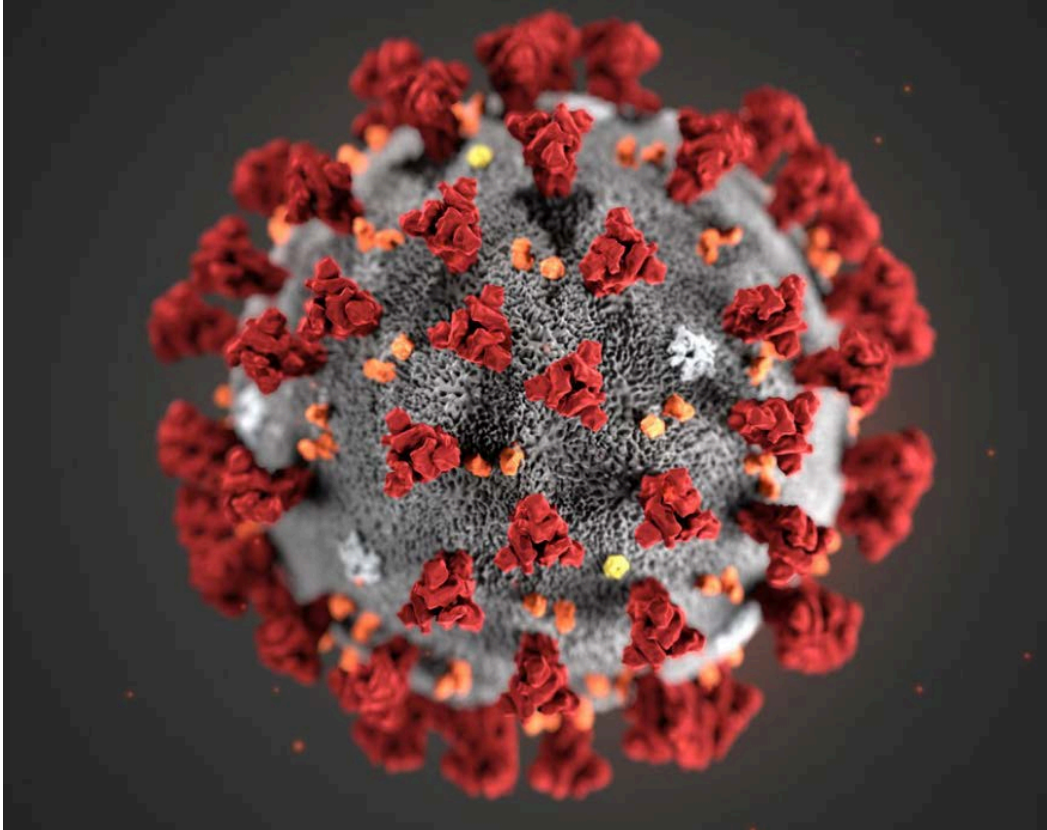


Kaiser Permanente Northern California Mitigation Playbook Coronavirus Disease 2019 (COVID-19)



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Executive Summary

Coronavirus Disease 2019 (COVID-19) community transmission is occurring widely in California. Given the length of time community transmission is suspected to have been occurring, the ability of the virus to be transmitted in an asymptomatic manner, and the inability to identify original sources of the infection, containment of the virus to terminate the outbreak is not feasible.

California has moved from a containment strategy to a mitigation strategy to slow the spread of the virus, reduce the surge on an already stressed healthcare system, provide the right level of care where the vast majority of Californians will only require time-limited home isolation, expand testing capability to increase hospital capacity, and to tailor isolation in medical facilities to the known mode of transmission of this virus which is via droplets.

Mitigation will allow us to maintain the function of our healthcare system in the midst of an anticipated significant increase in disease burden expected to last several months based on China's experience.

This playbook provides the summary for a mitigation strategy in the State of California and its hospital systems. Each of the items listed in the mitigation strategy section have detailed operational plans to support them.

Virology

COVID-19 is caused by the Severe Acute Respiratory Syndrome Coronavirus Type 2 (SARS-CoV-2). Much is still to be determined about the virus, but the following characteristics of the virus based on multiple early reports are the following:

- **Incubation Period:** Estimated to be **2-14 days**.
- **Mode of Transmission:** **Droplets which can spread 3-6 feet within a person coughing.** Reports out of China indicate most infections have occurred in close contacts with family, colleagues, or healthcare workers with a contagious individual. **Asymptomatic individuals have been reported to transmit the virus; however, the details of transmission are still being investigated.** Some evidence of spread has occurred through contact with surfaces contaminated with droplets, but this does not appear to be the primary mode of spread.
- **Transmissibility:** The level of contagiousness is labeled the R_0 . The R_0 is estimated to be somewhere between 2-4 depending on the scientific paper. This means that one infected person will *on average* spread the virus to 2-4 individuals. This R_0 would make COVID-19 more transmissible than standard influenza and potentially similar to the SARS.
- **Severity:** **80% of individuals with documented COVID-19 disease have asymptomatic/mild illness.** Different reports **estimate the mortality rate to be between 2-3%.** The mortality rate is likely lower since asymptomatic individuals are less likely to seek care and get tested.
- **Convalescence:** The period at which an individual is clinically recovered and no longer capable of transmitting the virus is still to be determined. **CDC has determined that viral shedding may occur for 15-30 days after onset of infection; however, a transmissible virus is likely shed 14 days or less from the onset of symptoms.**

Strategies for Viral Control

- I. **Containment:** **Containment strategies are designed to halt the spread of an infection. Ultimately the goal is to isolate individuals with the infection as well as those potentially exposed to the infection with the goal of preventing spread to the general population.** If successful, a containment strategy can prevent further spread and terminate an outbreak. Containment requires a high degree of resource intensive measures that include the use of airborne isolation rooms, personal protective equipment, healthcare personnel, and potentially other equipment. Containment measures work when a relatively small number of patients are

infected in concentrated locales. However, when an infection spreads into a community, then the measures can be counterproductive since they do not scale to diagnosis, treatment, or containment for large populations.

- II. **Mitigation:** **Mitigation strategies are designed to divide the patients based on severity of symptoms, so individuals receive the right level of care in the right setting. They are designed to minimize the effects of an infection on a population when the infection can no longer be contained.** Mitigation strategies allow for the appropriate use and deployment of resources to respond to a large-scale outbreak that is already embedded in the community.

COVID-19 Epidemiology in California and the West Coast

COVID-19 is a disease that is **primarily spread by droplets**, is more easily transmitted than seasonal influenza, and can spread via asymptomatic individuals who would not normally seek medical care or evaluation. The West Coast epidemiology demonstrates that community transmission is already occurring. The testing strategy in the U.S. would only find severely ill individuals. Based on data from China and the length of time these two California individuals with no known travel or other risk factors for COVID-19 acquisition have been hospitalized (9-10 days), one would conclude:

- There is ongoing community transmission, likely now 2-3 generations from these two individuals.
- If only 20% of individuals seek medical attention, then there are multiple mildly ill/asymptomatic individuals in the community who are transmitting the virus now despite inpatient containment measures.

Containment of COVID-19 is no longer possible with clear evidence of community transmission outside of the hospital containment zones. Containment measures are not designed to mitigate disease spread and have the opposite effect of placing strain on the healthcare system in the context of widespread disease. To preserve the health of the public, get the right care to the right patients, preserve the resources in terms of personnel and medical resources, a change to a mitigation strategy is critically important if California is to be successful in reducing the impact of COVID-19.

Mitigation Strategy Outlined

- I. **Use of Droplet Precautions:** In healthcare settings, droplet precautions should be used. Use of an isolation mask, disposable gowns, gloves, and eye protection (goggles, safety glasses, or face shields) will provide protection for healthcare workers from this novel virus. This action will simplify workflows for larger volumes of patients and preserve the use of N-95 respirators, powered air purifying respirators (PAPRs), and controlled air purifying respirator (CAPRs) for true airborne diseases such as tuberculosis. **Airborne isolations would still be employed for suspected or confirmed COVID-19 patients needing high-risk procedures (e.g. aerosol generating procedures such as sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, and autopsy procedures).**

Single rooms are sufficient for droplet precautions. Thus, any single room in a hospital could be used and significantly increase California's ability to care for a larger number of hospitalized COVID-19 patients. That would preserve airborne isolation infection rooms (AIIR or negative pressure rooms) for airborne diseases.

- II. **Placement of Patients:**
 - a. **Asymptomatic/Minimally Symptomatic:** For patients with mild cold or minimal symptoms, they will be advised to stay at home (in home isolation) until well (resolution of fever, improvement in cough, etc.). They do not require specific testing. Evaluation will be done by phone or video visit. Follow up

for worsening of symptoms can be done either via telemedicine via treatment protocols or self-transport to an appropriate clinic or emergency department based on severity of illness. The patients would be advised to not go to work or school as per our approach to influenza-like illness. Supportive measures at home are effective.

- b. Designated Sites for Outpatient Evaluation: For those individuals with more significant cold, cough symptoms, evaluation at isolated points of contact and designated sites (which could include drive-through Alternate Testing Sites for COVID, flu, RSV for patients who already have been evaluated and directed to the area), mobile units, or other clinic sites will be set up. For those individuals that need testing—self testing or healthcare worker administered testing using oropharyngeal/nasopharyngeal swabs would be done. This approach would allow for minimizing potentially infected persons through the entire clinic building and allow for efficient use and placement of personal protective equipment.
- c. Emergency Departments/Hospitals: A patient would be in a single room. Droplet precautions that include isolation mask, gloves, gowns, and eyewear would be used. If the number of hospitalized patients with COVID-19 increases significantly, cohorting would be possible with available testing. As an example, if two individuals were both known to be COVID-19 positive, then they could be placed in the same room. Cohorting would be determined with guidance by the infection prevention professionals in the hospital in conjunction with hospital leadership.
- d. Alternate Hospital Settings: If the existing hospital infrastructure is overwhelmed, opening mobile hospitals that are available from the National Guard or the Department of Defense should be strongly considered. Placement of the mobile hospital units would be on state land given the DoD's current force protection order. Medical staffing would be coordinated through the California Emergency Medical Services Authority via volunteers, similar to actions taken during the recent Northern California fire responses.
- e. Visitor Restrictions: As per approaches taken during the H1N1 pandemic, hospitals could institute visitor restrictions. Those with active colds, cough would be asked to not visit. Those individuals who are not close contacts (*e.g. not* family members) of the patient would be asked not to visit. Age restrictions are an additional option.
- f. Discontinuation of Isolation: We would move to a strategy of having patients remain at home for the longer of 7 days after symptom onset or for 3 days after resolution of fever and other major symptoms. In some counties, 14 days after symptom onset is required. If there is resolution of symptoms (fever, reduction in cough, *etc.*) an individual could return to work or school after the three-day waiting period. Outpatients would not require additional testing via Oropharyngeal/Nasopharyngeal swabs (OP/NP). Isolation would continue in the hospital setting until discharge. Changes may be made based on most current CDC guidance, along with local IP/ID guidance on a case by case basis.

III. Testing: A testing strategy would focus on defining the presence and extent of ongoing community transmission and aid in the determination of the need for isolation in inpatient settings.

- a. Community Evaluation: During cold and flu seasons, we initially test inpatient and outpatient patients with suspected influenza. It is recommended we have testing available for both inpatients and outpatients at this time so we can define the extent of community spread, protect the hospital population who are not infected with COVID-19, and to efficiently use single rooms for isolation. Testing availability remains limited and prioritization of testing is guided by Infectious Disease recommendations to address priority tiers.
- b. Hospital and Emergency Department Testing: COVID-19 testing should remain in place and available for the inpatient setting through the entirety of the epidemic because the results will determine the need for isolation.

- c. Availability of Testing: Testing is available in our internal labs and commercially. Testing resources are increasing but still limited.

- IV. Healthcare Workers (HCWs): Given the presence of community transmission, HCWs are just as, if not more likely, to be exposed in the community as they are in the hospital. Furloughing of individuals who have had a breach in Personal Protective Equipment (PPE) or were not using PPE has stopped as it has for persons returning from level 2 or level 3 travel alert countries. Exposed HCWs will be managed according to the most recent guidance for managing healthcare exposure to COVID-19.
 - a. Workplace Exposure to Suspect or Confirmed COVID-19 Patient: As per exposure management guidelines, the employee will perform self-monitoring for fever, cough, and other symptoms. If they become symptomatic, they should not report to work and notify their manager and Employee Health.
 - b. Testing for COVID-19. Specific testing for COVID-19 would be done based on prioritization guidance—HCWs are considered high priority for testing.
 - c. Symptomatic HCWs. Individuals with COVID-19 symptoms, would be off work as per existing guidelines. If clinically appropriate, they should undergo testing for COVID-19. If positive, the HCW remains off work until symptoms are resolved per current guidance.

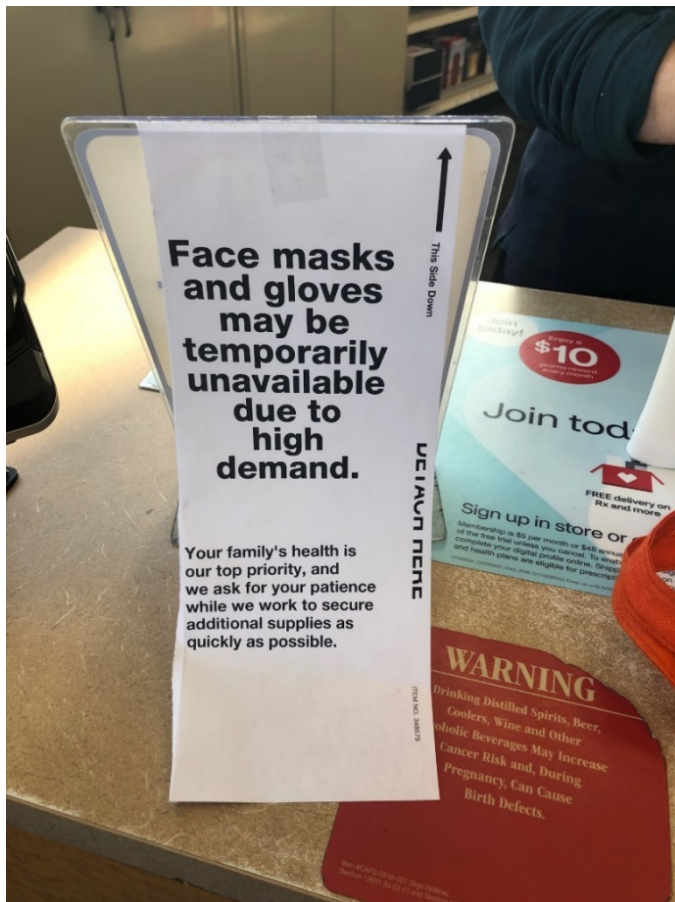
- V. Emergency Medical Service (EMS)/Transport: EMS and medical transport of suspected and confirmed cases of COVID-19 would use droplet precautions as recommended per CDC guidelines for EMS and ambulance transport.

Introduction and Purpose

It is critically important that California moves to a mitigation strategy immediately to slow the spread of the virus, reduce the surge on an already stressed healthcare system, provide the right level of care where the vast majority of Californians will only require time limited home isolation, expand testing capability to increase hospital capacity, and to tailor isolation in medical facilities to the known mode of transmission of this virus which is via droplets.

Mitigation will allow us to maintain the function of our healthcare system in the midst of an anticipated significant increase in disease burden expected to last several months based on China's and other international experience.

This paper provides the summary for a mitigation strategy in the State of California and the hospital systems. Each of the items listed in the mitigation strategy section have detailed operational plans to support them.



COVID-19 Virology

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General Strategies for Viral Control

Containment

Containment strategies are designed to halt the spread of an infection. Ultimately the goal is to isolate individuals with the infection as well as those potentially exposed to the infection with the goal of preventing spread to the general population. If successful, a containment strategy can prevent further spread and terminate an outbreak. Containment requires a high degree of resource-intensive measures that include the use of airborne isolation rooms, personal protective equipment, healthcare personnel, and potentially other equipment. Containment measures work when a relatively small number of patients are infected in concentrated locales. However, when an infection spreads into a community, then the measures can be counterproductive since they do not scale to diagnosis, treatment, or containment for large populations.

Mitigation

Mitigation strategies are designed to divide the patients based on severity of symptoms, so individuals receive the right level of care in the right setting. They are designed to minimize the effects of an infection on a population when the infection can no longer be contained. Mitigation strategies allow for the appropriate use and deployment of resources to respond to a large-scale outbreak that is already embedded in the community.

Infection Control

Infection Control Planning Assumptions: Based on current data COVID-19 virology

- COVID-19 is primarily spread person-to-person via respiratory droplets between people who are in close contact. Respiratory droplets are too large to travel a long distance from the source.
- Respiratory droplets may drop on surfaces or objects, but this is not thought to be the main way the virus spreads.
- Respiratory droplets may be aerosolized during aerosol-generating high-risk procedures (e.g. sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, and autopsy procedures).
- Little is known about the duration of viral shedding or infectivity of the virus, but those exhibiting active symptoms become more infectious after several days.
- The time of survival and the conditions affecting the viability of COVID-19 in the environment are currently unknown. However, COVID-19 can be killed by any disinfectants with kill claim for enveloped viruses when used properly.

Source Control and Screening Areas

- Patients with minimal symptoms will be advised to stay at home until well (resolution of fever, improvement in cough, etc.). Evaluation by phone or video visit will be encouraged.
 - a. Patients will be advised to home isolate and work restrict until well.
 - b. These patients do not require testing.
- All patients presenting to a medical facility will be greeted at the entrance of each facility by Ambassadors. Ambassadors will conduct Safety Checkpoints at portals of entry. Patients who present with cough, shortness of breath, or increased work of breathing, will be directed to put on a mask before they are directed to the appropriate venue.
- Sick employees must stay home.
- Screening areas for COVID-19 **need not be** a private room. However, patients must be at least 3 feet apart (with patient and/or staff masked) and provided privacy consistent with applicable state and federal law.
- As part of our commitment to protecting the health and safety of our health care workforce, we will implement **temperature checkpoints at the entrances to our hospitals and inside medical offices**. A fever of 100°F or greater may be an indicator of illness, including the flu, coronavirus, or other infectious disease — and not everyone knows when they have a fever. Our Ambassador greeters, wearing appropriate PPE, will screen those entering our buildings for an elevated temperature. We will be asking all staff who have a fever not to enter the building, or to leave the building. Hospital visitors with a fever also will be asked not to enter. All employees and physicians who have a fever and are turned away from entering our hospitals and Medical Office Buildings will be given written instructions on what to do next.

PPE Stewardship and Isolation General Considerations

- I. Overall PPE Stewardship Strategies
 - a. Development of a dedicated “Swab Swat Team” accountable for testing patients (relevant to outpatient/medical office building (OP/MOB), ED, and Hospital)
 - b. Greeter policies/workflows and restrictions of entrances (relevant to OP/MOB, ED, and Hospital)
 - c. Development of Alternative Testing Sites (relevant to OP/MOB)
 - d. Cohort patients with the same infections/conditions

- e. Dedicate staff to care for patient cohort
- f. Designate specific areas for screening patients that require PPE

II. PPE Stewardship Guidelines

- a. For process and implementation, identify a PPE Manager responsible for PPE stewardship
- b. N95 Use
 - Use expired N95 masks once unexpired supply is exhausted; this use has been approved by the CDC.
 - Re-use fit test units
 - N95 masks must be checked for integrity (wear and tear) and seal-check prior to use
 - Extended use for patient cohort (care for cohorted COVID+ patients, for example)
 - Re-use for care of PUI/COVID patients when used with a face shield (not with goggles)
- c. Droplet masks (isolation masks)
 - Reuse
 - Extended use
- d. Surgical masks (with two ties)
 - Restrict to OR (Main, Ambulatory, Labor and Delivery (L/D), Interventional Radiology (IR), Cath Lab, sterile procedures in Procedure Rooms or line placement) use only
 - ONLY use inside the operating rooms and procedure rooms with ongoing surgery, sterile procedure or opened sterile items
- e. Eye protection
 - Reuse or extend use of face shield
 - Reuse or extend use of safety glasses in the appropriate settings
 - Reuse and Extend use goggles, which can be cleaned when soiled
- f. PAPR/CAPR
 - Prioritize the use of CAPR/PAPR for high risk procedures on known patients with airborne diseases (e.g., TB) or COVID+ and PUIS
 - Assign dedicated staff to clean CAPRs and PAPRs
 - Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth unless using in extended use
 - Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth unless using in extended use
- g. Additional Equipment
 - Use disposable supplies if available; otherwise, dedicate reusable supplies or equipment for patients suspected or confirmed to have COVID-19.
 - Reusable equipment must be cleaned routinely with hospital-approved disinfectant.

III. **Initiate Airborne Precautions and wear PAPR/CAPR/N95 (or N95 if PAPR/CAPR is not available)** if performing or present in the room for high-risk procedures (**e.g. aerosol generating procedures such as sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, and autopsy procedures**). on patients suspected or confirmed to have COVID-19 and for patients sick enough to be in ICU for respiratory illness.

- a. If available, perform high risk procedure in a **negative pressure room**; otherwise, a private room with closed door is adequate.
- b. Work with Engineering to assist in conversion of rooms to negative pressure as possible
- c. Limit high-risk procedures when impact to care is less obvious, i.e., nebulized medications without firm objective need, bronchoscopy when blind lavage will do, etc.

IV. **Limit transport and movement of PUI/COVID+ patients** outside of the room to medically necessary purposes.

- a. Use alternative bedside procedures and imaging when possible.

- b. Patient must be masked if ambulating outside the room or being transported for a procedure.
 - Those escorting patients/members with respiratory symptoms or suspected to have COVID-19 **need not wear mask**, if patient/member is **masked** and **staff able to maintain a minimum of 3-foot distance from patients**.
 - If patient is unable to wear mask, staff must put on mask while escorting.
 - Staff must wear full PPE (isolation mask, gown, gloves, and eye protection) if in direct contact (touching or providing care) with patient during transport.

V. **Avoid unnecessary testing and evaluation of patients in isolation**

- a. Decrease vital sign assessments to medically appropriate intervals to match clinical condition and improvement in condition.
- b. Testing and imaging only when needed for clinical indications (diuresis, clinically evident bleeding, change in urine output, change in tidal volumes, oxygenation, etc.)
- c. Utilize alternative diagnostic methods rather than resource- and staff-intensive methods when appropriate (point of care ultrasound, etc.)

VI. **Use remote interaction with patients in isolation as appropriate**

- a. 2-way intercom or phone
- b. “Baby monitors” may suffice if patients unable to communicate, if any privacy issues can be appropriately addressed
- c. Remote telemonitoring equipment if available

VII. **Droplet Precautions, Contact Precautions, and Eye Protection for patients suspected or confirmed to have COVID-19.**

- a. Negative pressure room NOT required unless patient needs high-risk procedures
- b. Enhance Respiratory Precautions (isolation mask, gown, gloves, and eye protection) for any patients with severe respiratory symptoms with unknown etiology while being evaluated and treated.

DROPLET PRECAUTIONS		CONTACT PRECAUTIONS	
+ EYE PROTECTION			
Visitors: Please check with a nurse before entering.		Visitantes: Por favor, consulte con una enfermera antes de entrar.	
探訪者：請與護士諮詢後方可入內。			
ENTERING <ol style="list-style-type: none"> Clean HANDS Gel or Soap & Water Put on GOWN Please Tie Gown Put on MASK Wear EYE PROTECTION Put on GLOVES Over Gown Cuffs Close DOOR 		EXITING <ol style="list-style-type: none"> Remove GOWN & GLOVES Roll Inside Out Clean HANDS & Put on GLOVES Remove EYE PROTECTION & MASK Remove GLOVES & Clean HANDS Close DOOR 	
Perform hand hygiene between steps if hands become contaminated		KAISER PERMANENTE.	

INFECTIONS AND DISEASES REQUIRING CONTACT PRECAUTIONS	INFECTIONS AND DISEASES REQUIRING DROPLET PRECAUTIONS
+ EYE PROTECTION	
USE FOR: <ul style="list-style-type: none"> • COVID-19 • Enhanced Respiratory Precautions (ERP) • Persons Under Investigation (PUI) 	
This is not an exclusive list, refer questions to your Infection Preventionist/Infectious Disease Physician for more information.	
ADDITIONAL INFORMATION	
Limit patient transport Limit to essential purposes. Patient wears mask when outside room.	Private or Semi-private room Place in a private room or in a room with 6 feet distance from the next patient.
Call receiving department Inform them of patient's Isolation Precautions to assure they are prepared and waiting for the patient.	Visitors Restrict visitors per hospital guidelines.
? If you have questions, please reach out to your manager or local infection prevention specialist	
March 18, 2020 Version 2.1	
DISPLAY OTHER SIDE	
KAISER PERMANENTE.	

PPE & STEWARDSHIP GUIDELINES

ENHANCED RESPIRATORY PRECAUTIONS (ERP)

CONTACT PRECAUTIONS

DROPLET PRECAUTIONS

+ EYE PROTECTION

USE FOR:

- Enhanced Respiratory Precautions (ERP)

This is not an exclusive list, refer questions to your Infection Preventionist/Infectious Disease Physician for more information.

	Gloves	Gown	Isolation Mask	N95	CAPR/PAPR	Safety Glasses	Goggles	Face Shield
ROUTINE CARE								
REUSE/EXTENDED USE/STEWARDSHIP GUIDELINES	Discard After Use	Extend: Use continuously with COHORTED patients without doffing Discard After Doffing	Reuse: Doff and store in-between patients Do not Clean Extend: Use continuously with multiple patients without doffing Discard After Doffing			Clean Before Reuse		Reuse: Doff and store in-between patients Do not Clean Extend: Use continuously with multiple patients without doffing Discard After Doffing
PROCEDURES WITH RISK FOR SPLASH								
EXAMPLE: SUCTIONING								
REUSE/STEWARDSHIP GUIDELINES	Discard After Use		Reuse Isolation Mask if Face Shield Used Otherwise Discard				Clean Before Reuse	Discard After Use

March 17, 2020
Version 1.0



Discard when PPE is visibly soiled, contaminated, damaged, or at the end of shift.



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PPE & STEWARDSHIP GUIDELINES

PUI & COVID-19

CONTACT PRECAUTIONS

DROPLET PRECAUTIONS

+ EYE PROTECTION

USE FOR:

- Persons Under Investigation (PUI)
- COVID-19

This is not an exclusive list, refer questions to your Infection Preventionist/Infectious Disease Physician for more information.

	Gloves	Gown	Isolation Mask	N95	CAPR/PAPR	Safety Glasses	Goggles	Face Shield
ROUTINE CARE								
REUSE/EXTENDED USE/STEWARDSHIP GUIDELINES	Discard After Use	Extend: Use continuously with COHORTED patients without doffing Discard After Doffing	Reuse: Doff and store in-between patients Do not Clean Extend: Use continuously with multiple patients without doffing Discard After Doffing				Clean Before Reuse	Reuse: Doff and store in-between patients Do not Clean Extend: Use continuously with multiple patients without doffing Discard After Doffing
HIGH RISK PROCEDURE								
EXAMPLE: INTUBATION				 + or Face Shield Goggles	 No N95 Needed When Using CAPR/PAPR		 with N95 Mask	 with N95 Mask
REUSE/STEWARDSHIP GUIDELINES	Discard After Use			Reuse N95 Mask if Face Shield Used Otherwise Discard			Clean Before Reuse	Discard After Use

March 17, 2020
Version 1.0



Discard when PPE is visibly soiled, contaminated, damaged, or at the end of shift.



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PPE Step by Step Don and Doff Guidelines

The COVID-19 PPE Donning and Doffing Guidelines includes recommendations for appropriate use, storage, infection control, and stewardship. Guidance has been created for routine care (extended use and reuse) and the reuse of N95 masks, PAPR, and CAPR.

PPE Guidelines for Routine Care with Extended Use of PPE

PPE Guidelines for Routine Care with EXTENDED USE of PPE April 1, 2020

EXTENDED USE = HCW dons PPE and wears it for multiple patients continuously without doffing and redonning between patient contacts. Gloves are not reused. Gowns are reused when conducting drive thru testing, providing non-close contact care to cohorted patients who require the same PPE, and for EVS cleaning a series of rooms.

Guidelines must be used in conjunction with your department's PPE Stewardship Guidelines
 To be used when providing routine care for a suspected or confirmed COVID-19 patient.

Storage: No storage needed. PPE must be discarded after doffing when leaving the care area after extended period of use or at end of shift

- Cleaning:** None, discard after doffing per above
- Infection Control During Use:**
- Don and doff carefully per protocol
 - Perform hand hygiene before and after use
- When to Discard:**
- After doffing when leaving the care area or at end of shift
 - When soiled or damaged

COVID-19 PPE Donning Guidance for Routine Care with EXTENDED Use of PPE

- Follow the below donning guidelines:
- Perform hand hygiene
 - Put on gown; fasten at the neck and back.
 - Put on mask
 - Put on eye protection (face shield or goggles)
 - Put on clean gloves
- *Refer to the Putting On PPE picture for technique in donning individual PPE.

- Infection Control while in the room:**
1. Remember to keep hands away from face and head
 2. Limit surfaces touched to minimize contamination
 3. Change PPE when soiled, contaminated, or damaged and perform hand hygiene between each change

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of protection required, such as standard and contact, splash or aerosol, and/or airborne infection precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to and of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Secure top or elastic bands in middle of head and back
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of isolation gown

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Avoid touching face, hair, nose
- Change gloves when soiled or heavily contaminated
- Perform hand hygiene



PPE Guidelines for Routine Care with EXTENDED USE of PPE April 1, 2020

- GENERAL DOFFING GUIDELINES:**
- Remove Gown and Gloves inside the patient room. Maintain at least 3 feet from patient at all times. If unable to do so, doff gown and gloves outside of the room.
 - Dispose of gown and gloves in red biohazard waste containers. Do not use regular waste containers.

COVID-19 PPE DOFFING GUIDANCE FOR ROUTINE CARE EXTENDED USE PPE:

- *Refer to the Remove PPE picture for technique in removing individual PPE.
- Between each patient contact:**
- Remove gown (if not reusing) and gloves inside the room.
 - Place in red biohazard waste container
 - Keep the face shield / goggles and mask on
 - Perform hand hygiene
 - Exit room
 - Perform hand hygiene

- When done with all patient care and leaving the care area:**
- Remove gown and gloves inside the room
 - Place in red biohazard waste container
 - Remove goggles or face shield
 - Place in red biohazard waste container unless cleanable. If item is cleanable, follow manufacturer's cleaning protocol.
 - Remove the mask and discard in red biohazard waste container
 - Perform hand hygiene
 - Exit room
 - Perform hand hygiene

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

How to safely remove personal protective equipment (PPE) to avoid contaminating your clothing, skin, hair, and surroundings with potentially infectious materials. Always use caution. Remove all PPE before exiting the patient care area or hospital if you're leaving the room after having the patient leave and closing the door. Remove PPE in the following sequence:

- 1. GLOVES**
 - Grasp by the wrist
 - Turn hands out
 - Roll away from you
 - Discard in red biohazard waste container
- 2. GOGGLES OR FACE SHIELD**
 - Grasp by the top
 - Turn away from you
 - Discard in red biohazard waste container
- 3. GOWN**
 - Grasp by the waist
 - Turn away from you
 - Roll away from you
 - Discard in red biohazard waste container
- 4. MASK OR RESPIRATOR**
 - Grasp by the top
 - Turn away from you
 - Discard in red biohazard waste container
- 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE**


PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE



PPE Guidelines for Routine Care with Reuse of PPE

PPE Guidelines for Routine Care with REUSE of PPE

April 1, 2020

REUSE = HCW dons and uses the same PPE (Mask, Face Shield or Goggles) during contact with multiple different patients but doffs and re-dons in between contact with different patients. Gown and gloves are not reused.

Guidelines must be used in conjunction with your department's PPE Stewardship Guidelines
To be used: When providing routine care for a suspect PUI or confirmed COVID-19 patient.

Storage Between Use: Hang in a designated area not touching other PPE or place in breathable bag
Cleaning Between Use: Goggles are cleaned between use

Infection Control During Use:

- Use gloves when donning, hanging, and/or placing in bag
- Use gloves when removing from storage and re-donning
- Re-don PPE carefully to prevent contact of the face, mouth, nose, eyes with the exterior of the PPE

When to Discard:

- When soiled or damaged or having difficulty breathing or seeing
- At end of shift or extended period of use

Infection Control while in the room:

- Remember to keep hands away from face and head
- Limit surfaces touched to minimize contamination
- Change gloves when torn or heavily contaminated and perform hand hygiene between each change.

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The order of PPE will vary based on the level of protection needed, such as standard and select, standard and enhanced infection control procedures. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Secure ties or elastic bands at middle of head and back
 - Fit flexible band to wrap bridge
 - Fit snug to face and below chin
 - Fit check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and head and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of dominant hand

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Don't touch your face
- Don't touch your head
- Change gloves often (use or heavily contaminated)
- Remove hand hygiene

COVID-19 PPE Donning Guidance for Routine Care With Reuse of PPE

Follow the below donning guidelines if using new PPE items:

- Perform hand hygiene
- Put on gown; fasten at the neck and back.
- Put on mask
- Put on eye protection (face shield or goggles)
- Put on clean gloves

*Refer to the Putting On PPE picture for technique in donning individual PPE.

Follow the below donning guidelines if reusing PPE (Mask, Face Shield, Goggles):

- Perform hand hygiene
- Put on gown; fasten at the neck and back.
- Don gloves before handling reuse items
- Put on mask and face shield or goggles
- Remove gloves
- Perform hand hygiene
- Put on clean gloves

PPE Guidelines for Routine Care with REUSE of PPE

April 1, 2020

GENERAL DOFFING GUIDELINES:

- Remove gown and gloves inside the patient room. Maintain at least 3 feet from patient at all times. If unable to do so, doff gown and gloves outside of the room.
- Dispose of gown and gloves in red biohazard waste containers. Do not use regular waste containers.

COVID-19 PPE DOFFING GUIDELINES FOR N95 WITH REUSE OF PPE:

*Refer to the Remove PPE picture for technique in removing individual PPE.

- Remove gown and gloves inside the room.
- Place in red biohazard waste container. Do not use regular waste containers.
- Perform hand hygiene
- Exit room
- Perform hand hygiene
- Put on clean gloves
- Remove goggles or face shield
- If using face shield:
 - Face shields may not be cleaned but can be reused if not visibly contaminated or damaged.
 - Store face shield: Hang up not touching other PPE items or store in breathable bag
- If using goggles:
 - Clean with disinfectant wipes then rinse with water or wipe with material dampened with water. Allow to dry.
 - Store goggles: Hang up or place in breathable bag.
 - Alternatively, place goggles in a designated receptacle for batch cleaning
- Remove the mask and store in pre-designated area
- Hang up not touching other PPE items or store in breathable bag
- Remove gloves
- Perform hand hygiene

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) (EXAMPLE 1)

Always use a variety of steps to safely remove PPE without contaminating your clothing, skin, or mucous membranes and potentially infecting others. There is one exception: Removal of PPE before exiting the patient room or leaving the room. If you have a respiratory protection plan, refer to the patient room exit protocol for your facility. PPE is the following equipment:

- 1. GLOVES**
 - Grasp by the wrist
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 2. GOGGLES OR FACE SHIELD**
 - Grasp by the top edge
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 3. GOWN**
 - Grasp by the waist
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 4. MASK OR RESPIRATOR**
 - Grasp by the top edge
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE**

PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE

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PPE Donning and Doffing Guidance for N95 in High Risk Aerosol-Generating Procedures with Reuse of PPE

COVID-19 PPE Donning & Doffing Guidance for N95 in High Risk Aerosol-Generating Procedures with REUSE of PPE

April 1, 2020

REUSE = HCW dons and uses the same PPE (Mask, Face Shield or Goggles) during contact with multiple different patients but doffs and re-dons in between contact with different patients. Gown and gloves are not reused.

Note: Can only reuse N95 if worn with face shield. Face shield cannot be reused after High Risk Procedure.

