

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

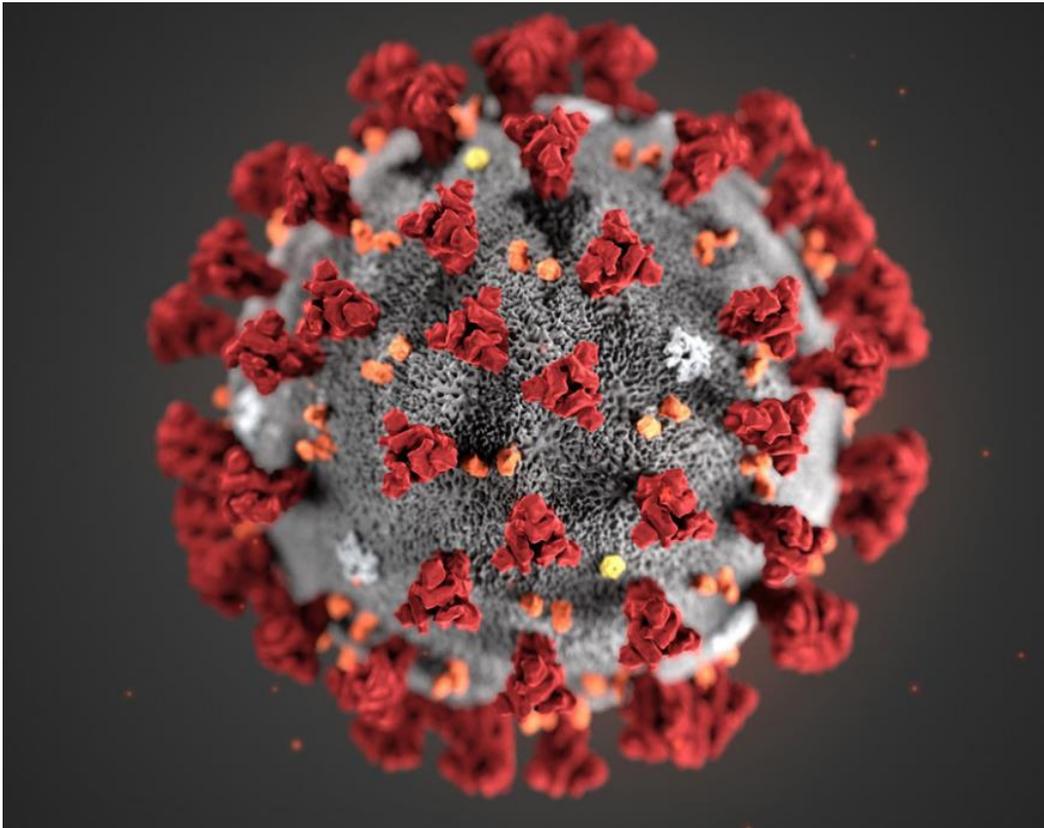


Table of Contents

Executive Summary	6
Virology	6
Strategies for Viral Control.....	7
COVID-19 Epidemiology in California and the West Coast	7
Conclusions from the Virology and Epidemiology	8
Mitigation Strategy Outlined	8
Introduction and Purpose	11
COVID-19 Virology	12
General Strategies for Viral Control	12
Containment	12
Mitigation.....	12
Infection Control	13
Infection Control Planning Assumptions: Based on current data COVID-19 virology	13
Source Control and Screening Areas.....	13
PPE Stewardship and Isolation General Considerations	13
PPE & Stewardship Guidelines Grid	15
Cohorting of COVID-19 Patients.....	16
Cohorting of COVID-19 Patients and Reusable Equipment	16
Environmental Cleaning.....	16
Communications	18
Patient Education and Outreach.....	18
Physician and Staff Education	18
Human Resources	19
Healthcare Worker Exposure	19
Non-Workplace Exposure	19
COVID-19 Visitor Restrictions	20
Call Center/Online Strategies	21
Online Messaging and Appointment Booking	21
Appointment and Advice Call Center Messaging.....	21
Appointment and Advice Call Center Staffing	21
Outpatient Clinics	22
Virtual Appointment Supply Management.....	22

Conversion of Existing Appointments to Telephone Appointment Visit (TAV) or Video Appointment Visit (VAV)	22
COVID-19 Clinic Workflows	23
Behavioral Health	24
Outpatient Mental Health, Behavioral Medicine Services, and Addiction Medicine Rehab Services	24
Behavioral Health: ED and Hospital	25
Arriving Ambulances (EMS and Non-EMS)	26
Hospital Facilities	27
Emergency Department	27
Adult Inpatient	29
Direct ED Admit Workflow	31
Inpatient Admission from Medical Office Building (MOB) Workflow	32
Inpatient Admission via Ambulance Transfer	33
Inpatient Workflow: What to do when the patient gets to the unit	34
Intensive Care Unit	37
Adult Code Blue	37
Pediatric Code Blue	38
Neonatal Code Blue	40
Respiratory Therapy Workflows Specific to COVID-19	42
Imaging Services	43
CT Workflows Specific to COVID-19	43
Portable X-Ray Mitigation Workflow	44
Perioperative Planning Guidelines	46
Guiding Principles	46
Perioperative Surgery Guidance	46
Surgical Postponement Workflow	47
Surgical Approval Workflow	47
Maternal Child Health	49
Labor & Delivery (L&D)	49
L&D OB Telephone Advice Screening	49
Arrival to L&D	49
Arrival to ED	49
Labor and Delivery	50
Transport of PUI to OR	50
After Delivery	50

