

PANDEMIC INFLUENZA – PHASE 4 & 5
INFECTION CONTROL RECOMMENDATIONS TEMPLATE

San Francisco Department of Public Health
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PANDEMIC INFLUENZA – PHASE 4 & 5 INFECTION CONTROL RECOMMENDATIONS TEMPLATE

The San Francisco Department of Public Health with the assistance of the San Francisco Infection Control Working Group, the California Department of Health Services, and the CDC has developed the following infection control recommendations for response to a pandemic. Updates to these recommendations will be posted to our website www.sfdph.org/cdcp; check the website for the latest recommendations. Consult the San Francisco Department of Public Health Communicable Disease Control Unit (415) 554-2830, as needed.

These recommendations are intended for implementation when WHO has declared **Phase 4 and/or 5** where there is a novel influenza virus circulating causing disease in humans, the disease spreads locally with small or large clusters, and there is evidence of limited or localized human to human transmission, but it has not yet spread to many parts of the world and a vaccine against this strain is not yet available. The objective is to contain or delay the spread before it becomes widespread. The duration of phase 4 and 5 are unknown, it may be as short as 1 day or as long as 1 month or more.

During a pandemic, supplies such as gloves, masks, and gowns, may be limited due to actual usage, problems with production and/or shipment, or a variety of reasons. Early on, consider ways to extend the use of supplies without compromising the safety of health workers and patients. As supplies run low or are not available, consider using alternative methods to provide the best protection possible under the circumstances. Appendix C suggests supplies that may be useful alternatives. Items that have expiration dates should be rotated and used – first in first out, to preserve effectiveness.

Case Definition – To Be Determined

I. INFECTION CONTROL RECOMMENDATIONS TO CONTAIN OR MINIMIZE TRANSMISSION IN THE HEALTHCARE SETTING

Hospitalized patients who continue to require hospitalization for medical reasons should be managed with these infection control precautions for at least **14** days with clinical improvement after onset of symptoms unless an alternative diagnosis is established or infection with a novel influenza strain has been excluded. Consider extending these infection control precautions for up to **21** days or longer if there is no clinical improvement, or for pediatric or immune-compromised persons suspected or confirmed to have a novel influenza strain; consult with your institution's Infection Control Professional, or Infectious Disease Specialist, or with the San Francisco Department of Public Health Communicable Disease Control Unit at (415) 554-2830, as needed.

In healthcare settings, persons suspected or confirmed to have a novel influenza strain should be cared for using Standard, Airborne, Contact precautions, and Eye Protection as long as resources allow. Respiratory Hygiene/Cough Etiquette strategies should be

implemented as well. Healthcare settings should maintain good infection control practices as much as possible from receiving the first suspected or confirmed case to after the time the system becomes overwhelmed. In a pandemic alert situation, supplies may run low or not be available at all. Suggestions on how one may improvise are listed where applicable.

A. Identify and Isolate Confirmed or Suspected Cases

1. Triage/Initial Assessment

- 1.1 Post visual signs at points of entry to advise patients, visitors and staff to alert first point of contact about fever and respiratory symptoms.
- 1.2 Offer a surgical or procedure mask to symptomatic (coughing and/or sneezing) persons (patients and/or visitors) to wear if he or she can tolerate it.
- 1.3 Otherwise, instruct the persons to cover the mouth and nose with tissue when coughing or sneezing.
- 1.4 Place the symptomatic or suspected person in a negative pressure airborne isolation room if possible (see below section on Patient Placement and Isolation).
- 1.5 Healthcare workers should wear a respirator of N95 or higher level of protection when examining a patient suspected to have a novel influenza strain, if supplies are available.
- 1.6 When resources are limited, consider using tissues or cotton cloth to cover patients'/ visitors' mouth and nose. Health workers consider extending use of N95 masks where feasible (see Appendix D), minimize the number of contacts with the patients, and the number of healthcare workers that need to have contact with the patient.
- 1.7 Hand hygiene must be performed before and after having contact with the patient or the environment.