Guidelines must be used in conjunction with your department's PPE Stewardship Guidelines
To be used when performing or present during High Risk Aerosol-Generating procedures:

- Intubation
- Extubation
- Bronchoscopy
- Sputum Induction
- Positive Pressure Ventilation by Mask including CPAP & BiPAP
- Nasopharyngeal (NP) / Oropharyngeal (OP) Swabbing
- Open Endotracheal / NP / OP Suctioning

Storage Between Use: Hang in a designated area not touching other PPE or in a breathable bag
Cleaning Between Use: Goggles are cleaned between use

Infection Control During Use:

- Use gloves when donning, hanging, and/or placing in bag
- Use gloves when removing from storage and re-donning
- Re-don PPE carefully to prevent contact of the face, mouth, nose, eyes with the exterior of the PPE
- Use hand hygiene before and after handling PPE

When to Discard:

- When soiled or damaged or having difficulty seeing or breathing through
- If worn with goggles during high risk procedure
- At end of shift

GENERAL DOFFING GUIDELINES:

- Remove gown and gloves inside the room. Maintain at least 3 feet from patient at all times. If unable to do so, doff outside of the room.
- Dispose of gown and gloves in red biohazard waste containers. Do not use regular waste containers.
- Do not doff N95 until outside of patient care room or in anteroom.

*Refer to the Putting On picture for technique in donning individual PPE. Note this workflow uses an N95 respirator rather than a surgical mask as pictured.

COVID-19 PPE DOFFING GUIDELINES FOR N95 in HIGH RISK PROCEDURES

*Refer to the Remove picture for technique in removing individual PPE. Note that our COVID-19 workflow includes additional hand hygiene and gloving.

- Remove gown and gloves inside the room. Place in red biohazard waste container.
- Perform hand hygiene
- Exit room
- Perform hand hygiene
- Put on clean gloves
- If using goggles:
 - Remove goggles and clean with disinfectant wipe; rinse or wipe with material dampened with water and allow to dry before storing
 - Store goggles in pre-designated area: Hang up, not touching other PPE items, or place in breathable bag
- If using face shield:
 - Face shield must be discarded after high risk procedure

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) (EXAMPLE 1)

Always use a variety of steps to safely remove PPE without contaminating your clothing, skin, or mucous membranes and potentially infecting others. There is one exception: Removal of PPE before exiting the patient room or leaving the room. If you have a respiratory protection plan, refer to the patient room exit protocol for your facility. PPE is the following equipment:

- 1. GLOVES**
 - Grasp by the wrist
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 2. GOGGLES OR FACE SHIELD**
 - Grasp by the top edge
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 3. GOWN**
 - Grasp by the waist
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 4. MASK OR RESPIRATOR**
 - Grasp by the top edge
 - Place hand on contaminated surface (gown, mask, face shield, goggles)
 - Roll up and away from you
 - Place in red biohazard waste container
 - Do not use regular waste containers
- 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE**

PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE

COVID-19 PPE DONNING GUIDELINES for N95 in HIGH RISK PROCEDURES with REUSE of PPE

Follow the below donning guidelines if using new PPE items:

- Perform hand hygiene
- Put on gown; fasten at the neck and back.
- Put on N95 respirator
- Put on eye protection (face shield or goggles)
- Put on clean gloves

*Refer to the Putting On PPE picture for technique in donning individual PPE. Note this workflow uses an N95 respirator rather than a surgical mask as pictured.

Follow the below donning guidelines if reusing PPE (Mask, Face Shield, Goggles):

- Perform hand hygiene
- Put on gown; fasten at the neck and back
- Don gloves before handling reuse items
- Put on mask and face shield or goggles

NOTE: If worn with goggles, N95 must be discarded after doffing

Continued Next Page

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The order of PPE will vary based on the level of protection required, such as standard and select, standard and enhanced infection control procedures. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Secure ties or elastic bands at middle of head and back
 - Fit flexible band to wrap bridge
 - Fit snug to face and below chin
 - Fit check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of dominant hand

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Don't touch your face
- Don't touch your head
- Change gloves often (use or heavily contaminated)
- Remove hand hygiene

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PPE Donning and Doffing Guidance for PAPR in High-Risk Aerosol-Generating Procedures with Reuse of PPE

COVID-19 PPE Donning and Doffing Guidance for PAPR in High Risk Aerosol-Generating Procedures with REUSE of PPE

April 1, 2020

COVID-19 PPE DOFFING GUIDELINES for PAPR in HIGH RISK PROCEDURES with REUSE of PPE

- ❑ Remove gown and gloves inside the room.
- Remain at least 3 feet from patient while doffing.**
- ❑ To remove gown and gloves, pull from the front of the gown down, rolling sleeves into a ball including removal of gloves.
- ❑ Place in red biohazard waste container.
- ❑ Perform hand hygiene
- ❑ Exit room
- ❑ Perform hand hygiene
- ❑ Put on clean gloves
- ❑ Rotate PAPR to right hip
- ❑ Remove PAPR tubing from hood and blower unit
- ❑ Place tubing in designated bin for cleaning and reuse
- ❑ Turn off blower unit
- ❑ Remove hood: lean forward and carefully remove hood and hang hood in designated area for reuse
NOTE: PAPR hood is not cleanable, but may be reused if not visibly soiled or contaminated or damaged
- ❑ Remove the belt-mounted blower unit and belt and place in designated bin for cleaning and reuse
- ❑ Remove gloves and dispose of into red biohazard waste container
- ❑ Perform hand hygiene

Visual Aids for key steps



Disposable

Donning
❑ Put on gown, fasten at neck and tie in back underneath blower unit



❑ Put on PAPR hood



COVID-19 PPE Donning and Doffing Guidance for PAPR in High Risk Aerosol-Generating Procedures with REUSE of PPE

April 1, 2020

Visual Aids for key steps

Doffing
❑ To remove gown and gloves, pull from the front of the gown down, rolling sleeves into a ball including removal of gloves



❑ Remove hood: lean forward and carefully remove hood and hang hood in designated area for reuse
NOTE: PAPR hood is not cleanable, but may be reused if not visibly soiled or contaminated or damaged



PAPR Cleaning Guidelines

- PPE needed for PAPR Cleaning** = Isolation mask, goggles or face shield, gown, gloves
- If blood and/or bodily fluids contaminate the filter, dispose of the Filter Cartridge according to the hospital's contaminated waste disposal protocol.
 - Do NOT submerge the battery, blower/filtration, or hood/helmet in liquid
 - Use hospital-approved disinfectant wipes: Red, Green, Blue, Orange, or Purple tops

Cleaning Steps:

- ❑ Disconnect all component parts of PAPR blower unit, battery, hose, and hood.
- ❑ Clean and disinfect all parts with hospital-approved disinfectant wipes and allow to dry.
- ❑ Wipe the surfaces used for cleaning with hospital-approved disinfectant before doffing PPE.

PPE Donning and Doffing Guidance for CAPR for High-Risk Aerosol-Generating Procedures with Reuse of PPE

COVID-19 PPE Donning & Doffing Guidance for CAPR for High Risk Aerosol-Generating Procedures with REUSE of PPE

April 1, 2020

Visual Aids for key steps

COVID-19 PPE DOFFING GUIDELINES for CAPR in HIGH RISK PROCEDURES with REUSE of PPE

- ❑ Remove gown and gloves inside the room.
- Remain at least 3 feet from patient while doffing.**
- ❑ To remove gown and gloves, pull from the front of the gown down, rolling sleeves into a ball including removal of gloves. Place in red biohazard waste container
- ❑ Perform hand hygiene
- ❑ Put on clean gloves
- ❑ Wipe outside of CAPR helmet: take one wipe and wipe the helmet from back to front. Use a hospital approved disinfectant wipe: White Top, Red Top, Green Top, Blue Top, Purple Top, or Orange Top only. **NOTE: Allow to dry. Do not wipe lens cuff.**
- ❑ Remove gloves
- ❑ Perform hand hygiene
- ❑ Exit room
- ❑ Perform hand hygiene
- ❑ Put on clean gloves
- ❑ Loosen helmet headband
- ❑ Remove helmet from head in the forward direction
- ❑ Remove disposable lens cuff by grasping both sides at the connector. Pull forward and place or hang in designated area for reuse. **NOTE: Disposable lens cuff cannot be cleaned but can be reused if not visibly soiled, contaminated, or damaged**
- ❑ Remove comfort strips from helmet and place or hang in designated area for reuse
- ❑ Disconnect helmet cord from the battery pack
- ❑ Place helmet in designated bin for cleaning and reuse
- ❑ Remove battery and belt (if used) and place in designated bin for cleaning and reuse
- ❑ Remove gloves
- ❑ Perform hand hygiene

CAPR supplies



Donning

- Attach battery pack to the back of your scrubs/belt/pants
- Put on gown and tie in back underneath battery and cord



• Put on CAPR helmet



COVID-19 PPE Donning & Doffing Guidance for CAPR for High Risk Aerosol-Generating Procedures with REUSE of PPE

April 1, 2020

Visual Aids for key steps

Doffing
• To remove gown and gloves, pull from the front of the gown down, rolling sleeves into a ball including removal of gloves. Place in red biohazard waste container

• Wipe outside of CAPR device: take one wipe and wipe back to front the entire helmet. Use a hospital approved disinfectant wipe: White Top, Red Top, Green Top, Blue Top, Purple Top, or Orange Top only. **NOTE: Allow to dry**



• Remove helmet from head in the forward direction

• Remove disposable lens cuff by grasping both sides at the connector. Pull forward and place or hang in designated area for reuse



NOTE: Disposable lens cuff cannot be cleaned but can be reused if not visibly soiled, contaminated, or damaged



CAPR Cleaning Guidelines

- PPE needed for CAPR Cleaning** = Isolation mask, goggles or face shield, gown, gloves
- Do NOT submerge the battery, blower/filtration, or hood/helmet in liquid
 - Use hospital-approved disinfectant wipes: Red, Green, Blue, Orange, or Purple tops

- ❑ Disconnect all component parts of the CAPR: helmet, helmet liner, filter cover cap, rear headband cushion, battery, and battery cord
- ❑ Clean and disinfect all parts with hospital-approved disinfectant wipes and allow to dry.
- For helmet: start on the inside, begin with cleanest area inside helmet, then clean outside of helmet.
- ❑ Wipe the surfaces used for cleaning with hospital-approved disinfectant before doffing PPE

• Remove comfort strips from helmet and hang or place in designated area for reuse



Cohorting of COVID-19 Patients

- Patients on **Droplet Precautions** with **known respiratory disease/condition** other than COVID-19 may be cohorted according to policy and with local Infection Prevention / Infectious Disease (IP/ID) guidance.
- Patients **confirmed** with COVID-19 may be cohorted with local IP/ID guidance.
- PUIs must not be cohorted.

Cohorting of COVID-19 Patients and Reusable Equipment

- Patients **confirmed** with COVID-19 may be cohorted with local IP/ID guidance.
- Use disposable supplies if available; otherwise dedicate reusable supplies or equipment for patients suspected or confirmed to have COVID-19.
- Reusable equipment must be cleaned routinely with hospital-approved disinfectant.

Environmental Cleaning

- Rooms occupied by patients suspected or confirmed to have COVID-19 will be cleaned following protocols for routine daily and discharge cleaning.
- Environmental Services (EVS) will follow Droplet and Contact Precautions with eye protection while performing daily and discharge protocols for cleaning of room currently occupied by patients suspected or confirmed to have COVID-19. No waiting is required prior to entering the room to clean.
- **Due to aerosol-generating procedure**, negative pressure rooms used for high-risk procedures on by patients suspected or confirmed to have COVID-19 **must be closed for at least 1 hour prior to cleaning. Room may be cleaned without waiting for 1 hour if EVS is wearing N95 mask.**

Communications

Patient Education and Outreach

- Email outreach to all members with generalized recommendations about COVID-19
- Prominent language content and visibility about COVID-19 across all patient technological platforms
 - a. In KP Northern California, patient technological platforms include: My Doctor Online: kpdoc.org/COVID19 and kp.org
- Outreach to members that explains shift to virtual care and education about what to expect should patients need to access care. Communications will develop materials that are appropriate for multiple audiences and translation of the information as appropriate.
- Patient Handouts in multiple languages are available for Patient Facing Materials.

Physician and Staff Education

- FAQs for Appointment and Advice Call Center (AACC) staff fielding a variety of questions
- Talking points and workflow to physicians about referral to Appointment and Advice Call Center for travel documentation
- Front Office Staff training to COVID-19 workflows
- Engage clinic directors to educate back office staff in COVID-19 workflows
- Functional communications about business operations, staff and service availability and regulatory agency imperatives
- We will provide standard talking points and information for leaders to cascade
- Clinical and operational questions
 - a. Epidemiology and outbreak updates
 - b. Workflow communications
 - c. Frequently asked questions
 - d. State of the response communications

Human Resources

Healthcare Worker Exposure

- If there is an exposure of an employee to COVID-19 in the workplace, the employee will notify their manager and self-monitor for symptoms of fever and respiratory symptoms.
- If the employee does not have symptoms of fever or respiratory symptoms, the employee may continue to work.
- If the employee experiences any symptoms of fever or respiratory symptoms, they will be tested and remain off work according to the current guidance for COVID –19
- If an employee tests positive for COVID-19, they may be placed on workers compensation, as appropriate.

Non-Workplace Exposure

- If an employee is exposed to confirmed COVID-19 or has COVID-19 from an exposure outside of the workplace, they will follow normal absence and sick leave protocol in accordance with applicable regulations.

Rapid Onboarding of Contingent Staff

Provide immediate support to Patient Care Services needs to rapidly onboard contingent healthcare professionals.

- Verify regulatory compliance with required certifications, licensure and health screenings.
- Support medical operations by ensuring compliance is met prior to healthcare professionals arriving at medical centers.
- Coordinate and liaise with Regional PCS and vendor agencies.
- Designated representative for all regulatory audits.

COVID-19 Visitor Restrictions

I. Purpose

- a. The purpose of this guidance is to protect the health of the patients, healthcare workers, and visitors from COVID-19. This guidance is based on the most current information available about the virus, which is now accepted to have active transmission in the community. This approach will be refined and updated as more information becomes available and as response needs change.

II. Visitor Restrictions

- a. No visitors are allowed in **hospitals** except as specified below
- b. Waiting rooms will not be available in the hospital
- c. The only exceptions for visitation in the **hospital** are:
 - During end-of-life care, visitors are limited to one visitor at a time, unless by special arrangement
 - Labor and Delivery, Postpartum and Pediatric Units, including the PICU/NICU, will be allowed only one visitor over the age of 14 who does not have any evidence of cough, cold or illness. All other family visitors will be asked not to participate in visitation in the hospital until further notice. Clinical exceptions may apply in Labor & Delivery and Pediatric settings, under the clinician's guidance.
 - Drivers for patients arriving for surgeries or procedures will be allowed to enter with the patient and provide contact information but will be asked to leave until the patient is ready to be discharged.
 - An adult caretaker (18 years or older) of someone with cognitive or physical disabilities who requires assistance, or language assistance if interpretive services cannot suffice.
- d. The only exceptions for visitation in the **Emergency Department** are:
 - During end-of-life care, by special arrangement
 - An adult caretaker (18 years or older) of someone with cognitive or physical disabilities who requires assistance or language assistance if interpretive services cannot suffice.
- e. In **Medical Offices/Clinics**
 - Only one essential caregiver may accompany a patient (i.e. support person for a minor (under 18) or for persons with cognitive or physical disabilities who require assistance, or language assistance if interpretive services cannot suffice). Clinical exceptions may apply in Pediatrics.
- f. In all cases, any questions or decisions should be referred to the clinician posted at the entrance to the facility.
- g. Anyone with cough, fever, or any other illness is not allowed to visit.
- h. Visitors' and caregivers' movements should be restricted to coming and going from the patient they are visiting.
- i. All visitors should follow respiratory hygiene and cough etiquette precautions while in the facility.
- j. These restrictions may be superseded by a county or local order.

III. Actions for Medical Centers

- a. Educate staff and volunteers about the temporary visitor's restrictions in effect during the COVID-19 outbreak
- b. Ensure signs are posted at all entry points to inform visitors of the visitor's restriction in effect
- c. Ensure respiratory kiosks are stocked and accessible, or direct visitors to the location for obtaining masks (may not be needed if there are greeters).
- d. Post signs directing pathway for visitors to take in the medical center and reminding them not to congregate in common areas.
- e. Offer alternative mechanisms for patient and visitor interactions, such as video-call applications on cell phones or tablets.

Call Center/Online Strategies

Online Messaging and Appointment Booking

- Prominent messaging on kp.org with advice and clear instructions on COVID-19 questions/concerns
- Enhance online booking infrastructure and guidelines to channel patients with respiratory symptoms to preferential booking of Telephone Appointment Visit or Video Appointment Visit in Adult Family Medicine, Pediatric and Gynecology service lines
 - Direct booking of in-person appointments from kp.org has been disabled
 - If member desires an in-person office visit, they are redirected to the Appointment and Advice Call Center

Appointment and Advice Call Center Messaging

- An upfront broadcast announcement on COVID-19 for all members who call
- If Asymptomatic: FAQs addressing questions and miscellaneous concerns
- If Symptomatic: members with symptoms concerning for COVID-19 will be directed towards Telephone Appointment Visit or Video Appointment Visit when medically appropriate in Adult Family Medicine, Pediatric, and Gynecology service lines

Appointment and Advice Call Center Staffing

- Staff protocols to provide information at the appropriate level and improve advice rates
- Maximizing RN staffing and Clinical staffing (virtual or physical) to assist with increased volume of calls for URI symptoms
- All hands-on deck to assist with increased call volumes as needed

Outpatient Clinics

Virtual Appointment Supply Management

- Outpatient clinics will increase Telephone Appointment Visits (TAV) and Video Appointment Visits (VAV) capacity by increasing available physicians and shift diverting physicians into the COVID-19 TAV/VAV queue.
- Where appropriate, convert Directly Observed Visits (DOV) to virtual visits.

Conversion of Existing Appointments to Telephone Appointment Visit (TAV) or Video Appointment Visit (VAV)

I. Adult Family Medicine, Pediatrics, Women’s Health

- Medical Assistants will review clinic schedule daily to route Directly Observed Visit appointments to Video Appointment Visit or Telephone Appointment Visit when possible and clinically appropriate:

Service Line	Prospective Schedule Review: Converting Existing Appointments to VAV/TAV
AFM & PED	<ul style="list-style-type: none"> • Implement MA/MD prospective schedule review each morning (PRIORITIZE AS FOLLOWS): <ul style="list-style-type: none"> ○ For DOVs which are clinically appropriate to convert to VAV/TAV: <ul style="list-style-type: none"> ▪ Convert appointment to VAV/TAV ○ For DOVs which cannot be converted to VAV/TAV but which can be postponed: <ul style="list-style-type: none"> ▪ Utilizing script, advise patient to check back in one month. ○ For patients who insist on coming in or who are unsure: <ul style="list-style-type: none"> ▪ Utilize local workflow for warm hand-off to clinician to speak to patient
OBGYN	<ul style="list-style-type: none"> • Implement MA/MD prospective schedule review each morning: <ul style="list-style-type: none"> ○ For DOVs which are clinically appropriate to be converted to VAV/TAV: <ul style="list-style-type: none"> • Convert appointment to VAV/TAV ○ For DOVs cannot be converted to VAV/TAV but which can be postponed: <ul style="list-style-type: none"> • Utilizing script, advise patient to check back in one month. ○ For patients scheduled for 1st prenatal DOV, contact and screen for COVID

II. Medical Subspecialties

- Guiding Principle: Specialty care and chronic disease care visits to be provided by Telephone Appointment Visit or Video Appointment Visit so long as clinically appropriate.
 - Chief and Managers will review the day/week’s upcoming schedule and determine any appointments that cannot be converted.
 - For care that *requires* an in-person visit, call in advance and screen for respiratory complaints (cough, shortness of breath, or increased work of breathing)
 - If patient has any of these symptoms, discuss with physician before moving forward.
 - Manager delegates staff to convert appointment type and notify patients.
 - Physicians may call selected patients to discuss the approach to their care (particularly cancer patients, patients getting infusions; Multiple Sclerosis, neuromuscular disease, etc.)
- To avoid bringing fragile patients onsite, unless critically necessary
- Review lab and imaging ordering practices
- Review in-office procedure ordering practices (e.g. botox, EMGs, etc.)

COVID-19 Ambulatory Clinic Workflows

Candidates for COVID-19 testing may be identified via virtual appointments or through planned and incidental physical arrivals

I. Planned Arrivals for Suspected COVID-19

- a. Patient has spoken with clinical staff and is prepared with information on where to go and what to expect
- b. Clinical staff are prepared for arrival of patient with materials, appropriate PPE, and pre-ordered tests per Infectious Diseases guidance.
- c. Employ the use of Alternative Testing Sites for COVID-19
 - i. Alternative Testing Sites may include areas within or adjacent to medical facilities (**e.g. “drive-through” sites**)
 - ii. Alternative Testing Sites should only be used by patient confirmed to be appropriate candidates for COVID-19 testing which have been approved by a physician.
- d. Care to be provided in a single designated area for the department: an exam room with the door closed or other location. Care to be provided by a designated physician utilizing PPE per Infectious Disease guidance.

II. Incidental Arrivals

- a. Utilize Ambassadors at the Medical Office Building (MOB) Entrances per Welcome Ambassador Workflow below.
- b. Limit points of entry to the MOB with pre-designated stations staffed by Ambassadors
- c. Ensure appropriate supplies for infection control are available at entrances (e.g. masks, hand sanitizer)
- d. Patients who are directed to proceed to the MOB will be screened again for respiratory complaints (cough, shortness of breath, or increased work of breathing and guide to appropriate screening area
 - i. Maintain 3-foot distance and wear appropriate PPE per Infectious Disease (ID) guidance
 - ii. **If patient has respiratory complaints** (cough, shortness of breath, or increased work of breathing, place isolation mask on patient
 - Patients with cough will be escorted from waiting room and into private room or other designated area as quickly as possible—maintain 3-foot distance and wear appropriate PPE per ID guidance
 - Physician notification of patient arrival to screening area by staff or Assistant Nurse Manager (ANM)
 - Physician assessment in screening area using appropriate PPE per Infectious Disease guidance
 - If patient is suspected of COVID-19, consult with Infectious Disease regarding testing
 - Follow guidance for alternative testing sites above.
 - Physician will determine patient’s next steps, which may include:
 - COVID-19 testing
 - Going to planned appointment / department (limited/no risk of COVID)
 - Escorted to location where appropriate care can be delivered, by a physician utilizing PPE in a designated area (risk for COVID, testing ordered)
 - Treated and sent home
 - Coordinate with runner and pharmacy to meet the patient’s needs at the designated location.

III. Welcome Ambassador Workflow

a. Location

- i. To reduce community spread of disease and considering supply stewardship, access to facilities should be limited to 1 (one) point of entry to the Hospital and 1 (one) point of entry to the MOB wherever possible.

b. Process

- i. ***Utilize social distancing option when masks and/or hand sanitizer are not available (see Appendix).**
- ii. Greeter warmly welcomes each member and guests and asks for purpose of the visit to the facility.
- iii. If the member is here for pharmacy pick-up only, they should be directed to curbside pharmacy pick-up or instructed to use the mail order pharmacy.
- iv. If the member is not here for pharmacy, the Greeter must enforce the Visitor Restrictions policy.
- v. Greeter offers hand sanitizer to each member and guest and watches them rub it into their hands.
 - Note: Infants under 1 year of age, members who do not have use of their hands, members with allergies to hand sanitizer are exempt.
- vi. Clinical Ambassador asks each member or guest if they have a cough or shortness of breath.
- vii. If the member or guest does not have a cough, they are given a blank wristband or sticker marked with the date to indicate that they have been screened and proceed to their destination as planned.
- viii. If a member or guest has a cough, they are immediately required to wear a mask. If masks are unavailable, see social distancing option approach in appendix.
- ix. The Greeter escorts member to the assessment/area for PUI workup by the Physician.
- x. The Physician does the COVID assessment in the assessment tent and calls the COVID Triage line to determine if the Member should be tested.
 - If the Member needs COVID testing, s/he is sent to the designated drive through or mobile testing center.
 - If the Member does not need COVID testing, consider if the Member's visit can be done via telehealth. If so, convert to a video or telephone appointment.
 - If the visit cannot be done via telehealth, the Member can proceed to their destination.

Behavioral Health

Outpatient Mental Health, Behavioral Medicine Services, and Addiction Medicine and Recovery Services

- I. Appointment Supply Management
 - a. Review schedules a week in advance to convert routine non-urgent new and return visits to telephone and video visits, utilizing guidance from manager.
 - b. Maintain in-person urgent appointments.
 - c. For care that requires an in-person visit, call in advance and screen for respiratory complaints (cough, shortness of breath, or increased work of breathing).
 - d. If patient has any of these symptoms, transfer the patient to triage or escalate to manager as is appropriate.
 - e. Managers must ensure staff can either convert time to seeing telehealth appointments or other critical functions as needed.
 - f. Review schedules daily to identify cancelled appointments; convert to telehealth appointment types.
 - g. Consider offering extra telehealth shifts to clinic physicians upon Physician-In-Chief (PIC) approval.
- II. Clinic workflows for patients who present in clinic
 - a. Follow all aspects of [Welcome Ambassador Workflow](#) referenced in Outpatient Clinics.
- III. General Outpatient Psychological Testing (does not pertain to ASD center, Neuropsychologist specialty testing)
 - a. Use clinical judgement to determine if any in-person assessments can be converted to interview-based assessments via telehealth appointment. Also determine if any assessment inventories can be mailed to patient to complete and mail back, assuming this does not create compromises to test security/ integrity of valid assessment process.
 - b. If the above cannot work, then would postpone testing appointment and document appropriately in medical record. Meanwhile work with Schedule Creation and Maintenance (SCM) to convert testing time to non-urgent telehealth appointments.
- IV. Groups and Classes
 - a. Use regional script to postpone all non-essential groups and classes. Convert all essential groups and classes, including IOP, to WebEx once you receive your WebEx licenses. Group leaders are trained on how to lead a virtual group. have your Schedule Maintenance Team map your new WEBx appt types for groups or WAVx appt types for classes.
 - b. Group and class leaders will need to staff message the individual providers for patients whose groups/classes will be postponed asking them to follow-up with their patient directly regarding next steps. For low acuity classes that are postponed, it is up to the provider's discretion if it is clinically necessary to reach out to patients in addition to initial class cancellation communication. Group and class leaders need to work with their manager to implement follow-up workflows for patients who are not in the low-acuity classes and who do not have a MH provider.
 - c. Individual therapists need to develop risk stratified treatment plans for patients. Consider offering digital therapeutics.
 - d. Managers need to ensure group and class leaders convert postponed group/class time to bookable time or other operational need as is appropriate.
 - e. AMRS: Eliminate group breathalyzing; conduct individually at detox appointments
- V. Lab Orders
 - a. Physicians must review non-urgent lab orders and reminder practice.
 - b. Avoid bringing patients onsite if it can be avoided / delayed.
- VI. Pharmacy
 - a. Reassure patients: no need for early refills or medication hoarding.
 - b. Encourage Mail Order as the primary vehicle for non-urgent prescriptions

Behavioral Health: ED and Hospital

- I. Departments of Psychiatry will continue to provide ED and Hospital consultation support which may be provided by video visits or in-person. For those providing remote video visits we developed an approved playbook and workflow for conducting video visits to the ED remotely.
- II. Staff should check with Charge RN if there are any PUI or COVID + patients for whom isolation and contact precautions should be followed.
- III. All inpatient psychiatry referrals or hospital alternatives will continue to go through the Psychiatric Call Center.
- IV. Providers will screen patients for respiratory complaints (cough, shortness of breath and increased work of breathing).
- V. No inpatient or residential psychiatry facility has negative pressure rooms or is equipped to manage COVID-19 + patients and will not accept PUI patients until receiving negative COVID-19 test result.
- VI. For placement issues with ED and Hospital, providers should continue to contact the Psychiatric Call Center who will use their escalation process to try and resolve placement problems.
- VII. Regional Behavioral Health leadership are receiving daily updates from the psychiatric continuum regarding bed supply and possible closures. Regional Behavioral Health Leadership will report changes to the Regional Command Center.

New Guidelines for IOP treatment			
See below guidelines for moderate to high risk patients who attend IOP. While we support WebEx groups or telehealth individual visits, anyone who is of concern needs to have an in-person option for individual visits; we are not recommending holding in-person groups at this time. Our goal is to ensure patient safety and maintain stability and functioning in a setting outside the hospital and residential programs where congregant living puts them at more risk for viruses than coming to our clinic..			
Clinical Risk level	Definition	Intake	Ongoing Treatment
Moderate risk	Passive suicidal ideation without plan or intent, symptoms of depression, psychosis or mania at an acuity level that is safe for continued outpatient management.	Assess for appropriateness for video vs. in person (factor in patient's physical and psychiatric risk factors for in person visit)	<ul style="list-style-type: none"> ● WebEx or telephone ● EDIOP: At least once a week, see patients in-person to assess/take vitals, particularly those who are new to the program.
High risk	Acute decompensation as evidenced by: <ol style="list-style-type: none"> 1. Worsening psychosis 2. Worsening depression 3. Worsening suicidal ideation, in particular planning or intent 4. Worsening mania 	In person	<ul style="list-style-type: none"> ● Can do WebEx, with increased frequency of individual check ins. ● Escalate to in person visit if needed. ● EDIOP: At least once a week, see patients in-person to assess/take vitals, particularly those who are new to the program.

Arriving Ambulances (EMS and Non-EMS)

- I. General Strategies
 - a. Ambulance personnel are expected to follow PPE guidelines consistent with CDC/CDPH/EMS Authority and local protocols
 - b. On transfer of a PUI to a KP facility, medical facility staff will meet ambulance personnel at a designated location outside the medical facility. KP staff will wear PPE appropriate for the patient's condition and will bring a KP gurney or wheelchair for transport to the facility bed.
 - c. KP staff will escort the patient and accompanying family to area within the facility, whether ED inpatient unit, or other location as determined by receiving facility.
 - d. Kaiser Permanente (KP) medical facilities will provide an area outside the medical facilities for ambulance personnel to doff their personal protective equipment and clean their ambulance after arrival with a COVID-19 PUI.
 - e. Ambulance personnel will not enter a KP facility wearing contaminated PPE (unless the patient becomes acutely unstable and ambulance crew are required for safe transfer into the facility).
 - f. KP will provide appropriate biowaste containers in the ambulance bay to permit ambulance providers to dispose contaminated waste.

- II. Ambulance Notification and Preparation for Arrival
 - a. The paramedics / EMTs should notify the destination Emergency Department of a suspected COVID-19, PUI as per local EMS agency policy.
 - i. Note: EMS agency processes are evolving and may change. The ED may be notified by other means of arrival such as call center, EPRP, Repatriation, hospital transfer.
 - b. Confirm predesignated area for patient arrival with ambulance personnel (where to park, where to unload the patient, and where to doff PPE).
 - c. ED Nurse Manager will notify Emergency Physician, appropriate ED staff and EVS security.
 - d. Security will provide access and control of prearranged ambulance arrival area and liaise with any law enforcement personnel.
 - e. KP Environmental Services (EVS) will provide a Category A waste receptacle for the PPE in the outside designated doffing area for ambulance personnel.

- III. Ambulance Arrival
 - a. Ambulance personnel should not enter the medical facility wearing contaminated PPE. Personnel are recommended to remain outside the facility. If needed to transport the patient inside, personnel will doff in the ambulance or ambulance bay, re-don clean PPE, and enter the facility in new PPE.
 - b. Ambulance personnel will be met in the ambulance bay by hospital personnel.
 - c. ED/Hospital staff will proceed to the ambulance arrival area with a gurney or wheelchair intended for the arriving patient.
 - i. Use appropriate PPE following ED screening.
 - d. Ambulance personnel will transfer the patient onto the KP gurney/wheelchair in the ambulance arrival area.
 - e. Ambulance personnel will doff in the ambulance bay per CDC and agency protocols and deposit PPE into KP-provided Category A waste receptacle.
 - f. Guidance for moving a crashing patient from ambulance bay into the ED:
 - i. Greeting the incoming ambulance promptly is crucial to manage urgent transfer of care
 - ii. If possible, turn off CPAP, nebulizer during transfer into ED room
 - iii. If possible, pause ventilations (unless intubated AND HEPA filter is in use in circuit) during transfer into ED room
 - iv. If patient acuity requires ambulance staff to enter ED in contaminated PPE, KP ED staff will assist ambulance staff with PPE doffing after transfer to ED room

IV. Ambulance Patient Rooming

- a. ED Nurse Manager and ED or Hospital physician will determine if patient is to be seen in the ED or directly admitted to the hospital per local protocol.
- b. Determine patient destination
 - i. If patient treated in ED, follow ED workflow.
- c. If Direct Admit:
 - i. Notify House Supervisor
 - ii. Follow Inpatient Admission via Ambulance Transfer workflow

Hospital Facilities

Emergency Department

- I. Greeting Process at the ED
 - a. In order to protect the health of our members and staff and reduce transmission, a new ED Welcome Workflow will be put in place. In summary, members and guests will be greeted at the entrance to the ED, offered hand sanitizing gel and masked only if needed, before being directed to an appropriate care location.
 - b. The Emergency Department is a point of entry for the hospital. This workflow is to be implemented at every ED entrance.
 - c. Process
 - i. A staff member will be posted at the entrance to the ED as a greeter:
 - The greeter will determine the reason for the patient visit. Stable complaints of respiratory (cough, shortness of breath, increased work of breathing) symptoms will be cohorted for further assessment following updated COVID-19 ED Workflow dated 3/15/2020
 - ii. Supplies
 - At the entrance, there will be hand sanitizers and masks.
 - iii. The Greeter warmly welcomes each patient and guest while maintaining a distance of 3 - 6 feet. Greeter offers hand sanitizer to each member and guest and watches them rub it into their hands.
 - Note: Infants under 1 year of age, members who do not have use of their hands, members with allergies to hand sanitizer are exempt.
 - iv. Greeter asks each patient or guest if they have respiratory complaints (cough, shortness of breath, or increased work of breathing).
 - Patients
 - **If the patient does not have respiratory complaints**, they proceed into the Emergency Department for routine evaluation per local ED workflow.
 - **If a patient has respiratory complaints**, they are immediately required to wear a mask. The patient is then redirected to dedicated respiratory screening area separate from non-respiratory patients determined by the local ED. The updated ED workflow is to be followed from this point.
 - Guests
 - Guests without medical complaints will be encouraged to leave and return at time of pick up. Families with children that are unable to be separated will stay together
 - Guests with respiratory complaints (cough, shortness of breath, or increased work of breathing), and who would like to be evaluated, shall be from here forward considered a patient and will be asked to don a mask immediately and will follow the patient workflow above. If ED evaluation is declined by the guest, they will be asked to leave the medical center campus and are not considered a patient.
- II. Screening Areas
 - a. Screen patients for respiratory complaints (cough, shortness of breath, or increased work of breathing).
 - b. **For patients with respiratory complaints**, cohort patients in the screening area during assessment, using the following precautions:
 - Droplet/contact/eye protections (i.e., enhanced respiratory precautions) and 3-foot minimum distance from other patients

- Use reasonable and appropriate privacy considerations (patients must be 6 feet from each other unless everyone is wearing masks).
- PPE must be changed between patients only for staff members who are unable to maintain a minimum distance of 3-feet from the patient
- All visitors must be excused from the screening area, with the exception of an adult family member for a pediatric patient, or a necessary caregiver for an adult patient
- Physician notification of patient arrival to screening area by staff or ANM
 - Physician assessment in screening area uses droplet/contact/eye precautions for minimally symptomatic patients to determine if discharge to home is possible after rapid evaluation and treatment

c. Screening areas may utilize alternative care space.

- Patient care rooms
- Other licensed areas
- ED hallway beds and chairs
- ED waiting room
- ED administrative space (e.g. offices, conference rooms)
- Surge tent or care area

III. Patient Assessment

- a. If unable to be discharged from the screening area directly, patient escorted and roomed in single ED treatment room following escorting guidelines
- b. Use droplet/contact/eye protection while in the patient's room
- c. High-risk procedures will be performed in a negative pressure room, if available; otherwise, a single room with closed door is adequate. A CAPR/PAPR will be donned in addition to gown and gloves
- d. Contact the designated ID physician for further guidance on COVID-19 testing, treatment and disposition. If COVID-19 testing is recommended by ID, an N95 mask should be used to collect the specimen in addition to eye protection, gown and gloves. Once specimen is collected, N95 mask is no longer indicated and enhanced respiratory precautions can be resumed (gown, gloves, mask, eye protection). A negative pressure room is not required for specimen collection for COVID-19 testing.