Resuscitation at Birth of Baby Born to Mom who is COVID-19 Exposed or Positive	51
Breastfeeding Recommendations.....	52
Nursery.....	52
Visitation Restrictions	52
Interfacility Transport to a Healthcare Facility by Neonatal or Pediatric Critical Care Transport Team	54
Transport Initiation: Referring facility discussion with medical control physician	55
Transport Team: Arrival at referring facility	55
Entering Ambulance.....	55
Aerosol Generating Procedures	56
Ambulance Notification and Preparation for Arrival	56
Ambulance Arrival.....	56
Ambulance Patient Rooming	57
Guidance for Accompanying Family Members or Caregivers:.....	57
Cleaning EMS Transport Vehicles after transporting a PUI or patient with Confirmed COVID-19.....	57
Pediatrics	58
Inpatient Planning.....	58
Inpatient Workflow	58
Pharmacy	59
Delivery System.....	59
Staffing to Maintain Critical Services	59
Communications	60
Laboratory/Testing.....	61
Community Evaluation.....	61
Hospital Evaluation	61
Care Continuum.....	62
Nursing Facilities.....	62
Home Health, Hospice and Other Home Care Programs.....	64
Appendices	65
Ambulatory – COVID-19 Mitigation Workflow Diagram.....	65
Ambulatory Script for Converting Existing Appointments to Virtual Visit.....	67
Emergency Management System – COVID-19 Workflow Diagram	68
Emergency Department – COVID-19 Mitigation Workflow Diagram	69
Inpatient – Admission from Emergency Department (ED) Workflow Diagram.....	70
Inpatient – Admission from Medical Office Building (MOB) Workflow Diagram	71

Inpatient – Admission via Ambulance Transfer Workflow Diagram..... 72
Labor and Delivery – COVID-19 Mitigation Workflow 73
Labor and Delivery – MCH Screening for Patient for COVID-19 74
Respiratory Therapy – COVID-19 Mitigation Workflow Diagram 75
PPE Stewardship Support Document..... 76
PPE Stewardship Guidelines..... 80

Executive Summary

Coronavirus Disease 2019 (COVID-19) community transmission is occurring in California outside of the current containment zones that exist at Travis Air Force Base (AFB) and several Northern California community hospitals. 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.

It is critically important that California moves from a containment strategy 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 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 documented to transmit the virus.** 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.**

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: These facts, which were accurate as of 3/6/20, are now out of date as there has been significantly more community spread, another Princess Cruise ship with numerous COVID-19 positive individuals docked and evacuated in Oakland, California, and an increased prevalence of COVID-19 positive patients and PUIs arriving to our Northern California clinics and hospitals.

- I. **Princess Cruise (Japan) Ship Evacuees**: More than 20 individuals of the cohort evacuated to Travis AFB have required transfer to hospitals because of COVID-19 positive test results. These individuals have had either minimal or no symptoms. Due to containment isolation precautions, they have required a significant amount of personnel and equipment resources, and most community hospitals can only take 1-2 patients given the resource intensive nature of care. No healthcare worker exposures have resulted from this cohort, and no documented secondary transmission has occurred. However, all of these individuals met the current definitions of a Person Under Investigation (PUI).
- II. **Community Transmission**: There are two known COVID-19 cases in California with no known travel or other risk factors for COVID-19 acquisition. Solano and Santa Clara Counties each have one case, and both individuals have been hospitalized. Due to not meeting the standard definition of a PUI, multiple healthcare workers were exposed resulting in furloughing of large numbers of hospital staff. Hospital operations were significantly affected in the emergency departments, intensive care units, and other allied personnel functions.

These two individual cases are representative of community transmission. Both were exposed some 2-14 days prior to developing infection. Both likely exposed multiple individuals and transmitted the infection more than 1-2 weeks ago. Therefore, secondary and further generational spread has likely occurred in multiple locales in California. Due to the containment definition of a PUI, which has limited the scope of testing, and the lack of available testing, it is likely these cases represent the most ill members of a much larger community cohort that is largely asymptomatic/mildly symptomatic and actively transmitting the infection in the locales.

The Oregon and Washington experiences would indicate that community transmission is occurring widely on the West Coast of the continental United States.

Conclusions from the Virology and Epidemiology

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.
- The current furloughing of healthcare workers will not stop the spread of the virus or secondary transmission because of the above. In fact, healthcare workers are likely to be exposed in the very community to which they are furloughed given the evidence of community transmission in California.
- The current containment focused PUI definition is being rendered irrelevant because any individual might be at risk for the infection given the evidence of community transmission.

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 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 based on 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 used for influenza. If there is resolution of symptoms (fever, reduction in cough, *etc.*) an individual could return to work or school. Outpatients would not require additional testing via Oropharyngeal/Nasopharyngeal swabs (OP/NP). Isolation would continue in the hospital setting until discharge or, if they were to stay in the hospital for a longer period of time, until OP/NP swabs return negative per current CDC guidelines.
- 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 at the public health and community hospital level will be important to preserve hospital flow for either continuation or discontinuation of isolation. Once community spread is determined to be present, it is recommended that outpatient testing could be discontinued since the actions that need to be taken (*i.e.*, home isolation, supportive self-care) are clear, and there is no additional specific treatment for COVID-19 that would be altered by testing (unlike influenza where there are specific therapies available).
 - 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: Ideally COVID-19 testing would be available in the local public health department labs and eventually in hospital labs to facilitate efficient hospital workflows.