2. Patient Placement and Isolation

- 2.1 All persons suspected or confirmed to have a novel influenza strain should not remain in a common waiting area but should be taken immediately to a negative pressure airborne isolation room if possible. A negative pressure airborne isolation room is a private room that has: 1) monitored negative air pressure in relation to the surrounding areas; 2) 6 to 12 air changes per hour; 3) an ante-room, and 4) 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.

- 2.2 If a negative pressure airborne isolation room is not available, place the patient in a private room with HEPA filtration. Keep the door closed and place a sign on the door warning persons to check with staff prior to entering.
- 2.3 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.
- 2.4 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.
- 2.5 If no private room is available, direct all persons suspected or confirmed to have a novel influenza strain to sit as far away as possible (at least 3 feet) from others while wearing a mask.
- 2.6 If the number of confirmed and/or suspect cases exceeds the availability of individual negative pressure airborne isolation rooms, the facility's Infection Control Professional and/or Infectious Disease Specialist may consult the San Francisco Department of Public Health Communicable Disease Control Unit at (415) 554-2830 prior to implementing cohorting.
- 2.7 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 building, if available, for these patients.

B. Control and Prevent Transmission

1. Respiratory Hygiene/Cough Etiquette

- 1.1 Post signs to reinforce covering mouth and nose when sneezing or coughing using a tissue. If tissue is not available, sneeze or cough onto the upper arm.
- 1.2 Provide a surgical or procedure mask to the coughing person and companions and encourage use as tolerated.
- 1.3 Provide tissues to contain secretion where appropriate.
- 1.4 Provide hands-free covered lined receptacles for disposal of soiled tissues.
- 1.5 Instruct persons to wash hands with soap and water or to use alcohol-based hand sanitizer after sneezing, coughing, or disposal of items with respiratory secretions.

- 1.6 When resources are limited, consider using tissue or a cotton cloth such as a handkerchief to cover patients'/visitors' mouth and nose. Health workers consider extending use of N95 masks where feasible. Also, minimize the number of contacts with the patients, and the number of healthcare workers required to have contact with the patient.

2. Hand Hygiene/Handwashing/Hand Decontamination

- 2.1 At entrance points, post signs and instructions for everyone entering to sanitize hands using alcohol based hand sanitizer. Ensure there are adequate numbers of hand sanitizer stations.
- 2.2 Ensure that adequate hand washing and/or alcohol based hand sanitizer supplies are available throughout the facility.
- 2.3 Wash hands with soap and water or use alcohol based hand sanitizer **before**:
- i) Having direct contact with patients
 - ii) Donning sterile gloves before sterile procedures
 - iii) Moving from a contaminated-body site to a clean-body site during patient care
 - iv) Moving from one patient to another
 - v) Eating
- 2.4 Wash hands with soap and water or use alcohol based hand sanitizer **after**:
- i) Contact with the patient's blood, body fluids, secretions or excretions, mucous membranes, skin, wound dressings
 - ii) Contact with anything in the patient's room or environment
 - iii) Removing gloves
 - iv) Removing other Personal Protective Equipment such as masks, gowns, etc.
 - v) Using a restroom or assisting a person using the restroom or diapering
- 2.5 When resources are limited, consider providing/using personal bar soap and personal cloth towels for hand drying purposes.

3. Masks

- 3.1 Healthcare personnel entering patient's room must wear respiratory protection equal to or better than the level of a N95 mask.
- 3.2 Visitors should wear a surgical mask while in the healthcare facility. If the visitor is identified as a contact (person had been exposed to the patient), he/she must wear the surgical mask at all times even when outside of patient's room. Visitors must be kept to a minimum and be allowed only for the health or well-being of the patient.

- 3.3 Masks must be removed and discarded upon leaving the patient's room followed by hand hygiene if supplies are adequate. See suggestion for when supplies are limited.
- 3.4 For aerosol generating procedures such as intubation and bronchoscopy, use of a powered air purifying respirator (PAPR) is recommended if such procedures cannot be avoided or postponed. All visitors and non-essential personnel must leave the room during the performance of aerosol generating procedures. PAPR must be cleaned and disinfected after use according to manufacturer's recommendations.
- 3.5 When resources are limited, consider extending use of N95 masks where feasible (see Appendix D), or use a shield over the mask to minimize soiling so the mask can be re-used.