IV. Patient Discharge

- a. Discharge with appropriate prescriptions, COVID-19 discharge instructions and follow-up
- b. Give patient isolation mask and escort out of ED when appropriate transportation available

Adult Inpatient

- I. Hospital Census
 - a. Assess resource management and potential discharge barriers daily
 - b. Regional command center support to monitor capacity at each medical facility
 - c. Assess for throughput delays due to insufficient ancillary services/staff (e.g. wound care, PICC nurses, echocardiogram)
- II. Level of Care
 - a. Maximize appropriate level of care for every patient (ex: Telemetry guidelines to ensure appropriate telemetry floor bed use)
 - b. Minimize use of Foley, restraints, oxygen, continuous pulse oximetry as clinically indicated
 - c. Eliminate aerosol treatments in non-ventilated patients, if clinically appropriate and possible
- III. Cohorting of COVID patients
 - a. Attempts should be made to cohort COVID patients with one team of clinical providers to minimize exposure to staff
 - b. Create a specialized rotating team of clinical providers who manage COVID patients
 - c. Cohort COVID + patients in rooms and on medical floors within the hospital
 - d. See Infection Prevention Guidelines on Cohorting Strategies (below, item VII.f).
- IV. Care of patient
 - a. Limit staff entering patient's room to essential personnel
 - b. Limit exams, lab draws, and imaging to essential testing only
 - c. Utilize remote methods of communication as appropriate (cell phone, MS Teams, baby monitors, etc.)
- V. Staffing
 - a. Monitor staff with healthcare exposures and/or furlough
 - b. Flex staff administrative time to clinical time as needed
 - c. Regional staffing pool to support medical facilities with staffing contingencies
 - d. Daily evaluation of staffing supply/demand with urgent staffing request mechanism in place
 - e. Contact the Regional Command Center with staffing needs that arise
 - f. Expansion of staffing in disaster is based upon patient care demand and skill level of staff
 - g. **Patient Assignments:**
 - Cohorted COVID+/PUI patients: 1:4 MS, 1:3 MST, and 1:2 ICU (flex for acuity)
 - PPE may be reused or have extended use (per guidelines)
 - Positive and PUIs may be in the same patient assignment, subject to all infection control precautions moving between such patients
 - h. Staffing for patients who are COVID-19 positive or a PUI:
 - **Staffing with a negative pressure isolation room (if required for high-risk procedures): 1:2 assignment**
 - i. Staffing on units:
 - Provide a private room for the patient. Patients **confirmed** with COVID-19 may be cohorted with local IP/ID guidance
 - Use clinical judgment to determine acuity for the patient assignment
 - Escalate to the manager questions and scenarios that require consideration
 - j. Before employees provide high risk care to a PUI or COVID patient:
 - Dedicate a PPE training room (can be roving) at each hospital at all times (24/7)
 - Allow staff to practice donning and doffing PPE
 - Validate competency on isolation precautions

- Validate competency on proper donning and doffing technique
- Validate N95 fit testing and retain N95 for future use (if N95 use is required)

VI. Guiding Principles

- a. Standardize best-practice clinical and operational workflows
- b. Mitigate spread in our communities
- c. Protect healthcare workers
- d. Resource stewardship in all decisions: Refer to PPE Stewardship Guidelines
- e. Collaborate agnostic of service line and tailor to nuances
- f. Identify potential unintended consequences and try to mitigate
- g. Seek technology; incorporate KP HealthConnect (EHR) and IT to make it easier to do the right thing
- h. Align to the current Infection Control Mitigation Plan for COVID-19
- i. Identify and reduce redundancy, waste, and inefficiencies in workflows and practice to optimize resources
- j. PPE should be reserved for health care workers in direct contact with isolated patient

VII. Infection Control Guidelines

- a. Use of Enhanced Respiratory Droplet Precautions: Use Droplet Precautions, Contact Precautions, and Eye Protection for patients suspected or confirmed to have COVID-19. **Negative pressure room is NOT required.** Prefer private room with door closed.
- b. **Follow PPE Stewardship protocols and Infection Prevention Recommendations for PPE use, reuse, and extended use**
- c. Expired N95 masks can be used following CDC recommendations only after supply chain indicates that regular N95s are not available.
 - Must be part of the approved manufacturers' list
 - Must be checked for integrity and seal prior to wearing
 - User must be fit tested for that model
- d. Clean all reusable components of CAPR/PAPR—staff must be trained to clean equipment properly
- e. **Prioritize use of CAPR/PAPR for High-Risk Procedures Only** to minimize wear and tear and reduce cleaning time
 - High-Risk procedures may include aerosol generating procedures such as sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, and autopsy procedures.
- f. **Cohorting Strategies: minimize number of staff using PPE and number of PPE being used**
 - Cohort patients with the **same** infectious conditions including COVID + patients in the same location
 - Cannot place PUI with COVID + patients in the same room
 - Cannot place patients being ruled out for other infectious diseases in the same room
 - Identify core group of staff to care for patients that require transmission-based precautions: Contact, Contact +, Droplet and Airborne
 - Staff can care for PUI/COVID+ and other rule-outs in the same assignment
 - Staff can reuse or extend-use masks and protective eyewear; do not reuse gowns and gloves
- g. Those escorting patients/members with respiratory symptoms or suspected to have COVID-19 **need not wear mask**, if patient/member is **masked-**
- h. If patient is unable to wear mask, staff must put on mask while escorting
- i. Staff must wear full PPE if in direct contact (touch)
- j. **PAPR/CAPR or N95 Use**: PAPR/CAPRs or N95s will only be used when performing or present in the room during high-risk procedures on patients suspected or confirmed to have COVID-19

VIII. Hospital Workflows Defined Specific to Access

- a. Patients may be admitted to the Inpatient units in at least three different ways:
 - Direct ED Admit
 - Direct admit from a Medical Office Building
 - Ambulance transfer

Direct ED Admit Workflow

Step 1: Identify

- House Supervisor (HS) RN receives notification of COVID positive or Person Under Investigation (PUI) to be admitted

Step 2: Escalate

- House Supervisor notifies the Administrator on Call (AOC) to activate command center, if not already activated, of incoming patient. As COVID cases in the U.S. increase, command center activation may not be indicated

Step 3: Isolate

- House supervisor coordinates the team to transfer patient to the admitting unit: Ensure the current appropriate PPE is ordered
- Team: consists of:
 - Personnel to support transport to inpatient unit
 - Receiving MD
 - Receiving RN
 - Assistant Nurse Manager
 - Infection Control (or designee after hours)

Step 4: Isolate

- House Supervisor arranges transportation for admit, and huddles with transporting and receiving staff. Transfer patient to unit once team is briefed.
- Confirm patient will be masked during transport (use standard isolation mask with loops)
- PPE for staff not required for masked patients as long staff maintains a minimum of 3-foot distance from patient
- Confirm transfer path is clear and secure
- Arrange for transportation in a dedicated elevator

Step 5: Protect Caregiver/Family/Friends

- Notify restriction on visitors for patients suspected or confirmed to have the COVID-19 virus (see visitor section above).
- Sick family or caregivers who arrive with patients should not be permitted to stay with the patient unless the patient is pediatric.
- Designated visitor must wear a mask when outside of the patient room.

Step 5.1: Protect Admitting RN and Admitting MD

- Refer to current [*Inpatient Workflow](#) below and admit per outlined admission process

Inpatient Admission from Medical Office Building (MOB) Workflow

Step 1: Identify

- House Supervisor (HS) RN receives notification of COVID positive or Person Under Investigation (PUI) to be admitted from admitting MD

Step 2: Escalate

- House Supervisor notifies the Administrator on Call (AOC) to activate command center, if not already activated, of incoming patient. As COVID cases in the U.S. increase, command center activation may not be indicated

Step 3: Isolate

- AOC or HS coordinates the patient transfer from MOB through the local command center
- AOC or HS will communicate local command center instructions on how to transfer the patient to the unit

Step 4 Isolate

- House Supervisor arranges transportation for admit, and huddle with transporting and receiving staff. Transfer patient to unit once team is briefed
- Follow the recommendations of the AOC or local command center on transportation and point of entry to hospital

Steps 5 and 5.1 are same as Direct Admit Workflow

Step 5: Protect Caregiver/Family/Friends

- Notify restriction on visitors for patients suspected or confirmed to have the COVID-19 virus (see visitor section above).
- Sick family or caregivers who arrive with patients should not be permitted to stay with the patient unless the patient is pediatric
- Designated visitor must wear a mask when outside of the patient room

Step 5.1: Protect Admitting RN and Admitting MD

- Refer to current *Inpatient Workflow below and admit per outlined admission process

Inpatient Admission via Ambulance Transfer

Steps 1-3 same as Direct Admit to Inpatient

Step 1: Identify

- House Supervisor (HS) RN receives notification of COVID positive or Person Under Investigation (PUI) to be admitted

Step 2: Escalate

- House Supervisor notifies the Administrator on Call (AOC) to activate command center, if not already activated, of incoming patient. As COVID cases in the U.S. increase, command center activation may not be indicated

Step 3: Isolate

- House supervisor coordinates the team to transfer patient to the admitting unit: Ensure the current appropriate PPE is ordered
- Team: consists of:
 - a. Personnel to support transport to inpatient unit
 - b. Receiving MD
 - c. Receiving RN
 - d. Assistant Nurse Manager
 - e. Infection Control (or designee after hours)

Step 4: Isolate

- House Supervisor arranges transportation for admit, and huddles with transporting and receiving staff. Transfer patient to unit after team is briefed
 - Follow the recommendations of the local command center on transportation and point of entry to hospital. Patient should wear isolation mask (mask with loops around the ears)
- Medical facility staff will meet ambulance personnel at a designated location outside the medical facility. KP staff will wear PPE appropriate for the patient's condition and will bring a KP gurney for transport to the facility bed.
- Use KP bed or gurney to move the patient into the hospital from the point entry
- Bring PPE for the transfer team and patient
- Follow workflow for transfer of patient from the ambulance into the medical center

Steps 5 and 5.1 are same as Direct Admit Workflow

Step 5: Protect Caregiver/Family/Friends

- Notify restriction on visitors for patients suspected or confirmed to have the COVID-19 virus (see visitor section above). A maximum of one visitor is permitted per patient.
- Sick family or caregivers who arrive with patients should not be permitted to stay with the patient unless the patient is pediatric
- Designated visitor must wear a mask when outside of the patient room

Step 5.1: Protect Admitting RN and Admitting MD

- Refer to current Inpatient Workflow below and admit per outlined admission process

Inpatient Workflow: What to do when known or suspected COVID-19 patient arrives to the unit

Once Notification is received from ED or clinic of need for bed for known or suspect COVID-19 patient, the following steps are taken:

Step 1: Prepare room for admit

- Secure isolation supplies (isolation masks, gowns, eye protection, gloves, hand sanitizer. If high risk procedures are anticipated, N95 respirators, PAPR/CAPRs and storage station for after use); if applicable gather PAPR/CAPR supplies if a high-risk procedure is anticipated
- Confirm dedicated or disposable patient-care equipment (e.g., blood pressure cuffs, stethoscope)
- Ensure communication device located in room and phone number known
- Post appropriate signage for precautions on the door outside the patient's room
 - Droplet and Contact Precautions for PUIs or New Isolation Sign for COVID-19 patients

Step 2: Arrange transportation for admit: Huddle with transporting and receiving staff

- Confirm patient will be masked during transport
- Confirm that primary caregiver / household contacts that are accompanying the patient are masked within the facility

Once patient enters the unit the staff will:

Step 3.1: Prepare to enter room:

- Perform hand hygiene
- Put on a gown; fasten at the neck and back
- Put on isolation mask
- Put on eye protection
- Put on gloves

Or,

Step 3.2: Prepare to enter room if using PAPR/CAPR/ N95

- Perform hand hygiene
- Follow Donning Protocols

I. Infection Control procedures while performing patient care inside room

- Remember to keep hands away from mouth, nose and eyes
- Limit surfaces touched to minimize contamination
- Change gloves throughout care delivery if torn or heavily contaminated
- Perform hand hygiene between glove use
- Place all waste generated from the room of a known or suspect COVID-19 patient into a red biohazard bag and leave in the room

II. Caregivers

- Must be able to go to and from the patient room, and minimize all other movement within the facility
- Enforce guidelines that restrict visitors to PUI or COVID positive patients
- Receive recent education on infection control practices and wear PPE per policy
- Commit to collaborating to minimize the spread of infection by:
 - i. Hand hygiene before entering and leaving the patient room
- To minimize contamination, wear proper PPE when providing all care to the patient
 - i. Contact
 - ii. Droplet
 - iii. Airborne (as indicated)
 - iv. Isolation

III. Equipment and Supplies

- Use dedicated or disposable patient-care equipment (e.g., blood pressure cuffs, stethoscope)
- If must use reusable equipment, clean and disinfect after use according to manufacturer's instruction

IV. Removal of waste and transportation

- Cleaning of transportation (e.g. ambulance gurney, larger bed, wheelchair) or other medical devices (e.g. portable x-ray, cardiac ultrasound, etc.)
- Clean equipment within the room maintaining > 3 feet distance from patient before leaving the room and before doffing the PPE

- Waste will be removed from room per EVS protocol, packaged, stored and hauled away from our facilities in accordance with the requirements of the medical waste vendor
- V. Preparing to exit isolation room if using isolation mask—see [Droplet Precautions plus Contact Precautions plus Eye Protection guide](#).
- Remove gown and gloves inside the room, place in red biohazard waste
 - Remain at least 3 feet from patient while removing PPE
 - Remove eye protection and reuse as appropriate
 - perform hand hygiene
 - exit the room
 - perform hand hygiene
 - Put on clean gloves and remove mask in hallway if no anteroom. Discard in red biohazard waste bag/container
- VI. Preparing to exit airborne isolation room if using PAPR/CAPR/N95
- Remove gown and gloves inside the room, place in red biohazard waste. Remain at least 3 feet from patient while removing PPE
 - Perform hand hygiene and put on clean gloves
 - Wipe outside of PAPR/CAPR device with quaternary ammonium, alcohol, or bleach wipe, or equivalent. Begin with cleanest area in back first, moving around to front
 - Remove gloves and perform hand hygiene
 - Exit the room
 - Perform hand hygiene and put on clean gloves to remove hood/helmet
 - Place all PAPR/CAPR supplies into biohazard carrying container for transport to reprocessing location
- VII. Transport
- Bag soiled reusable components in container with a biohazard label and place in a designated secure area to be transported to Sterile Processing Department (SPD) for reprocessing
 - No PPE is required in transporting soiled PAPR/CAPR that are inside a clean biohazard transport container
- VIII. Waste Management
- All waste from COVID-19 patient both PUI/Suspect and confirmed must to be placed in a red biohazard bag or sharps/pharmaceutical waste container for disposal.
 - All medical waste from COVID-19 should be managed per the site’s normal medical waste workflows. Stericycle no longer requires waste to be segregated or placed in containers with special markings.
 - Stericycle Reusable Sharps Container Program: Stericycle Technicians are not permitted to enter **ANY ISOLATION ROOM** for patients with suspected or confirmed COVID-19, or other illness. KP is required to replace the re-useable sharps container, and turn the container over to the Stericycle reusable container program technician for disposal.
- IX. Environmental Cleaning
- EPA-registered hospital disinfectants should be used per instructions for use (IFUs)
 - EVS personnel to wear isolation mask, gown, gloves and eye protection and follow COVID-19 donning and doffing protocols
 - There is no one-hour waiting time prior to cleaning the room
- X. PAPR/CAPR Cleaning, if used
- If blood and/or body fluids contaminate the filter of the CAPR, dispose of per medical waste policy
 - Don PPE prior to cleaning PAPR/CAPR

- Clean all reusable components of PAPR/CAPR
- Wipe down the inside and outside of the entire equipment with hospital approved disinfectant wipe
- Begin with the cleanest area inside the helmet/hood then clean outside. Follow manufacturer's instructions for use to ensure all components of device are cleaned
- Remove PPE and perform hand hygiene
- Be sure proper contact time of disinfectant is achieved, and the unit is dry
- Return clean ready to use device to designated clean area

Inpatient Home Discharge Workflow for COVID-19 Positive & PUI Patients

Physician Process for follow-up of positive test results

All patients must be informed of test result while hospitalized or via phone call after discharge.

Positive COVID test results and patient has been discharged, patient must be called. (please also refer [to visual workflow in the Appendix](#)).

- 1) Provide home isolation instructions
- 2) Provide guidance on care seeking and advise patients that symptoms might progress in 2-10 days after symptom onset and if he/she has increasing shortness of breath needs to call PCP, AACC or emergency services at 911.
Must identify themselves as a COVID positive patient.
- 3) Assess who else is in the household and provide home isolation guidance to household members and that persons who become symptomatic (fever, cough, shortness of breath) should call their provider. Household members should stay in home isolation for 14 days since last contact with COVID positive person.
- 4) Provide Work Activity Status Form (WASF) for 14 days
- 5) **ISOLATION recommendations for ALL COUNTIES except SANTA CLARA**
 - a. **In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.**
- 6) **ISOLATION recommendations for SANTA CLARA:**
Self-quarantine for **14 days after the date of their positive test result AND until 7 days after fever is gone** and other symptoms are improving, whichever is longer.
- 7) Notify County if needed per county protocol
- 8) All follow-up appointments should be virtual visits (TAV/VAV) unless there is a clear medical need to come into the facility

Positive COVID test results and patient still hospitalized, upon discharge:

- 1) Provide home isolation instructions
- 2) Provide guidance on care seeking and advise patients that symptoms might progress in 2-10 days after symptom onset and if has increasing shortness of breath needs to call PCP, AACC or emergency services at 911. Must identify themselves as a COVID positive patient.
- 3) Assess who else is in the household and provide home isolation guidance to household members and that persons who become symptomatic (fever, cough, shortness of breath) should call their provider. Household members should stay in home isolation for 14 days since last contact with COVID positive case.
 - a. Santa Clara County requires 14 days isolation from onset of symptoms (fever, cough, shortness of breath) or 7 days after fever has resolved and other symptoms are improving, whichever is longer.
- 4) **ISOLATION recommendations for ALL COUNTIES except SANTA CLARA**
 - a. **In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.**
- 5) **ISOLATION recommendations for SANTA CLARA:**
 - a. Self-quarantine for **14 days after the date of their positive test result AND until 7 days after fever is gone** and other symptoms are improving, whichever is longer.
- 6) Patient to wear mask on leaving medical center; nurse escorting patient to use fresh PPE; no other persons in elevator

- 7) Patient to use personal transport home either driving personal car, or sitting in personal car in back seat masked
- 8) Provide Work Activity Status Form (WASF) for 14 days
- 9) Notify County if needed per county protocol
- 10) Duration of isolation is 7 days from onset of symptoms (fever, cough, shortness of breath) or 3 days after symptom resolution, whichever is longer.
- 11) All follow-up appointments should be virtual visits (TAV/VAV)

Home isolation guidance and follow-up instructions

Coronavirus Home Isolation and Restrict from Work Patient Instructions for Patients with Confirmed Coronavirus 2019 Infection or Close Contact of Patient with Confirmed Coronavirus 2019 Infection

You have been found to have or are suspected of having a disease known as COVID-19, caused by a virus called coronavirus. You are being discharged from the hospital because you are doing well, and we expect your improvement to continue. However, if you develop worsening shortness of breath and feel like you may need to come back to the hospital, please call the Kaiser advice line for instructions, **please tell them about your COVID-19 status**. If you are feeling very badly you should call 911, **please tell them about your COVID-19 status**.

COVID-19 is a contagious illness, and can be given to other people. If you have a positive COVID19 test, you will need to stay home and limit your contact with others until:

- 1) **ISOLATION recommendations for ALL COUNTIES except SANTA CLARA**
 - a. **In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.**
- 2) **ISOLATION recommendations for SANTA CLARA:**
 - a. **self-quarantine for 14 days after the date of their positive test result AND until 7 days after fever is gone and other symptoms are improving, whichever is longer.**

If your test result is still pending, you will be called once test results are available with further instructions; until then please isolate at home.

Please stay home and do not go to work or to public places or events, as per your local county health department. Please be careful around others at home. Wear a surgical mask when around others, and keep a 6 foot distance when possible. Please ensure that yourself and your family members wash their hands with soap and water or alcohol based hand sanitizer after contact. Please do not share food or beverages with others until taken off of these precautions.

Please continue to take the precautions above until otherwise directed by public health.

Pulse ox instructions:

Centers for Disease Control Guidelines:

Household members, intimate partners, and caregivers in a nonhealthcare setting may have close contact with a person with symptomatic, laboratory-confirmed COVID-19 or a person under investigation. Close contacts should monitor their health; they should call their healthcare provider right away if they develop symptoms suggestive of COVID-19 (e.g., fever, cough, or shortness of breath)

Close contacts should also follow these recommendations:

- Make sure that you understand and can help the patient follow their healthcare provider's instructions for medication(s) and care. You should help the patient with basic needs in the home and provide support for getting groceries, prescriptions, and other personal needs.

- Monitor the patient's symptoms. If the patient is getting sicker, call his or her healthcare provider and tell them that the patient has laboratory-confirmed COVID-19. This will help the healthcare provider's office take steps to keep other people in the office or waiting room from getting infected. Ask the healthcare provider to call the local or state health department for additional guidance. If the patient has a medical emergency and you need to call 911, notify the dispatch personnel that the patient has, or is being evaluated for COVID-19.
- Household members should stay in another room or be separated from the patient as much as possible. Household members should use a separate bedroom and bathroom, if available.
- Prohibit visitors who do not have an essential need to be in the home.
- Household members should care for any pets in the home. Do not handle pets or other animals while sick.
- Make sure that shared spaces in the home have good air flow, such as by an air conditioner or an opened window, weather permitting.
- Perform hand hygiene frequently. Wash your hands often with soap and water for at least 20 seconds or use an alcohol-based hand sanitizer that contains 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- The patient should wear a facemask when around other people. If the patient is not able to wear a facemask (for example, because it causes trouble breathing), you, as the caregiver, should wear a mask when you are in the same room as the patient.
- Wear a disposable facemask and gloves when you touch or have contact with the patient's blood, stool, or body fluids, such as saliva, sputum, nasal mucus, vomit, urine.
 - Throw out disposable facemasks and gloves after using them. Do not reuse.
 - When removing personal protective equipment, first remove and dispose of gloves. Then, immediately clean your hands with soap and water or alcohol-based hand sanitizer. Next, remove and dispose of facemask, and immediately clean your hands again with soap and water or alcohol-based hand sanitizer.
- Avoid sharing household items with the patient. You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items. After the patient uses these items, you should wash them thoroughly (see below “wash laundry thoroughly”).
- Clean all “high-touch” surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables, every day. Also, clean any surfaces that may have blood, stool, or body fluids on them.
 - Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.
- Wash laundry thoroughly.
 - Immediately remove and wash clothes or bedding that have blood, stool, or body fluids on them.
 - Wear disposable gloves while handling soiled items and keep soiled items away from your body. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after removing your gloves.
 - Read and follow directions on labels of laundry or clothing items and detergent. In general, using a normal laundry detergent according to washing machine instructions and dry thoroughly using the warmest temperatures recommended on the clothing label.
- Place all used disposable gloves, facemasks, and other contaminated items in a lined container before disposing of them with other household waste. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after handling these items. Soap and water should be used preferentially if hands are visibly dirty.
- Discuss any additional questions with your state or local health department or healthcare provider. Check available hours when contacting your local health department.

Nursing Discharge Workflow

1. Obtain discharge order, communicate with the patient virtually that they have a discharge order and that a nurse will be in with discharge medications and instructions – give them time to communicate with their family for a ride.
2. Work with PCC/Social worker to ensure that all items/social support that is needed for safe discharge are set up
3. Communicate with Unit Assistant to set up **Telephone** or **Virtual** post hospitalization follow up visit within 5-7 days.
4. Coordinate with pharmacy for either the delivery/pick up of meds for discharge
5. Print discharge instructions
6. RN must bring:
 - a. portable hand sanitizer (in pocket) for doffing if none is available outside the building
 - b. bleach wipes to wipe down wheelchair if none available outside the building
7. Nurse prepares the following items prior to entering patients' room for discharge:
 - a. Discharge Instructions
 - b. Additional Education Material
 - c. Discharge Medications
 - d. Dressing supplies for IV discontinuation
8. RN to wear PPE for droplet + contact + eye protections precautions and enter room to provide discharge teaching.
9. Order Transport
 - a. Have family member ready in front of hospital lobby
 - b. Patient must wear their own clothes
 - c. Mask the patient
 - d. Wipe wheelchair down with bleach wipes
 - e. Place a blanket over wheelchair
 - f. Patient moved to wheelchair (assess if assistance needed prior) (staff remove old gown and gloves; clean hands; and don new gown and gloves prior to transporting. They can keep the mask and eye protection they are already wearing)
 - g. Use planned route to take patient down to hospital lobby
 - h. After patient is in car take off full PPE outside by door using appropriate doffing procedures before entering the building
 - i. Ensure there is an appropriate waste receptable
 - i. Apply gloves and wipe down wheelchair with bleach wipes outside the building
 - j. Remove gloves
 - k. Sanitize hands
10. Communicate/collaborate with EVS prior to cleaning the room so correct precautions can be followed

Inpatient Discharge Workflow to Assisted Living Facility / Board & Care for COVID-19 Positive & PUI Patients

Physician Process for follow-up of positive test results

All patients will be informed of pending results through Regional Results Center workflow.

Positive COVID test results and patient has been discharged, patient must be called (please also refer [to visual workflow in the Appendix](#)).

1. Provide home isolation instructions
2. Provide guidance on care seeking and advise patients that symptoms might progress in 2-10 days after symptom onset and if he/she has increasing shortness of breath needs to call PCP, AACC or emergency services at 911. Must identify themselves as a COVID positive patient.
3. Assess who else is in the household and provide home isolation guidance to household members and that persons who become symptomatic (fever, cough, shortness of breath) should call their provider. Household members should stay in home isolation for 14 days since last contact with COVID positive person.
4. Provide Work Activity Status Form (WASF) for 14 days
5. ISOLATION recommendations for ALL COUNTIES except SANTA CLARA
 - a. In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.
6. ISOLATION recommendations for SANTA CLARA:
 - a. self-quarantine for 14 days after the date of their positive test result AND until 7 days after fever is gone and other symptoms are improving, whichever is longer.
7. Notify County if needed per county protocol
8. All follow-up appointments should be virtual visits (TAV/VAV) unless there is a clear medical need to come into the facility

Positive COVID test results and patient still hospitalized, upon discharge:

1. Provide home isolation instructions
2. Provide guidance on care seeking and advise patients that symptoms might progress in 2-10 days after symptom onset and if has increasing shortness of breath needs to call PCP, AACC or emergency services at 911. Must identify themselves as a COVID positive patient.
3. Assess who else is in the household and provide home isolation guidance to household members and that persons who become symptomatic (fever, cough, shortness of breath) should call their provider. Household members should stay in home isolation for 14 days since last contact with COVID positive case.
4. ISOLATION recommendations for ALL COUNTIES except SANTA CLARA
 - a. In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.
5. ISOLATION recommendations for SANTA CLARA:
 - a. self-quarantine for 14 days after the date of their positive test result AND until 7 days after fever is gone and other symptoms are improving, whichever is longer.
6. Patient to wear mask on leaving medical center; nurse escorting patient to use fresh PPE; no other persons in elevator
7. Patient to use personal transport home either driving personal car, or sitting in personal car in back seat masked
8. Provide Work Activity Status Form (WASF) for 14 days
9. Notify County if needed per county protocol
10. Duration of isolation is 7 days from onset of symptoms (fever, cough, shortness of breath) AND 3 days after symptom resolution, whichever is longer.
11. All follow-up appointments should be virtual visits (TAV/VAV)

Home isolation guidance and follow-up instructions

If sending home with pulse ox use this option

Monitoring Pulse Ox and Temperature

Please check your pulse ox reading twice a day at rest (morning and evening) and for any worsening symptoms of shortness breath or chest tightness. Please record the reading on paper to discuss with your PCP at the time of follow up appointment.

Please check your temperature twice a day and record on paper.

If your pulse ox reading is less than 90% at rest or any symptoms of worsening shortness of breath, chest tightness or for temperature more than 100.3, please call:

- The Advice nurse and inform them you were recently in the hospital due to COVID19 infection OR
- If you were referred to Home Health, call the Home Health Nurse contact info provided to you on their initial evaluation

Call 911 anytime you think you may need emergency care and inform all health care workers you were diagnosed as being COVID+.

If Sending home with no pulse ox device, use this option

Monitoring your Symptoms:

If you are having symptoms of worsening shortness of breath, chest tightness or for temperature more than 100.3, please call:

- The Advice nurse and inform them you were recently in the hospital due to COVID19 infection OR
- If you were referred to Home Health, call the Home Health Nurse contact info provided to you on their initial evaluation

Call 911 anytime you think you may need emergency care and inform all health care workers you were diagnosed as being COVID+.

Coronavirus Home Isolation and Restrict from Work Patient Instructions for Patients with Confirmed Coronavirus 2019 Infection or Close Contact of Patient with Confirmed Coronavirus 2019 Infection

You have been found to have or are suspected of having a disease known as COVID-19, caused by a virus called coronavirus. You are being discharged from the hospital because you are doing well, and we expect your improvement to continue. However, if you develop worsening shortness of breath and feel like you may need to come back to the hospital, please call the Kaiser advice line for instructions, please tell them about your COVID-19 status. If you are feeling very badly you should call 911, please tell them about your COVID-19 status.

COVID-19 is a contagious illness, and can be given to other people. If you have a positive COVID19 test, you will need to stay home and limit your contact with others until:

- 3) ISOLATION recommendations for ALL COUNTIES except SANTA CLARA
 - a. In all counties except Santa Clara, self-quarantine for 7 days after symptom onset AND 3 days (72 hours) after resolution of fever without the use of fever reducing medication, whichever is longer.
- 4) ISOLATION recommendations for SANTA CLARA:
 - a. self-quarantine for 14 days after the date of their positive test result AND until 7 days after fever is gone and other symptoms are improving, whichever is longer.

If your test result is still pending, you will be called once test results are available with further instructions; until then please isolate at home.

Please stay home and do not go to work or to public places or events, as per your local county health department. Please be careful around others at home, wear a surgical mask when around others and keep a 6 foot distance when possible, and be sure that yourself and your family members wash their hands with soap and water or alcohol based hand sanitizer after contact. Please do not share food or beverages with others until taken off of these precautions.

Please continue to take the precautions above until otherwise directed by public health.

Centers for Disease Control Guidelines:

Household members, intimate partners, and caregivers in a nonhealthcare setting may have close contact with a person with symptomatic, laboratory-confirmed COVID-19 or a person under investigation. Close contacts should monitor their health; they should call their healthcare provider right away if they develop symptoms suggestive of COVID-19 (e.g., fever, cough, shortness of breath)

Close contacts should also follow these recommendations:

- Make sure that you understand and can help the patient follow their healthcare provider's instructions for medication(s) and care. You should help the patient with basic needs in the home and provide support for getting groceries, prescriptions, and other personal needs.
- Monitor the patient's symptoms. If the patient is getting sicker, call his or her healthcare provider and tell them that the patient has laboratory-confirmed COVID-19. This will help the healthcare provider's office take steps to keep other people in the office or waiting room from getting infected. Ask the healthcare provider to call the local or state health department for additional guidance. If the patient has a medical emergency and you need to call 911, notify the dispatch personnel that the patient has, or is being evaluated for COVID-19.
- Household members should stay in another room or be separated from the patient as much as possible. Household members should use a separate bedroom and bathroom, if available.
- Prohibit visitors who do not have an essential need to be in the home.
- Household members should care for any pets in the home. Do not handle pets or other animals while sick.
- Make sure that shared spaces in the home have good air flow, such as by an air conditioner or an opened window, weather permitting.
- Perform hand hygiene frequently. Wash your hands often with soap and water for at least 20 seconds or use an alcohol-based hand sanitizer that contains 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- The patient should wear a facemask when you are around other people. If the patient is not able to wear a facemask (for example, because it causes trouble breathing), you, as the caregiver, should wear a mask when you are in the same room as the patient.
- Wear a disposable facemask and gloves when you touch or have contact with the patient's blood, stool, or body fluids, such as saliva, sputum, nasal mucus, vomit, urine.
 - Throw out disposable facemasks and gloves after using them. Do not reuse.
 - When removing personal protective equipment, first remove and dispose of gloves. Then, immediately clean your hands with soap and water or alcohol-based hand sanitizer. Next, remove and dispose of facemask, and immediately clean your hands again with soap and water or alcohol-based hand sanitizer.
- Avoid sharing household items with the patient. You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items. After the patient uses these items, you should wash them thoroughly (see below "wash laundry thoroughly").
- Clean all "high-touch" surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables, every day. Also, clean any surfaces that may have blood, stool, or body fluids on them.

- Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.
- Wash laundry thoroughly.
 - Immediately remove and wash clothes or bedding that have blood, stool, or body fluids on them.
 - Wear disposable gloves while handling soiled items and keep soiled items away from your body. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after removing your gloves.
 - Read and follow directions on labels of laundry or clothing items and detergent. In general, using a normal laundry detergent according to washing machine instructions and dry thoroughly using the warmest temperatures recommended on the clothing label.
- Place all used disposable gloves, facemasks, and other contaminated items in a lined container before disposing of them with other household waste. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after handling these items. Soap and water should be used preferentially if hands are visibly dirty.
- Discuss any additional questions with your state or local health department or healthcare provider. Check available hours when contacting your local health department.