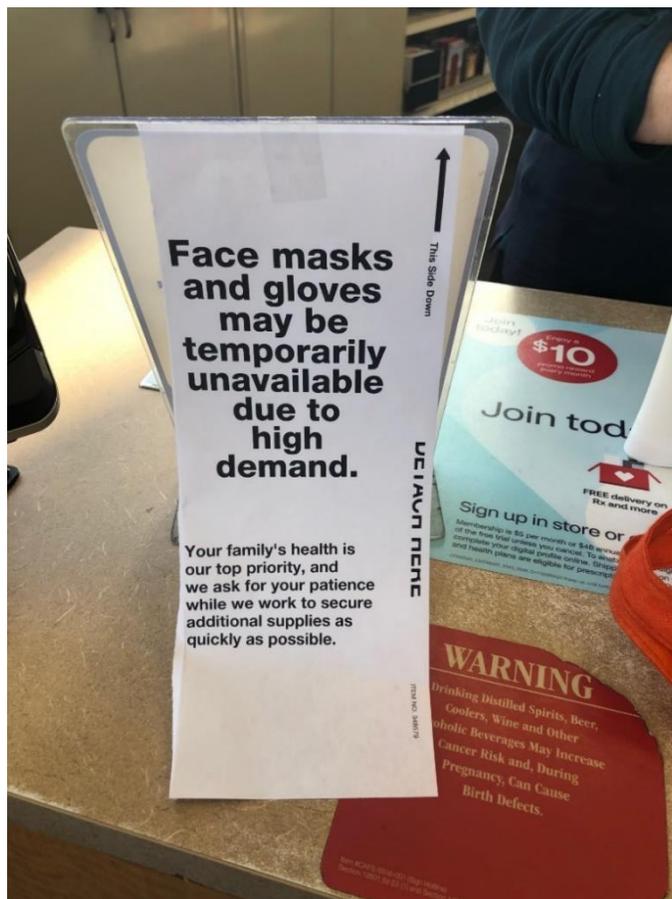
- IV. Healthcare Workers (HCWs): Given the presence of community transmission, HCWs are just as, if not more likely, to be exposed in the community as they are in the hospital. Furloughing of individuals who have had a breach in Personal Protective Equipment (PPE) or were not using PPE for an individual being ruled out for or confirmed with COVID-19 needs to be reconsidered.
- a. Workplace Exposure to Suspect or Confirmed COVID-19 Patient: As per guidelines for exposure to influenza or other contagious diseases, the employee will perform delegated self-monitoring for fever, cough, and other symptoms. If they become ill, they should remain off work until their fever resolves and their cough and other symptoms are improving.
 - b. Testing for COVID-19. Specific testing for COVID-19 would be done based on clinical severity as outlined above.
 - c. Symptomatic HCWs. Individuals with COVID-19 like symptoms, without known occupational exposure, would be off work as per existing guidelines. If clinically appropriate based on disease severity, undergo testing for COVID-19. If positive, the HCW remains off work until their fever has resolved and cough is improving.
- V. Emergency Medical Service (EMS)/Transport: EMS and medical transport of suspected and confirmed cases of COVID-19 would use droplet precautions.

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

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 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 documented to transmit the virus.** 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. However, the **CDC has determined that viral shedding may occur for 15-30 days after onset of infection.**

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 endorse cough or shortness of breath 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.

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. .
- c. 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.

PPE & Stewardship Guidelines Grid

PPE & STEWARDSHIP GUIDELINES

ENHANCED RESPIRATORY PRECAUTIONS (ERP)

	CONTACT PRECAUTIONS		DROPLET PRECAUTIONS			+ EYE PROTECTION		
USE FOR:	<ul style="list-style-type: none"> 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		Reuse: Doff and store in-between patients <i>Do not Clean</i> Extend: Use continuously with multiple patients without doffing Discard After Doffing			Clean Before Reuse		Reuse: Doff and store in-between patients <i>Do not Clean</i> Extend: Use continuously with multiple patients without doffing Discard After Doffing
PROCEDURES WITH RISK FOR SPLASH	Gloves	Gown	Isolation Mask	N95	CAPR/PAPR	Safety Glasses	Goggles	Face Shield
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.



KAISER PERMANENTE

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 <i>Do not Clean</i> Extend: Use continuously with multiple patients without doffing Discard After Doffing				Clean Before Reuse	Reuse: Doff and store in-between patients <i>Do not Clean</i> 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.

KAISER PERMANENTE.

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.

- Rooms of discharged patients suspected or confirmed to have COVID-19 **need not be closed** for 1 hour prior to cleaning (other than as specified below). EVS must wear gown, glove, isolation mask, and eye protection.
- **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
- 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.

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 tract infection
- If the employee does not have symptoms of fever or respiratory tract infection, the employee may continue to work
- If the employee experiences any symptoms of fever or respiratory tract infection, they will be tested and remain off work according to the current guidance for COVID –19 in the usual manner we treat any viral illness.
- 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.

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
 - 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 online 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 from kp.org has been turned off
 - If member desires an in-person office visit, they are redirected to the Appointment and Advice Call Center

Appointment and Advice Call Center Messaging

- Taped information 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

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

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 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 MOB Welcome Workflow
- b. Limit points of entry to the Medical Office Buildings with pre-designated stations staffed by Ambassadors
- c. Ensure appropriate supplies for infection control are available at entrances (e.g. masks, hand sanitizer)
- d. Upon arrival, Ambassador will screen patients on arrival 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
 - 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
 - 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.

