limited supply, wear reusable utility gloves to pick up used food trays

10. Patient Laundry and Linen

- 10.1 Bring only as much clean linen into the room as needed for use for the shift.
- 10.2 Wear mask, gloves, and gown as needed, when directly handling soiled linen and laundry (e.g., bedding, towels, personal clothing).
- 10.3 Do not shake or otherwise agitate soiled linen and laundry in a manner that might aerosolize infectious particles.
- 10.4 Wash and heat dry laundry in the usual manner according to protocol.
- 10.5 Wash hands with soap and water or use hand sanitizer if hands are not visibly soiled after removing gloves that have been in contact with soiled linen and laundry.

11. Patient Trash/Waste Disposal

- 11.1 Wear N95, disposable gloves, gown, and eye protection when removing waste from the patient's environment. Remove and discard (if disposable) PPE upon leaving the patient's room in the order noted in Attachment B – Removing of PPE.
- 11.2 Wear disposable gloves when handling waste.
- 11.3 Dispose of trash in the usual manner according to protocol.
- 11.4 Wash hands with soap and water or use hand sanitizer if hands are not visibly soiled after removal of gloves.

12. Patient Transport within the Healthcare Facility

- 12.1 Limit the movement and transport of the person suspected or confirmed to have pandemic influenza outside the isolation room for medically necessary purposes only.
- 12.2 If transport or movement is necessary, ensure that the person suspected or confirmed to have pandemic influenza wears a face mask, puts on a clean patient gown, and washes hands with soap and water or uses hand sanitizer if hands are not visibly soiled before leaving the room and has tissues available for respiratory secretion containment during transport.

- 12.3 If a mask cannot be tolerated (e.g., due to the patient's age or deteriorating respiratory status), apply the most practical measures to contain respiratory secretions such as covering the mouth and nose with tissues or cloth. Transporters of patients suspected or confirmed to have pandemic influenza should wear an N95 mask.
- 12.4 Inform the receiving area of the patient's isolation status and the estimated arrival time in advance if possible.
- 12.5 Limit contact between persons suspected or confirmed to have pandemic influenza and others by using less traveled hallways and elevators when possible. Exclude non-essential personnel/visitors from riding in the same elevator.

13. Visitors

- 13.1 Restrict asymptomatic visitors to a minimum except for the health and well being of the patient. Symptomatic visitors should not be allowed to visit unless authorized by the healthcare team.
- 13.2 Instruct all visitors about Hand Hygiene strategies, Respiratory Hygiene/Cough Etiquette, Standard, Contact, and Airborne precautions, and Eye Protection, and on the use of Personal Protective Equipment as detailed in this section and on the proper donning and removal of PPE. See Appendices A and B for the donning and removing of PPE.
- 13.3 Visitors who are the main care givers of the patient should be offered **FDA approved N95 (for use by the general population)** if available at all times while remaining in the patients' room. If N95s are not available, patients should wear a surgical mask if tolerated, and visitors should be also wear a surgical or procedure mask. Care givers should be instructed by hospital personnel to wear a surgical mask to contain their own secretions to limit asymptomatic spread of infection while in the healthcare setting, as all members of the public will be instructed to do the same when outside the home. The number of main care givers should be kept to a minimum and there should only be one designated caregiver at any given time. Care givers are those people who are expected to stay with the patient for prolong periods of time, most often with dependent persons, such as a child who needs a parent present or an adult who requires assistance with activities of daily living. When there are shortages of PPE, they should be prioritized for caregivers over other types of visitors.
- 13.4 Instruct all visitors to wear disposable gloves (clean, non-sterile gloves are adequate) when entering the room of persons suspected or confirmed to have pandemic influenza.