Nursing Discharge Workflow

1. Obtain discharge order, communicate with the patient virtually that they have a discharge order and that a nurse will be in with discharge medications and instructions – give them time to communicate with their family for a ride.
2. Work with PCC/Social worker to ensure that all items/social support that is needed for safe discharge are set up
3. Communicate with Unit Assistant to set up *Telephone* or *Virtual* post hospitalization follow up visit within 5-7 days.
4. Coordinate with pharmacy for either the delivery/pick up of meds for discharge
5. Print discharge instructions
6. RN must bring:
 - a. portable hand sanitizer (in pocket) for doffing if none is available outside the building
 - b. bleach wipes to wipe down wheelchair if none available outside the building
7. Nurse prepares the following items prior to entering patients' room for discharge:
 - a. Discharge Instructions
 - b. Additional Education Material
 - c. Discharge Medications
 - d. Dressing supplies for IV discontinuation
8. RN to wear PPE for droplet + contact + eye protections precautions and enter room to provide discharge teaching.
9. Order Transport
 - a. Have family member ready in front of hospital lobby
 - b. Patient must wear their own clothes
 - c. Mask the patient
 - d. Wipe wheelchair down with bleach wipes
 - e. Place a blanket over wheelchair
 - f. Patient moved to wheelchair (assess if assistance needed prior) (staff remove old gown and gloves; clean hands; and don new gown and gloves prior to transporting. They can keep the mask and eye protection they are already wearing)
 - g. Use planned route to take patient down to hospital lobby

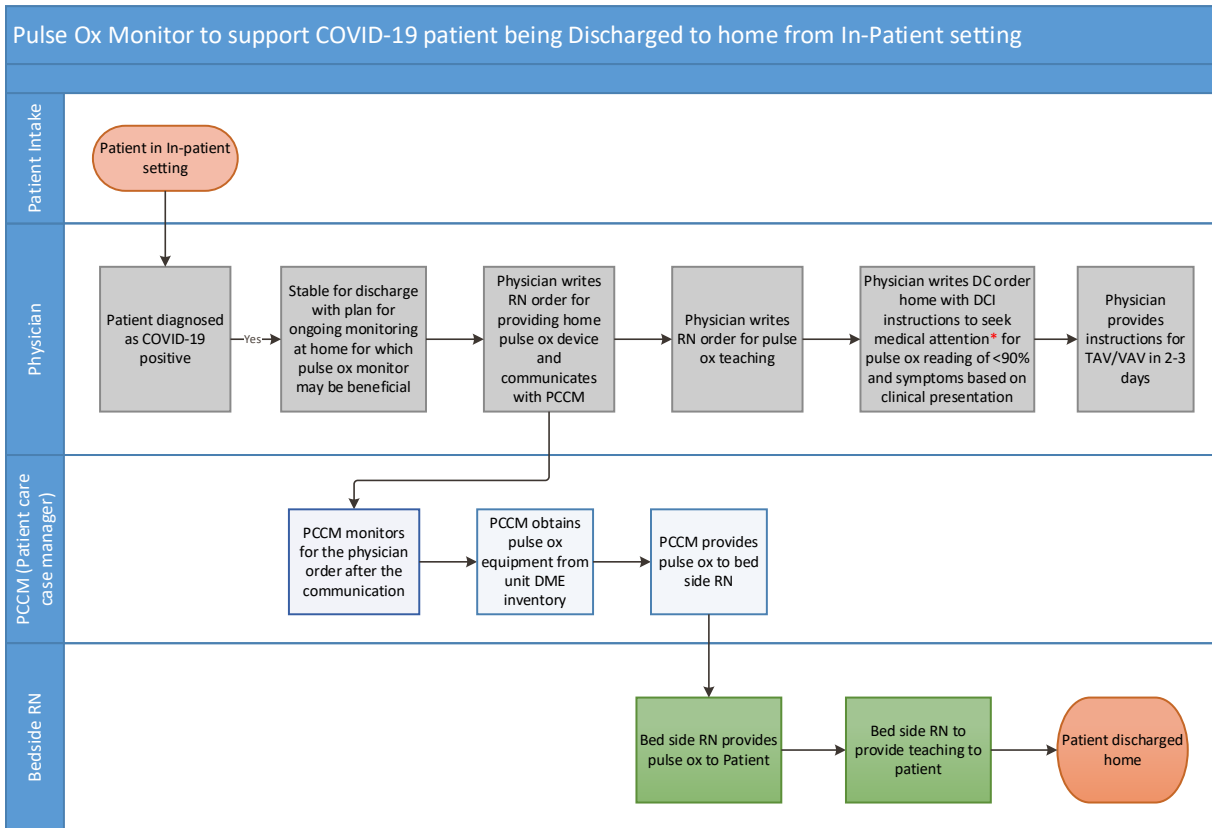
- h. After patient is in car take off full PPE outside by door using appropriate doffing procedures before entering the building
 - i. Ensure there is an appropriate waste receptable
- i. Apply gloves and wipe down wheelchair with bleach wipes outside the building
- j. Remove gloves
- k. Sanitize hands

10. Communicate/collaborate with EVS prior to cleaning the room so correct precautions can be followed

Home Pulse Oximeter for Stable COVID-19 Patients on Discharge

Purpose: Ability to provide home pulse oximeter at the time of discharge if needed for close monitoring of respiratory saturations for COVID-19 positive patients from In-patient setting.

Discharging physician would need to provide Discharge instructions to patients for seeking medical attention for pulse oximeter reading of <90%, temperature greater than 100.3 and, or any ongoing/worsening symptoms. Support for seeking medical attention can be through Advice RN/ Home health where applicable



*Call Advice RN/Home health RN if applicable

Pulse ox instructions

Monitoring Pulse Ox and Temperature

Please check your pulse ox reading twice a day at rest (morning and evening) and for any worsening symptoms of shortness breath or chest tightness. Please record the reading on paper to discuss with your PCP at the time of follow up appointment.

Please check your temperature twice a day and record on paper.

If your pulse ox reading is less than 90% at rest or any symptoms of worsening shortness of breath, chest tightness or for temperature more than 100.3, please call:

- The Advice nurse and inform them you were recently in the hospital due to COVID19 infection OR
- If you were referred to Home Health, call the Home Health Nurse contact info provided to you on their initial evaluation

Call 911 anytime you think you may need emergency care and inform all health care workers you were diagnosed as being COVID+.

Intensive Care Unit

- I. Optimize hospital flow to allow for ICU decompression
 - a. Use strict telemetry monitoring criteria for transfer of patients from ICU level of care
 - b. Discharge workflow optimization needed. Use Advanced Practice Provider resources if needed
- II. Expand care delivery outside of ICU using standardized assessment and treatment protocols
 - a. Decrease unnecessary aerosol medication administration (scheduled inhalers and prn aerosol/nebulized treatments only if needed)
 - b. Flex noninvasive rescue ventilation, chronic ventilators, some infusions to non-ICU hospital beds
- III. ICU Surge Strategies
 - a. Flex nursing ratios if staff shortages occur in the cases of emergency need
 - b. Mitigate possible post-exposure furloughs and potential increase in workload for RT department
 - c. Regional ICU command center to provide oversight of ICU capacity
 - d. Alternate care locations for patients in need of high-level critical care
- IV. ICU Personal Protective Equipment Considerations
 - a. Closed inline ventilator circuit suctioning does not require PAPR/CAPR/N95 use
 - b. Initiate airborne precautions for high risk aerosol generating procedures (e.g. sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, and autopsy procedures) on patients suspected or confirmed to have COVID-19

Adult Code Blue

- I. General Principles
 - a. **All providers entering the room should be appropriately trained in use of the appropriate PPE. All appropriate PPE must be in place prior to entry.**
 - b. In a non-trauma code, begin chest compressions with all healthcare providers donning the required PPE prior to entering the room
 - c. The patient should be initially ventilated with a bag-valve mask by a healthcare provider wearing appropriate PPE. Do not begin intubation until all personnel are wearing the appropriate PPE. The person initially doing the chest compression should either leave the room or, if staying in the room, don PAPR/CAPR or N95 plus eye protection.
 - d. During intubation, all persons present in the room should wear a PAPR/CAPR or N95 plus eye protection.
 - e. Prior to any transfer, the patient should receive new bed linens
 - f. If intubated, the patient is to be placed on a ventilator, so that there is a filtered contained circuit
 - g. If transfer of the patient is required after intubation, all persons in the room should doff and degerm prior to moving the patient. Then, if in close contact with the patient during transfer, each person should don a new gown, gloves, eye protection and respiratory protection
 - h. All equipment will remain in room after code event
 - i. If the equipment has been cleaned according to IFU, there is no need to wait for infection preventionist. If not, await infection preventionist direction.

- j. If Interosseous needed: wipe with bleach solution/ wipe and leave on crash cart until further direction given
 - o Glidescope: wipe down with bleach solution/wipe and leave in room until further direction given
- k. Patients should be transferred to a negative pressure room if immediately available. If a negative pressure room is not available, the patient can be placed in a private room with closed door. There is no need to transfer patients to a negative pressure room if already intubated.

Pediatric Code Blue

- I. General Principles:
 - a. It is imperative that anyone entering the patient's room be safe in doing so. This is fundamental to all situations and is supported by ethical considerations.
 - b. **Do not enter the room if you have not been appropriately trained in use of the appropriate PPE, and either fit tested for an N95 or trained for appropriate use of a CAPR/PAPR if intubation is occurring. All appropriate PPE must be in place prior to entry.**
- II. Initial Steps:
 - a. In a non-trauma code, begin chest compressions with all healthcare providers donning the required PPE (N95 with face shield or CAPR/PAPR) prior to entering the room. If not already in CAPR and PAPR, all staff should transition to CAPR/PAPR as soon as possible.
 - b. The patient should be initially ventilated with a bag-valve mask by a healthcare provider wearing appropriate PPE (N95 with face shield or CAPR/PAPR).
 - c. Do not begin intubation until all personnel are wearing the appropriate PPE (CAPR/PAPR)
- III. Recommended Personnel:
 - a. Inside Room – Utilize the existing code blue team which can include:
 - Pediatric HBS/Pediatric Intensivist/ Emergency Physician- Team Lead
 - Anesthesiologist/Secondary Intensivist – Place airway/ Vascular Access if needed
 - Primary RN – SBAR, Health connect look up/Chest compressor
 - Secondary RN – Recorder
 - Resource RN – Medication Nurse / Defibrillator/Float
 - Respiratory Therapy (n=2) – Assist in airway management/Chest Compressor
 - Secondary Pediatric HBS – Chest Compressor/ medication administrator if needed
 - b. Outside Room:
 - Observer – one or two RN's to oversee PPE for staff responding to code
 - Pharmacist – Providing consultation or medication delivery
 - House Supervisor – Overseeing and approving all staff entering room
 - Unit ANM- Assist with tasks as needed
 - Laboratory -- Will pick up and deliver all patient samples
 - Security – Crowd control
 - c. Staff who should not assist in code response:
 - Medical Students
 - Residents without proper PPE training
 - Any individual not fit tested for care of the identified individual
 - Patient Care Technicians
 - Non - direct care nurses
 - Physicians not identified in this algorithm
 - EVS
 - Social Services

- IV. Transfer: If needed – Team will develop a plan for transport with approval from House Supervisor before proceeding
 - a. Prior to any transfer, the patient should receive new bed linens if possible
 - b. If intubated, the patient should be placed on a ventilator, so that there is a filtered contained circuit
 - c. If transfer of the patient is required after intubation, all persons in the room should doff and degerm prior to moving the patient. Then, if in close contact with the patient during transfer, each person should don a new gown, gloves, eye protection and N95 respirator mask or CAPR/PAPR to be worn during transfer
 - d. Patients should be transferred to a negative pressure room if immediately available. If a negative pressure room is not available, the patient can be placed in a private room with closed door. There is no need to transfer patients to a negative pressure room if already intubated.
- VI. Crash Cart/Equipment - Do not remove from room!
 - a. All equipment will remain in room after code event
 - b. Nursing staff will wipe down with hospital approved cleaning solution/ wipe
 - c. If the equipment has been cleaned according to IFU, there is no need to wait for infection preventionist. If not, await infection preventionist direction.
 - d. If Interosseous needed: wipe drill with hospital approved cleaning solution/ wipe and leave on crash cart until further direction given
 - e. All airway equipment including Glidescope or CMAC: wipe down with hospital approved cleaning solution/wipe and leave in room until further direction given
- VII. References
 - a. Clinical management of severe acute respiratory infection when Novel coronavirus (2019-nCoV) infection is suspected: Interim Guidance- World Health Organization
 - b. Policies:
 - Code Blue Response
 - Respiratory Protection Program

Neonatal Code Blue

- I. General Principles:
 - a. It is imperative that anyone entering the patient's room be safe in doing so. This is fundamental to all situations and is supported by ethical considerations.
 - b. **Do not enter the room if you have not been appropriately trained in use of the appropriate PPE, and either fit tested for an N95 or trained for appropriate use of a CAPR/PAPR if intubation is occurring. All appropriate PPE must be in place prior to entry.**
- II. Initial Steps:
 - a. In a non-trauma code, begin chest compressions with all healthcare providers donning the required PPE prior to entering the room N95 with face shield or CAPR/PAPR. If not already in CAPR and PAPR all staff should transition to CAPR/PAPR as soon as possible.
 - b. The patient should be initially ventilated with a bag-valve mask by a healthcare provider wearing appropriate PPE (N95 with face shield or CAPR/PAPR).
 - c. Do not begin intubation until all personnel are wearing the appropriate PPE (CAPR/PAPR)
- III. Use airborne precautions with N-95 mask or PAPR/CAPR when performing aerosol generating procedures such as intubation, chest compressions, sputum production, open suctioning of airways, Positive pressure Ventilation (PPV) or bag mask ventilation, CPAP or bronchoscopy.) Limit the number of personnel present during aerosolized procedures to only those essential for patient care and procedural support.

- IV. If intubated, the patient should be placed on a ventilator, so that there is a filtered contained circuit.
- V. “Mandatory” personnel who must be present and don CAPR/PAPR prior to emergent neonatal intubation are the:
 - a. Neonatologist/Neonatal MD- team lead
 - b. Primary Nurse
 - c. Primary Respiratory therapist
- VI. The remainder of the neonatal code team who may remain in the room who are also to be donned with PPE including CAPR/PAPR are:
 - a. Secondary RN- recorder
 - b. Resource RN- for medication administration
 - c. Secondary neonatologist/ neonatal MD
- VII. Staff who may remain outside the room:
 - a. Pharmacist – Providing consultation or medication delivery. May enter room if needed after donning PPE.
 - b. Charge nurse – Overseeing and approving all staff entering room
 - c. Unit ANM- Assist with tasks as needed
 - d. Laboratory -- Will pick up and deliver all patient samples
 - e. Security – Crowd control
- VIII. Staff who should not assist in code response
 - a. Medical Students
 - b. Residents without proper PPE training
 - c. Any individual not fit tested for care of the identified individual
 - d. Patient Care Technicians
 - e. Non - direct care nurses
 - f. Physicians not identified in this algorithm
 - g. EVS
 - h. Social Services
- IX. Crash Cart/Equipment - Do not remove from room!
 - a. All equipment will remain in room after code event
 - b. Nursing staff will wipe down with hospital approved cleaning solution/ wipe
 - c. Will await infection preventionist direction in removal of cart, contents and other equipment brought into the room
 - d. All airway equipment including Glidescope: wipe down with hospital approved cleaning solution/wipe and leave in room until further direction given
- X. Patient Transfer within hospital
 - a. If moving patient, for any reason, from one location to another within the hospital, the team already caring for the patient will doff PPE and degerm prior to moving the patient.
 - b. Then, each team member transporting the patient should don a new gown, gloves, eye protection and respirator to be worn during transfer in case there is a need for close contact with patient during transport.
 - c. The baby should be moved in a closed incubator during transport within the hospital.
 - d. Notify nurse manager of patients requiring intra-facility transport to a higher level of care.
- XI. General Considerations

- a. Until information is available regarding viral shedding after clinical improvement, discontinuation of isolation precautions should be determined on a case-by-case basis, in conjunction with local, state, and federal health authorities.
- b. Do not enter the room if you have not been appropriately trained in use of the appropriate PPE, and fit-tested for an N95 mask if intubation is occurring. All appropriate PPE must be in place prior to entry
- c. All staff in contact with the baby must don PPE at all times.
- d. Options for housing NICU patients in order of preference
 - i. Negative pressure room if available
 - ii. Private room with closed door
 - iii. If neither of these options are available at your facility, please contact the MCH leadership team and/or the regional command center for guidance on where to house the patient

XII. Special considerations in NICU care of COVID-19 + or PUI baby

- a. Newborns born to PUI or COVID+ mothers are considered a PUI and will be tested using the following testing protocol
- b. OP/NP swab (single swab both locations OP fb NP) at 24 hours, 5 days and 11 days to regional lab
- c. Negative swabs at 1 and 5 days do not remove infant from PUI status. Precautions continue.
- d. If no additional known contact with COVID + following delivery, when all swabs are negative (1, 5 and 11 days) ok to remove infant from isolation precautions. At that time, PUI status is resolved
- e. If any infant swab is positive, contact PID
- f. Limit staff assigned to primary care of patient to only those essential to the care
- g. Consider 1:1 nursing assignment and limit the change in doctors managing the patient.
- h. Avoid unnecessary testing, examination and evaluation of patients in isolation
- i. Decrease vital sign assessments to medically appropriate intervals to match clinical condition and improvement in condition.
- j. Testing and imaging only when needed for clinical indications (clinically evident bleeding, change in urine output, change in tidal volumes, oxygenation, etc.)
- k. Utilize alternative diagnostic methods rather than resource- and staff-intensive methods when appropriate (point of care ultrasound, etc.)
- l. Use remote interaction with patients in isolation as appropriate. Parents may be able to communicate with their infants via bedside video. Privacy issues can be appropriately addressed while using remote telemonitoring equipment, as available.

XIII. References

- a. COVID-19 Regional Infection Control Guidance 3/6/20 Code Blue Response for Pediatric (under 14 years) Persons in Special Precautions (COVID-19)
- b. Centers for Disease Control: Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings Last updated online 2/21/20
- c. Centers for Disease Control: Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 (COVID-19) in Inpatient Obstetric Healthcare Settings Last viewed 3/6/2020

Respiratory Therapy Workflows Specific to COVID-19

I. Guidelines for Direct Care

- Droplet PPE should be observed when in direct contact with patient, less than 3 feet (gown, gloves, eye protection, and isolation mask)
- CAPR/PAPR or N95 with eye protection should be worn during **high risk aerosol-generating procedures** (not closed suctioning on vent-see standard ATD list)
 - Aerosolized generating procedures may include sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, high frequency ventilation (i.e. oscillator, VDR), BiPAP/CPAP and autopsy procedures.
- Perform high risk procedure(s) utilizing PAPR/CAPR if available, and alternatively N95 with eye protection
- Nebulization of medication is considered high risk and should be reviewed for appropriateness before administration
- Patients who are COVID positive on Droplet Precautions may be cohorted
- PUIs must not be cohorted

II. Equipment

- Use disposable equipment when possible
- A disposable stethoscope should be placed in patient room, if available.
- Respiratory Therapy (RT) Managers will order supplies as needed but not in excess to ensure adequate availability throughout KP Northern California. Regional supply chain will continue to inform location of outages. If you experience an outage of a critical item, escalate your need to your Respiratory Regional Practice Consultant
- If you need additional ventilators to support your facility's demand, contact the Command Center (see Guide on RT MS Teams on how to submit request in PlaniTrac with the correct information). Please also email your Respiratory Practice Consultant for support to reallocate equipment to your location.
- Home CPAP units may not be brought into facilities for use by patients who are confirmed positive or suspected for COVID-19. Utilize hospital BiPAP/CPAP machines. Limit all home supplies brought into facility for COVID-19 + or PUI patients.
- See the "COVID Equipment Excel Sheet" on RT MS Teams for equipment cleaning information. If any directions on how to properly clean a piece equipment are missing, please email your Respiratory Practice Consultant to add item. The COVID Equipment Excel Sheet contains information on any additional filters, etc. needed when being utilized on COVID/PUI patients

III. Therapies

- Every shift all ordered Respiratory Therapy modalities on should be evaluated for necessity
- Oxygen need only be administered if necessary and should be weaned as clinically appropriate
- When possible, small volume nebulizer should be converted to metered dose inhaler with spacer
- High Risk procedures (e.g. sputum induction, bronchoscopy, open suctioning, cardiopulmonary resuscitation, intubation, extubation, BiPAP/CPAP, nebulizer treatments, and autopsy procedures) should be reviewed with the HealthCare Team for necessity

IV. Arterial Blood Gas sample processing for negative pressure/ isolation room

- While inside the patient room, place sample in biohazard bag
- Remove gloves, gown and eyewear inside the room (do not remove mask)
- Perform hand hygiene and apply new gloves
- Exit room. Double bag the sample with a clean biohazard bag in the anteroom (if available)
- Remove gloves, perform hand hygiene, put on clean gloves
- While in anteroom remove mask, remove gloves and perform hand hygiene

- Transport the sample to ABG room for processing. Place biohazard bag on the counter
- Apply clean gloves
- Enter accession number. Run sample. Discard bags in red biohazard waste container.
- Complete results in the computer. Place label on syringe, and discard in sharps container.
- Wipe counter with designated cleaner.
- Discard gloves and perform hand hygiene.

*when possible, use the Radiometer PICO ABG kits for less contact

*it is not recommended to take iSTAT into isolation room

V. Staff Floating

- Submit requests for RT staffing for per diem or traveler RTs through PlaniTrac
- Ideal state: Recommend to limit floating from adult to newborn to reduce risk
- If RT must float between Adult and MCH, floating RT should not care for any isolation patients to limit possible exposure
- Critical RT Support: CRNAs, Anesthesia Providers, Pulmonologists, and outpatient RTS are training to provide critical respiratory support.
 - i. Priority: Maintain coverage of ventilation management and critical areas
 - ii. Assumes postponement of elective and non-urgent cases (e.g. bronchoscopies)
 - iii. Nursing to assist with nebulizers for isolation patients.

Imaging Services

CT Workflows Specific to COVID-19

I. Notification received from ED or Inpatient unit of need for CT exam for known or suspect COVID-19 patient

II. Process

Step 1: Prepare CT Suite for patient arrival—IDENTIFY ONE CT UNIT TO UTILIZE

- Secure isolation supplies (isolation masks, gowns, eye protection, gloves, hand sanitizer); if applicable gather N95 respirators or PAPR/CAPR supplies
- Confirm dedicated or disposable patient-care equipment (e.g. blood pressure cuffs, stethoscope)
- Notify EVS to prepare for cleaning of CT Suite per normal protocol

Instruction STOP sign for the post care process

Step 2: Arrange transportation to CT: Huddle receiving staff (CT Team)

- Confirm patient will be masked during transport
- Confirm PPE for transportation staff
- Confirm maintenance of cleared/secure pathways
- Arrange for transportation in a dedicated elevator. Elevator does not require special cleaning
- Confirm that primary caregiver / household contacts that are accompanying the patient are masked within the facility

Step 3: Follow Infection Prevention Donning/Doffing PPE Reference Cards

Prior to Entering the Patient room

- Prior to entering the patient room, check-in at the nurses' station to inform RN that you are there to perform an imaging study
- Sign into the logbook. Make sure to clearly write all of your information into each field of the sign in sheet
 - If no log present, notify RN or prior to entry
- All PPE is located in the anteroom area of the patient's room

Infection Control procedures while performing patient care inside room

- Remember to keep hands away from mouth, eyes and nose
- Limit surfaces touched to minimize contamination
- Change gloves throughout care delivery if torn or heavily contaminated
- Perform hand hygiene between glove use

Place all waste generated from the room of a known of suspect COVID-19 patient into a red biohazard bag and leave in the room.

Removal of waste and transportation

- Cleaning of transportation (e.g. ambulance gurney, larger bed, wheelchair) or other medical devices (e.g. portable x-ray, cardiac ultrasound, etc.) within the room.
 - Clean the equipment **before leaving the room**, and **before doffing PPE** per protocol.
 - Clean hands and move the equipment out and transport to destination.
- Waste will be removed from room per EVS protocol, packaged, stored and hauled away from our facilities in accordance with the requirements of the medical waste vendor
- EVS will prepare to clean the CT suite and room will remain out of service for duration

Special considerations:

- After Imaging the patient, leave the imaging plate in the room
- Ensure signage is posted prominently:

Portable Please Do Not Remove This Portable From its Current Location Unless Instructed by A Member of the Radiology Management Team. Make sure to Follow Cleaning Precautions

Portable X-Ray Mitigation Workflow

Step 1: Prepare for portable x-ray: IDENTIFY ONE PORTABLE XRAY UNIT TO UTILIZE

- Remove unnecessary equipment/supplies that cannot be covered during imaging
- Supplies to take with you:
 - 4 C-arm covers (1 back up set)
 - 4 Imaging Plate covers (1 back up set)
 - 2 Exposure button covers (1 back up set)

Step 2: Prior to Entering the Patient room

- Prior to entering the patient room, check-in at the nurses' station to inform RN that you are there to perform an imaging study
 - Identify where portable will be housed with restriction for final cleaning
- Sign in to the logbook. Make sure to clearly write all of your information into each field of the sign in sheet
 - If no log present, notify RN or ANM prior to entry

Step 3: Follow Infection Prevention Donning/Doffing with appropriate PPE

- All PPE is located in the anteroom area, of the patient's room

Step 4: Prepare x ray with C-arm covers

- Use the provided C-Arm Drape to cover the Portable x-ray unit
- Cover the base of the Portable x-ray unit with a C-Arm Cover
- Cover the exposure button with the provided blue cover
- Double bag the imaging cassette

Step 5: During Care

- Enter room once logged in, PPE donned
- **Follow Infection control procedures and removal of waste instructions for CT scan above, Step 3**

Step 6: Post portable x-ray

- Clean the portable x-ray unit within the room maintaining **before** leaving the room and **before** doffing the PPE
- Wipe down the body of the portable x-ray unit with Sani-Cloth or Clorox wipes
- Wipe down the touchscreen of the portable x-ray with Sani-cloth or Clorox wipes
- Follow manufacturer's dry time recommendations

Step 7: Ensure the imaging plate is cleaned per droplet precaution process

Step 8: Apply sign to unit as in instructions for CT scan above, Step 3

Step 9: Park unit in secondary room/space

Perioperative Planning Guidelines

Guiding Principles

- Perioperative Services will communicate through local and regional command center when and how to postpone elective cases if required staff/supplies and/or support services are not available. During mitigation it is expected that elective cases will be universally postponed. During the prior week, the Regional Command Center will advise whether to postpone elective patients for the following week
- Unless stricter or more directive guidelines have been issued by the CDC for a specific geography, Perioperative Services will use our existing contingency plan in event of severe staff, supply or bed shortages due to the impact of COVID-19.
- Process includes plan to perform non-elective cases if all relevant staff/supplies/ support services are in place. Decisions are made through communication with local and regional command center.
- Contingency plan includes communication scripts for staff and patients. Additional detailed scripts specific to the situation will be distributed as required.
- Perioperative Services maintains an extensive document for use in Command Centers as to what is required to have for each category of surgery. This includes clinical requirements, i.e. lab tests, staff competency, supply and implant needs. This document will serve as a guide for resources required.

Perioperative Surgery Guidance

- I. For each surgery: Prior to proceeding with any surgery, confirm adequate supply of
 - a. Staffing for ORs including Physician(s), Nursing, and Scrub Techs
 - b. Support Services (such as Blood Bank, Radiology, Pathology, EVS, etc.)
 - c. Sterile Processing
 - d. PreOp and PACU space and staff
 - e. In-patient bed availability: Med Surg, ICU and Telemetry
 - f. Supplies, Implants, Instruments and Equipment
 - g. Medications
- II. If COVID-19 Virus impact is **moderate or greater** (note: during mitigation the impact is by definition moderate or greater)
 - a. **Follow Regional Command Center instructions to postpone all elective surgeries and procedures.**
 - Definition for elective: *All those for whom postponement for an uncertain period of time does not pose harm.*)
 - b. Patients are placed into two categories: Elective and NON-Elective
 - Surgeon or proceduralist reviews schedule and makes clinical determination
 - Elective patients should be contacted by staff or surgeon/proceduralist. (Use dot phrases in the attached word doc for required chart documentation)
 - NON-elective patients **MUST** be contacted by surgeon or proceduralist to have a risk/benefit discussion, which must be documented in the chart.
 - c. **Prioritize non-elective patients**
 - Definition of non-elective: All those for whom standard of care requires that the patient procedure be done within a defined period of time. This would include **cancer**, most **cardiac** cases and any case where having the procedure would decrease potential for admission and/or recurrent trips to the ED, for example: cholecystectomy or appendectomy
 - If the surgeon is not clear if an individual patient should have surgery urgently, the surgeon should escalate first to their Chief and, if necessary, to the APIC-OR or PORD.

- Any new patient (or patients in this category already in the depot) should be feathered into the schedule based upon Medical Center capacity.
 - APIC-OR and Periop Director should review the situation daily with Local Command Center and approve number of blocks to be allocated for these non-elective patients. Consider patient length of stay, inpatient bed capacity, staffing, PPE and other supplies etc.
- d. Please confirm adequate supply of all elements for safe surgery as described above.

Surgical Postponement Workflow

1. Surgeon or proceduralist reviews schedule and makes clinical determination; provides direction
2. OR schedulers:
 - a. Use postpone function (NOT the cancel function)
 - b. Fill out the POSTPONE questionnaire, (use “*facility crisis*” postpone reason), and place the case in the depot.
3. Clinic Schedulers calling elective patients
 - a. Open case and document patient contact as usual in questionnaire
 - b. Document discussion with patient in form comments using dot phrase .COVID19procedurediscuss
4. For the time being, new ELECTIVE patients seen in clinic should have a case request created and the case should be placed in the depot.
 - a. These elective patients should not be scheduled until approval from the Regional Command Center.
 - b. PFSS, High Efficiency, and other metrics are suspended at this time.

Tracking Patients

Be sure to have a mechanism in place to track all postponements to include all these steps:

1. Use the enclosed dot phrases for every patient who is postponed
2. Continue to have your SAs track MOR, ASU and OpTime Procedure Room postponements
3. Have your non-OpTime procedure rooms and MOBs use the tracker/E-consult to document all patients postponed
 - a. Tracking document can be found here: [non-OPTIME tracking document](#)
4. For those on OpTime, please do NOT Cancel the elective patients when you call them; instead use the POSTPONE action, fill out the POSTPONE questionnaire (use “*facility crisis*” postpone reason), and place the case in the depot.

Surgical Approval Workflow

If COVID19 Virus /Census impact is **Widespread/Severe** the **Surgical Approval Workflow** is required:

Local Command Center (LCC) at each facility will appoint 3 or 4 personnel as “Surgical Services Experts”.

The role of the LCC surgical services expert is to support local OR leadership (APIC-OR or PORD **AND** Periop Director or Periop Manager) in ensuring smooth OR operations in these circumstances. One of these surgical service experts will be available to respond to all calls within 15 minutes, and on site during peak working hours.

If a facility is running only Red Rooms, before each patient is taken into the OR the Resources Needed for Surgery must be reviewed by the operating Surgeon together with the “LCC Surgical Services Expert” and the Periop Manager to confirm adequate resources prior to proceeding with the case.

Guidelines on decision-making

Scenarios for two types of patients are described in this section:

- a. Surgical patient
- b. Specialty Services patient - A Specialty Services patient is one whose service is not offered by the local hospital such as Cardiac Surgery, Neurosurgery, Spine, Thoracic, Hepatobiliary, etc.

Scenario 1: If further evaluation is needed in order to determine if surgery is needed:

Surgical Patient - the “LCC Surgical Services Expert” will assist in finding any necessary resources

Specialty Services Patient - The Surgeon at the hospital where the patient initially presented will contact the Specialty Service Surgeon on-call. If the Specialty Service’s operating Surgeon feels additional evaluation is indicated in order to make a plan for surgery, the referring Surgeon will contact his/her “LCC Surgical Services Expert” to identify the resources needed.

Scenario 2: Patient needs surgery:

Surgical Patient

- When it is determined that a patient needs surgery, the Operating Surgeon, the “LCC Surgical Services Expert” and the Periop Manager will TOGETHER review Resources Needed for Surgery to be certain everything needed is available at the local facility before proceeding to the Operating Room.
- If resources are not available, the “LCC Surgical Services Expert” and the Regional Command Center will huddle to determine best plan including transfer to another KP facility or community partner.
- **Note: with COVID crisis, transfers should be considered under extenuating circumstances only.**

Specialty Services Patient (*Examples: CV Surgery, Neurosurgery, Spine, Thoracic and Hepatobiliary*)

- If a Specialty Services patient needs surgery, the referring Surgeon and the receiving Specialty Service Surgeon will have a TEAMS conference together with the receiving facility’s “LCC Surgical Services Expert” and the receiving facility’s Periop Manager.
- Together, they will review Resources Needed for Surgery so the operating Specialty Service Surgeon is certain that everything needed is available at their receiving facility **prior** to patient transfer or proceeding with surgery.

Example Extenuating Scenario:

- Facility A is the KP destination/receiving facility for a Specialty Service patient, but KP Facility A has only some of the support resources needed for Specialty Service patient.
- KP Facilities B and C each have some of the support resources required that Facility A is lacking and together all three facilities have the needed resources.
- Regional Command Center Surgical Services Expert will coordinate transport of the needed resources from Facility B and C to Facility A. (*Regional Command Center will keep a list at all times of which resources are available at each facility and which can be transported on short notice.*)

Maternal Child Health

Labor & Delivery (L&D)

L&D OB Telephone Advice Screening

- Pregnant patients without ILI (Influenza Like Illness) will receive AACC (Appointment and Advice Call Center) and L&D Telephone advice per standard workflows.
- Pregnant patients calling L&D seeking general information about COVID-19, *without obstetrical concerns or symptoms* can now receive a secure message with current COVID-19 patient information through the L&D Advice Telephone Encounter workflows.
- Pregnant patients with questions and concerns related to respiratory complaints (cough, shortness of breath, or increased work of breathing) and no obstetrical concern will be routed to the AACC for full assessment and appointment booking by an AACC RN. Appointments will be by Telephone or Video Visit prior to offering in-person office appointments.
 - Repeat callers may be instructed to go to the Emergency Department for evaluation.
- Pregnant patients with respiratory complaints (cough, shortness of breath, or increased work of breathing) AND an obstetrical concern will need to be evaluated. These patients will need initial screening and should be directed to go to the ED where the initial medical screening exam may be done in partnership with the ED based on local workflows to minimize L&D unit exposure to potential COVID or Flu patients.

Expedited Inpatient Prenatal COVID-19 Testing Workflow (with expected result time: 6-8 hours)

Criteria for testing:

Pregnant women being admitted with any of the following symptoms for any duration:

- Fever (subjective or 100.4)
- Cough
- Shortness of breath

Testing:

OB Team may order COVID testing if criteria met, ID consultation is recommended

- Select the COVID-19 *Reg Lab test
- Trained personnel to perform testing according to guidelines
- While results are pending, woman is a PUI and appropriate transmission- based precautions should be used

The important point is that the specimen needs to be well collected. We recommend a combined oropharyngeal/nasopharyngeal collection.

- We call this the “1-2-1” Strategy
 - 1 SWAB - 2 SITES - 1 TUBE
 - Use one swab
 - Swab oropharynx then with the same swab, collect from nasopharynx.
- Put swab in vial.

Contact Lab: OB Team to contact Lab and state “Pt Name and MRN with a COVID 19 Test requires expedited processing”

Outpatient OB testing: >36weeks anticipated to arrive in L&D for induction/ C-Section within 2days

WITH either of the following:

- Symptoms of fever (100.4+) AND cough/ SOB/myalgias for > 48hours
- URI symptoms or isolated cough for > 48hrs

should also be screened with an anticipated result time of 12-24hours.

Arrival to L&D

- Under the guiding principle that patients should not be unnecessarily moved within the ED and hospital, L&D will screen patients arriving to L&D **without** obstetric concerns **and** without ILI.
 - Note: The goal is that patients should be screened by first point of contact. Most of the time, the ED will be the primary point of entry.
- Pregnant patients arriving to L&D without ILI will be screened for risk of infection using screening workflows. L&D triage and observation will occur per standard workflows.
- Pregnant patients arriving to L&D with ILI without an obstetrical concern will be directed to the ED for screening and isolation
- Pregnant patients arriving to L&D with ILI and an obstetrical concern will be masked and roomed immediately. Family members will also be masked. L&D triage and observation per standard workflows
- Notify Department ANM and House Supervisor to assist in escalation of Suspected Patient Under Investigation (PUI) workflow
- All pregnant patients in L&D with respiratory symptoms or ILI will be considered PUI and will require ID consultation for COVID testing

Arrival to ED

- Pregnant patients arriving to the ED *without ILI* will be screened for risk of infection using ED screening workflows and escorted to L&D for evaluation
- Treat and/or transfer to L&D triage depending on gestational age and reason for ED visit per standard workflows
- Pregnant patients arriving to the ED with ILI *without an obstetrical concern* will require ED screening and isolation workflows
- OB MD consultation in the ED will occur per standard workflows for medical screening examination
- Pregnant patients arriving to the ED with ILI and an obstetrical concern will be masked and a plan for OB examination will be determined. [Determine local workflow for movement from ED to L&D as appropriate].
- Notify L&D ANM and House Supervisor to assist in escalation of Suspected PUI workflow and transfer of the patient to the L&D unit

Labor and Delivery

- Place the labor patient in a single patient room with the door closed
- Patients in labor with ILI should be cared for by as few staff as possible to minimize exposure
- The labor patient will remain masked, as tolerated, for the duration of labor and delivery
- The medical team will wear Personal Protective Equipment (PPE) as defined by the IP workflows and the L&D unit guidelines to prevent contamination with bodily fluids
- Consider early epidural for regional anesthesia in the event of need for C-section
- Labor patients requiring Cesarean Section for delivery will be masked during surgery and moved to a single patient room for recovery, rather than the open bay/multi-bed Post-Anesthesia Recovery (PAR)
- PUI Products of conception and pathology specimens will be refrigerated and held until results are confirmed. Handle using standard procedures
- COVID positive products of conception and pathology specimens will be sent to Regional Placental Pathology at Oakland Medical Center. Handle using standard procedures

Use of NSAIDs:

- After review of current evidence, non-steroidal agents remain an option for postoperative or postpartum pain management and low dose aspirin treatment can be continued.
- For patients with significant Coronavirus disease (COVID-19), please consider non-steroidal agents' impact on renal function. As evidence continues to evolve with COVID 19, guidelines and recommendations may change

Use of Nitrous:

Due to concerns for staff safety in the context of the COVID pandemic, we recommend ending the use of nitrous oxide for labor analgesia and pediatric inpatient procedural sedations until the safety of this practice is established.