4. Gloves

- 4.1 Wear disposable gloves (clean, non-sterile gloves are adequate) when touching blood, body fluids, secretions, excretions, mucous membranes, non-intact skin (rash, abrasion, etc.), and contaminated items.
- 4.2 Change gloves between tasks and procedures on the same patient after contact with any materials that may contain body fluids such as sputum or diarrhea.
- 4.3 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.
- 4.4 Wear disposable gloves (clean, non-sterile gloves are adequate) when handling waste.
- 4.5 Wear disposable gloves when directly handling 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 before touching non-contaminated items and surfaces.
- 4.8 Remove gloves promptly after use.
- 4.9 Change gloves before touching another patient.
- 4.10 Wash hands immediately after glove removal with soap and water or use hand sanitizer if hands are not visibly soiled to avoid transfer of microorganisms to other patients or environments.

- 4.11 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.
- 4.12 When resources are limited, consider using other means to create a barrier/protection for the hands (see Appendix D), for example, use of plastic bags, minimize the use of gloves when there is no direct contact with blood or body fluids and wash hands immediately after contact, or use 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 protectors (face shields or goggles) should be worn when in direct face to face contact with a person suspected or confirmed to have a novel influenza strain 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 Clean, disinfect and store re-usable face shields or goggles as recommended by manufacturers.
- 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 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 likely to be encountered.
- 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 environments.

- 6.5 When resources are limited, consider using plastic coverings such as garbage bags to protect clothing from gross contamination of blood and body fluids. Discard in trash followed by hand hygiene.

7. Cleaning and Disinfection of the Environment

- 7.1 Environmental services personnel should wear N95 or above level of respiratory protection, gloves, gowns and eye protection as indicated in this document when cleaning rooms occupied by patients with a confirmed or suspected a novel influenza strain.
- 7.2 Keep cleaning supplies outside the patient room (e.g. in an anteroom or storage area).
- 7.3 Consider using a checklist to promote accountability for the thoroughness of cleaning.
- 7.4 Clean and disinfect patient's rooms at least daily and more often when visible soiling or contamination occurs.
- 7.5 Give special attention to frequently touched surfaces (e.g., bedrails, beside and over-bed tables, TV control, call button, telephone, lavatory surfaces including safety/pull-up bars, doorknobs, commodes, flush lever, 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.
- 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. Personnel should wear the recommended Personal Protective Equipment (PPE).
- 7.8 Remove and discard mask, gloves, gown and eye protection (if disposable) upon leaving the patient's environment in the order noted in Appendix B – Removing of PPE. Wash hands with soap and water.
- 7.9 Environmental services personnel should be trained in proper procedures for the use and removal of PPE and 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 a novel influenza strain to avoid sharing between patients.

- 8.2 If use of common equipment or items is unavoidable, then adequately clean and disinfect according to the manufacturer's recommendation before using it on another patient.
- 8.3 Keep areas around the patient free of unnecessary supplies and equipment to facilitate daily cleaning.
- 8.4 Identify who will be responsible for cleaning and disinfecting the surfaces of patient-care equipment (e.g., IV pumps, ventilators).
- 8.5 Patient-care equipment should be cleaned, disinfected and/or sterilized as per the manufacturer's recommendations.

9. Dishes, Glasses, Cups & Eating Utensils

- 9.1 Wear disposable gloves (clean, non-sterile gloves are adequate) when handling used patient trays, dishes, and utensils. Use reusable utility gloves if disposable gloves are not available.
- 9.2 Wash reusable dishes and utensils in dishwasher with recommended water temperature and detergent.

10. Laundry and Linen

- 10.1 Bring only as much clean linen as needed for use for the shift into the room.
- 10.2 Wear gloves, gown, and a minimum of N95 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.
- 10.5 Wash hands with soap and water or use hand sanitizer if hands are not visibly soiled after removing gloves, gown and N95 that have been in contact with soiled linen and laundry.