- 13.5 Instruct all visitors to remove gloves and wash hands with soap and water or use hand sanitizer if hands are not visibly soiled before leaving the room or immediately after leaving the room if an anteroom with sink is available.
- 13.6 Instruct visitors in contact with persons suspected or confirmed to have pandemic influenza not to touch the mucous membranes of their own nose, eye or mouth with potentially un-cleaned hands or gloved hands.
- 13.7 Ensure other visitors who are not main caregiver to wear a face mask when entering the room of a person suspected or confirmed to have pandemic influenza and to ensure that the mask covers the nose and mouth. Other visitors should stay 6 feet away from the patient, and the patient should wear a surgical mask if tolerated. Consult SFDPH on latest information/guidance on respiratory protection for visitors other than main care giver.
- 13.8 Instruct all visitors to wear a gown (a clean, non-sterile gown that fully covers the front torso and arms and ties in the back is adequate) when entering the room.
- 13.9 Instruct all visitors to remove the gown and wash hands with soap and water or use hand sanitizer if hands are not visibly soiled before leaving the patient's environment.
- 13.10 After gown removal, instruct all visitors to ensure that clothing does not contact potentially contaminated environmental surfaces to avoid transfer of microorganisms to other patients or environments.
- 13.11 Instruct all visitors to wear eye protectors (face shields or goggles) when in direct face to face contact with a person suspected or confirmed to have pandemic influenza or their environment to protect mucous membranes of the eyes from direct transmission of the virus onto the eye or from indirect transmission from a contaminated hand touching the eye.
- 13.12 If goggles are used, they should fit snugly (but comfortably) around the eyes.
- 13.13 For aerosol-generating procedures (e.g. nebulizer treatments, intubation), all visitors and caregivers should be instructed to leave the room and to remove their PPE in accordance with Appendices A and B. Visitors who are later allowed to re-enter the room after the aerosol-generating procedure is completed should be instructed to put on a new set of PPE as noted in this section when supplies allow or to re-don PPE that is in short supply as per Attachment C.

14. Vaccination of Healthcare Workers against Seasonal Influenza

- 14.1 Healthcare Workers should be vaccinated with the most recent seasonal human influenza vaccine annually. This measure will reduce the likelihood of a healthcare worker being potentially co-infected with seasonal and pandemic

strains, and may also prevent the healthcare worker from spreading the seasonal strain to patients. (See Prevention and Control of Influenza, MMWR July 13, 2007/56 (RR06); 1-54.)

15. Vaccination of Healthcare Workers against Pandemic Influenza

16. Surveillance and Monitoring of Health Care Workers

16.1 Health care workers with symptoms of influenza should stay home and follow SFDPH Public Health Severe Pandemic Influenza Infection Control Recommendations for Caring for Pandemic Influenza Infected Persons in the Home Setting, unless an alternative diagnosis is established or diagnostic tests are negative for novel influenza.

16.2 Unprotected health care workers who had significant exposure without the use of PPE to anyone ill with or suspected to have a novel influenza strain may be asked to stay home and follow SFDPH Public Health Severe Pandemic Influenza Recommendations for Care of Exposed Persons in the Home Setting (up to 2 incubation periods) early in the course of a pandemic, or **may be asked to work in cohorted groups with other exposed workers.**

16.3 Instruct health care workers to be vigilant for the development of fever (i.e., measure temperature daily and as needed before reporting to work) or other **respiratory** symptoms for **10** days after the last exposure to a suspected or confirmed pandemic influenza patient. Attachment D is a sample of a monitoring tool.

16.4 Health care workers who become ill outside of work should follow SFDPH instructions on how to seek medical care if their condition deteriorates and notify their health care provider that they may have been exposed to pandemic influenza prior to being evaluated. In addition, employees should notify Occupational Health and Infection Control Personnel, and/or other appropriate departments at their facility.

16.5 Healthcare workers who become ill at work should notify their supervisor immediately and follow hospital procedure to be evaluated by the occupational health service (OHS). Inform the OHS prior to arrival of any contacts with patients with pandemic influenza. OHS may do telephone triage and send the HCW home accordingly.