The Society for Obstetric Anesthesia and Perinatology (SOAP) published the [Interim Considerations for Obstetric Anesthesia Care Related to COVID-19](#) with OB Anesthesia Specific Consideration, number 7. “Consider suspending nitrous oxide programs in L&D units due to concerns regarding aerosolization in even asymptomatic patients as there is insufficient information regarding safety in this setting.”

This change in nitrous oxide analgesia for labor analgesia practice was published as a “consideration,” not a prohibition. In efforts to avoid unnecessary risk when caring for our labor and pediatric patients we will suspend use of nitrous oxide and offer other modalities to our patients for analgesia and procedural support.

Antepartum Management

Consider plan for all seriously ill patients should they decompensate based on gestational age (>20 weeks) and patient counseling

For patients managed in ICU or Med-Surg Units, the primary team must know who to alert BEFORE code (OB, Anesthesia, Peds)

- OB team (and in some cases Peds) needs to know room numbers of pregnant patients off unit
- This should be part of every sign out

MCH Elective Induction Strategy to Mitigate the Impact of COVID-19

Situation: Given where we are in NCAL in the COVID pandemic, it is advantageous to deliver women who are healthy thus decreasing the likelihood of her becoming a PUI or COVID -19 positive patient when she enters labor.

Background: The cases of COVID- 19 are anticipated to escalate, increasing the likelihood that women will enter labor COVID + or as PUI which has health implications for both the mother and infant, and the increased use of PPE. In weighing the risks/benefits of induction, and with the reassuring ARRIVE trial data, Pediatric and Obstetric leadership support offering induction for delivery of healthy women after 39 weeks through shared decision making with our patients. This approach may have an additional benefit of conserving PPE and our hospital beds for the anticipated increased utilization.

Assessment: It is reasonable to offer elective induction after 39 weeks, if L & D has the capacity and based on shared decision making between the patient and her provider.

Response: Women meeting the following criteria can be offered elective induction, if hospital capacity allows, after meeting the following criteria with appropriate counseling, and agreement to proceed:

1. Dating review: 1st or 2nd trimester ultrasound confirms EDC \geq 39wks
2. No symptoms of URI or fever
3. No contact within past two weeks with someone who is COVID -19 positive or a PUI
4. No contraindications to vaginal birth
5. Accepts outpatient cervical ripening with Foley bulb, Cooks balloon or misoprostol, if medically uncomplicated

Workflow Considerations:

- Encourage providers to sweep membranes for patients at 39 weeks or greater who meet the above criteria

- Ask providers to discuss elective induction for women who are > 37 weeks and make patients aware that they may be asked about this option.
- Local sites to develop a process to track amenable patients, assess availability on L & D, consultation with RN leaders for staffing, and the number of elective inductions they could offer. Ensure that access remains for medically indicated inductions.
 - Consider a process to prioritize which patients are offered elective inductions: this may include gestational age, parity, or those who meet profile of the ARRIVE trial
- Develop a process to reach out to these women and counsel them about elective induction including
 - Risks, benefits and alternatives of elective induction
 - Any induction appointments would be flexible depending on the census of the unit
 - Induction would be postponed if she was excluded based on concern for COVID 19 (see inclusion criteria above)
 - Practice is supported by pediatrics, MFM group and expert opinion

Refer to resources if patient has questions about ARRIVE trial or COVID

Transport of PUI/COVID Positive to OR

Plan to move patients with Category II tracings to the OR early to avoid the need for Code C.

If maternal intubation is required, all personnel in the OR will need CAPR/PAPR or N95 with face shield and surgical attire.

Cesarean Workflow: Team 1-2-1

- **Team 1:** Primary RN or team member at bedside calls Cesarean (Code C, C30, 60, 90) in PPE as already caring for patient. Patient should be wearing a mask before exiting the room. Recommend Hovermatt under sheet with blower in the room. Team to include Primary RN & Provider or 2nd staff member for a minimum of 2 to move the patient to a clean gurney
- **Team 2:** OB “clean team” dons appropriate PPE to “pick up” the patient from the “Dirty Team” staying outside the room, patient placed on clean gurney by “dirty team” with clean gloves. “Clean Team” clears hallway and opens any doors, gets the patient to the OR door while Team 1 doffs, cleans, and re-dons PPE/OR Attire
- OB provider may notify back up OB to help with patient transfer to OR while primary MD doffs LDR PPE and dons PPE for OR
- Limit non-essential OR staff, typical minimal OR Team to include: Circulator, Second RN, OB, Assistant, Anesthesia Provider, ALS, Neonatologist, Scrub Tech
- NICU STAFF: Put mask and gloves on outside the room. Put surgical and or isolation gown on in the OR
- **Team 1:** Doffs, cleans, and re-dons PPE and meets Team 2 in the OR and begins Cesarean. Surgical gowns may be donned over PPE gowns

“Clean Team” to transport patient to recovery/labor room or PACU

If intubation → limit personnel to those providing direct and immediate care. All will don appropriate PPE per L&D PPE guidelines.

After Delivery

The risk of serious complications in newborns infected with COVID-19 is unknown. Recently COVID-19 infection was reported in a 30-hour old newborn. It is suspected that transmission occurred postnatally. The risk of prenatal transmission is unlikely, but unknown.

In accordance with our influenza practices, and to reduce the risk of COVID-19 transmission to the newborn, we recommend temporarily separating the PUI or COVID+ Mother and newborn during the hospital stay or until the mother results as COVID negative.

Separation encouraged:

- Mother is a PUI with a COVID test pending, or
- Mother is COVID-19+

Separation is not necessary:

- Mother is asymptomatic, or
- Mother does not meet CDC criteria for PUI

The risks and benefits of temporary separation of the mother from her baby should be discussed with the mother by the health care team, and decisions about temporary separation should be made in accordance with the mother's wishes.

Newborns born to PUI or COVID+ mothers will be considered a PUI and will be tested at birth. Newborn PUIs may be housed at least 6 feet away from their mother or any other patients or in a private room with the door closed, as available, with an asymptomatic family member or healthy caregiver. Healthy family or staff members present to provide care (e.g., diapering, bathing and feeding) for the newborn, should use appropriate PPE

Peds HBS or Neonatologists should document discussion of the risks and benefits of separation.

If there is no asymptomatic family member or healthy caregiver to care for the infant, the infant can be placed in the nursery in an incubator at least 6 feet away from other patients. PPE should be worn by all medical personnel providing care to the newborn. The mother will be required to wear a mask if they are within 3 to 6 feet of the newborn

The optimal length of temporary separation in the hospital has not been established and will need to be assessed on a case-by-case basis

Some considerations might include:

- Mother is afebrile without antipyretics for greater than 24 hours, AND
- Can control her cough and respiratory secretions

If co-location ("rooming in") of the newborn with his/her ill mother in the same hospital room occurs in accordance with the mother's wishes OR is unavoidable due to a hospital's configuration, nursery constraints, lack of availability of isolation rooms, or other reasons, facilities should consider implementing measures to reduce COVID-19 exposure of the newborn including:

- Using physical barriers (e.g., a curtain or screen between the mother and newborn)
- Maintaining 6 feet between the mother and newborn
- Ensuring an asymptomatic family member or healthy caretaker is present to care for the newborn
- Recommend avoiding skin-to-skin
- Recommend bathing of the baby in the nursery (instead of delaying bathing).
 - If a COVID-19 + or PUI mother declines separation, bath the baby in the room.

If no healthy adult is present in the room to care for the newborn, a mother with suspected or confirmed COVID-19 should wear a mask and then practice frequent hand hygiene before close contact with her newborn. The mask should remain in place during contact with the newborn.

Breastfeeding Recommendations

Currently, it is unknown whether mothers with COVID-19 transmit the virus through breast milk. The risk is assumed to be low since COVID-19 is transmitted through respiratory droplets. Initiation of breastfeeding should be determined by the mother and supported/informed by her provider.

Breast milk is the best source of nutrition for most infants. However, much is unknown about COVID-19. CDC has recommended temporary isolation between infected mothers and babies to prevent transmission. Due to temporary isolation, we recommend feeding pumped breastmilk.

Whether and how to start or continue breastfeeding should be determined by the mother in coordination with her family and healthcare providers.

A symptomatic PUI or COVID+ mother should take all proper precautions to avoid spreading the virus to her newborn, including:

- Changing gown prior to breastfeeding
- Change hospital gown or clothing frequently
- Washing her hands frequently and prior to breastfeeding or breast milk pumping
- Wearing a mask while breastfeeding
- If expressing breast milk with a manual or electric breast pump, provide a dedicated breast pump to the mother and follow manufacturer recommendations for proper breast pump cleaning after each use
 - Breast pumps and components should be thoroughly cleaned in between pumping sessions using standard policies (clean pump with antiseptic wipes; clean pump attachments with hot soapy water)
- Consider having asymptomatic family member or healthy caretaker bottle feed expressed breast milk to the newborn

Nursery

When a newborn is admitted to the newborn nursery or a patient room separate from the PUI or COVID+ mother, symptomatic family member or caregivers should NOT enter the newborn care area. A newborn PUI that develops signs of possible illness should remain isolation and be examined by the MD. See “Management of Well Baby Born to a PUI or COVID-19 Positive Mother” for additional details.

Reference: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/inpatient-obstetric-healthcare-guidance.html>

Management of Well Baby Born to a PUI or COVID-19 Positive Mother

I. Newborn Risk

- a. It remains unclear if COVID-19 is vertically transmitted from mother to fetus antenatally via maternal viremia and transplacental transfer. Prior published experience with respiratory viruses would suggest this is unlikely.
- b. Perinatal exposure may be possible at the time of vaginal delivery based on the detection of virus in stool and urine.
- c. Newborns are at risk of infection from a symptomatic mother’s respiratory secretions after birth, regardless of delivery mode. The possibility of spread from COVID-19 positive asymptomatic mothers is unclear.

II. All Infants

- a. COVID positive or PUI Mother and newborn will be temporarily separated immediately at birth and during the hospital stay. A designated, limited set of caregivers will be assigned to the infant.

- b. Separation encouraged:
 - i. Mother is a PUI with a COVID test pending, or
 - ii. Mother is COVID-19+
- c. The risks and benefits of temporary separation of the mother from her baby should be discussed with the mother, and decisions about temporary separation should be made in accordance with the mother's wishes. Peds HBS or Neonatologists should document discussion of the risks and benefits of separation.
- d. If co-location ("rooming in") of the newborn with his/her ill mother in the same hospital room occurs in accordance with the mother's wishes OR is unavoidable due to a hospital's configuration, facilities should consider implementing measures to reduce COVID-19 exposure of the newborn including:
 - i. Using physical barriers (e.g., a curtain or screen between the mother and newborn)
 - ii. Maintaining a distance of at least 6 feet between the mother and newborn
 - iii. Ensuring an asymptomatic family member or healthy caretaker is present to care for the newborn
 - iv. Avoid skin-to-skin contact of mother and infant
 - v. Recommend bathing of the Infant ~ 2 hours after birth if possible (instead of delaying bathing).
 - vi. If a COVID-19 + or PUI mother declines separation, bathe the baby in the room.
 - vii. If no healthy adult is present in the room to care for the newborn, a mother with suspected or confirmed COVID-19 should wear a mask and then practice frequent hand hygiene before close contact with her newborn. The mask should remain in place during contact with the newborn.
- e. Newborn PUIs may be housed in a private room with an asymptomatic family member or healthy caregiver with the door closed, if available, or at least 6 feet away from their mother or any other patients.
- f. If there is no asymptomatic family member or healthy caregiver to care for the infant, the infant can be placed in the nursery in a closed incubator at least 6 feet away from other patients. PPE should be worn by all medical personnel providing care to the newborn.
- g. Healthy family or staff members present to provide care (e.g., diapering, bathing and feeding) for the newborn, should use appropriate PPE
- h. The optimal length of temporary separation in the hospital has not been established and will need to be assessed on a case-by-case basis.
- i. Separation may be discontinued when maternal COVID testing is negative.
- j. Some considerations might include:
 - i. Mother is afebrile without antipyretics for greater than 24 hours, AND
 - ii. Can control her cough and respiratory secretion
- k. Newborns born to PUI or COVID+ mothers will be considered as exposed to COVID-19 and a PUI.
- l. Newborns will be tested for perinatal viral acquisition as follows:
 - i. Testing will begin at ~24 hours of age, to avoid detection of transient viral colonization and to facilitate detection of viral replication, unless we know maternal COVID negative status prior to 24 hours of age
 - ii. Repeat testing should be done at ~48 hours of age if the newborn is still in-patient and the mother is COVID positive or maternal results are still pending. Hospital discharge should not be delayed to obtain an additional newborn test
 - iii. If maternal COVID result is negative, there is no additional testing required for the newborn
 - iv. For newborns requiring on-going in-patient hospital care, they may be considered COVID negative after two consecutive COVID tests obtained at least 24 hours apart.
 - v. Regardless of testing results, the newborn will remain a PUI until 14 days have passed from last possible COVID exposure- if the mother tests COVID positive. (Typically, ~30 days of life if discharged home with ill family members.)
 - vi. Placenta should be sent to pathology after delivery

- III. Well baby admission
 - a. If the baby is being admitted to well-baby, the team will doff PPE prior to exiting the DR/OR and the nurse moving the baby will don clean PPE prior to transport.
 - b. To maintain PPE stewardship, ok for team to doff only gloves and gown (pulled off from neck not overhead). Team can keep on same eye protection and facemask if not soiled
 - c. Baby will be transported in a covered OPEN crib if asymptomatic or a closed incubator
 - d. If using an open crib, must drape with a light blanket over crib with baby on monitor during transport. Ok to remove blanket upon arrival.
 - e. The team receiving the baby will don PPE prior to arrival and interaction with the baby
 - f. Baby may be placed in an open crib if in a private room with the door closed or minimum of 6 feet of separation from mother.

- IV. Breastfeeding
 - a. See [Breastfeeding Recommendations](#).
 - b. A mother with confirmed COVID-19 or who is a symptomatic PUI should take all possible precautions to avoid spreading the virus to her infant, including washing her hands before touching the infant and wearing a face mask, if possible, while feeding at the breast.

- V. Visitation
 - a. No visitation will be allowed until the newborn's infection status is determined
 - b. Exception: the non-maternal parent (or designated equivalent) may visit the infant and participate in care if they are asymptomatic, even if they are being monitored for infection due to exposure to the mother. This person will use Enhanced Droplet Precautions during visits.
 - c. If the newborn is uninfected but requires prolonged hospital care for any reason, the mother will not be allowed to visit the infant until she meets the CDC recommendations for suspending precautions:
 - i. Resolution of fever, without use of antipyretic medication
 - ii. Improvement in illness signs and symptoms
 - iii. Negative results of assay for COVID-19
 - d. Provide cloth gowns to well caretaker and encourage reuse of masks by well caretaker in the room

- VI. Testing
 - a. Our Northern California Regional Lab is now has started to conduct COVID-19 testing. This is now the preferred test for most of our patients.
 - b. Key points
 - i. To order in KPHC, enter the order "SARS-CoV-2, NAA (COVID-19) Reg Lab"
 - ii. Order only after consultation with the COVID Triage MD or Infectious Diseases MD
 - iii. Orders for DPH and Stanford will continue to be available for ID use only.
 - iv. Remember to follow the same 1-2-1 collection procedure: 1 swab, 2 sites, 1 vial
 - v. Collect using Universal viral collection (red top) or swabs (blue or green top).
 - vi. Expect results in 24 hours of receipt by regional lab. Details of how to interpret are below
 - vii. Current estimated capacity at regional lab is approximately 1000 specimens per day, which we estimate will support our Northern California needs at this time
 - viii. *Key Exception: Inpatient: For non-swab specimens, send to Quest and see below
 - c. See appendix for additional instructions on testing.

- VII. Patient Management Strategies
 - a. Avoid unnecessary testing and evaluation of patients in isolation
 - b. Limit transport and movement of PUI/COVID+ patients outside of the room to medically necessary purposes

- c. Use alternative bedside procedures and imaging when possible
- d. Infant must be in covered crib on monitoring if being transported for a procedure
- e. All those participating in the transport of the PUI baby must don PPE (isolation mask, gown, gloves, and eye protection). Minimize the number of personnel transporting baby to only those absolutely necessary for transport
- f. Testing and imaging only when needed for clinical indications (clinically evident bleeding, change in urine output, change in vital signs, oxygenation, etc.)
- g. Utilize alternative diagnostic methods rather than resource- and staff-intensive methods when appropriate (point of care ultrasound, etc.)

VIII. Rounding

- a. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination. Consider CNM to manage postpartum couplet as a pair to limit need for OB and Pediatrician to round
- b. Daily assessment by providers per routine care. Daily huddle with OB Team (in person or by phone) prior to rounding to advocate for consistent messaging
- c. Defer Lactation Consult and leverage skill and competency of the Post-partum RN to support BF. Consider use of OP LC video visit with IP Mother and/or Schedule OP LC appointment once mother is confirmed COVID negative
- d. Do not enter the room if you have not been appropriately trained in use of the appropriate PPE, and either fit tested for an N95 or trained for appropriate use of a CAPR/PAPR if resuscitation is occurring
- e. Prior to entering the patient room, check-in at the nurses' station to inform RN that you are there to perform your exam. All appropriate PPE must be in place prior to entry
- f. All persons in the room should doff and degerm prior to leaving the patient's room
- g. Infection Control procedures while performing patient care inside room:
 - i. Remember to keep hands away from mouth, eyes and nose
 - ii. Limit surfaces touched to minimize contamination
 - iii. Change gloves throughout care delivery if torn or heavily contaminated
 - iv. Perform hand hygiene between glove use
- h. Place all waste generated from the room of a known or suspect COVID-19 patient into a red biohazard bag and leave in the room.

IX. Discharge

- a. Considerations when infant is medically appropriate for discharge
- b. Infants with pending or negative COVID-19 testing, with no symptoms of COVID-19, may be discharged home with appropriate precautions
- c. Plans for outpatient follow-up on a case-by-case basis
- d. Please contact Pediatric Infectious Diseases for infants with positive COVID-19 testing
- e. For infants born to COVID-19 + mothers:
 - i. Infants will be considered a PUI for 30 days after birth even if asymptomatic and the 24-hour COVID testing is negative (This decision was made given concerns for infant's continued exposure to a COVID-19 + mother)
- f. Hearing screening should be deferred until COVID testing is resulted
 - i. If mother testing result is COVID-19 negative, the baby is no longer a PUI and hearing screening may be completed prior to discharge
 - ii. If mother COVID-19 test result is positive or still pending at the time of hospital discharge, then the newborn maintains it's PUI status
 - iii. Coordinators at the facility must record a "MISS" in the patient's chart with a coronavirus notation. We have been assured that the hospital will not be measured negatively for these additional "misses"

- iv. Enter an E-consult for audiology to schedule an outpatient appointment for the COVID-19 exposed baby after 30 days of life, write “delayed due to exposure to Covid-19” in the comment box
 - v. If during hearing test after 30 days baby refers, then Urine CMV should be sent. Peds ID will discuss treatment options with the family if CMV positive
 - vi. We will continue making outpatient appointments and CMV screening for all other non-COVID19 PUI babies that refer x2 prior to discharge
 - g. All elective procedures should be deferred until COVID testing is resulted; including but not limited to: ultrasounds, routine lab testing
 - h. Circumcision should be performed on a case-by-case basis, depending on facility’s workflow. In most cases, it should be deferred until COVID results are available
- X. Outpatient follow-up recommendations
- a. Newborn follow-up will continue at 2 days & 2 weeks per protocol. Prior to discharge of newborn PUI, WBN will contact outpatient pediatrics (Manager or Charge nurse) to assist with booking a 2-day visit
 - b. Newborn PUI should NOT be seen in the Newborn Baby Care Center space (to separate well from PUI)
 - c. Newborn PUI should only be evaluated by Pediatrician/FMS and not by RN
 - d. Physician should wear the appropriate PPE = isolation mask, gloves, eye protection during the visit
 - e. Strongly recommend that the physician does the vitals - weight, head circumference. This will prevent more than one person requiring PPE for this baby
 - f. For blood draws such as bilirubin, also strongly recommend that the physician performs the heel stick to minimize the number of people requiring PPE. For the blood draw, an N95 is not necessary
 - g. At the 2-week check, a COVID swab should be obtained during which time physician should be wearing an N95 mask. If the COVID testing performed on the infant at 1 or 14 days is positive, please contact Pediatric Infectious Diseases provider on call
 - h. After 30 days of life, baby is now "business-as-usual"
 - i. Appointments will be co-horted in the afternoon and when feasible, limit to one location/service area to minimize PPE
- XI. Special Considerations: Neonatal Code Blue at Mother-Baby Unit
- a. Do not enter the room if you have not been trained in use of the appropriate PPE, and either fit tested for an N95 or trained for appropriate use of a CAPR/PAPR if intubation is occurring.
 - b. If possible, transport the baby to the Well Baby nursery or Neonatal ICU. See “[Patient Transport within hospital](#)” section of the Neonatal code blue workflow in the playbook.
 - c. For management of Neonatal Code or acute resuscitation, please refer to the “[Neonatal Code Blue](#)” guidelines.

Neonatal Care

Resuscitation at Birth of Baby Born to Mom who is COVID-19 Exposed or Positive

- Request that the OB team plan to hold the placenta after delivery to be sent to pathology to OAK fetal / placental pathology for processing.
- The team resuscitating the baby will don PPE (Personal Protective Equipment) prior to entering the delivery room (DR) or operating room (OR)
 - Gloves
 - Isolation gown
 - Isolation mask
 - N-95 mask or PAPR/CAPR should be used by the team if aerosolized procedures are anticipated such as intubation, PPV, CPAP or open deep airway suction (Bulb suction is not included)
 - If not enough PAPR/CAPR available, team may don N95 masks
 - OB team does NOT need to don N95 mask/CAPR /PAPR for neonatal resuscitation.
 - Eye protection
- If there is only 1 PAPR/CAPR available, the person doing the intubation should done it and the rest can don N95 masks.
- Babies born to PUI or COVID-19 positive mothers should be considered Persons Under Investigation (PUI). As such, infants should be isolated after birth.
- Upon completion of resuscitation,
 - NICU admission
 - If the baby is being admitted to the NICU, the team will doff gown and gloves prior to exiting the DR/OR and don clean gown and gloves for transport to NICU
 - Only team members critical to the transport of the baby should participate in the transport
 - The same eye protection and mask could be used if is not visibly soiled and gown is removed by pulling off at neck and not overhead.
 - Baby will be transported in a closed incubator. The following may be observed during transport:
 - **Intubated:** Move in an incubator. Connect to ventilator prior to movement
 - **CPAP/PPV:** Move in an incubator. Use CPAP on ventilator if possible.
 - **Room air:** Preferably incubator. It is safe to transport in an off incubator with monitors on the baby.
 - If possible, security should assist to ensure hallways are clear and to help open doors and press elevator buttons for the transport team.
 - Consult with the receiving NICU chief ahead of time as to where the PUI baby will be housed. Ensure the location is prepared to receive the baby.
 - The NICU personnel receiving the baby will don PPE prior to arrival and interaction with the baby

See "[Neonatal Code Blue Section](#)" for additional information.

Special considerations in NICU care of COVID19+ or PUI baby

- Newborns born to PUI or COVID+ mothers are considered a PUI and will be tested using the following testing protocol
 - OP/NP swab (single swab both locations OP and NP) at 24 hours, 5 days and 11 days to regional lab
 - Negative swabs at 1 and 5 days do not remove infant from PUI status. Precautions continue.
 - If no additional known contact with COVID + following delivery, when all swabs are negative (1, 5 and 11 days) ok to remove infant from isolation precautions. At that time, PUI status is resolved
 - If any infant swab is positive, contact PID
- Limit staff assigned to primary care of patient to only those essential to the care

- Consider 1:1 nursing assignment and limit the change in doctors managing the patient.
- Avoid unnecessary testing, examination and evaluation of patients in isolation
- Decrease vital sign assessments to medically appropriate intervals to match clinical condition and improvement in condition.
- Testing and imaging only when needed for clinical indications (clinically evident bleeding, change in urine output, change in tidal volumes, oxygenation, etc.)
- Utilize alternative diagnostic methods rather than resource- and staff-intensive methods when appropriate (point of care ultrasound, etc.)
- Use remote interaction with patients in isolation as appropriate. Parents may be able to communicate with their infants via bedside video. Privacy issues can be appropriately addressed while using remote telemonitoring equipment, as available.

See “[Interfacility Transport to a Healthcare Facility by a Neonatal or Pediatric Critical Care Transport Team](#)” for additional information.

Interfacility Transport to a Healthcare Facility by Neonatal or Pediatric Critical Care Transport Team

If a patient with an exposure history and signs and symptoms suggestive of COVID-19 requires transport by ambulance to a healthcare facility for further evaluation and management, the following actions should occur during transport:

Definitions

- PUI – person under investigation for possible COVID-19 or other infection
- MCP – medical control physician, this is the Neonatologist/Pediatric Intensivist/PHBS who is arranging the transport and monitoring the evolving patient condition throughout the transport process
- Referring Physician – The physician in an emergency department, nursery or other care area who is requesting a neonatal transport. In some cases, the referring physician may also be the MCP
- Accepting Physician – the physician who will be assuming care at the receiving facility where the patient is being transported to. In some cases, the accepting physician may also be the MCP
- EMT- Emergency Medical Technician-also referred to as “ambulance drivers”

General Strategies

- Ambulance personnel are expected to follow PPE guidelines consistent with CDC/CDPH/EMS protocols
- To maximize PPE stewardship, interim guidelines will allow transport team to enter the facility wearing used PPE while escorted by security. EVS staff will provide receptacle for EMTs to doff. NICU workflows are slightly modified due to the presence of a closed isolette.
- KP staff will escort the patient and accompanying family to designated COVID-19 or PUI evaluation and assessment area within the facility
- KP medical facilities will provide an area outside the medical facilities for EMTs to doff their personal protective equipment and clean their ambulance after arrival with a COVID-19 PUI.
- KP will provide appropriate biowaste containers in the ambulance bay to permit EMTs to dispose contaminated waste.

Transport Initiation: Referring facility discussion with medical control physician

- The referring physician should discuss concerns about a COVID-19 PUI when requesting transport and admission.
- The Pediatric/Neonatal Transport team will confer with Medical Control Physician (MCP), receiving RN leadership, house supervisor, nurse and RT leader on duty.
- The receiving facility should initiate any just-in-time testing needed for personal protective equipment (PPE).
- **The Medical Control Physician will discuss donning and doffing of PPE with the referring facility. For NICU transports, they will also discuss and plan for alternative points of entering the facility apart from the Emergency Room to avoid exposure to the baby and team as much as possible.**
- The local command center should be aware of incoming transport.
- If the patient is a newborn, then it is recommended that the mother have had COVID-19 testing sent to the Kaiser regional lab for rapid turnaround.
- Transport personnel should gather appropriate PPE prior to leaving on transport.
- Equipment and supplies that are taken to further stabilize or care for the infant should be minimized and placed into containers that can be thoroughly cleaned and protect any unused supplies.
- **Transport team will perform team huddle prior to departure to review donning and doffing plan and review equipment checklist.**
 - Team will be equipped with necessary equipment including:

- Isolation masks
- N95 respirators (for use in aerosol-generating procedures)
- Disposable gowns
- Gloves
- Eye Protection
- CAPR/PAPR's -if available, reserved only for providers who have failed fit testing. If CAPR/PAPR unavailable, consider sending alternative personnel.
- Tyvek suits (aka Bunny Suits) are not recommended due to increased difficulty in doffing. The highest risk for exposure occurs during the doffing process. Any facilities supporting use of Tyvek suits should ensure appropriate staff training in doffing.

Transport Team: Arrival at referring facility

- Transport team members, upon arrival to patient room, will perform hand hygiene and don appropriate PPE.
- **Pediatric Specific Transport**
 - Team will perform local stabilization, assessment, and patient transfer to gurney while in appropriate PPE.
 - Older children and adolescents may wear a mask if tolerated.
 - Team will perform hand hygiene, doff PPE as they exit the room with gurney.
 - Extend use of eye protection and mask if possible.
 - While outside of the room, the team will perform hand hygiene, re-don clean PPE.
- **Neonatal Specific Items**
 - The ambulance personnel will remain outside the patient care room. The transport isolette will be brought into the patient room by the RN, RT, MD and local staff who are caring for the patient.
 - Team will perform local stabilization, assessment, and patient transfer to isolette while in appropriate PPE.
 - Upon leaving the room with the isolette, the team will doff gloves and perform hand hygiene. New gloves will then be placed. If any PPE is visibly soiled it will be removed and new PPE donned.
 - The ambulance personnel who will push the isolette will receive it outside of the patient room. They should be wearing PPE (gown, gloves, N95 or isolation mask as required for the patient in question and face shield).
 - The neonatal team will not stop by the parent room to have the family “see” the patient before leaving the facility.
- The local command center will arrange a security escort for the team to ambulance. All doors to be opened or buttons to be pushed should be done by someone other than the transport team. The transport team members should avoid touching or rubbing against any objects or surfaces.
- Ambulance personnel, if providing direct patient care (e.g., moving patients onto stretchers), should wear all recommended PPE. After completing patient care and before entering an isolated driver’s compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
 - If the transport vehicle does not have an isolated driver’s compartment, the driver should remove the face shield or goggles, gown and gloves and perform hand hygiene. A respirator should continue to be used during transport if any aerosol generating procedures are anticipated. The ambulance vendor may direct their personnel to wear PPE per their policy.

Entering Ambulance

- The team will enter the vehicle and secure patient and appropriate devices. The team will remain in PPE for the duration of the transport.
- Keep the patient separated from other people as much as possible.
- Family members and other contacts of patients with possible COVID-19 should not ride in the transport vehicle.

- If riding in the transport vehicle is unavoidable, family members should perform hand hygiene and wear an isolation mask.
- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
- Close the door/window between these compartments before bringing the patient on board.
- During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
- If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
- Some vehicles are equipped with a supplemental recirculating ventilation unit that passes air through HEPA filters before returning it to the vehicle. Such a unit can be used to increase the number of air changes per hour (ACH) ([Resource Link](#)).
- If a vehicle without an isolated driver compartment and ventilation must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting. This will create a negative pressure gradient in the patient area.
- Follow routine procedures for a transfer of the patient to the receiving healthcare facility (e.g., wheel the patient directly into an Airborne Infection Isolation Room).

Aerosol Generating Procedures

- In addition to the PPE described above, ambulance clinicians should exercise caution if an aerosol-generating procedure (e.g., oropharyngeal suctioning, endotracheal intubation, positive pressure ventilation with T-Piece, nebulizer treatment, Continuous Positive Airway Pressure (CPAP), Bilevel Positive Airway Pressure (BiPAP), bag mask ventilation (BMV), or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary.
 - In these scenarios, providers should don an appropriate respirator, CAPR/PAPR (if available) or an N95 with face shield (Donning CAPR and PAPRs may require crew to exit the vehicle on the side of the road and may subject crew to additional risk).
 - Respiratory Therapy managers should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
- If possible, the rear doors of the transport vehicle should be opened and the Heating-Ventilation Air Conditioning (HVAC) system should be activated during aerosol-generating procedures. This should be done away from pedestrian traffic.

Ambulance Notification and Preparation for Arrival

- The ambulance crew should notify the facility 15 minutes prior to arrival.
- PEDI/PICU/NICU Nurse Manager will notify the Local Command Center, Neonatal/Pediatric Physician, appropriate unit staff, EVS, and security.
- Security will provide access and control of prearranged ambulance arrival area and liaise with any law enforcement personnel.

Ambulance Arrival

- In order to maximize PPE stewardship, the Transport team will maintain PPE and enter the facility with security escort and move to the hospital unit and room.
- If additional staff is available from the receiving unit, consider sending a team donned in appropriate PPE to retrieve the patient and transport them to the appropriate inpatient unit.

Ambulance Patient Rooming

- PEDI/PICU/NICU Nurse Manager and Intensivist or Hospital physician will room patient and any accompanying family members in an appropriate isolation room.
- See [COVID-19 Inpatient workflow](#).
- After patient transfer is completed, the transport team will clean gurney/isolette, gear bags, monitors and equipment in designated area while wearing appropriate PPE.

Guidance for Accompanying Family Members or Caregivers:

- It is strongly recommended that they do not accompany the transport team and patient in the ambulance. If this is unavoidable for any reason, follow the recommendations below.
- Receive instruction on infection control practices and wear PPE as instructed:
 - Clean hands before entering and leaving the ambulance
 - Wear mask, gown and gloves when providing direct care

Cleaning Ambulance Vehicles after transporting a PUI or patient with Confirmed COVID-19

- After transporting the patient, leave the rear doors of the transport vehicle open to allow for enough air changes to remove potentially infectious particles.
- When cleaning the vehicle, transport or ambulance personnel should wear a disposable gown and gloves, eye protection, and an isolation mask (or PPE as designated by ambulance vendor).
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly, to include the provision of adequate ventilation when chemicals are in use. Doors should remain open when cleaning the vehicle.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 (the virus that causes COVID-19) in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
- Clean and disinfect the vehicle in accordance with standard operating procedures. All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered hospital grade disinfectant in accordance with the product label.
- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.
- Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste.
- Follow standard operating procedures for containing and laundering used linen. Avoid shaking the linen.

Pediatrics

Inpatient Planning

Based on most current information about the virus:

- I. COVID-19 can cause respiratory illness requiring hospitalization
- II. Nosocomial spread has been documented with COVID-19
- III. Our goals of inpatient admission for patients with confirmed or suspected COVID-19 is to:
 - a. Provide excellent patient care
 - b. Limit spread of COVID-19 to health-care workers thru appropriate PPE and isolation
 - c. Diagnose COVID-19 quickly and accurately

Approach to the Febrile Infant in the Emergency Department/Inpatient Setting.

Situation: Young infants with COVID may present with fever without respiratory symptoms and need medical care / hospital admission. We are expanding our criteria for COVID swabs in this setting. Many of these young infants also need evaluation for bacterial infections including urinary tract infection, bacteremia, etc. Our goal is to correctly identify and prevent spread of COVID while not missing treatable bacterial infections.

- Infants < 2 months with fever:
 - Additional screening question:
 - Are there household members who are ill with cough +/- myalgias +/- fever +/- sore throat OR tested for COVID and testing is pending or positive?
- Disposition:
 - Does the febrile infant need hospital admission?
 - If YES to the screening question AND/OR need for hospital admission, recommend in addition to standard evaluation for fever
 - Begin appropriate enhanced respiratory precaution PPE AND Perform COVID-19 testing
- Febrile infants 2-6 months without respiratory symptoms:
 - Additional screening question:
 - Are there household members who are ill with cough +/- myalgias +/- fever +/- sore throat OR tested for COVID and testing is pending or positive?
- Disposition:
 - Does the febrile infant need hospital admission?
 - If YES to both the screening question AND need for hospital admission:
 - Continue appropriate enhanced respiratory precaution PPE AND Perform COVID-19 testing

Inpatient Workflow

- I. Notification received from ED or clinic of need for bed for known or suspect COVID-19 patient
 - a. Prepare private room for admit
 - i. Secure isolation supplies (isolation masks, gowns, eye protection, gloves, hand sanitizer); if applicable gather N95 and / or PAPR/CAPR supplies
 - ii. Confirm dedicated or disposable patient-care equipment (e.g., blood pressure cuffs, stethoscope)
 - iii. Obtain HCW and Visitor tracker logs
 - iv. Ensure communication device located in room and phone number known
 - v. Post Droplet and Contact Precautions and eye protection signs on the door outside the patient's room
- II. Arrange transportation for admit: Huddle with transporting and receiving staff
 - a. Confirm patient will be masked during transport
 - b. Confirm PPE for transportation staff

- c. Confirm maintenance of cleared/secure pathways
 - d. Arrange for transportation in a dedicated elevator
 - i. If patient is masked during transportation, elevator does not need terminal clean
 - e. Confirm that primary caregiver / household contacts that are accompanying the patient are masked within the facility
- III. Patient arrival in hospital room
- a. Preparing to enter room
 - i. Perform hand hygiene
 - ii. Put on a gown; fasten at the neck and back
 - iii. Put on isolation mask
 - iv. Put on eye protection
- IV. Infection Control procedures while performing patient care inside room
- a. Remember to keep hands away from face and head
 - b. Limit surfaces touched to minimize contamination
 - c. Change gloves throughout care delivery if torn or heavily contaminated
 - d. Perform hand hygiene between glove use
- V. Caregiver instructions / expectations
- a. Must go straight to/from room (e.g. not stop and eat in the cafeteria, etc.)
 - b. Agree to an active check for symptoms daily and to restrict visitation if symptoms develop
 - c. Receive instruction on infection control practices and wear PPE as instructed:
 - i. Clean hands before entering and leaving the patient room
 - ii. Wear mask when outside the patient room
 - iii. To minimize contamination on their clothes and body, wear gown and gloves when providing direct care such as feeding, bathing, etc.
- VI. Refer to separate PPE and waste removal protocols for additional details.