11. 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 Appendix B – Removing of PPE. Wash hands with soap and water.

- 11.2 Wear disposable gloves when handling waste and dispose of trash in the usual manner.
- 11.3 After removal of gloves, wash hands with soap and water, or use hand sanitizer if hands are not visibly soiled.

12. Patient Transport

- 12.1 Limit the movement and transport of the person suspected or confirmed to have a novel influenza strain outside the isolation room for medically necessary purposes only.
- 12.2 Notify the receiving unit prior to the patient being transported.
- 12.3 If transport or movement is necessary, ensure that the person suspected or confirmed to have a novel influenza strain wears a surgical 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.
- 12.4 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 a novel influenza strain should wear an N95 mask or higher level of respiratory protection.
- 12.5 Limit contact between persons suspected or confirmed to have a novel influenza strain and others by using less traveled hallways and elevators when possible. Limit non-essential personnel/visitors from riding in the same elevator.

13. Visitors

- 13.1 Restrict visitors to a minimum except for the health and well being of the patient.
- 13.2 Instruct visitors about Standard, Airborne, Contact precautions, and Eye Protection, Respiratory Hygiene/Cough Etiquette and Hand Hygiene strategies, 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 If visitors are the main care givers of the patient and have been exposed to the patient during the infectious period, visitors should be offered N95 if available at all times while remaining in the patients' room and while in the healthcare setting. There should be only one designated care giver who stays with the patient for the entire hospitalization.

- 13.4 Instruct all visitors to wear surgical masks, disposable gloves and gowns when entering the room of persons suspected or confirmed to have a novel influenza strain.
- 13.5 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 a novel influenza strain 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.
- 13.6 If goggles are used, they should fit snugly (but comfortably) around the eyes.
- 13.7 Instruct all visitors to remove mask, gloves and gown, and wash hands with soap and water or use hand sanitizer if hands are not visibly soiled before leaving the room. After 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.
- 13.8 Instruct visitors not to touch the mucous membranes of their own nose, eye or mouth until after their hands have been washed or sanitized.
- 13.9 For aerosol-generating procedures (e.g. nebulizer treatments, intubation), all visitors must leave the room and remove their Personal Protective Equipment 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 Personal Protective Equipment as noted in this section.

14. Vaccination of Healthcare Workers against Human Influenza

Healthcare Workers will be offered the vaccine against the novel influenza strain when it becomes available. Depending on the number of doses available, the Department of Public Health, in consultation with CDC and CDHS, will work with individual health care facilities to distribute vaccine and/or vaccinate their health care workers.

15. Surveillance and Monitoring of Health Care Workers

- 15.1 Health care workers with a history of contact with those who have or are suspected to have a novel influenza strain and who have symptoms of influenza should stay home and on home isolation (see Section II, Infection Control Recommendation in Home Setting) until symptoms resolved or another diagnosis is made.
- 15.2 With the exception of visiting a health care provider, health care workers who become ill should be advised to stay home, unless an alternative diagnosis is established or diagnostic tests are negative for a novel influenza strain.
- 15.3 While at home, ill persons should practice good respiratory hygiene to lower the risk

of transmission of virus to others as outlined in the Infection Control Precautions for the Home Setting (see Section II).

- 15.4 Health care workers who have been exposed to patients without proper respiratory protection must be vigilant to detect the development of fever (i.e., measure temperature daily before reporting to work) and other symptoms for 10 days after the last exposure to a novel influenza strain infected patients prior to reporting to work (see Section II, Infection Control Recommendation in Home Setting).
- 15.5 Health care workers who have been exposed to household members infected with a novel influenza strain must be vigilant to detect the development of fever (i.e., measure temperature daily before reporting to work) and other symptoms for 10 days after the last exposure prior to reporting to work (see Section II, Infection Control Recommendation in Home Setting).
- 15.6 Health care workers who require medical care should notify their health care provider prior to seeking care that they have been exposed to patients with a novel influenza strain. In addition, employees should notify Occupational Health and Infection Control Personnel, and/or other appropriate departments in their facility.