16. Hygiene for Health Care Workers (to be added later)

ATTACHMENT A





Sequence for Donning Personal Protective Equipment

SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)	SECUENCIA PARA PONERSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)
<p>The type of PPE used will vary based on the level of precautions required; e.g., Standard and Contact, Droplet or Airborne Infection Isolation.</p>	<p>El tipo de PPE que se debe utilizar depende del nivel de precaución que sea necesario; por ejemplo, equipo estándar y de Contacto o de Aislamiento de Infecciones Intraespaciales por gotas o por aire.</p>
<p>1. GOWN</p> <ul style="list-style-type: none"> Fully cover torso (from neck to knees, arms to end of wrists), and wrap around the back. Fasten in back of neck and waist. 	<p>1. BATA</p> <ul style="list-style-type: none"> Cóbrala con la bata todo el torso desde el cuello hasta las rodillas, los brazos hasta la muñeca y dóblala alrededor de la espalda. Alinea por detrás a la altura del cuello y la cintura.
<p>2. MASK OR RESPIRATOR</p> <ul style="list-style-type: none"> Secure ties or elastic bands at middle of head and neck. Fit flexible band to nose bridge. Fit snug to face and below chin. Fit check respirator. 	<p>2. MÁSCARA O RESPIRADOR</p> <ul style="list-style-type: none"> Asegure los cordones o la banda alta en la mitad de la cabeza y en el cuello. Ajuste la banda flexible en el puente de la nariz. Acomódese en la cara y por debajo del mentón. Verifique el ajuste del respirador.
<p>3. GOGGLES OR FACE SHIELD</p> <ul style="list-style-type: none"> Place over face and eyes and adjust to fit. 	<p>3. GAFAS PROTECTORAS O CRISTAL</p> <ul style="list-style-type: none"> Colóquelas sobre la cara y ojos y ajústelas.
<p>4. GLOVES</p> <ul style="list-style-type: none"> Extend to cover wrist of isolation gown. 	<p>4. GUANTES</p> <ul style="list-style-type: none"> Extienda los guantes para que cubran la parte del puño en la bata de aislamiento.
<p>USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION</p>	<p>UTILICE PRÁCTICAS DE TRABAJO SEGUROS PARA PROTEGERSE, USAR MISMO Y LIMITARLA PRIOR A QUITAR LA CONTAMINACIÓN</p>
<ul style="list-style-type: none"> Keep hands away from face. Limit surface touched. Change gloves when torn or heavily contaminated. Perform hand hygiene. 	<ul style="list-style-type: none"> Mantenga las manos alejadas de la cara. Limite el contacto con superficies. Cambie los guantes si se rompen o están demasiado contaminados. Realice la higiene de las manos.

<http://www.cdc.gov/ncidod/sars/pdf/ppeposter148.pdf>

ATTACHMENT B

Sequence for Removing Personal Protective Equipment

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)	SECUENCIA PARA QUITARSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)
<p>Except for respirator, remove PPE at doorway or its anteroom. Remove respirator after leaving patient room and closing door.</p> <p>1. GLOVES</p> <ul style="list-style-type: none"> Outside of gloves is contaminated Clasp outside of glove with opposite gloved hand; peel off Hold removed glove in gloved hand Slit de fingers of ungloved hand under remaining glove at wrist Peel glove off over first glove Discard gloves in waste container  <p>2. GOGGLES OR FACE SHIELD</p> <ul style="list-style-type: none"> Outside of goggles or face shield is contaminated To remove, handle by head band or ear pieces Place in designated receptacle for reprocessing or in waste container  <p>3. GOWN</p> <ul style="list-style-type: none"> Sleeve front and sleeves are contaminated Unfasten ties Roll away from neck and shoulders, touching inside of gown only Turn gown inside out Fold or roll into a bundle and discard  <p>4. MASK OR RESPIRATOR</p> <ul style="list-style-type: none"> Front of mask/respirator is contaminated — DO NOT TOUCH Clasp bottom, free top ties or elastic and remove Discard in waste container 	<p>Con la excepción del respirador, quite el PPE en la entrada de la puerta o en la antecámara. Quite el respirador después de salir de la habitación del paciente y de cerrar la puerta.</p> <p>1. GUANTES</p> <ul style="list-style-type: none"> El exterior de los guantes está contaminado! Agarre la parte exterior del guante con la mano opuesta en la que todavía tiene puesto el guante y quite el o Sostenga el guante que se quitó con la mano enguantada Deslice los dedos de la mano sin guante por debajo del otro guante que no se ha quitado todavía a la altura de la muñeca Quite el guante de manera que acabe cubriendo al primer guante Arroje los guantes en el recipiente de desechos <p>2. GAFAS PROTECTORAS O CRISTAL</p> <ul style="list-style-type: none"> El exterior de las gafas protectoras o de la carreta está contaminado! Para quitárselas, tómelas por la parte de la banda o de la cabeza o de las piezas de las orejas Colóquelas en el recipiente designado para reprocessar materiales o de materiales de desecho <p>3. BATA</p> <ul style="list-style-type: none"> La parte delantera de la bata y las mangas están contaminadas! Desate los cordones Evitando tocar parte el interior de la bata, pásela por encima del cuello y de los hombros Voltee la bata al revés Dóblela o enróllela y deséchela <p>4. MÁSCARA O RESPIRADOR</p> <ul style="list-style-type: none"> La parte delantera de la máscara o respirador está contaminada — ¡NO LA TOQUE! Éjete ara agarre la parte de abajo, luego los cordones o bandas elásticas de arriba y por último quite la máscara o respirador Arrojela en el recipiente de desechos
PERFORM IN HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE	EFECTÚE LA HIGIENE DE LAS MANOS INMEDIATAMENTE DESPUÉS DE QUITARSE CUALQUIER EQUIPO DE PROTECCIÓN PERSONAL