Discharged COVID + children

Guidance varies by county

- Self-quarantine (= considered infectious if entering a medical facility)
- For 7 days after symptom onset or 3 days after symptom resolution, whichever is longer.
- Currently Santa Clara and Sonoma Counties requires 14 days after positive test and 7 days after symptom resolution

Pediatric Sedation

Aerosol Generating procedures (AGP's)= Intubation, CPR, Bronchoscopy, **suctioning, bag ventilation,** extubation.

While undergoing pediatric procedural sedation, patients are at increased risk for requiring AGP's. This places the team at increased risk of COVID infection.

All sedations should be critically evaluated for necessity.

For patients requiring sedation who have not been tested for COVID-19, we should always use airborne precautions.

- Single room with closed door
- N95 with face shield

Limit people in the room to:

1. Proceduralist
2. Sedation MD
3. Sedation RN

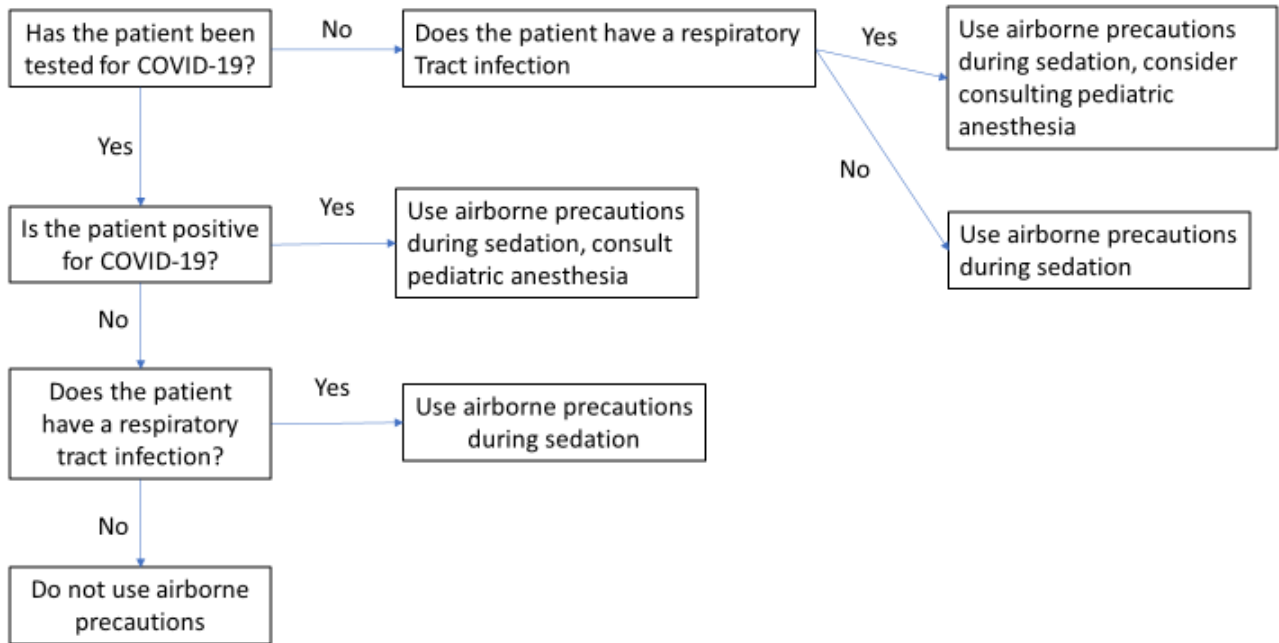
Families should not be present in room.

Any unnecessary staff member should not be in the room.

If no AGP performed during the procedure, airborne precautions can be discontinued at the end of the case and room cleaned per standard protocol. If AGP occurs, patient should remain in airborne precautions for 1 hour after completion of the case and room cleaned per appropriate COVID protocol.

Pediatric Anesthesia should be consulted on COVID + pediatric patients or pediatric patients who are high risk and have not been tested to assist in determining the safest plan for sedation.

When Do I Use Airborne Precautions for Pediatric Sedations?



Pharmacy

Delivery System

- I. Supporting virtual care and self-care at home to deliver our services to our members:
 - a. Mail Order
 - Engaging physicians and staff to promote Mail Order as a primary vehicle for non-urgent prescriptions
 - Mobilized Pharmacy workforce to ramp up CPP/PCC (Call Center and Mail Order Pharmacy) to assist with volume and call surges
 - Turnaround time for most mailed medications is 2-3 days
 - b. Same Day Delivery to Home
 - For urgent supplies and medications (reserved for patients at high risk or with significant infectious respiratory illness). In KPHC, click on new Urgent Home Delivery class button, enter note to Pharmacy, “URGENT Home Delivery” with patient contact phone number; send to designated pharmacy location.
 - c. Tents/Curbside
 - To support this workflow as needed for medication delivery
 - Curbside service programs have been piloted and implemented in a number of facilities
- II. Guiding Principles: getting medication to patients minimizing face-to-face interactions
 - a. Develop workflows that support virtual visits
 - b. Determine what medications are needed same day
 - c. Leverage Central Pharmacy Procurement
 - d. Alternate delivery models to include mail and delivery to member home
 - e. Understand what clinical interactions must be in person – oncology, Home Infusion, KPNSP, Continuum, End-of-Life
 - f. Oral Chemo Mailer Pharmacy
 - Setting-up Oral Chemo Mailer Pharmacy to allow this immunocompromised patient population to stay home and receive medications by mail.
 - g. Relaxing of Refill too soon to support members having enough medication on hand

Communications

- Workflows and plans to protect pharmacy staff from members that have respiratory complaints (cough, shortness of breath, or increased work of breathing)
- Triggers for PPE protection needs for pharmacy staff (i.e. consultation)
- Partnered with local Infection Control to conduct assessment of Outpatient Pharmacy waiting rooms
- Implemented Plexiglass barriers in all Outpatient Pharmacy sales counter to reduce infection risk for members and staff
- Implemented social distancing protocol in Outpatient Pharmacy waiting rooms
- Partnering with EVS on waiting room and counter surfaces cleanliness plan
- Communicate and follow HR guidelines for employees with respiratory complaints
- Communication tools for members
- Standardized communication model to inform Pharmacy field of any new workflows
- Rapid approval process in place with Regional rapid review team for any member facing Pharmacy communications
- Encourage refills from mail order rather than physical locations

- Early refills if needed’ In general, we are not recommending early refills for most members (need to assess drug supply levels over time—we will be continually assessing drug supply)
- General Communication Strategies
 - Education and Training Plan
 - Townhalls
 - Leadership Rounding
 - Centralized staffing and scheduling

Laboratory/Testing

Community Evaluation

- Testing should be available for both inpatients and outpatients for community surveillance
- Once community prevalence is established, outpatient testing should be guided by Infectious Disease recommendations
 - a. Supportive treatment based on symptomatology will be recommended

Hospital Evaluation

- COVID-19 testing should be available in medical facility and regional labs for the duration of the COVID-19 outbreak
- Once community prevalence is established, outpatient testing should be guided by Infectious Disease recommendations
 - a. Supportive treatment based on symptomatology will be recommended
- Inpatient testing will continue for the duration of the outbreak because decisions regarding isolation will be made based on these results.

Care Continuum

The Care Continuum includes areas such as partner nursing facilities, internal hospice and home health agencies, and other home care programs. The Continuing Care After-Hours Advice Program (CCAP) provides guidance and support to members in the Care Continuum.

Nursing Facilities

Basic Principles to Prevent Spread of COVID-19

- Cohort residents with suspected or confirmed COVID-19 infection on the same unit, wing, or building. Do not cohort confirmed COVID-19 in the same room as suspected patients.
- Use single-use equipment for residents with COVID-19 infection whenever possible; otherwise, dedicate re-useable medical equipment to residents with COVID-19 infection (for example, thermometers, stethoscopes, etc.) and clean and disinfect between use.
- Suspend large group activities and close communal dining areas.
- Place residents with confirmed COVID-19 infection in single occupancy rooms (or cohorted in multi-occupancy rooms with other confirmed COVID-19) with the door closed.
- Symptomatic residents and exposed roommates must limit movement outside their room; if they need to leave the room, such as for dialysis treatment, they should wear a facemask.
- Minimize the number of health-care workers assigned to patient care activities for residents with COVID-19.
- Health-care workers assigned to care for residents with suspected or confirmed COVID-19 infection should use an isolation mask, eye protection (face shield or goggles), gloves, and gown. N95 respirator must be used for high-risk/aerosolizing procedures.
- Clean and disinfect high touch surfaces and shared resident care equipment with Environmental Protection Agency (EPA)-registered, healthcare-grade disinfectants. See the [EPA Pesticide Registration List N](#)

Discharge of Patients from Hospitals to Nursing Facilities

These guidelines align with CDPH’s All-Facility Letter 20-33: [Interim Guidance for Transfer of Residents with Suspected or Confirmed Coronavirus Disease \(COVID-19\)](#)

Patient with Non-Respiratory Diagnosis	
And no exposure to COVID-19	<ul style="list-style-type: none"> • Nursing facility will use standard procedures for admitting a patient to the nursing facility. • KP NCAL will document in the admission orders that the patient was not considered for COVID-19 screening and managed with standard universal precautions.
And known exposure to COVID-19 positive within 14 days prior to transfer to nursing facility	<ul style="list-style-type: none"> • Patient will be tested once (timing per physician discretion) before transfer. Patient remains hospitalized until test results are back. Repeat testing when the initial test is negative will generally not be indicated unless there is a deterioration. • Even with a negative result, patient must be distanced 6-feet from a roommate in the nursing facility. Nursing facility should follow standard infection control precautions and monitor patient for symptoms for 14-days from exposure.
Patient with Respiratory Diagnosis	
And tested negative for COVID-19 –OR– And Has No Clinical Suspicion for COVID-19	<ul style="list-style-type: none"> • Nursing facility will use standard procedures for admitting the patient to the nursing facility. Examples include congestive heart failure exacerbations, COPD exacerbations, cancer with pulmonary involvement, and others. • If indicated the need for isolation precautions will be followed as per standard protocol for the nursing facility, based on the clinical condition of the patient. • KP NCAL will document in the admission orders that the patient did not have a clinical suspicion or tested negative for COVID-19.
With fever in the past 7-days, who was not tested for COVID-19	<ul style="list-style-type: none"> • Even if an alternate diagnosis for respiratory symptoms was secured, patient remains hospitalized until test results are back. Timing of testing per physician discretion. Repeat testing when the initial test is negative will generally not be indicated unless there is a deterioration.

Which is unexplained	<ul style="list-style-type: none"> • Patient remains hospitalized until test results are back. Timing of testing per physician discretion. Repeat testing when the initial test is negative will generally not be indicated unless there is a deterioration.
Who will be discharged to a true Subacute	<ul style="list-style-type: none"> • If patient requires aggressive, ongoing respiratory care +/- presence of tracheostomy (unless the hospitalization was characterized by no change in respiratory symptoms), Patient will be tested for COVID 19 prior to discharge. Timing of testing per physician discretion. Repeat testing when the initial test is negative will generally not be indicated unless there is a deterioration.
Patient is COVID-19 Positive	
	<ul style="list-style-type: none"> • Decision to transfer to the nursing facility will include several factors <ul style="list-style-type: none"> ○ Patient is hemodynamically stable ○ Patient has met local county public health criteria for transfer • Patient with no fever for 72 hours without the use of fever reducing medications AND who has been admitted to the hospital for at least 10-days, may be transferred to a nursing facility. Receiving nursing facility must continue transmission- based precautions, including guidance in this document • Recommend no nebulizers, CPAP, or BIPAP. If nebulizer is needed, order MDI with spacer. • Transmission-based precautions can be discontinued when the patient has been at least 72 hours afebrile (100.4 or >2 degrees above baseline temperature) AND shown improvement in respiratory symptoms AND 14 days after symptom onset or per local public health guidelines.

Prepare to Receive Residents from the Hospital with Suspected or Confirmed COVID-19 Infection

- Ensure all health-care workers are familiar with standard and transmission-based precautions and are familiar with proper PPE donning and doffing procedures by demonstrating competency.
- Identify health-care workers to care for residents with COVID-19 and ensure they are N95 respirator fit-tested for high-risk procedures. Minimize the number of health-care workers assigned to patient care activities for residents with COVID-19.
- Ensure the facility has an adequate supply of facemasks, N95 respirators, face shields or goggles for eye protection, gowns and gloves; place supplies in all areas where patient care is provided.
- Ensure the facility has adequate supply of alcohol-based hand rub and that it is easily accessible in every resident room (ideally both inside and outside the room and in other resident care areas).

General Patient Care Management

Nursing Facility Transfers

I. Transfer out of Nursing Facility for Testing, Procedure or Dialysis

General Guidance

Patient may not go out on pass unless for approved medical procedures. KP is encouraging virtual visits for other consults and follow-up care.

Screening Before Transferring

Nursing home staff must screen patient for the following before transfer:

1. Does patient have respiratory symptoms (sore throat, fever, or cough)?
2. Has the patient been in contact with someone with or under investigation for COVID-19?
 - If the patient has respiratory symptoms and no other suspicion of COVID-19, mask patient prior to transfer.
 - If patient answers Yes to Question 2, contact the TPMG Nursing Home Physician for further guidance

Return from Test, Procedure, or Dialysis

No screening is required upon patient's return from test, procedure or dialysis

Custodial Visits

Recommend deferring physical exams. Providers can add the following to their documentation:

To protect this patient who is at high risk of severe disease from COVID19, and following CDC and CMS guidance, I am deferring physical exam for this stable patient. I have reviewed patient condition with nursing. Patient is stable and there are no issues or concerns. There is no clinical indication for physical exam at this time.

In general, KP SNF physicians should perform chart review and clinical document remotely as much as possible. They should spend only clinically necessary time at the facility to minimize exposure and risk.

New Admit to SNF

- KP SNF physicians conduct face to face visits for new admits within 72-hours of SNF admission.
- KP SNF Coordinator/URC/PCC collaborates with the facility liaison/case manager on patient admissions including providing KP Welcome Letter and KP contact information.
- Recommend SNF Coordinator/URC/PCC to obtain facility access to electronic medical record.
- Highly recommend that the facility email/fax a Daily Event Log to KP SNF Department.
- SNF Visitor Policy talking points for KP SNF Coordinator/URC/PCC to use with family (as needed): [The Centers for Medicare and Medicaid has issued guidance for all nursing homes nationwide. These facilities will restrict all visitors and non-essential health care personnel, except for certain compassionate care situations, such as an end-of-life situation. In those cases, visitors will be limited to a specific room only. The facility should notify you of this policy through signage, call or letters.](#)
- SNF facility nurses to follow routine protocols

High-Risk (Aerosol-generating) Procedures

Avoid use of nebulizers in patients with an undifferentiated respiratory illness. If nebulizer, or other high-risk procedure is necessary provider must wear full COVID PPE (n95 mask, goggles or face shield, gloves and disposable gown) in a private room with door closed. The risk from a nebulizer treatment is up to 1-hour after treatment.

- Tracheal intubation
- Non-invasive ventilation, CPAP, BiPAP
- Tracheostomy, Open Suctioning.
- Cardiopulmonary resuscitation
- Manual ventilation before intubation
- Bronchoscopy
- Nebulizer treatment.
- Nasopharyngeal, Oropharyngeal Sampling, Sputum induction

Multi-disciplinary Rounding

Inter-disciplinary Team (IDT) Meeting

Highly recommend that IDT be conducted remotely but continue to include all members of the care team: KP SNF Physician, KP SNF Coordinator/URC/PCC and all routine SNF IDT members (Facility Liaison/Case manager, Rehab, Social Services and others as needed)

- The local KP Continuing Care SNF team will schedule meetings using Teams ideally or conference line, coordinating with the SNF physician and the facility. Using Teams will permit SNF staff to display pertinent information such as FIM score
- All team members regardless of location (conference room at KP, conference room in SNF), should maintain distance between other staff members when joining the IDT
- KP SNF Coordinator/URC/PCC leads discussion, summarizes and identifies next steps (i.e. length of stay, anticipated last covered day, discharge plans).

Bedside Rounding

- As determined by the KP SNF Physician, bedside rounding will be as needed based on patient's clinical status.
- KP SNF Physician and the facility liaison/case manager will round on appropriate patients and contact patient's family on phone based on local workflows and patient's clinical needs. They must follow proper PPE guidelines based on patient's clinical situation.
- KP SNF Physician should consider all options for wound evaluation which include direct visualization, images sent via secure texting application, or use of a secure video platform. PHI, including images cannot be sent via the native text message application on a phone and must only be sent through a secure texting app.

Notice of Medicare Non-Coverage (NOMNC)

- The KP SNF Coordinator/URC/PCC will work with facility liaison/case manager to issue the NOMNC to patient and/or responsible party. Options include faxing or emailing a scanned completed form. In addition, if blank hard copies are available in the SNF building, the facility liaison/case manager can complete the form with information from the KP SNF Coordinator/URC/PCC.
- Copy of signed NOMNC form must be returned to KP SNF department.
- In case of an appeal, follow local process.

Consults

- External (non-KP) consults, such as podiatry, vision, dental, should be deferred for the member's safety unless urgent.
- Convert KP specialty consultations and other follow-up appointments to either telephone or video visits as appropriate

Discharge Process

- KP SNF Coordinator/URC/PCC will complete the discharge checklist/form and either email or fax to the facility liaison/case manager to give to patient.
- Physicians are encouraged to conduct a virtual discharge visit and reserve in-person visit only if physical exam is necessary. Physicians must follow other discharge processes without changes including discharge summary, discharge instructions, orders, medication reconciliation, etc.

Pharmacy at Nursing Facilities

- Encourage mail-order prescriptions
- Physicians can request that SNFs send facility medication home with patient.
- Talking points to patient and family could include: *"We're not experiencing any unusual drug shortages, and you have options for getting the prescriptions you need. It's a good idea to fill your prescriptions by mail, especially during the COVID-19 outbreak. You can avoid standing in line at the pharmacy, and with most prescriptions you can get a 3-month supply for the price of 2 months. Sign up on kp.org/rxrefill and receive your medications in a few business days. If you need urgent medications, please contact your closet KP pharmacy, and arrange to have a well friend or relative pick-up the needed medication. In limited circumstances, the pharmacy may be able to arrange for delivery to you."*

Patient Care at Nursing Facility

- I. Use the SmartPhrase .covid19assessment to capture any updates:
 - a. Screen patients for respiratory complaints (cough, shortness of breath, or increased work of breathing).
 - b. If patient does not present with respiratory complaints, follow normal care protocols, otherwise refer to the table below.**

Stable Patient with Respiratory Symptoms
<ul style="list-style-type: none"> • Provide patient and roommates with droplet and contact precautions. If possible, separate beds at least 6-feet apart and close door. • Contact the KP Nursing Home Physician (or CCAP after hours) for timely evaluation of patient. Physician will assess and (1) place order for COVID testing, or (2) if clear alternative diagnosis, provide orders for testing and management, or (3) if needed, contact the KP Infectious Disease Specialist.
Patient Tested Positive while in Nursing Facility
<ul style="list-style-type: none"> • COVID-19 patient must be masked and isolated in a single room. If the patient cannot be isolated in a single room, mask roommate, separate patients by 6 feet if possible, and draw bed curtains. • Any roommates should be monitored for signs and symptoms. • Staff who came into contact with the patient should be monitored for signs and symptoms of COVID-19. • Testing should only be performed if patient/staff become symptomatic. KP does not recommend furloughing staff who have been in contact with patient. • Inform the KP Continuum Administrator or SNF Service Director about PUIs or confirmed COVID in your facility.

Testing For COVID-19

In many service areas, KP clinicians are collecting specimens and submitting to KP regional lab for processing. KP will inform nursing facilities of tests results. Otherwise, follow your local county public health guidance about COVID testing.

All nursing facilities should follow the COVID-19 response checklist below.

COVID-19 Response Checklist
Identify Single point of entry to facility
Post signage for visitors
Limit and screen visitors per most current CMS Memo: Guidance for Infection Control and Prevention of Coronavirus Disease 2019 (COVID-19) in nursing homes
Maintain visitor log
Monitor PPE supply status. Notify KP SNF Service Director and KP URC/Case Manager if less than 1-week supply for any of the following: Masks, goggles/shields, gloves, gowns
Ensure staff have been trained in proper PPE
Maintain hygiene supplies (hand sanitizer, soap, paper towels, tissues, Clorox wipes), including supply monitor
Reinforce proper hand hygiene
Maintain infection control surveillance line listing for patients and staff demonstrating respiratory symptoms
Implement plan to communicate to KP physician and KP SNF Service Director if any patient meets PUI criteria or confirmed COVID-19
Implement patient care and isolation workflows (see KP recommendations)
Designate staff for care of PUI/confirmed COVID 19 positive
Maintain readily available contact information <ul style="list-style-type: none"> • County health department • KP physician, KP SNF Service Director
Reinforce sick leave expectations/training
Maintain Log of absent/sick employees
Develop contingency plan for staff shortage
Ensure emergency policy/plan reviewed with staff
Implement environmental and shared device cleaning/disinfection plan

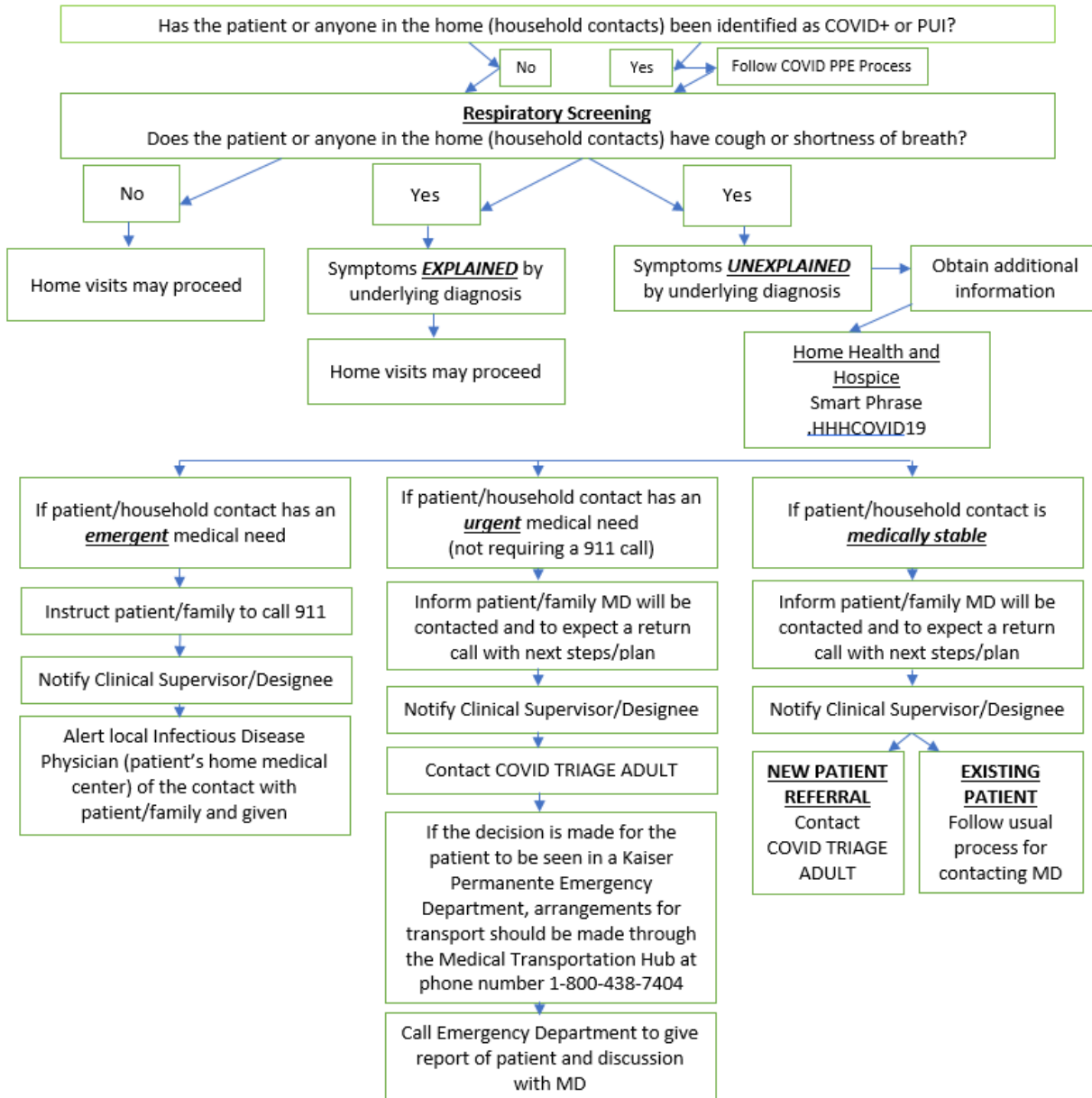
Resident / Patient Movement

- I. Suspend large group activities and close communal dining areas
- II. Restrict residents with respiratory complaints (cough, shortness of breath, or increased work of breathing) to their room
- III. When they must leave the room, such as for medical transport, the resident should be provided with an isolation mask.
- IV. Notify facilities and transport prior to transferring a resident with respiratory complaints (cough, shortness of breath, or increased work of breathing), including PUIs or confirmed COVID-19 patients, to a higher level of care

Home Health, Hospice and Other Home Care Programs

Screening for New Referrals & Prior to Scheduling Visits

For Home Health and Hospice, Monday through Sunday 8am – 5pm, during the referral screening process ***AND* prior to scheduling all visits**, patients and anyone in the home (household contacts) will be screened for cough and shortness of breath.



Caring for a PUI or Confirmed COVID-19 Patient or Household Contact

- I. Intake Process (Referral has been accepted)
 - a. Complete Intake Screening
 - b. Discuss the following with patient/family:
 - Patient/household contact with COVID-19 or PUI for COVID-19 needs to be in own room with door closed for duration of home visit
 - PUI or COVID-19 person must wear a mask at all times to prevent spread to others in the home
 - c. Inform patient/family
 - Clinician will contact patient/family to schedule visit time
 - Clinician will need space outside of the home to put on personal protective equipment and will discuss in more detail with patient/family prior to home visit
 - Ask patient/family to provide a lined garbage container outside of patient's home that is accessible to the Clinician (this is required)
 - Ask patient/family to provide a small table/chair (if possible) outside of patient's home that is accessible to the Clinician
- II. Intake Process for Consents
 - a. Option 1: Preferred option
 - Intake e-mail/fax consents for patient/family to print/sign and return via e-mail
 - May scan and e-mail back to Kaiser Permanente *OR* May take a photo and e-mail back to Kaiser Permanente
 - b. Option 2
 - HH Consents will be obtained via telephone consent prior to entry into the home, using the Telephone Consent User Guide
 - With one exception: Do not mail consents!
 - Field clinician will complete all portions of the Home Care Guide and any other documents to be left in the home, prior to entering the home, and leave Home Care Guide and copy of consents in the home.
 - c. If patient unable to sign and caregiver/DPOA will not be present during home visit
 - Follow current Telephone Consent User Guide as per current practice
 - With one exception: Do not mail consents!
 - Field clinician will complete all portions of the Home Care Guide and any other documents to be left in the home, prior to entering the home, and leave Home Care Guide and copy of consents in the home.
- III. Intake Process for Hospice Admission
 - a. Option 1: Preferred option
 - Intake e-mail/fax consents for patient/family to print/sign and return via e-mail
 - May scan and e-mail back to Kaiser Permanente *OR* May take a photo and e-mail back to Kaiser Permanente
 - b. Option 2
 - Intake to ask patient/family if they have a cell phone with camera/e-mail attached
 - If yes, field clinician will complete rest
 - Complete all portions of the Hospice Care Guide prior to entering the home
 - Leave Hospice Care Guide and consents in home
 - In home, have patient/family sign consent/ any other forms.
 - Have patient/family take a photo of signed consent/other forms and attach via e-mail to send to secure KP e-mail.
 - KP-Hospice-Hayward@kp.org *OR* insert your local agency e-mail
 - Please communicate with KP Hay to have e-mail forwarded to your agency

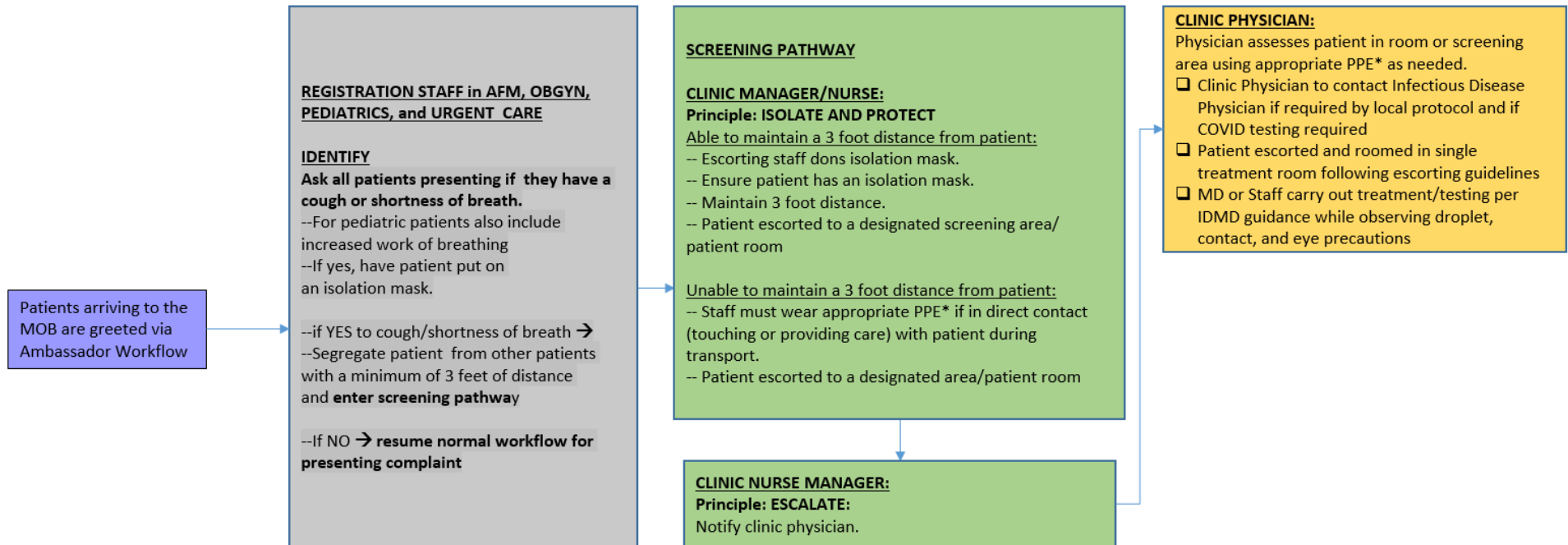
Guidance for Clinicians

- I. Wash your hands often with soap and water for 20 seconds or use an alcohol-based hand sanitizer
- II. Avoid touching your eyes, nose, or mouth with unwashed hands
- III. Avoid close contact with people who are sick
- IV. Stay home if you are sick
- V. Cover your mouth and nose when you cough or sneeze. Throw away the tissue and wash your hands.
- VI. Clean and disinfect objects and surfaces you touch

Appendices

Outpatient COVID-19 Workflow

Outpatient COVID-19 (2019-nCoV) Workflow Identify, Isolate, Protect, Escalate



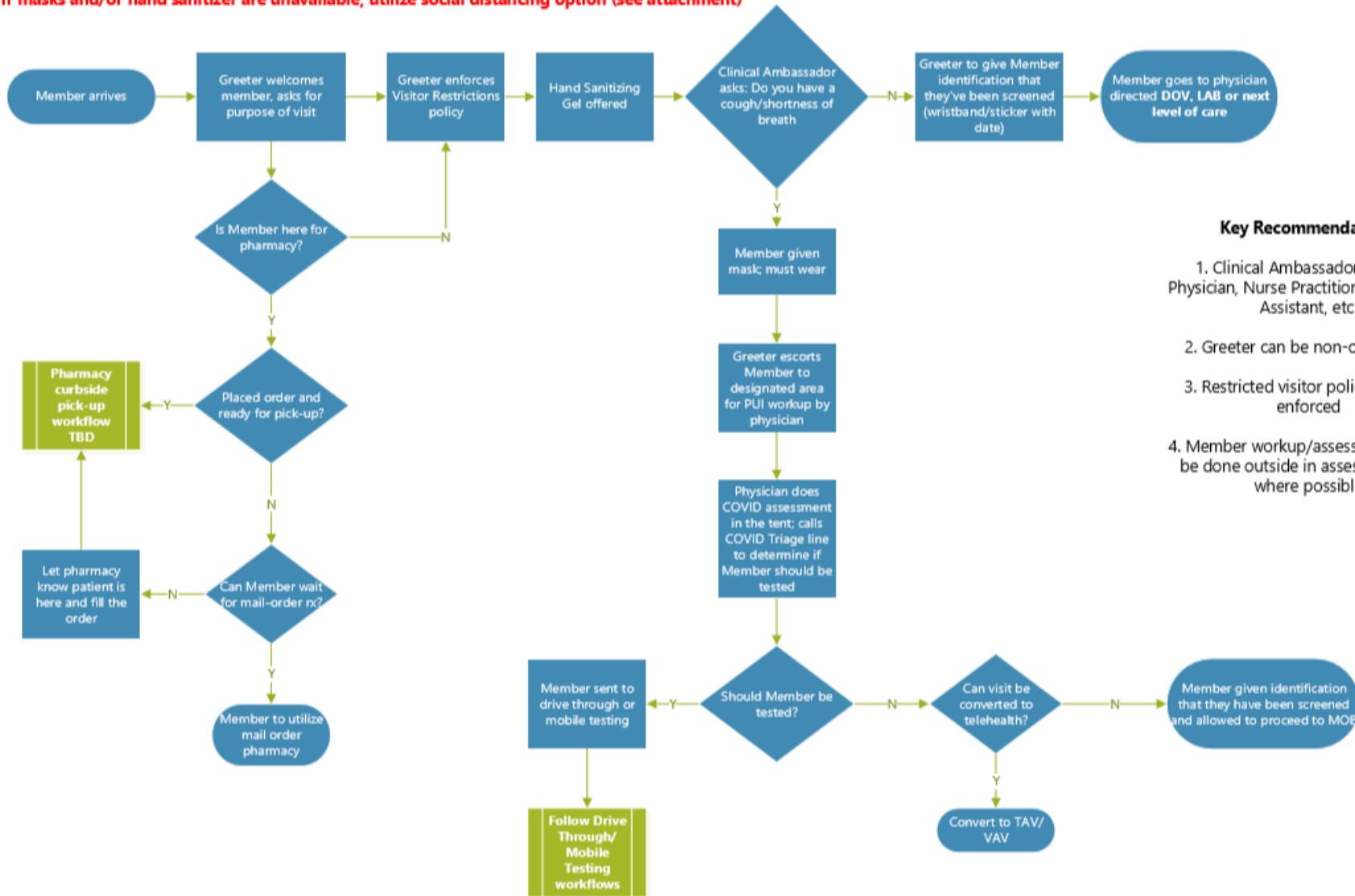
*Refer to PPE guidelines

- NOTE: Good Infection Prevention practice includes maintaining respiratory etiquette year-round by masking those who complain of respiratory issues.