Behavioral Health

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

- I. Appointment Supply Management
 - a. Review schedules daily/weekly to convert routine non-urgent 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. Consider also converting new intakes to telehealth as is clinically appropriate.
 - g. Review schedules daily to identify cancelled appointments; convert to telehealth appointment types.
 - h. 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 MOB Welcome workflow referenced above.
 - b. If patient exhibits symptoms, designated physician decides patient next steps.
 - c. If it is essential to see the patient in person, one designated provider in appropriate PPE will do so in a designated exam room or area.
- 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. For what does not fit with the above, or if member does not want to convert to telehealth appointment, honor DOV appointment for in office assessment and proceed as usual
 - c. If the above cannot work, then would postpone testing appointment. Meanwhile work with Schedule Creation and Maintenance (SCM) to convert testing time to non-urgent telehealth appointments.
- IV. Groups and Classes
 - a. Cancel all non-essential groups and classes. Use regional script.
 - b. Review currently enrolled IOP patients. Consider moving less acute patients to daily video or telehealth appointment. For remaining patients, utilize space and clinical time freed up by group and class cancellation to ensure patients seen in IOP groups are spaced at least 3 feet apart.
 - c. Group and class leaders will need to staff message the individual providers for patients whose groups/classes will be cancelled asking them to follow-up with their patient directly regarding next steps. For low acuity classes that are cancelled, 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.
 - d. Individual therapists need to develop risk stratified treatment plans for patients. Consider offering digital therapeutics.
 - e. Managers need to ensure group and class leaders convert cancelled group/class time to bookable time or other operational need as is appropriate.
 - f. 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.
- 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 at 925-372-1103.
- 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.

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 designated COVID-19 or PUI evaluation and assessment area within the 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 of 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 ED 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.
- 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
 - All sites should use discretion on how best to minimize use of PPE
 - ii. Supplies
 - At the entrance, there will be hand sanitizers and isolation 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 (cohorted) 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)3-foot minimum distance from other patients
 - Use reasonable and appropriate privacy considerations
 - PPE must be changed between patients only for staff members who are unable to maintain a minimum distance of 3-feet from the patient
 - 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
 - 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
- e. 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). An isolation 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

- 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, 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. Contact the Regional Command Center with staffing needs that arise
 - e. **Patient Assignments:**
 - Positive, PUI, and ERP maximum of 1:4 (flex for acuity)
 - PPE may be reused (per guidelines)
 - Positive and PUIs may be in the same patient assignment, subject to all hygiene precautions moving between such patients
 - f. **Prioritize Care:** Please make necessary assignment changes to ensure that PPE observers are in direct patient care assignments
 - g. 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
 - h. 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
 - i. 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 (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 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
 - Must be part of the approved manufacturers' list
 - Must be checked for integrity and seal prior to wearing
- 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 for all the patients as long as the patient's care requires the same PPE; 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)

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). A maximum of one visitor is permitted per patient. Certain locales may have stricter local orders, such as San Francisco, where no visitors, except “Necessary Visitation”, are permitted.
- 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). 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 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 the patient gets 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 Droplet and Contact Precautions signs on the door outside the patient's room

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 CDC 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 with minimal distractions
- 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

- Minimize opportunities for contamination both internally and externally through transfers
- 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 masked patient before leaving the room and before doffing the PPE
- If a cleaning distance of > 3 feet from the patient cannot be maintained in the patient room, the equipment should be wiped down and moved to a nearby empty room and then fully cleaned. That second room would then require terminal cleaning for COVID-19
- 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 or surgical mask

- 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
- Put on clean gloves
- Remove eye protection and reuse as appropriate
- Remove gloves and perform hand hygiene
- Put on clean gloves and exit the room
- Remove gloves and 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
- Put on clean gloves and exit the room
- Remove gloves, 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 and confirmed needs to be placed in a red biohazard bag
- PUI/SUSPECT COVID-19 patient waste should be placed in a biohazardous (red bag) waste or pharm/sharps container for disposal as medical waste. Currently there are no additional medical waste vendor requirements for PUI/SUSPECT COVID-19 patient waste; manage in accordance with the site's current medical waste workflow
- CONFIRMED COVID-19 patient medical waste [biohazardous (red bag), pharm/sharps waste] is required to be managed separately from all other site generated medical waste when removed from the treatment room. Site-specific workflows are required for transporting, packing, and storing for off-site treatment, and on-site treatment in steam sterilizer
- Off-site shipment of confirmed COVID-19 patient medical waste (red bag and pharm/sharps containers) for treatment and disposal must be packaged and marked "C" with a circle in accordance with the requirements of the site's medical waste vendor
- On-site treatment of confirmed COVID-19 patient medical waste (red bag only) being treated via steam sterilization will be done in accordance with site's written procedure for transporting and loading COVID-19 waste in the sterilizer

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
- EVS worker should wear mask, gown, gloves, and eye protection

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

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
 - d. During intubation, all persons present in the room should wear a PAPR or CAPR
 - 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. Await infection preventionist direction in removal of cart, contents and other equipment brought into the room
 - 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

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

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 bleach solution/ wipe
- c. Will await infection preventionist direction in removal of cart, contents and other equipment brought into the room
- d. If Interosseous needed: wipe drill with bleach solution/ wipe and leave on crash cart until further direction given
- e. All airway equipment including Glidescope or CMAC: wipe down with bleach 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 caution when performing aerosol generating procedures (e.g. sputum production, open suctioning of airways should be avoided if possible.) 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 bleach 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 bleach 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 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. 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
- 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 and 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
- 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, 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

- 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

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. If patient is masked during transportation, 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 for use of N95 or PAPR/CAPR