<http://www.cdc.gov/ncidod/sars/pdf/ppeposter148.pdf>

ATTACHMENT C

Sample Checklist for Cleaning Patient Room

- Gather all supplies, make sure disinfectant is of proper dilution
- Don PPE prior to entering the patient's room
- Leave a "Caution – wet floor" sign by the door
- Check all hand washing sinks to ensure there is at least ¼ bottle of soap and fill up paper towel dispenser
- Check hand sanitizer dispenser to ensure there is at least ¼ bottle remaining
- Perform high dusting (if patient is not in the room) using a damp cloth with disinfectant,
 - TV if it is hanging from the ceiling,
 - Over the bed light fixture,
 - Other overhead items
- Wipe all horizontal and/or high-touch surfaces using a damp cloth with disinfectant
 - Side table
 - Bedside table, can swing over the bed
 - IV pole
 - Bed rails
 - Door knobs
 - TV remote control
 - Call button
 - Telephone
 - Bedside commode handrails
 - Walker handrails
 - Patient-controlled analgesia IV device
- Clean the hand washing sink
 - Discard any paper towels that are not in the dispenser
- Clean the bathroom using damp cloth with disinfectant
 - Discard any toilet papers that is not in the dispenser
 - Restock toilet paper
 - Wipe safety/pull up bar
 - Wipe doorknobs
 - Wipe down the side rail by the toilet
 - Wipe down the toilet seat
 - Clean the toilet bowl
 - Wipe the sink hot and cold water tap handles
 - Wipe the light switch
- Sweep the floor
 - Bathroom floor
 - Patient area
- Remove all garbage and leave by the door
 - From bathroom and reline trash can

- From patient area and reline trash can
- Wet mop the floor and let it air dry
 - Bathroom floor
 - Patient area
- Bring all supplies and garbage outside of patient's room
- Remove all PPE
- Wash hands

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Sample

ATTACHMENT D
San Francisco Department of Public Health
PANDEMIC INFLUENZA INFECTION CONTROL RECOMMENDATIONS
SELF MONITORING LOG SHEET for HEALTHCARE WORKERS

NAME: _____ Institution/Facility: _____

DOB: _____ Institution/Facility 24 Hour Contact Number to report symptoms: _____

Date of FIRST EXPOSURE: _____ First Day of Monitoring (1 day after first exposure): _____

DATE OF LAST EXPOSURE: _____ Last Day of Monitoring (Date of last exposure plus 10 days): _____

Source Case Name/MRN#: _____

DATE	DAY SINCE LAST EXPOSURE	TEMPERATURE (check daily prior to going to work and if fever, chills or respiratory symptoms)		COUGH (Yes/No)	Sore Throat (Yes/No)	SHORTNESS OF BREATH (Yes/No)	NOTES/ COMMENTS
		TIME (am Or pm)	TEMP in Degrees (F)				

- Notes:**
1. If you develop any of the above symptoms while you are at work, contact your supervisor and call the 24 Hour Contact Number to report symptoms.
 2. If you develop any of the above symptoms while not working, contact your medical provider and call the 24 Hour Contact Number to report symptoms. Do NOT report to work until cleared by your medical provider.
 3. If no symptoms develop by the last day of monitoring, please return this sheet to your Supervisor.
 4. This form may be reproduced or it can be downloaded at: <http://www.sfdcp.org/pandemicflu.cfm>