Updated: 4/7/2020

Welcome Ambassador Workflow

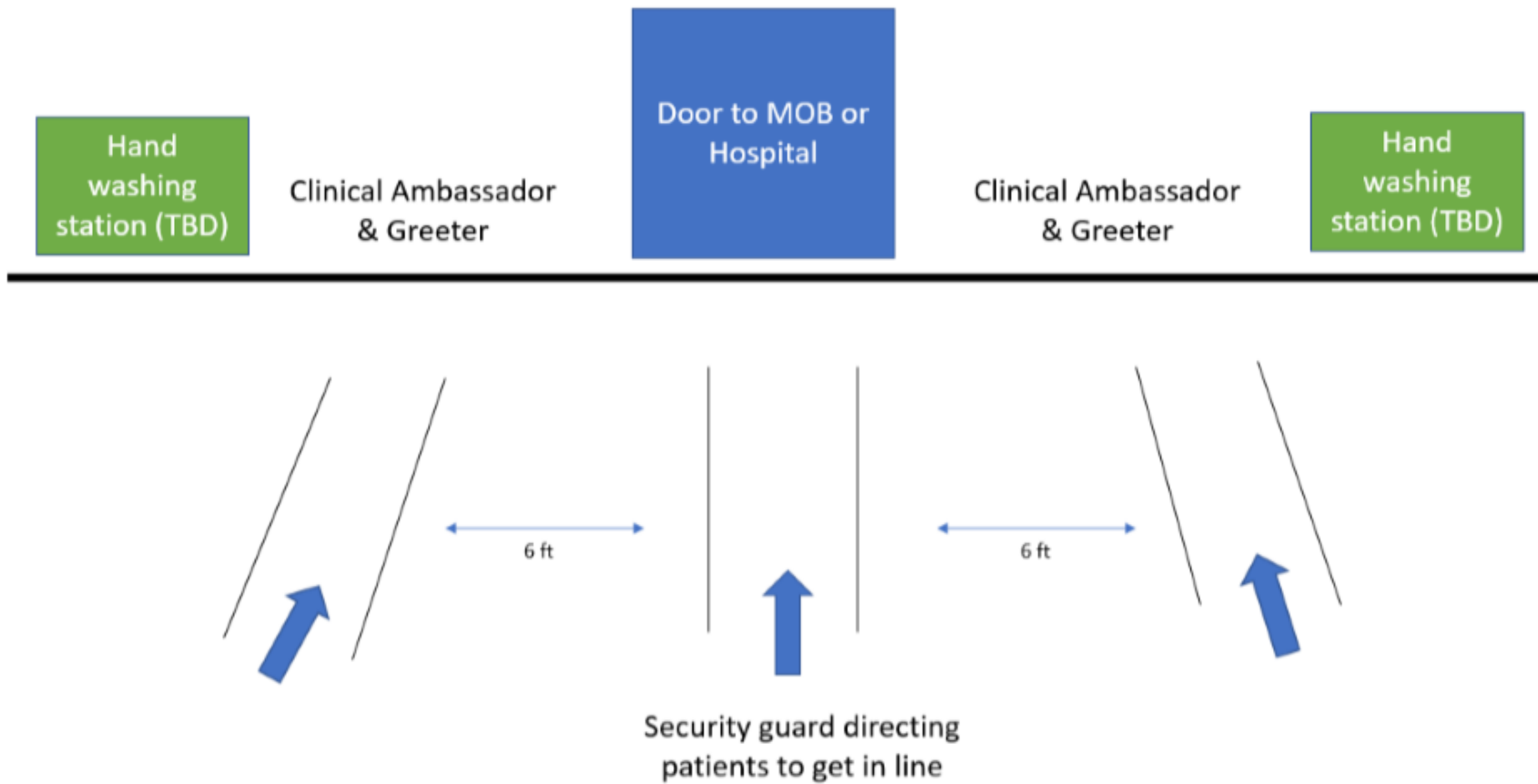
***If masks and/or hand sanitizer are unavailable, utilize social distancing option (see attachment)**



Key Recommendations

1. Clinical Ambassador options: Physician, Nurse Practitioner, Physician Assistant, etc.
2. Greeter can be non-clinical staff
3. Restricted visitor policy must be enforced
4. Member workup/assessment should be done outside in assessment tent where possible

Welcome Ambassador Workflow: Social Distancing Option (to be used during mask shortage)



Note:

- Clinical Ambassadors and Greeter to be stationed outside the building when possible.
- Utilize tape on ground to mark 6 ft distance.
- If the social distance model is employed, we recommend tables and mobile carts be placed away from the entrance of the building in order to comply with fire safety regulations.

Phone Scripts for Local Outreach

Rescheduling in-person visits to telephone/video or Postponing Appointment

“Hello, this is _____; I am Dr. _____’s medical assistant from Kaiser Permanente, **LOCATION**. You have an appointment booked for *(date)* _____, at *(time)* _____. Dr. _____ asked me to contact you. We know patients are concerned about the spread of coronavirus. I want to reassure you that we are doing everything we can to protect your health and the health of our communities. At this time, we are converting all in-person visits to telephone or video appointments OR you may choose to postpone your appointment. This reduces the possible exposure to and spread of illness. Telephone/Video visits are a convenient way for you to get the care you need from home. If your doctor thinks you need to come in after the telephone/video appointment, we will arrange that for you.

If YES to telephone appointment:

“Thank you. I will let Dr. _____ know. Dr. _____ will call you at your scheduled appointment time of _____. Thank you.

ACTION: convert existing appointment to TAV

If YES to video appointment:

“Thank you. I will let Dr. _____ know. You will receive an email with instructions on how to join. Please be sure to download the My Doctor Online app ahead of your appointment.”

ACTION: convert existing appointment to VAV

If Yes to postpone:

“Dr. _____ is asking that you call or go online to reschedule in about 1 month. Thank you.”

If NO and patient insists on coming in for DOV:

“In order to come in for a visit, we will need you to speak with a (Doctor or RN) first.”

ACTION: use local workflow to do warm hand-off to a clinician

If patient says ‘I don’t know what’s best for my health?’:

“Let’s have you speak with a (Doctor or RN)”

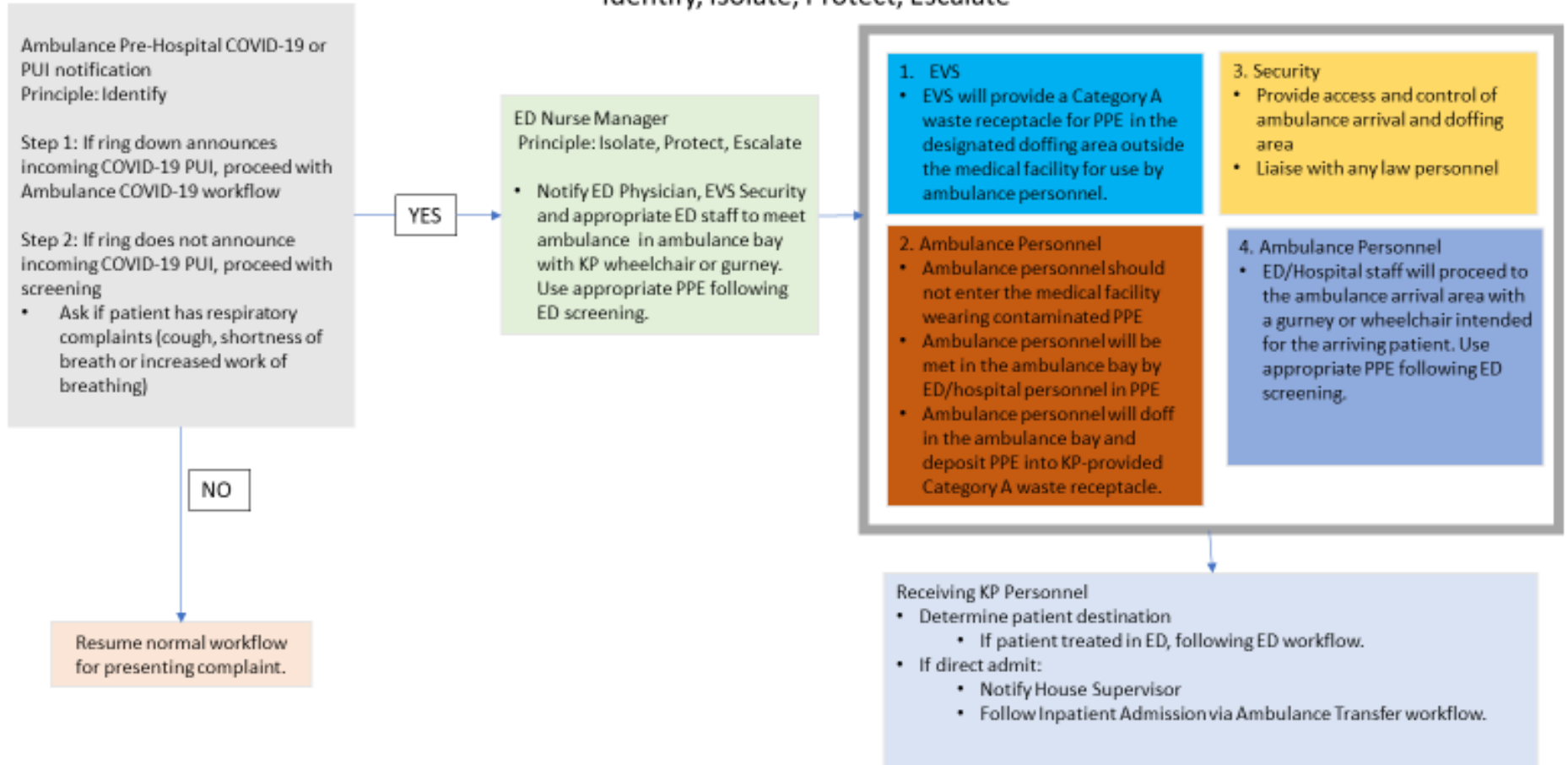
ACTION: use local workflow to do warm hand-off to a clinician

***If patient asks questions about COVID-19, direct them to visit kp.org.**

***If patient needs urgent RN advice, direct them to call the AACC at 1-866-454-8855.**

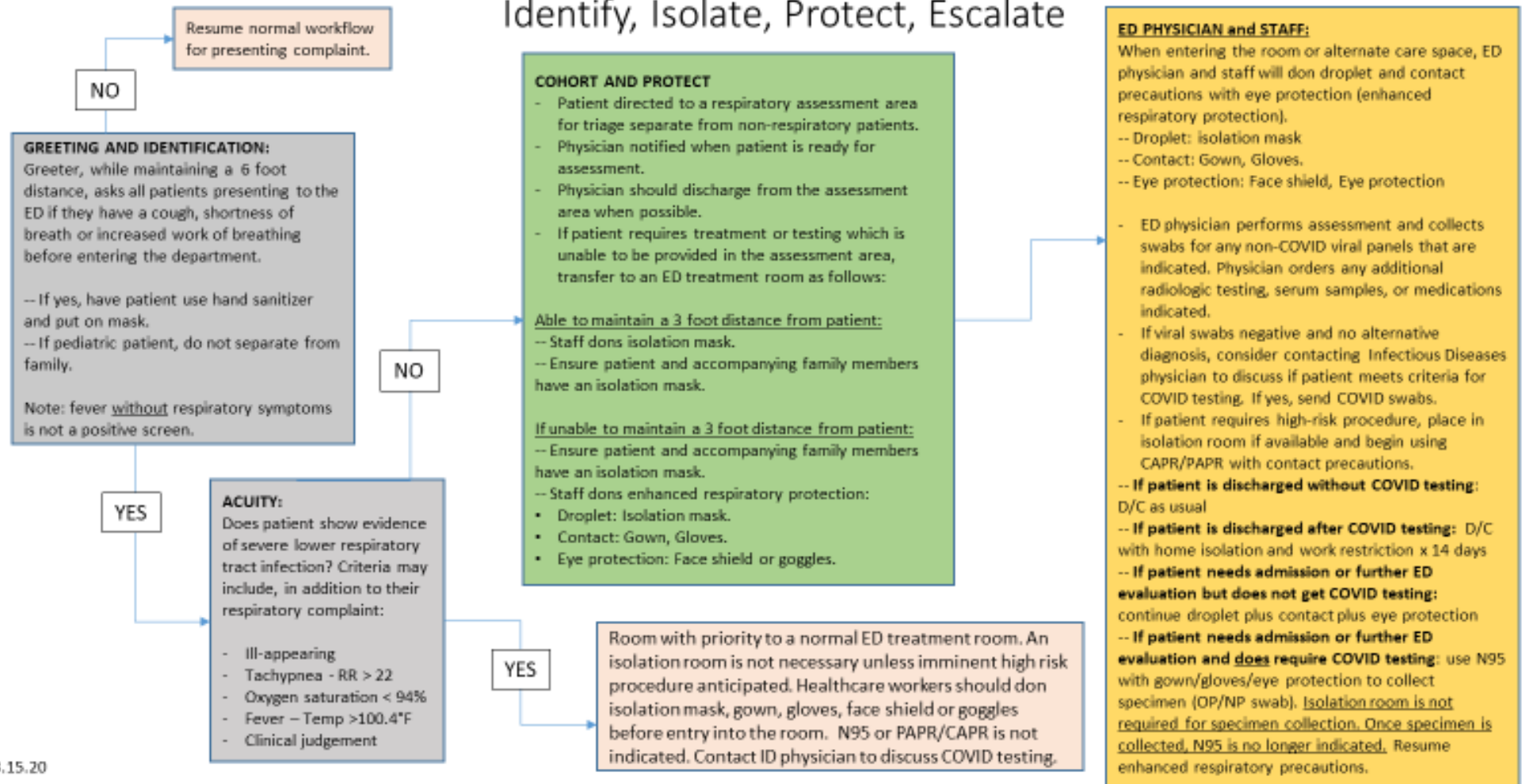
***If patient asks about clinical symptoms, suggest that the patient ask the doctor during the appointment.**

Ambulance Arrival COVID-19 Workflow Identify, Isolate, Protect, Escalate



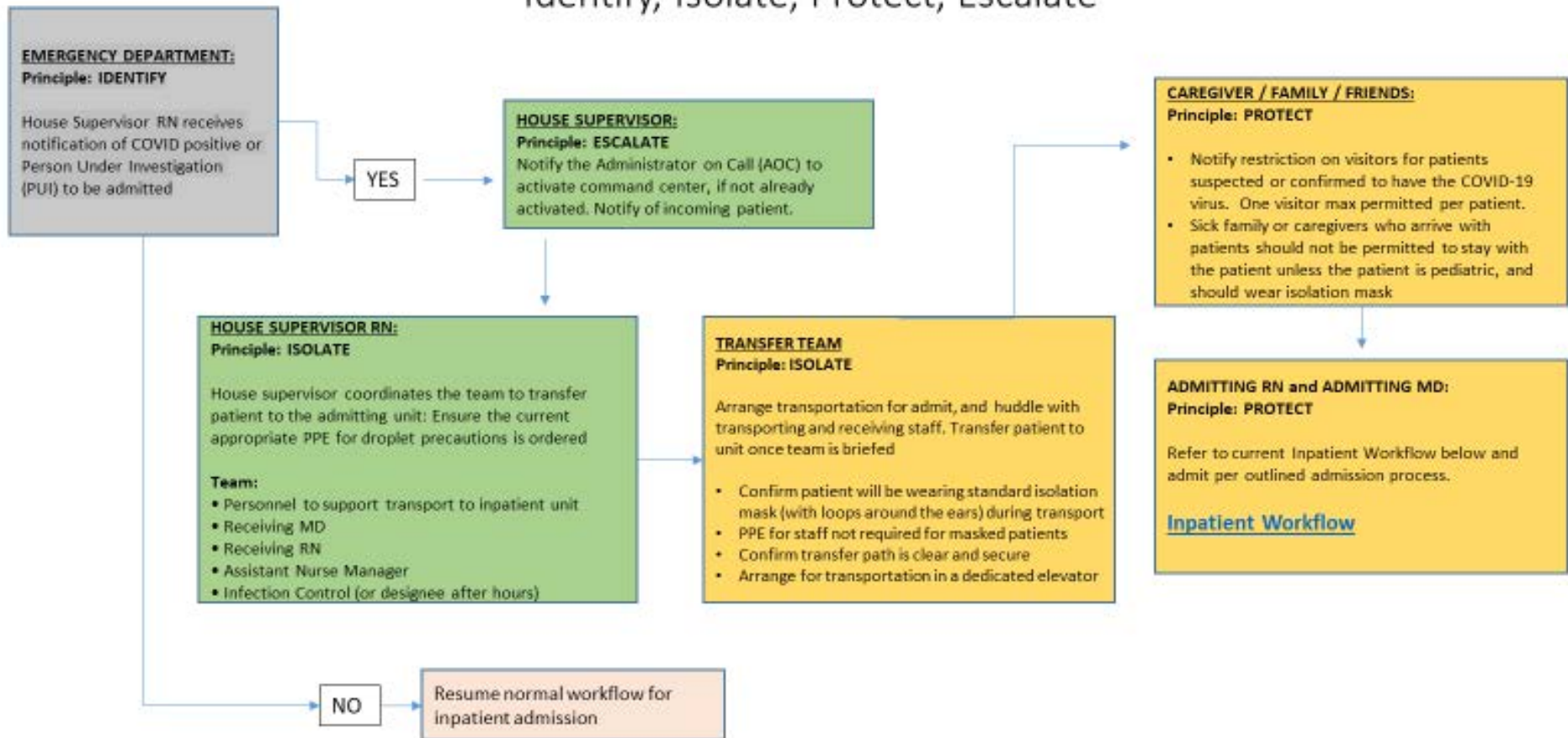
Emergency Department Adult and Pediatric COVID-19 workflow

Identify, Isolate, Protect, Escalate



3.15.20

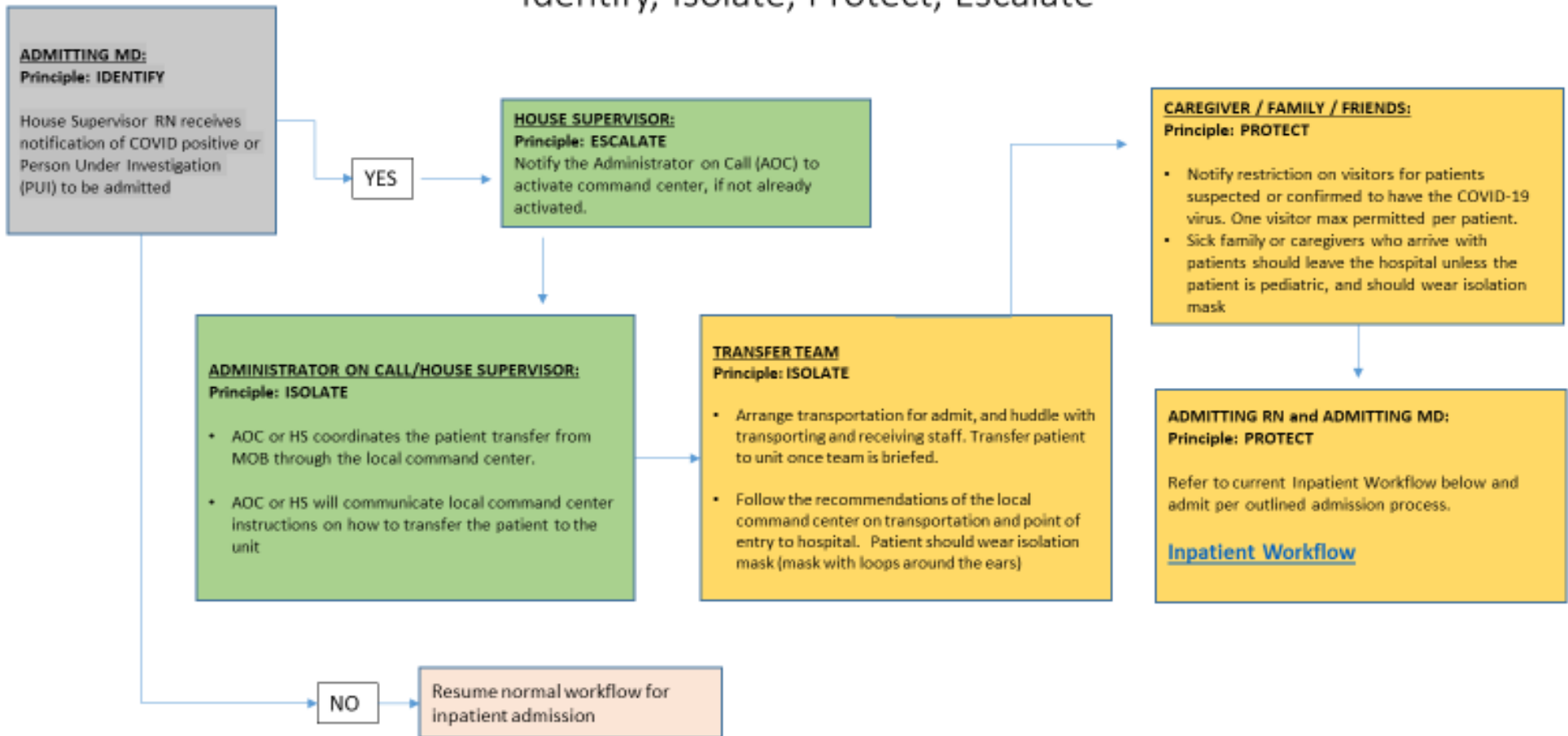
Inpatient COVID-19 (ED Admit) Identify, Isolate, Protect, Escalate



V4.3.15.20PCS

NOTE: Good Infection Prevention practice includes maintaining respiratory etiquette year-round by masking those who complain of respiratory issues.

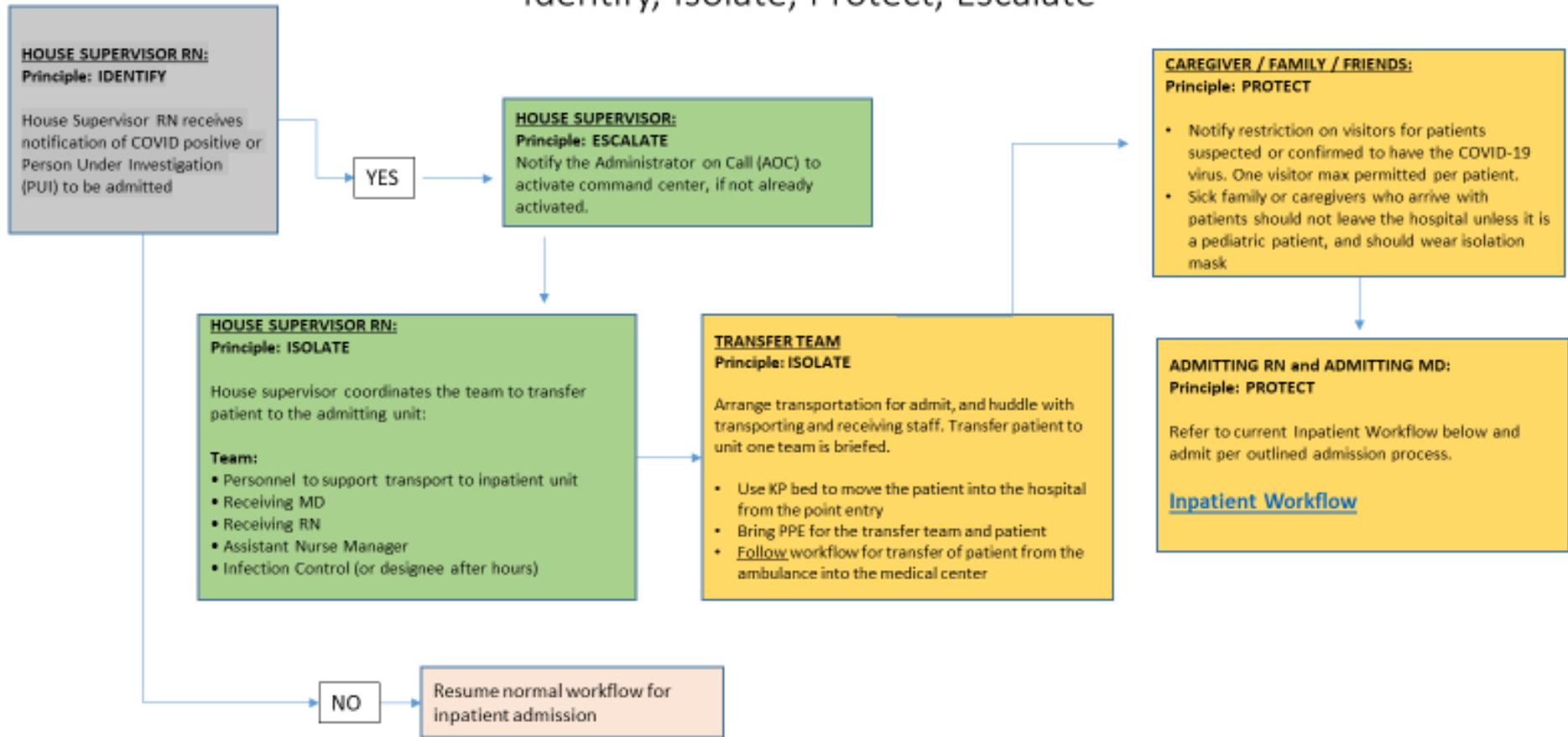
Inpatient COVID-19 (MOB Admit) Identify, Isolate, Protect, Escalate



V4.3.15.20PCS

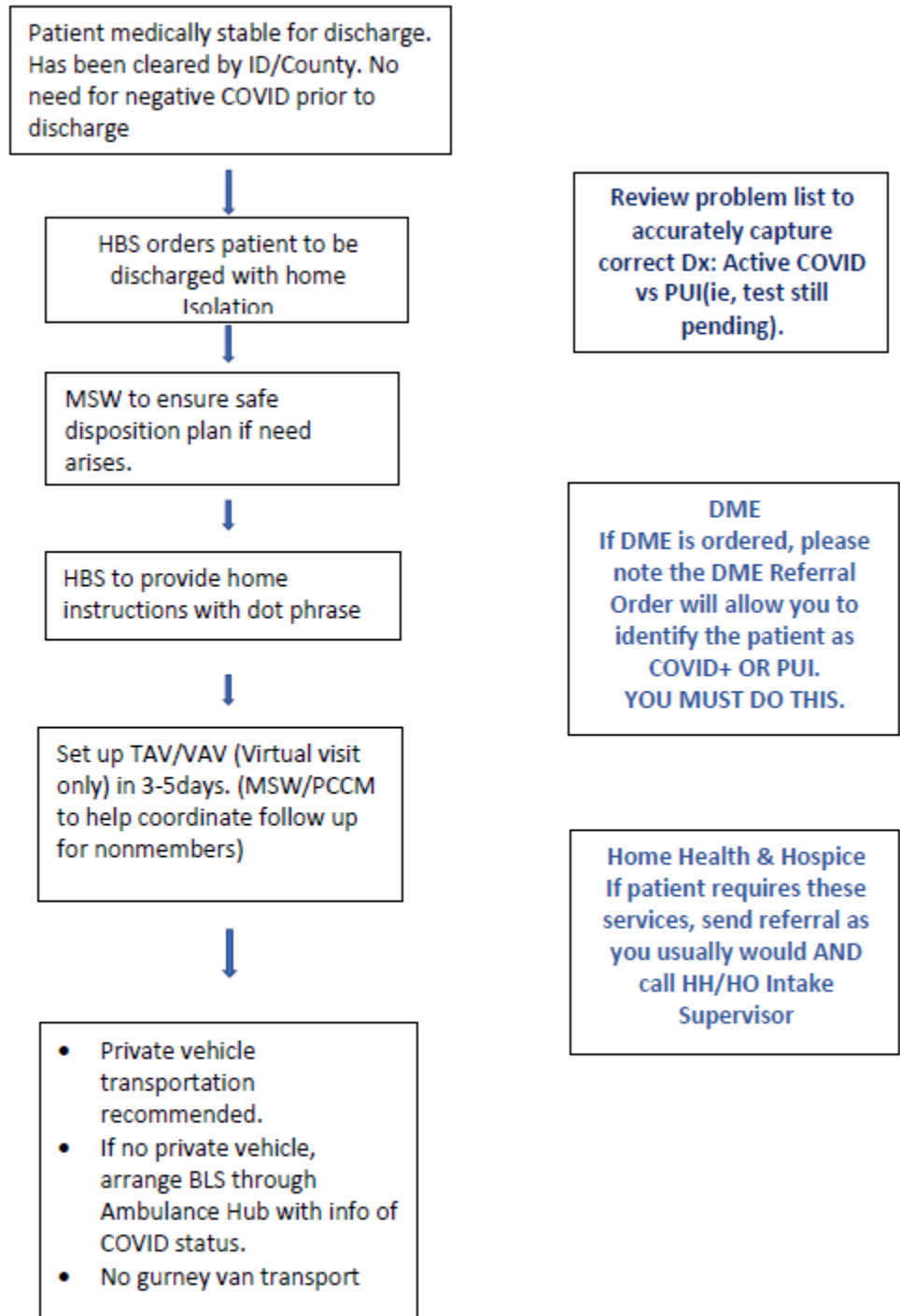
NOTE: Good Infection Prevention practice includes maintaining respiratory etiquette year-round by masking those who complain of respiratory issues

Inpatient COVID-19 (Ambulance Transfer) Identify, Isolate, Protect, Escalate

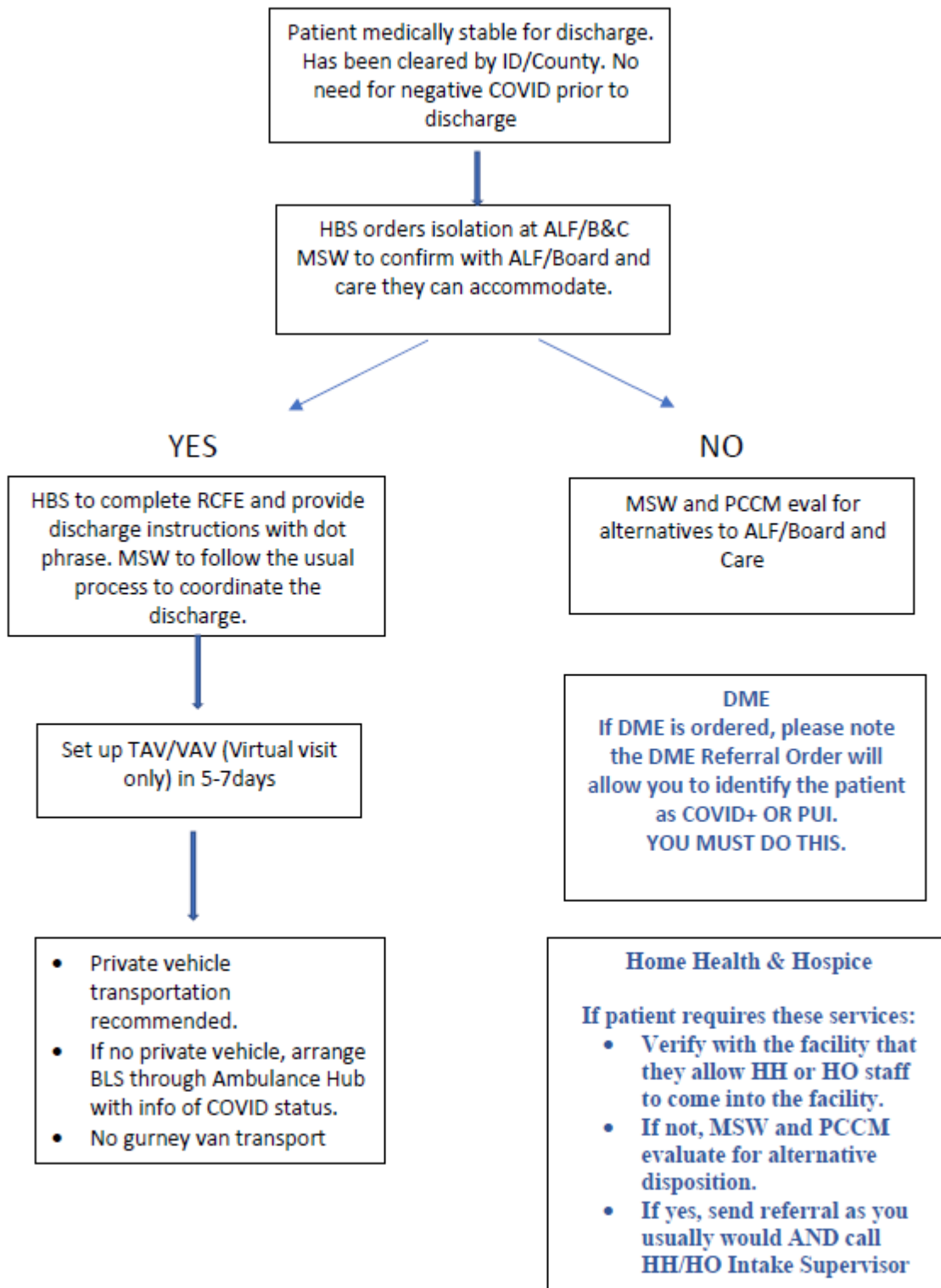


NOTE: Good Infection Prevention practice includes maintaining respiratory etiquette year-round by masking those who complain of respiratory issues

Inpatient – Home Discharge Workflow for COVID-19 Positive Patients & PUI Patients

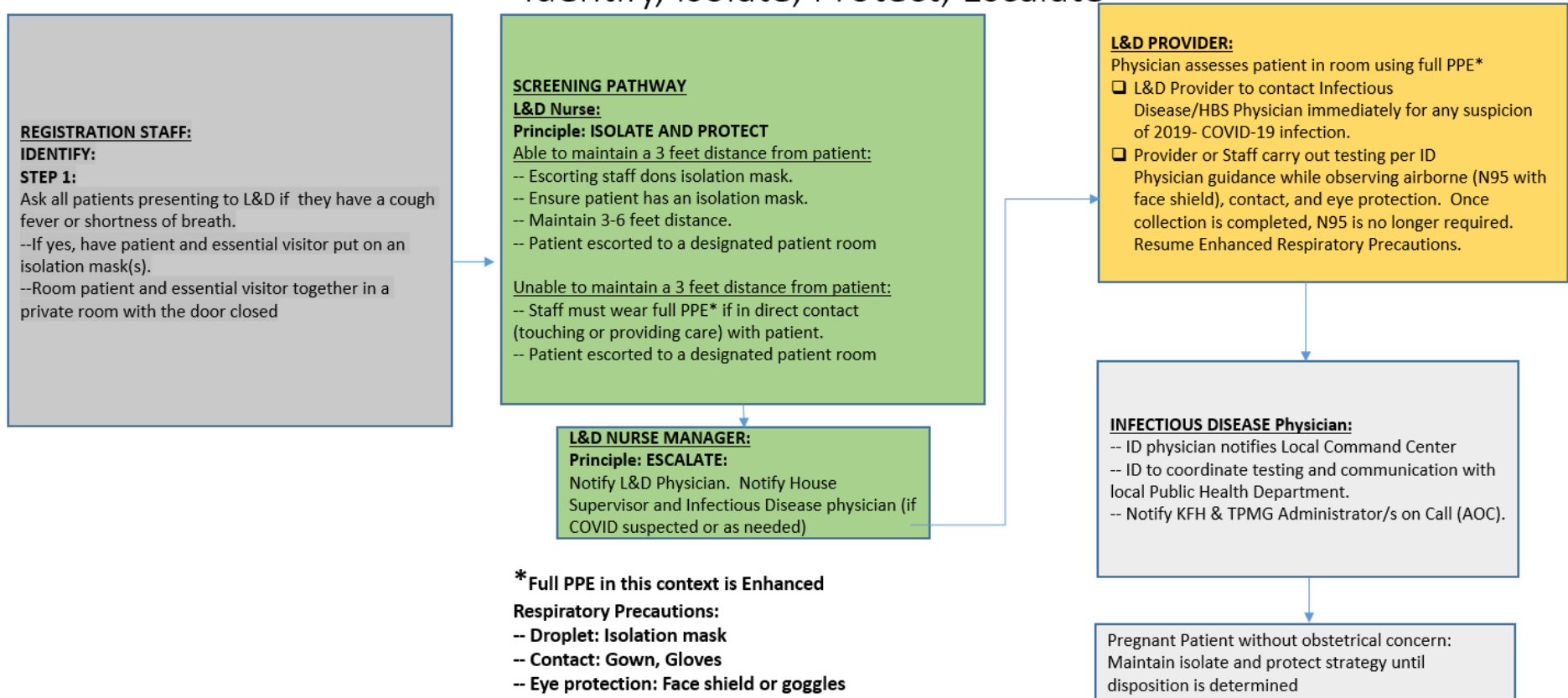


Inpatient Discharge Workflow to Assisted Living Facility / Board & Care for COVID-19 Positive & PUI Patients



Labor and Delivery COVID-19 (2019-nCoV) Workflow

Identify, Isolate, Protect, Escalate



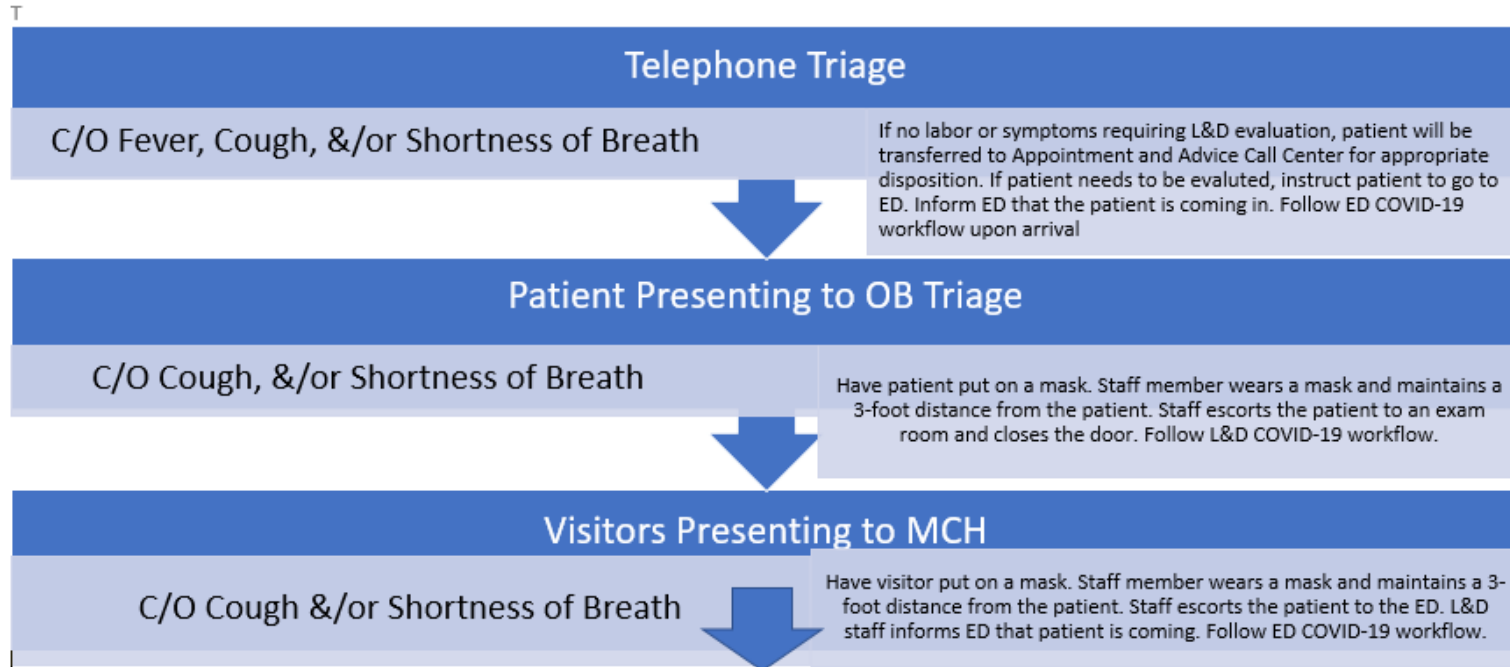
NOTE: Good Infection Prevention practice includes maintaining respiratory etiquette year-round by masking those who complain of respiratory issues

Additional Guidance

- **IDENTIFY: NOTE FOR CAREGIVERS:**
 - - Limit visitors to a single caregiver.
 - - While in the hospital, instruct caregiver to remain with patient.
 - - Instruct caregivers to wear an isolation mask when outside the patient room and to clean hands before entering and leaving the patient room.
- **ISOLATE AND PROTECT NOTE FOR CAREGIVERS:** Recommend all visitors be excused from the screening area with the exception of an adult family member for a pediatric patient or a necessary caregiver for an adult patient. See Note for Caregivers.
- **SCREENING AREA COHORTING:** Patients may be cohorted in the screening area while being assessed provided the following are maintained:
 - 3 foot minimum distance from other patients.
 - Reasonable privacy considerations.
 - PPE must be changed between patients.