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 or 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.)
 - Clean equipment within the room maintaining > 3 feet distance from masked patient before leaving the room and before doffing the PPE
 - If a cleaning distance of > 3 feet from the patient cannot be maintained in the patient room, the equipment should be wiped down and moved to a nearby empty room and then fully cleaned. That second room would then require cleaning.
 - If patient is in droplet isolation and contact precautions, follow cleaning for droplet precautions.
 - If patient was in airborne isolation and contact precautions, follow cleaning procedures for airborne precautions.
- 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 All Standard and Droplet 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 >3 feet distance from masked patient **before** leaving the room and **before** doffing the PPE
- If a cleaning distance of >3 feet from the patient cannot be maintained in the patient room, the equipment should be wiped down and moved to a nearby empty room and then fully cleaned
 - a. The nearby secondary room will then require cleaning for COVID 19
 - If patient is in droplet isolation and contact precautions, follow cleaning for droplet precautions.
 - If patient was in airborne isolation and contact precautions, follow cleaning procedures for airborne precautions.
- 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. (Use dot phrases in the attached word doc for chart documentation)
 - 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. Document postponement appropriately in the telephone encounter
3. 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.
4. Be sure to have a mechanism in place to track all postponements

Surgical Approval Workflow

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

Each facility will have TWO - THREE persons in their local command center designated as surgical service experts. One of these surgical service experts will be available to respond to all calls within 15 minutes, and on site during peak working hours.

The checklist for **Resources Needed for Surgery** must be reviewed by the operating surgeon together with the local command center expert to confirm adequate supply of the resources prior to proceeding with the case. There is a checklist for all procedures listed by surgical specialties.

If further evaluation is needed in order to determine if the patient needs surgery: If the operative surgeon feels further evaluation is indicated, the local command center surgical service expert will assist in reviewing and finding resources as needed.

If further evaluation is needed in order to determine if a SPECIALTY SERVICES PATIENT needs surgery:

(Specialty Services are those which are not offered by the local hospital; examples are Cardiac Surgery, Neurosurgery, Spine, Thoracic, Hepatobiliary, etc.)

If the Specialty Services operating surgeon feels additional evaluation is indicated in order to make a plan for surgery, that surgeon or a local designate will contact his/her local command center surgical service expert to review and find resources as needed.

Patient needs surgery: When it is determined that a patient needs surgery, the operating surgeon and command center surgical service expert will review **Resources Needed for Surgery Checklist** with the OR manager on duty to be certain that everything needed for the operation is available at the local facility before proceeding to the Operating room. If resources are not available, the Local Command and Regional Command Center will huddle to determine best plan for the patient including transfer to another KP facility or community partner facility.

SPECIALTY Services patient needs surgery:

(Examples of SPECIALTY services which may not be offered at the local hospital are CV Surgery, Neurosurgery, Spine, Thoracic and Hepatobiliary.)

When it is determined that a patient needs surgery, the relevant local surgeon and/or SPECIALTY Services surgeon will have a TEAMS conference with the SPECIALTY Services hospital local command center surgical service expert. Together they will review **Resources Needed for Surgery Checklist** so the operating SPECIALTY surgeon is certain that everything needed IS AVAILABLE at the relevant hospital prior to patient transfer or proceeding with surgery.

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, and 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, and 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.

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)
- Products of conception and pathology specimens will be handled using standard procedures

Transport of PUI to OR

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

CODE C Workflow: Team 1-2-1

- **Team 1:** Primary RN or team member at bedside calls Code C (in PPE as already caring for patient). Patient should be wearing a mask before exiting the room
- **Team 2:** OB “clean team” dons appropriate PPE to “pick up” the patient from the “Dirty Team” at the sub-sterile area, patient placed on clean gurney, clear hallway and place mask patient before transfer, get 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
- Team in the OR: Circulator, Second RN, OB, Assistant, Anesthesia Provider, ALS, Neonatologist, Scrub Tech
- NICU STAFF: Put gown, CAPR and gloves on outside the room. Put sterile gown on in the OR
- **Team 1:** Doffs, cleans, and re-dons PPE and meets Team 2 in the OR and begin Code C. Surgical gowns may be donned over PPE gowns

Push gurney outside room and call EVS to clean the gurney immediately and to add clean sheets

Reminder: Commitment by all to not opening and closing the OR door for containment.

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 a distance of 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.

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

- 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
 - N-95 mask
 - Eye protection
- The neonatologist or neonatal MD will additionally don with Controlled Air Purifying Respirator (CAPR) or Powered Air Purifying Respirator (PAPR) if there is high risk of the baby needing intubation.
- 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 PPE prior to exiting the DR/OR and don clean PPE for transport to NICU
 - 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. Local teams will determine if security needs to be involved with the transport but ideally, hallways clear of people would be preferable.
 - Consult with the receiving NICU chief 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
- Well baby admission
 - If the baby is being admitted to well-baby, the team will doff PPE prior to exiting the DR/OR and don clean PPE prior to transport of baby
 - Baby will be transported in a closed incubator
 - The team receiving the baby will don PPE prior to arrival and interaction with the baby
 - Baby may be placed in an open crib if in an isolation room
 - See “Labor and Delivery Peripartum COVID 19 workflow” for post-delivery management and breastfeeding recommendations for caring for the newborn infant

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.

A 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
- 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.