II. INFECTION CONTROL PRECAUTIONS TO MINIMIZE TRANSMISSION IN THE HOME SETTING

For persons confirmed to have a novel influenza strain who can be managed at home (e.g., patients managed as outpatients or hospitalized patients discharged prior to 14 days after the onset of symptoms), they should remain on home isolation and maintain infection control precautions in the home setting until 14 days after the onset of symptoms. For pediatric or immune-compromised persons confirmed to have a novel influenza strain, these infection control precautions may need to be maintained for 21 days or longer.

For persons who have been exposed to another person infected with a novel influenza strain but do not have symptoms, they should remain on home quarantine for 10 days after the last day of exposure. Prior exposure to an infected person does not confer immunity, therefore, each time a person is exposed to another infected person, the exposed needs to go on quarantine for 10 days.

Follow the infection control precautions in the home setting as described below, or consult an Infection Control Professional or call the San Francisco Department of Public Health Communicable Disease Control Unit at (415) 554-2830 as needed.

1. Home Isolation

- 1.1 Isolation is the separation of infected individuals from those uninfected for the period of infectiousness of novel influenza disease. When these infected persons with confirmed a novel influenza strain are being managed at home, this is considered home isolation.
- 1.2 Infected persons should not have unnecessary contact with non-infected people inside the home and should not go to work, school, out-of-home childcare, or other public areas until 14 days after the onset of symptoms, except when medically necessary.
- 1.3 Separate the infected person from other people in the household to the extent possible. Use a separate room and bathroom if available. In the event that no other room is available, then the infected should stay as far away as possible from the rest of the household, and all household members should wear a mask (see Home Quarantine). Household members should go on quarantine for 10 days (or 2 incubation periods).
- 1.4 Designate a person in the household as caregiver to the infected person. Other household members should avoid contact with the infected person in the home until 14 days after the onset of symptoms.
- 1.5 Friends and relatives should not visit the infected person until at least 14 days after the onset of fever or respiratory symptoms. Infected children and immune-compromised persons may have to have an extended period of 21 days or longer without visitors.

- 1.6 While still symptomatic at home, the infected persons should have their meals brought to them in their room by the caregiver.

2. Home Quarantine

- 2.1 Quarantine is the separation of apparently well individuals who have been exposed to a novel influenza strain from those not exposed to the disease. Household members who have been exposed to the infected family member are put on home quarantine for 10 days from the last day of unprotected exposure, or 10 days from the day of isolation of the infected person.
- 2.2 Exposed individuals are those who have direct face to face contact with the infected persons and/or with their secretions or excretions without personal protective equipment (PPE). Individuals are also considered exposed if the PPE has not been worn properly.
- 2.2 Household members who have been exposed to the same infected person can stay in the same room with each other.
- 2.3 Persons on home quarantine should avoid contact with the infected person or unexposed persons, should not go to work, school, or any public areas except for medical necessity.
- 2.4 Persons on home quarantine should check for symptoms (fever $\geq 38^{\circ}\text{C}$, cough, sore throat) daily, and notify their primary physician immediately if any symptoms appear.
- 2.5 When outside the home for medical purposes, persons should wear a mask when in public areas.

3. Transport

- 3.1 Persons on home isolation or home quarantine should not leave their home and should not go to work, school, out-of-home childcare, or any public areas except for medical appointments or other emergencies.
- 3.2 If the persons on home isolation or home quarantine must leave the home, they should wear a surgical/procedure mask or have the nose and mouth covered with tissue or cloth at all times while outside the home and should avoid crowds and minimize contact with other people as much as possible.
- 3.3 The persons on home isolation or home quarantine should inform personnel at the destination of the expected arrival time.
- 3.4 If an ambulance is used, ambulance personnel should be informed that the person is on home isolation or home quarantine.

3.5 If private vehicle is used, put a mask on the person on home isolation or home quarantine. If the person cannot tolerate wearing a mask, then the un-infected or non-exposed persons should wear a mask and open the windows of the vehicle. Avoid using public transportation if at all possible.

4. Hand Hygiene/Handwashing/Hand Decontamination

4.1 Household members should wash their hands with soap and water when hands are visibly dirty or visibly soiled with blood or other body fluids.