MCH SCREENING FOR PATIENT FOR COVID-19

3.15.20



****Any staff requiring interactions with patient/visitor with potential COVID-19 infection follow the PPE guidelines below**

Able to maintain a 3-foot distance from person:

- Escorting staff dons mask
- Ensure patient has a mask
- Room patient quickly while maintaining a 3-foot distance
- Escort the patient to an exam room and close the door

If unable to maintain a 3-foot distance from person:

- Escorting staff dons mask plus contact (gown, gloves) protection plus eye protection
- Ensure patient has a mask
- Room patient quickly
- Escort the patient to an exam room and close the door

RESPIRATORY Therapy COVID-19 (2019-nCoV Workflow) Identify, Isolate, and Treat

Maintain department isolation:

Isolate & Protect

- Patient who is confirmed positive or suspected for Covid-19 requires full PPE*
- Door is to remain closed
 - Patient to wear isolation mask if able
 - If the patient is masked the healthcare practitioners need not wear a mask during transport
 - Full PPE* should be observed when in direct contact
 - See high risk/aerosolized procedure note next box

PROVIDING RESPIRATORY THERAPY SERVICES

Guidelines for Direct Care

- Full PPE* should be observed when in direct contact with patient, less than 3 feet (gown, gloves, eye protection, and isolation mask)
- Patients may be cohorted while being assessed provided the following are maintained:
 - Droplet/contact/eye precautions (see Full PPE definition below)
 - 3-foot minimum distance from other patients
 - Reasonable privacy consideration
 - PPE must be changed between patients
- **IF patient requires high-risk/aerosolized procedure** (e.g., intubation, extubation, nebulizer treatment, BIPAP, CPAP, High Frequency ventilation (ie: Oscillator, VDR), sputum induction, open suctioning (not closed suctioning on vent – see standard ATD list), initiate Airborne Precautions and wear PAPR, CAPR or N95 respirator in addition to gown, gloves and eye protection. Perform high risk procedure in a private room with closed door is adequate.
- Nebulization of medication is considered high risk and should be reviewed for appropriateness before administration

Equipment

- Use disposable equipment when possible
- A disposable stethoscope should be placed in patient room
- Home CPAP units should not be brought into facilities for use by patient who are confirmed positive or suspected for COVID-19. Utilize hospital CPAP machines.

Therapies

- Every shift all ordered Respiratory Therapy modalities should be evaluated for necessity
- Oxygen need only be administered if necessary and should be weaned as applicable
- When possible, small volume nebulizer should be converted to metered dose inhaler with spacer
- High Risk procedures (intubation, bronchoscopy, sputum induction, nasotracheal suctioning) should be reviewed with the HealthCare Team for necessity

*Full PPE in this context is droplet/contact/eye protection:

- Droplet: Isolation/Surgical mask
- Contact: Gown, Gloves.
- Eye protection: Face shield, Eye protection

ABG Sample Processing

- While inside the patient room place sample in biohazard bag
- Remove gloves, gown and eyewear inside the room (do not remove mask)
- Perform hand hygiene and apply new gloves
- Exit room, in the anteroom double bag the sample with a clean biohazard bag
- Remove gloves, perform hand hygiene, put on clean gloves
- While in anteroom remove mask, remove gloves and perform hand hygiene
- Transport the sample to ABG room for processing, place biohazard bag on the counter don gloves
- Enter accession number, run sample, and discard bags in red biohazard waste container
- Complete ABG results in the computer. Place label on syringe and discard in sharps container
- Wipe counter with designated cleaner
- Discard gloves and perform hand hygiene

- *when possible, use the Radiometer PICO ABG kits for less contact
- *it is not recommended to take iStat into isolation room

DISCONTINUING RESPIRATORY CARE:

- Patient has met Care Plan Goals and no longer needs Respiratory Therapy intervention
- All disposable items after patient use should be placed in red biohazard bag
 - All non-disposable equipment should be disinfected per infection control guidelines

Definitions:

Reuse: Refers to the practice of using the same PPE for multiple encounters with multiple patients but removing it ('doffing') after each encounter.

Extended use of PPE: Refers to the practice of wearing the same PPE for repeated close contact encounters with several patients, without removing the PPE between patient encounters. Extended use may be implemented when multiple patients are infected with the same respiratory pathogen and patients are placed together in dedicated area. PPE must be discarded once doffed/removed.

Cohorting Patients: Refers to the practice of grouping patients infected or colonized with the same infectious agent to one area and prevent contact with susceptible patients.




Cohorting Staff: During outbreaks, healthcare personnel may be assigned to a cohort of patients infected or colonized with the same infectious agent to further promote PPE stewardship.





Stewardship Guidance:

- I. Reuse PPE – droplet or isolation mask, N95 mask, and face shield
 - a. Designated and breathable bags for storing reused PPE (PPE can also be hung as long as they are not touching each other or any other contaminated material). Bags must be labeled with Health Care Worker's (HCW) name.
 - b. HCW must visually inspect PPE to ensure integrity prior to wearing
 - c. Seal check must be performed each time for N95 mask
 - d. HCW must clean hands and don clean gloves BEFORE doffing PPE
 - e. HCW must clean hands and wear gloves to don the reused PPE
 - f. Reused PPE must be doffed AFTER each patient encounter
 - g. Do not reuse PPE if contaminated, torn, or if there is loss of component integrity – i.e., mask straps, etc.
 - h. Isolation mask and N95 mask used on PUI/COVID+ patients and during high hazard procedures can be reused with face shield (for initial use and thereafter). Do no reuse if face shield was not worn initially.
- II. Extended Use PPE – droplet or isolation mask, N95 mask, and face shield
 - a. Extended use of PPE is allowed if taking care of cohorted patients with the same infections – i.e., all COVID+ patients.
 - b. Discard Extended-use PPE after doffing.
- III. Safety glasses
 - a. Safety glasses can be worn in lieu of face shield or goggles only for patients on Enhanced Respiratory Precautions (ERP) 1 – low acuity, respiratory symptoms (cannot be used on ERP 2 or PUI or COVID+)
 - b. Extended use and reuse can be applied to safety glasses.
 - c. Safety glasses can be cleaned when soiled or batched for cleaning at the end of shift.
- IV. Goggles
 - a. Goggles can be cleaned after each shift or daily following manufacturer's instructions
 - b. Designate area for collecting soiled goggles and assign staff to clean
 - c. Extended use and reuse can be applied to goggles following the same instructions as above

Mask Examples:

Below are examples of the types of masks referenced in the PPE Stewardship Guidelines. These images provide representative examples of the types of masks and are not exhaustive of all the masks used.

Item	MPN	Picture
N95 Respirator Masks		
3M N95 Size Regular (MPN: 1860)	1860	
3M N95 Size Small (MPN: 1860)	1860S	
3M N95 (MPN: 1870+)	1870+	

Isolation Masks		
Isolation face mask with ear loops	NON27120	
Isolation face mask with ear loops	NON27122	
Surgical Masks		
Anti-fog surgical face mask	NON27361A	
Medlite surgical face mask	NON27402	

PPE Stewardship Guidelines

Emergency Department – PPE Stewardship Guidelines

Each ED Director at every medical center should assign themselves or a delegate in the department as the PPE Manager responsible for overseeing the following ED PPE Stewardship guidelines.

General Strategies

1. Cohort and mask patients who present with respiratory complaints (cough, shortness of breath, or increased work of breathing) and evaluate in a designated area per ED workflow (3/9/20)
2. Directly room critically ill patients or patients who will be tested for COVID-19

Proper Use of the Following:

1. **N95 masks do not need to be donned and doffed if caring for cohorted patients (e.g. PUIs only) or for patients with airborne diseases with no contact precautions (e.g. TB, measles).**
 - a. N95 masks can be used past expiration once supply is exhausted (CDC approved)
 - b. Must be checked for integrity (wear and tear) and seal-check prior to use
 - c. Re-use fit test masks
 - d. Extended use for patient cohort (care for cohorted COVID+ patients, for example)
 - e. Re-use for PUI/COVID+ with face shield (not goggles)
2. **Surgical masks (with two ties) should not be used in the ED.**
 - a. Restrict to OR (Main, Ambulatory, L/D, IR, Cath Lab, sterile procedures in Procedure Rooms or line placement) use only
 - b. ONLY use inside the operating rooms and procedure rooms with ongoing surgery, sterile procedure or opened sterile items
3. **Eye protection can be reused or extended use.**
 - a. Reuse or extended use face shield
 - b. Reuse or extended use safety glasses for routine interactions with no procedures in lieu of goggles/face shield. Do not use for care of PUI/COVID+ patients. Instead use face shield or goggles.
 - c. Safety glasses, reusable faceshields and goggles can be cleaned when soiled (or batched for cleaning at end of shift)
4. **Do not use N95s for PUIs and known COVID+ patients unless you are performing a high-risk procedure (known-COVID+ swabbing, intubation, nebulized treatment, etc.), in which case PAPR/CAPR must be used.**
 - a. PAPR/CAPRs will need to be cleaned after use.
 - i. Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth per local workflow
 - ii. Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth per local workflow

No	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
1	N95 USE						
1a	<p>Use of expired N95 masks approved (by the CDC) can be used past expiration</p> <ul style="list-style-type: none"> • <i>Must be checked for integrity (wear and tear) and seal-check prior to use</i> 	<p>Staff may refuse to use expired masks</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Messaging and reassurance mask re-use and use of expired masks are CDC sanctioned recommendations <input type="checkbox"/> Supply chain to assist in identifying expired N95s; user to check for integrity. <input type="checkbox"/> Reinforce check for integrity on all masks 	<p>Regional Education</p> <p>Local: Education, All Managers, Asst, Managers, PPE Manager</p>	3/12	Communication, Regional PCS Team	Regional Education – Messaging on expired masks
1b	<p>Re-use fit test units</p> <p>Must be checked for integrity (wear and tear) and seal check prior to use</p>	<p>Adequate fit testing kits</p> <p>Some clinicians purposefully failing N95 fit testing based on myth that PAPR/ CAPR provide higher level of protection</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Modify annual fit testing Fit-test staff on priority list only <p>Staff reuse N95 used for testing. Review schedule to identify high priority staff to target for just in time fit testing and donning and doffing review</p>	<p>Workplace Safety Super Users for FIT Testing</p> <p>Department managers</p>	3/13	<p>Adequate FIT testing kits</p> <p>Adequate staff to serve as FIT testing trainers</p>	All ANMs, RT Leaders and educators must become trainers for fit testing
1c	Extended use of PPE-- (mask, N95, face shield, goggles for patient cohort (care for	Potential for healthcare worker contamination	<input type="checkbox"/> Communicate rationale and safety to all staff	All managers & educators	3/13		

NO	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
	cohorted COVID+ patients for example) <ul style="list-style-type: none"> Refers to the practice of wearing the same PPE for up to four hours for repeated close contact encounters with several patients, without removing the respirator between patient encounters 	with extended use PPE if not properly used, specifically, during donning of over the head (if the mask is already on and gown must go over the head)	<input type="checkbox"/> ANM/House Supervisor to create assignments that cluster patients with same infectious conditions geographically, utilizing the electronic assignment sheet to ensure oversight	House supervisors, RN Managers, CASD	3/12 until 80% of staff have received JIT training		
1d	Reuse N95 for airborne diseases with no contact precautions such as TB, measles Reuse N95 for PUI/COVID+ with face shield (not goggles)	Potential for healthcare worker contamination when not properly reusing supplies	<input type="checkbox"/> Provide education on airborne PPE JIT training on proper donning, doffing and disposal to all employees. Per CDC guidelines, provide paper bag for mask storage, and label with provider name. Discard N95 if visibly soiled or torn	All managers, educators	As above		Regional education— Proper Airborne PPE guidelines
2	SURGICAL MASKS (WITH TWO TIES)						
2a	Restrict to OR (Main, Ambulatory, L/D), IR, Cath Lab, sterile procedures in Procedure Rooms or line placement use only	Masks may be utilized outside of designated areas	r Remove surgical masks from non-procedural areas r Communicate and educate front line teams on stewardship plan Lock procedure carts with twist-off numbered locks	All Dept Managers	3/13	Materials Management, PPE Manager to control distribution and local leaders to provide oversight	Regional education— when surgical mask should be used, mask stewardship

NO	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
2b	ONLY use inside the operating rooms and procedure rooms with ongoing surgery, sterile procedure or opened sterile items	As above	<input type="checkbox"/> As above	All Dept Managers	3/13	As above	
3	EYE PROTECTION						
3a	Reuse or extend use of face shield Reuse and extended use of safety glasses for routine interactions with patients on Enhanced Respiratory Precautions 1 (ERP 1) only. Reuse or extended use of goggles	Insufficient supply of safety glasses. Lack of staff utilization due to relative discomfort / alleged poor fit, face shield limited supply	<input type="checkbox"/> Encourage use of goggles due to high inventory levels instead of face shields	Local: All Dept Managers, PPE Manager	3/13	Regional Education	Regional education to provide FAQ sheet
3b	Safety glasses and goggles can be cleaned when soiled or batched for cleaning at end of shift	New workflows	<input type="checkbox"/> Educate staff on proper cleaning supplies & technique <input type="checkbox"/> Recommend using the same staff who cleans PAPR/CAPR to clean safety glasses and goggles	Local: All Dept Managers, PPE Manager, Infection control	3/13	Infection Control to provide recommendation for appropriate cleaning supplies & technique	Ensure cleaners have appropriate PPE

NO	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
4	IDENTIFY A PPE MANAGER RESPONSIBLE FOR THE STEWARDSHIP OF PPE	Avoid clinical staff resources	<input type="checkbox"/> Each local facility will identify PPE manager	CNE/COO oversight; report to Infection prevention	3/13	Supply manager to collaborate with PPE manager	Stays connected with RCC for PPE updates, current education materials, workflows
5	OTHER STRATEGIES YOU MIGHT EMPLOY FOR YOUR SERVICE AREA IN ADDITION TO EFFORTS ALREADY UNDERWAY (IDENTIFIED ABOVE)						
5a	Consider cohorting patients with the same confirmed infectious conditions	Messaging to patients, families and staff	<input type="checkbox"/> Work with House Supervisor on bed assignments, employ strategies to reserve area of unit to cohort patients and staff assignments (same room, same pod, and/or same zone)	HS, ANM, RN Managers	3/13	Local Leaders: CNE, CASD, ASD, HS to provide through put direction and oversight	Regional education— provide message for cohorting to patient, family members, staff
5b	Consider cohorting staff or dedicate staff to care for patient cohort	Staff are resistant, possible exposure if not compliant with PPE practices. Removal of observer can increase breaks in practice	<input type="checkbox"/> Reinforce message to staff: reduced ratios, continuity of care <input type="checkbox"/> Remove observers & message as part of the downgrade from airborne to droplet. <input type="checkbox"/> Place laminated workflows for Droplet Isolation inside and outside of rooms	All managers	3/13	Regional Education to provide FAQ on change of airborne to droplet	
5c	Consider designating specific areas or teams	Lack of space/resource	<input type="checkbox"/> Set up “Swab Swat Team” with HBS rounders	CNE, COO, HBS Chief, Emergency	3/13	Infection Control Nurse to train “Swab Swat Team”	Regional education— provide

NO	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
	for testing patients that require PPE	to provide testing		Management Team			information on Swab Swat Team (SST)
5d	Consider designating specific areas for screening patients that require PPE	Lack of space/resource to provide screening	<input type="checkbox"/> Set up "Swab Swat Team" with HBS rounders	CNE, COO, HBS Chief, Emergency Management Team	3/13	Infection Prevention Nurse to train "Swab Swat Team"	
6	PAPR/CAPR USE						
6a	Reserve the use of CAPR/PAPR for high risk procedures on known patients with airborne diseases (e.g., TB) or COVID+	Strict compliance with cleaning standards and multiple cleaners	<input type="checkbox"/> Ideal: SPD will pick up dirty PAPR/CAPR and clean, return to unit. <input type="checkbox"/> Alternative: One person assigned to cleaning PAPR/CAPR in designated area	PPE Manager, Infection Control	3/13	Infection Prevention Nurse to train on proper cleaning technique	
6b	Assign dedicated staff to clean CAPRs and PAPRs	As above	<input type="checkbox"/> As above	PPE Manager, Infection Control	3/13	As above	
6c	Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth	As above	<input type="checkbox"/> As above	PPE Manager, Infection Control	3/13	As above	
6d	Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth	As above	<input type="checkbox"/> As above	PPE Manager, Infection Control	3/13	As above	

PPE Stewardship Clinical Laboratory / Outpatient Laboratory

N95 Masks:

- Routine clinical laboratory operations do not require the use of N95 masks.
- N95 masks will be sequestered and only distributed for approved use by a designated Lab Manager/Supervisor.

Isolation Masks:

- Surgical masks **are not** used in Clinical Laboratory (testing) operations and are not recommended.
- Isolation masks will be worn when collecting blood from patients with precautions if required or N95 if in airborne precautions

Gloves:

- Gloves will be worn in accordance with current PPE policy in the Laboratory in inpatient and outpatient settings.

Safety glasses, shields and goggles:

- Eye protection will be used in accordance with current Lab Safety guidelines (i.e. processing samples preparation of reagents, splash hazard situations).
- Face shield, glasses and goggles can be reused or extended use
- Glasses, reusable face shields, and goggles are reusable and are tolerant to disinfection by approved wipes when soiled or batched for cleaning.

CAPR/PAPR:

- Routine facility Laboratory operations do not require the use of CAPR/PAPR equipment.
- Regional Lab Microbiology is making every effort to conserve these resources in the AFB Lab.

Lab Coats:

- Lab coats are provided through a linen service. Standard Laboratory Practices will be observed for use and cleaning of lab coats.

PPE Stewardship Pathology Laboratory

N95 Masks:

- Pathology personnel will wear N95 masks during EBUS cases.
- Pathology personnel may use N95 masks when working with non-fixed tissue such as lung tissue and at autopsies.
- N95 mask can be reused if used with face shield
- N95 masks will be sequestered and only distributed for approved use by a designated Lab Manager/Supervisor.

Safety glasses, shields and goggles:

- Eye protection will be used in accordance with current Lab Safety guidelines (i.e. processing samples preparation of reagents, splash hazard situations).
- Face shield, glasses and goggles can be reused or extended use
- Glasses and goggles are reusable and are tolerant to disinfection by approved wipes when soiled or batched for cleaning at end of shift

Lab Coats:

- Standard Laboratory Practices will be observed for use and cleaning of lab coats.

CAPR/PAPR:

- Routine hospital Pathology operations do not require the use of CAPR/PAPR equipment

Care Continuum Leadership will assign a PPE Manager to oversee the following PPE Stewardship guidelines.

General Strategies

Communicate Care Continuum PPE Stewardship guidelines with KPPAAC, partnering nursing facilities, KP home health and hospice agencies, community-based home care agencies, and other KP home-based care programs.

Proper Use of the Following:

1. **N95 masks should not be used unless caring for patients who are known to have airborne disease such as TB or PUI or COVID-19 positive and high-risk procedures are being performed and being discharged from the ED or hospital.**
 - a. Use of expired N95 masks approved (by the CDC) can be used past expiration once supply is exhausted
 - b. Must be checked for integrity (wear and tear) and seal-check prior to use
 - c. Re-use fit test masks
 - d. Reuse or extend use N95 mask for patient with airborne diseases (such as TB)
 - e. Reuse or extend use N95 mask with face shield (not goggles) for PUI/COVID+ patients

2. **Eye protection can be reused or extended-used.**
 - a. Reuse or extend use face shield, safety glasses or goggles
 - b. Safety glasses for routine interactions with no procedures in lieu of goggles/face shield only for those on Enhance Respiratory Precautions.
 - c. Safety glasses, reusable faceshields, and goggles can be cleaned when soiled or batched for cleaning at end of shift

Imaging – PPE Stewardship Guidance

- 1) Identify a PPE manager responsible for the stewardship of PPE.**
- 2) Portable imaging (ED, bedside)**
 - a) Designate which piece of equipment (e.g. portable equipment) to be used by small cohort of staff to image patients with respiratory symptoms**
 - b) Don and doff PPE per protocol**
 - i) N95 Use**
 - (1) **Use of expired N95 masks approved** (by the CDC) that can be used past expiration, once unexpired supply is exhausted.
 - (2) Re-use fit test units (use hospital grade disinfectant between use)
 - (a) Must be checked for integrity (wear and tear) and seal-check prior to use
 - (3) Re-use for PUI/COVID+ patients with face shield (not goggles)
 - ii) Eye protection**
 - (1) Reuse face shield
 - (2) Reuse and Extend use goggles (can be cleaned when soiled or batched for cleaning at end of shift)
 - iii) As much as possible**
 - (a) Cohort patients with the same infections/conditions
 - (b) Cohort staff or dedicate staff to care for patient cohort
- 3) Imaging within department (eg radiology suite, MOB)**
 - c) Designate which piece of equipment to be used by small cohort of staff to image patients with respiratory symptoms**
 - d) Don and doff PPE per protocol**
 - i) N95 Use**
 - (1) **Use of expired N95 masks approved** (by the CDC) that can be used past expiration, once unexpired supply is exhausted.
 - (2) Re-use fit test units (use hospital grade disinfectant between use)
 - (a) Must be checked for integrity (wear and tear) and seal-check prior to use
 - (3) Extended use (with face shield) for patient cohort (care for cohorted COVID+ patients for example)
 - (4) Re-use for PUI/COVID+ patients with face shield (not goggles)
 - ii) Eye protection**
 - (1) Reuse or extend use face shield,
 - (2) Reuse or extend use safety glasses (can be cleaned when soiled; or batched for cleaning at end of shift)
 - (3) Reuse and extend use goggles (can be cleaned when soiled; or batched for cleaning at end of shift)
 - iii) PAPR/CAPR use**
 - (1) Reserve the use of CAPR/PAPR for high risk procedures on known patients with airborne diseases (e.g., TB) or COVID+
 - (2) Assign dedicated staff to clean CAPRs and PAPRs
 - (3) Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth
 - (4) Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth
 - i) As much as possible**
 - (1) Cohort patients with the same infections/conditions
 - (2) Cohort staff or dedicate staff to care for patient cohort

Institute all hospital-wide strategies for: N-95, PAPR, CAPR reuse; Swab SWAT Team

Considerations for OB Triage

1. Route patients calling for L&D advice related to respiratory illness by phone that require examination to the ED as their point of entry
2. Limit providers who need to evaluate the patient to CNM or OB MD (no medical students, no residents) to prevent need for supervised examination or re-examination
3. Room patients with respiratory illness and obstetrical concern directly to a labor room to reduce OB triage usage

Considerations for L&D

1. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination
2. Avoid add-on supplies in the OR and L&D delivery rooms
3. Save all PPE related sterile surgical supplies that would be discarded from the OR C-section Packs or Vaginal Packs and consider use in OB Triage or L&D Labor rooms (e.g.: unused gowns, drapes, etc.)
4. Use all items in surgical packs and kits prior to adding items on
5. Use goggles or face shield for splash/blood pathogen PPE in the delivery room
6. Reuse face shield or goggles. Goggles can be cleaned when soiled or batched for cleaning at end of shift.
7. Use regular masks for vaginal deliveries and maintain surgical masks for OR deliveries
8. Apply surgical mask for OR delivery briefing and do not remove until end of case to prevent need to remask
9. Do NOT change OR personnel during surgical case unless an emergency to prevent additional PPE needs during the case; Surgical masks not required in semi-restricted areas
10. Allow for cloth or tie-back bonnets without additional bouffant bonnet overlay
11. Limit N95/CAPR/PAPR use while intubating to the person performing the intubation and the assistant, all non-essential staff to maintain distance and use other masks

Consideration in Maternity/Post-partum

1. Use of hospital-issued scrubs
2. Disposable OR jackets worn backwards to prevent additional gown usage, can be used for non-surgical splash/blood pathogen PPE
3. Increase use of linen instead of disposables
4. Defer Lactation Consult and leverage skill and competency of the Post-partum RN to support BF. Consider use of OP LC video visit with IP Mother and/or Schedule OP LC appointment once mother is confirmed COVID negative
5. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination; consider CNM to manage postpartum couplet as a pair to limit need for OB and Pediatrician to round
6. Provide cloth gowns to well caretaker and encourage reuse of masks by well caretaker in the room

Institute all hospital-wide strategies for: N-95, PAPR, CAPR reuse; Swab SWAT Team

In L&D and OR Delivery Attendance:

1. Provide non-precious PPE (higher supply) for receiving baby (e.g.: OR jackets, reusable linens, splash guards instead of masks, lower level masks, etc.)
2. Limit number of people who come for infant resuscitation based on clinical needs (e.g.: RT doesn't gown or mask up unless needed)
3. Recommend hospital-issued scrubs so less protection of "home scrubs" is needed

In NICU:

1. Visitor policy enforcement. Visitors receive one mask that they are responsible for and reuse
2. Use more well-supplied PPE items in compliance with sterility needs (e.g.: don't use a surgical mask if not over a sterile field)
3. Cohort babies with PPE needs to allow for extended use
4. Optimize unit layout (supply rooms, med rooms) to reduce need for changing gloves frequently
5. Use gloves and masks provided in kits rather than adding on additional PPE
6. Reuse or extend-use mask, N95, face shield and goggles
7. Save unused PPE from kits and trays for later use. Save prior to exposure to prevent contamination if possible
8. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination
9. Limit N95/CAPR/PAPR use while intubating to the person performing the intubation and the assistant, all non-essential staff to maintain distance and use other masks
10. FOR SINGLE ROOM NICUs: Promote Family Centered Care Rounds from the doorway/hallway or ask family members to step into the hallway to "round" with the team rather than having the team enter the room. Consider virtual rounding options

Relevant to Primary & Specialty Clinic Care Areas:

1. N95 Use

- i. Extended use for patient cohort (care for cohorted COVID+ patients for example)
- ii. **Use of expired N95 masks approved** (by the CDC) that can be used past expiration, once unexpired supply is exhausted
- iii. Re-use fit test units by the person who was tested - Must be checked for integrity (wear and tear) and seal-check prior to use
- iv. Re-use for airborne diseases with no contact precautions such as TB, measles
- v. Re-use for PUI/COVID patients when used with face shield (not with goggles)

2. Surgical masks (with two ties)

- i. Restricted to Cath Lab, IR, procedural areas/clinic space that perform sterile procedures only
- ii. **ONLY** use inside the operating rooms and procedure rooms with sterile procedure or opened sterile items

3. Eye protection

- i. Reuse and Extend use goggles (can be cleaned when soiled or batched for cleaning at end of shift)
- ii. Reuse or extend use face shield

4. Identify a PPE Manager responsible for the stewardship of PPE.

Consider if there are additional strategies that you might employ for your service area that are different than the PPE Stewardship Efforts Underway (identified above)

- i. Cohort patients with the same infections/conditions
- ii. Cohort staff or dedicate staff to care for patient cohort
- iii. Designate specific areas or teams for testing patients that require PPE
- iv. Designate specific areas for screening patients that require PPE

5. Isolation masks

- i. Worn by greeters and runners (if needed)
- ii. Symptomatic patients
- iii. Change when soiled

Relevant to Outpatient Procedural Areas:

In additional to the above strategies:

1. PAPR/CAPR use

- iv. Prioritize the use of CAPR/PAPR for high risk procedures on known patients with airborne diseases (e.g., TB) or COVID+ and PUIs
- v. Assign dedicated staff to clean CAPRs and PAPRs
- vi. Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth
- vii. Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth

Institute all hospital-wide strategies for: N-95, PAPR, CAPR reuse; Swab SWAT Team

In Peds:

1. Visitor policy enforcement. Visitors receive one mask that they are responsible for and reuse
2. Use more well-supplied PPE items in compliance with sterility needs (e.g.: don't use a surgical mask if not over a sterile field)
3. Cohort patients with similar PPE needs to allow for extended use
4. Use gloves and masks provided in kits rather than adding on additional PPE
5. Save unused PPE from kits and trays for later use. Save prior to exposure to prevent contamination if possible
6. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination
7. Promote Family Centered Care Rounds from the doorway/hallway or ask family members to step into the hallway to "round" with the team rather than having the team enter the room. Consider virtual rounding options
8. Offer decontamination protocol to patients in contact precautions (e.g.: MRSA)

In PICU:

1. Visitor policy enforcement. Visitors receive one mask that they are responsible for and reuse
2. Use more well-supplied PPE items in compliance with sterility needs (e.g.: don't use a surgical mask if not over a sterile field)
3. Cohort patients with similar PPE needs to allow for extended use
4. Use gloves and masks provided in kits rather than adding on additional PPE
5. Reuse or extend use mask, face shield or goggles (goggles can be cleaned when soiled or batched for cleaning at end of shift)
6. Reuse or extend-use N95 mask; Reuse or extend-use N95 masks for PUI/COVID+ patients with face shield (not goggles)
7. Save unused PPE from kits and trays for later use. Save prior to exposure to prevent contamination if possible
8. Limit number of providers rounding (no medical students, no residents) to prevent need for supervised examination or re-examination
9. Limit N95/CAPR/PAPR use while intubating to the person performing the intubation and the assistant, all non-essential staff to maintain distance and use other masks
10. Promote Family Centered Care Rounds from the doorway/hallway or ask family members to step into the hallway to "round" with the team rather than having the team enter the room. Consider virtual rounding options

Note: PPE guidelines may evolve with the situation at that time. If more updated recommendations are issued by the RCC after release of this document, they will supersede information presented here

1. N95 Use

- i. **Use of expired N95 masks approved** (by the CDC) that can be used past expiration, once unexpired supply is exhausted
- ii. Staff can re-use N95 used for fit-testing
 - Must be checked for integrity (wear and tear) and seal-check prior to use
- iii. Extended use for patient cohort (care for cohorted COVID+ patients for example)
- iv. Re-use for PUI/COVID patients when used with a face shield (not with goggles)

2. Surgical masks (with two ties)

- i. Restrict to OR (Main, Ambulatory, L/D, IR, Cath Lab, sterile procedures in Procedure Rooms or line placement) use only
- ii. **ONLY** use inside the operating rooms and procedure rooms with ongoing surgery, sterile procedure or opened sterile items

3. PAPR/CAPR use

- i. Prioritize the use of CAPR/PAPR for high risk procedures (examples: intubation, extubation, HNS surgery, Thoracic surgery) on known patients with airborne diseases (e.g., TB) or COVID+ and PUIS
- ii. If CAPR is used, anesthesia may wear it for the entirety of the case
- iii. Assign dedicated staff to clean CAPRs and PAPRs
- iv. Clean hood of PAPR after each use with disinfectant wipes followed with a dampened cloth
- v. Clean lens of CAPR after each use with disinfectant wipes followed with a dampened cloth

4. Eye protection

- i. Staff
 - a. Dedicate goggles or face shield to each employee for reuse or extended - use
 - b. Inspect goggles for the following and discard if compromised, i.e., cracks, obscured visibility, cushion shedding before using
 - c. Goggles can be cleaned when soiled or batched for cleaning at end of shift
 - d. Utilize a rapid soil indicator test (e.g., ATP) to ensure items are appropriately disinfected (random testing), at a minimum once p/week
- ii. Managers
 - a. Sequester the inventory and hand out on an as needed basis

5. Identify a PPE Manager responsible for the stewardship of PPE.