Visitation Restrictions

Visitors should be limited to persons who are necessary for the patient’s emotional well-being and care. In the NICU visitors are restricted to the two parents or banded caregivers per patient. Visitors who have been in contact with an infected patient before and during her hospitalization are a possible source of COVID-19 even if asymptomatic. All visitors will be screened for respiratory complaints (cough, shortness of breath, and increased work of breathing) before being allowed to enter the hospital or unit, and only asymptomatic persons should be allowed to visit. Masks and other PPE will be provided for family members of PUI and COVID+ patients. Provide instruction, before visitors enter patients’

rooms, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy while in the patient's room.

Visitors should be instructed to limit their movement within the facility.

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

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 to a healthcare facility for further evaluation and management by ambulance, the following actions should occur during transport:

General Strategies

- Ambulance personnel are expected to follow PPE guidelines consistent with CDC/CDPH/EMS protocols
- 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 for transport to the facility bed.
- 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 ambulance personnel to doff their personal protective equipment and clean their ambulance after arrival with a COVID-19 PUI. 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).
- KP will provide appropriate biowaste containers in the ambulance bay to permit ambulance providers to dispose contaminated waste.

Transport Initiation: Referring facility discussion with medical control physician

- The sending Emergency Department or Hospital Unit 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.**
- The local command center should be aware of incoming transport.
- Transport personnel should gather appropriate PPE prior to leaving on transport.
- **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:
 - N95 respirators
 - Disposable gowns-recommended
 - Gloves
 - Eye Protection
 - CAPR/PAPR's -will be available in the unlikely event of procedures that may lead to aerosolization of COVID-19 (intubation, nebulizer treatments, bag-valve mask, etc.).
 - 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.
- 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.
- Security will arrive to escort team to ambulance.
- While outside of the room, the team will perform hand hygiene, re-don clean PPE appropriate to level of interventions required. This will include gloves and a respirator at minimum. A minimum of 2 team members will push the gurney/incubator and they will then move with the patient and gurney out of the facility to the ambulance.
- Drivers, if they provide 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.

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 possible.
- If riding in the transport vehicle, 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, nebulizer treatment, Continuous Positive Airway Pressure (CPAP), Bilevel Positive Airway Pressure (BiPAP), or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary.
 - In these scenarios, a PAPR or CAPR is preferred if possible. (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 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.
- KP Environmental Services (EVS) will provide a Category A waste receptacle for the PPE in the outside designated doffing area for ambulance personnel.

Ambulance Arrival

- Ambulance personnel should not enter the medical facility wearing PPE.
- Ambulance personnel will be met in the ambulance bay by hospital personnel.
- When the arriving patient is unloaded from the ambulance, Transport personnel will doff in the ambulance bay per CDC and agency protocols and deposit PPE into KP-provided Category A waste receptacle.
- Transport Crew will re-don PPE in ambulance bay and move to the hospital unit and room with security escort.
- 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](#).

Guidance for Accompanying Family Members or Caregivers:

- 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 EMS Transport 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 sufficient air changes to remove potentially infectious particles.
- The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
- When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves, eye protection, and N-95 mask.
- 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

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.

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
 - b. Same Day Delivery to Home
 - For urgent supplies and medications (reserved for significant infectious respiratory illness—specific criteria being drafted)
 - c. Tents/Curbside
 - To support this workflow for mildly ill or proxy (criteria being drafted)
- II. Guiding Principles: getting medication to patients minimizing face-to-face interactions
 - a. Developing aligning workflows to support of virtual visits
 - b. Determine what medications are needed same day
 - c. Leverage Central Pharmacy Procurement
 - d. Alternate delivery models
 - e. Understand what interactions what must be in person – oncology, Home Infusion, KPNSP, Continuum, End-of-Life
 - f. Relaxing of Refill too soon (only when required)

Staffing to Maintain Critical Services

Considerations:

- School closures/childcare issues
- Anxiety/concern for personal health (call-offs)
- Illness (call-offs and quarantine)

Prioritization of services based on staffing levels:

- Inpatient pharmacy services
- Hospital Discharge pharmacies
- Oncology services
- Anticoagulation clinical services
- Home infusion
- NCAL mail order pharmacies and Call Center
- Outpatient pharmacy access through external pharmacy network and strategically opened Kaiser outpatient pharmacies

Define the priority of services NCAL Pharmacy

- Inpatient Plan
- Outpatient Plan
- Call Centers
- Continuum and End-of-Life
- Clinical Calls
- Oncology

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)
- 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
- Encourage refills from mail order rather than physical locations as needed
 - At this time, we are not recommending early refills for our 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 discontinued
 - a. Supportive treatment based on symptomatology will be recommended

Hospital Evaluation

- COVID-19 testing should be available in local public health department labs and medical facility labs for the duration of the COVID-19 outbreak
- Once community prevalence is established, outpatient testing should be discontinued
 - 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

- I. Transfer to Nursing Facility
 - a. COVID-19 positives patient can be sent to a nursing facility as long as the nursing facility can meet CDPH/CDC infection control guidelines as validated by KP continuing care department.
 - b. KP Continuing Care leaders are partnering with SNF facilities and counties to designate SNFs who can meet these guidelines.
 - c. KP Continuing Care leaders are also developing guidelines and training plans for KP physicians and SNF providers to safely care for recovering COVID19 patients.