4.2 When hands are not visibly soiled, hands may be washed with soap and water, or an alcohol-based hand sanitizer may be used.

4.3 Wash hands **before**:

- i) Having direct contact with the person on home isolation or home quarantine
- ii) Preparing food
- iii) Eating

4.4 Wash hands **after**:

- i) Each gloved or ungloved contact with the person on home isolation or home quarantine. (This may include, but is not limited to contact with respiratory [lung or nasal] secretions, blood and other body fluids [stool, urine, wound drainage, etc.], skin, nose, eyes, mouth or other moist body parts, or wound dressings)
- ii) Each gloved or ungloved contact with inanimate objects or environmental surfaces in the immediate vicinity of the home isolation or home quarantine person's environment
- iii) Removing gloves
- iv) Using a restroom or assisting a person using the restroom or diapering
- v) Leaving the room of the isolated or quarantined person

4.5 Individuals in contact with the person on home isolation or home quarantine should be instructed not to touch their own nose, eyes, or mouth with unwashed hands.

4.6 Instruct person on home isolation or home quarantine to wash their hands before leaving their room.

5. Respiratory Hygiene/Cough Etiquette

5.1 Persons should be advised to cover his or her mouth and nose with a facial tissue when coughing or sneezing.

5.2 Persons on home isolation or home quarantine should wear a surgical mask when in the same room with uninfected persons.

- 5.3 Uninfected persons should wear surgical masks when in the same room with the person on home isolation or home quarantine if they cannot tolerate wearing a mask.
- 5.4 Masks should fit snugly around the face and should not be touched or handled during use.
- 5.5 Wash hands after contact with the mask or other respiratory secretions.
- 5.6 Keep the isolated or quarantined person's room well ventilated as much as possible.
- 5.7 When resources are limited, reserve the use of masks for close face to face contact, and use tissue or cloth to cover the nose and mouth as much as possible for other situations.

6. Gloves

- 6.1 Wear disposable gloves (clean, non-sterile gloves are adequate) when touching the respiratory secretions, blood, body fluids, eyes, mouth or nose, skin, or contaminated items of the person suspected or confirmed to have a novel influenza strain.
- 6.2 Wear disposable gloves (clean, non-sterile gloves are adequate) when entering the Isolation room or quarantine area/room.
- 6.3 Wear disposable gloves (clean, non-sterile gloves are adequate) when handling trash from the person on home isolation or home quarantine.
- 6.4 Wear disposable gloves (clean, non-sterile gloves are adequate) when directly handling soiled linen and laundry (e.g., bedding, towels, personal clothing) and avoid "hugging" the linens from persons on home isolation or quarantine.
- 6.5 Wear disposable gloves (clean, non-sterile gloves are adequate) when handling the unwashed dishes and utensils used by persons on isolation or quarantine.
- 6.6 Immediately after activities involving contact with body fluids, gloves should be removed and discarded and hands should be washed.
- 6.7 If a gown is worn, gloves should cover the cuffs.
- 6.8 Remove gloves and discard them before touching non-contaminated items and surfaces.
- 6.9 Remove disposable gloves and discard them before leaving the room.
- 6.10 Remove gloves and discard them promptly after use.
- 6.11 Always wash hands immediately after removing gloves.

- 6.12 Gloves are not intended to replace proper hand washing.
- 6.13 Disposable gloves should never be washed or reused.
- 6.14 When resources are limited, reserve use of disposable gloves when in direct contact with infected person's blood or body fluids, or use reusable utility gloves when handling excretions and excretions. Properly clean (removing visible dirt/soil) and disinfect reusable gloves (by soaking them in 1 part of household bleach and 9 parts of water) in well ventilated areas after each use.

7. Respiratory Masks

- 7.1 Persons on home isolation or quarantine should wear a surgical mask over their nose and mouth at all times while uninfected people are present in their room.
- 7.2 A person on home isolation or quarantine should wear a surgical mask over their nose and mouth at all times when outside their home.
- 7.3 If the person on home isolation or quarantine is unable to wear a surgical mask, household members should wear surgical masks when in the same room as the person suspected or confirmed to have a novel influenza strain.
- 7.4 Masks should fit snugly around the face and should not be touched or handled during use.
- 7.5 When resources are limited, reserve the use of masks for close face to face contact, and use tissue or cloth to cover the nose and mouth as much as possible for other situations.

8. Cleaning and Disinfection of the Environment

- 8.1 Environmental surfaces in the kitchen, bathroom, and bedroom and any other surfaces that are frequently touched (e.g. doorknobs) by the person on home isolation or quarantine should be cleaned at least daily with a EPA approved household disinfectant according to the manufacturer's instructions, or use 1 part of household bleach mixed with 9 parts of water made fresh daily. Please note that bleach may be corrosive on some surfaces or fabrics.
- 8.2 Keep areas in which bleach is used well-ventilated.
- 8.3 Household utility gloves should be worn during the cleaning process and set aside for this specific purpose.

9. Patient-care Equipment

Clean and disinfect patient-care or medical equipment according to the manufacturer's instructions if possible. Otherwise, put the item in a plastic bag and mark "used" prior to removing from the infected person's room.

10. Household Trash/Waste Disposal

Household waste soiled with respiratory secretions or other body fluids, including facial tissues and surgical masks should be placed in leak-proof garbage bags for disposal with other household waste. Wear disposable gloves if available when handling waste and wash hands after removal of gloves.

11. Dishes, Glasses, Cups & Eating Utensils and Other Personal Hygiene Items

- 11.1 Persons on home isolation or quarantine should not share unwashed eating utensils and dishes with other household members.
- 11.2 Persons on home isolation or quarantine should not share toothbrushes and other personal hygiene items with other household members.
- 11.3 Dishes and utensils after use can be washed together with water and any commercial dishwashing detergent. Disposable plates or eating utensils are not necessary.
- 11.4 Wear utility gloves when handling items used by persons on home isolation or quarantine.

12. Laundry and Linen

- 12.1 Soiled clothing, bed linens, and towels should not be shared between persons on home isolation or quarantine and other household members.
- 12.2 Gloves should be worn, if possible, when handling soiled laundry.
- 12.3 Wear a mask if available, do not shake or agitate linens as this may aerosolize infectious particles.
- 12.4 Care should be used when handling soiled laundry to avoid direct contact of skin and/or clothing with contaminated material. Avoid "hugging" the laundry, wear a gown or apron if available, and wash it with the laundry.
- 12.5 Laundry can be washed with any commercial laundry detergent.
- 12.6 Dry clothing in a heated dryer. If a heated dryer is not available, clothes should be

washed in hot water with detergent and/or bleach and be dried in direct sunlight, if possible.

- 12.6 Wash hands or use hand sanitizer after contact with soiled linens and after removal of gloves.

13. Household contacts

- 13.1 Household members or other close contacts of infected persons who develop fever or respiratory symptoms should seek healthcare evaluation.
- 13.2 When seeking medical assistance, inform the healthcare provider or the hospital emergency department that the person has been on home isolation or quarantine.
- 13.3 Healthcare providers who see symptomatic household contacts of infected persons should immediately notify the Communicable Disease Control Unit of the San Francisco Department of Public Health by calling (415) 554-2830.
- 13.4 The household member/close contact of infected person who develops fever or respiratory symptoms (sore throat, cough, shortness of breath) should be isolated in the hospital or at home as appropriate to their clinical condition with the same isolation precautions contained in this document pending confirmatory studies.