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

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 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

- III. Patient Care at Nursing Facility
 - a. Screen patients for respiratory complaints (cough, shortness of breath, and increased work of breathing).
 - i. **If patient does not present with respiratory complaints, follow normal care protocols**
 - ii. If patient is **unstable** and presents with respiratory complaints
 1. Provide the patient with droplet and contact precautions
 2. As consistent with patient's goals of care, follow appropriate transfer policy.
 - iii. If patient is **stable** and presents with new respiratory complaints.
 1. Provider to follow recommended PPE guidelines
 2. Provide the patient and any roommates with droplet and contact precautions. If possible, separate beds at least 6-feet apart and close the door.
 3. Contact SNF physician for timely evaluation. SNF physician will assess patient and if no clear alternative diagnoses for symptoms, will consult with ID for COVID-19 evaluation and testing as indicated.
 4. If there are clear alternative diagnoses for symptoms, then follow normal care protocols

- b. 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

IV. Resident / Patient Movement

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

For additional details see appendix.

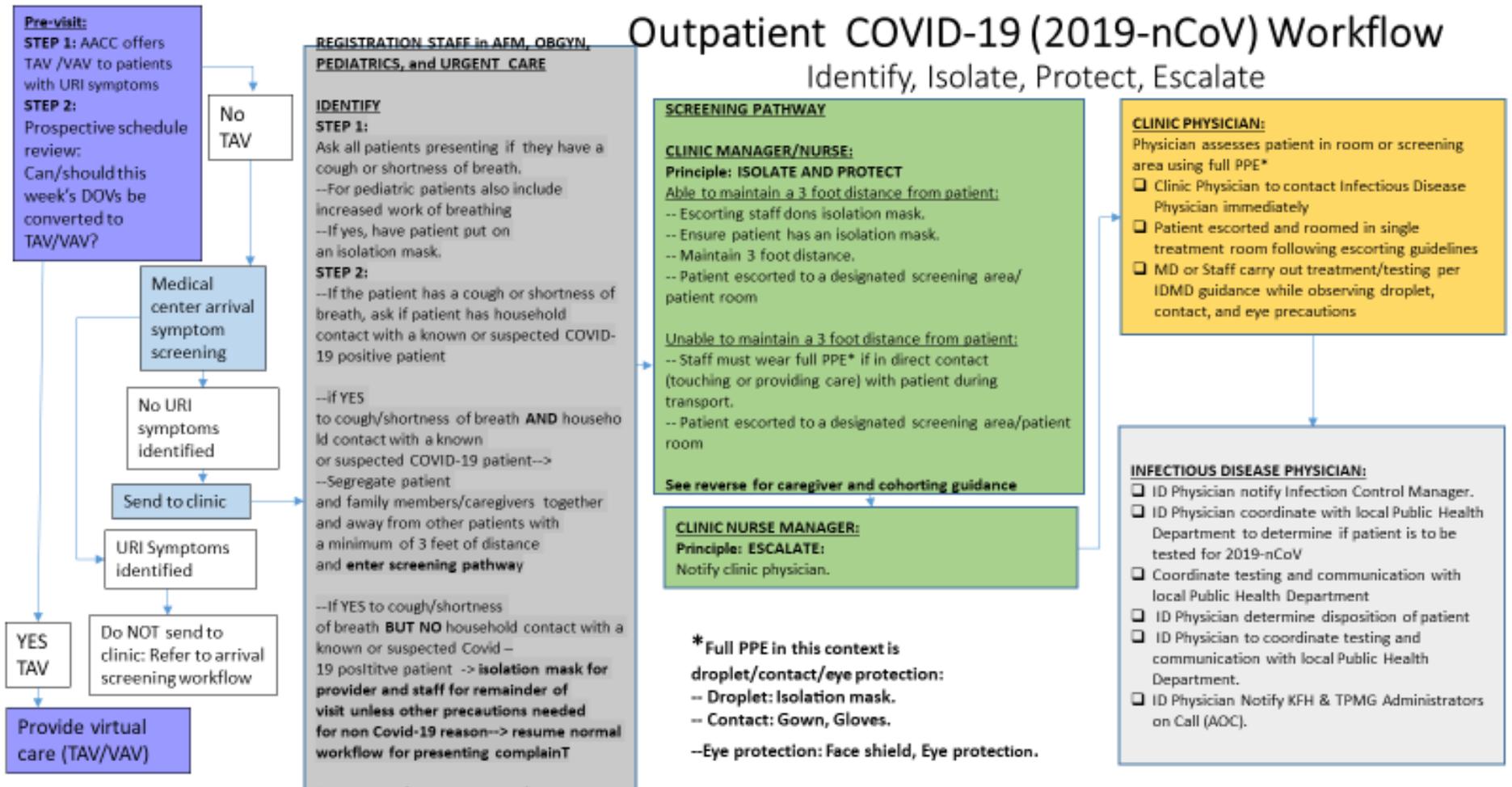
Home Health, Hospice and Other Home Care Programs