APPENDIX 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>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>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>3. GOGGLES OR FACE SHIELD</p> <ul style="list-style-type: none"> Place over face and eyes and adjust to fit. <p>4. GLOVES</p> <ul style="list-style-type: none"> Extend to cover wrist of isolation gown. 	<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 transmitidas por gotitas por el aire.</p> <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 déjala alrededor de la espalda. Atenela por detrás a la altura del cuello y la cintura. <p>2. MÁSCARA O RESPIRADOR</p> <ul style="list-style-type: none"> Asegúrese los corcheros o la banda elástica en la mitad de la cabeza y en el cuello. Ajuste la banda flexible en el puente de la nariz. Acomódela en la cara y por debajo del mentón. Verifique el ajuste del respirador. <p>3. GAFAS PROTECTORAS O OJETAS</p> <ul style="list-style-type: none"> Colóquelas sobre la cara y las ojos y ajústelas. <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> <ul style="list-style-type: none"> Keep hands away from face Limit surface touched Change gloves when torn or heavily contaminated Perform hand hygiene 	<p>UTILICE PRÁCTICAS DE TRABAJO SEGURO PARA PROTEGERSE A SÍ MISMO Y LIMITAR LA PROPAGACIÓN DE LA CONTAMINACIÓN</p> <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>

APPENDIX 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 in anteroom. Remove respirator after leaving patient room and closing door.</p> <p>1. GLOVES</p> <ul style="list-style-type: none"> Outside of glove is contaminated Grasp outside of glove with opposite gloved hand; peel off Hold removed glove in gloved hand Slide fingers of ungloved hand under remaining glove at wrist Peel glove off over first glove Discard gloves in waste container <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"> Open front and sleeves are contaminated Unfasten ties Roll away from neck and shoulder, 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! Grasp bottom, then 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. GANTES</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 quítelo. 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 careta está contaminado! Para quitarlas, 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>2. BATA</p> <ul style="list-style-type: none"> La parte delantera de la bata y las mangas están contaminadas! Desate los cordones. El gordo, sujete al sujetor de la bata, pásela por encima de la cabeza 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! Retire agarre la parte de abajo, luego los cordones o banda elástica de arriba y por último quite la máscara o respirador. Arrójela en el recipiente de desechos.
<p>PERFORM HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE</p>	<p>EFECTÚE LA HIGIENE DE LAS MANOS INMEDIATAMENTE DESPUÉS DE QUITARSE CUALQUIER EQUIPO DE PROTECCIÓN PERSONAL.</p>

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

APPENDIX C

Supply List for A Novel Influenza Strain (WHO Phase 4 or 5)

Health care facility

- N95
- Surgical/procedure masks
- PAPRs (enough for high risk procedures and staff who failed fit-testing)
- Goggles/face shield
- Latex gloves
- Nitrile gloves
- Utility gloves
- Gowns
- Soap
- Personal bar soap
- Paper towels
- Hand sanitizers
- Disinfectants/Bleach
- Disinfectant wipes
- Plastic trash bags
- Thermometers

Home

- Alcohol based (min. 60%) hand sanitizer
- Cleaning solutions – e.g. bleach, detergent, isopropyl alcohol
- Face shields or goggles
- Garbage bags – different sizes
- Gloves – disposable, utility
- Handkerchiefs
- N95 respirators
- Plastic aprons
- Procedure/surgical masks
- Soap
- Thermometer
- Tissues
-

APPENDIX D

Strategies for Infection Control Supplies Shortages

Extended use of N95

- ❖ Use face shield to cover N95
- ❖ Cover N95 with cloth towel/handkerchief when splashing/splattering is anticipated
- ❖ Store N95 in zip lock bag when not in use
- ❖ Use the mask until it is moist
- ❖ Consider keep N95 on for all a novel influenza strain patients
- ❖
- ❖ Wear surgical/procedure mask to substitute N95 if none is available

Extended use of surgical/procedure masks

- ❖ Use the mask until it is moist
- ❖ Use face shield to cover the mask
- ❖ Store mask in zip lock bag when not in use
- ❖
- ❖ Wear cotton cloth or handkerchiefs if none is available

Gloves substitute

- ❖ Use re-usable utility gloves
- ❖ Use plastic bag
- ❖ Use cotton gloves
- ❖

Eye protection substitute

- ❖ Use personal sports goggles for skiing or bike riding
- ❖ Prescription glasses
- ❖ Non-prescription glasses
- ❖

Gown substitute

- ❖ Use plastic apron
- ❖ Use cotton apron
- ❖ Use large plastic bag
- ❖ Additional sets of clothing by any staff who have to care for a novel influenza strain patients
- ❖