- I. Screen patients and anyone in the home (household contacts) for respiratory symptoms (cough) or shortness of breath during the referral screening process and prior to scheduling all visits
 - a. Visits will be scheduled or confirmed based on screening
 - b. If patients or anyone in the home **do not** have respiratory complaints (cough, shortness of breath, and increased work of breathing), proceed with home visits per normal care protocols
 - c. If patients or anyone in the home **does** have respiratory complaints (cough, shortness of breath, and increased work of breathing):
 - Indicate the presence of symptoms in the electronic health record using the appropriate documentation
 - Consult with ID for COVID-19 testing
 - Utilize PPE and Isolation per Infectious Disease guidance.
 - d. If the patient/household contact has an emergent medical need:
 - Instruct the patient/family to call 911
 - Alert the ID Physician of the contact with patient/family and instructions to call 911.
 - e. If the patient/household contact has an urgent medical need (not requiring a 911 call):
 - Consult with ID Physician regarding next steps and inform patient/family of plan
 - If the decision is made for the patient to be seen in a Kaiser Permanente Emergency Department, follow appropriate transfer policy and inform Emergency Department of patients impending arrival as well as discussion with Infectious Disease Physician
 - f. If the patient/household contact is medically stable:
 - Consult with ID Physician regarding next steps and inform patient/family of plan
- II. If clinician is already conducting home visit with a patient and/or anyone in the home (household contact) **who has** respiratory complaints (cough, shortness of breath, and increased work of breathing) not related to their current clinical condition:
 - a. Maintain a minimum of 6 feet from patient and/or household contact
 - b. Continue screening process for suspected COVID-19
 - Assess whether the patient has a fever
 - Assess whether the person been in contact with any known or suspected COVID-19 person
 - c. If upon assessment patient confirms presence of fever and/or contact with any known or suspected COVID-19 person:
 - Ensure the person has gone to another room.
 - Perform hand hygiene.
 - Consult ID Physician.

Appendices

Ambulatory – COVID-19 Mitigation Workflow Diagram

Outpatient 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 when possible.
 - - While in ED, 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.
 - - If more than a single caregiver recommend that, if possible, additional visitors leave the medical facility after screening. Strongly discourage additional visitors /caregivers remain in public locations (e.g., waiting room, cafeteria) in medical center.
- **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.

Ambulatory Script for Converting Existing Appointments to Virtual Visit

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/video 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 or 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)”

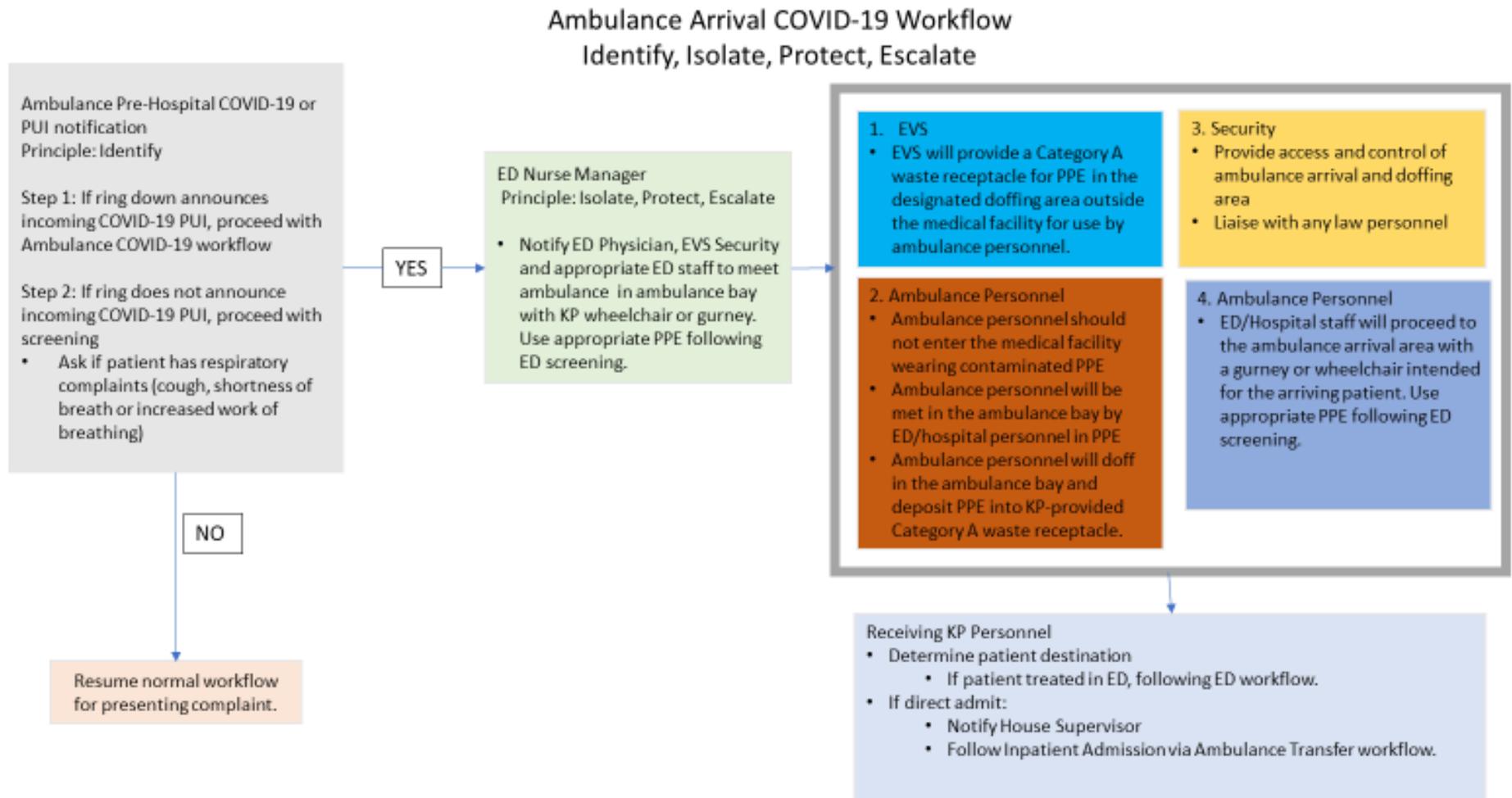
ACTION: use local workflow to do warm hand-off to a clinician

***If patient asks questions about COVID-19, direct them to visit [kp.org](https://www.kp.org).**

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

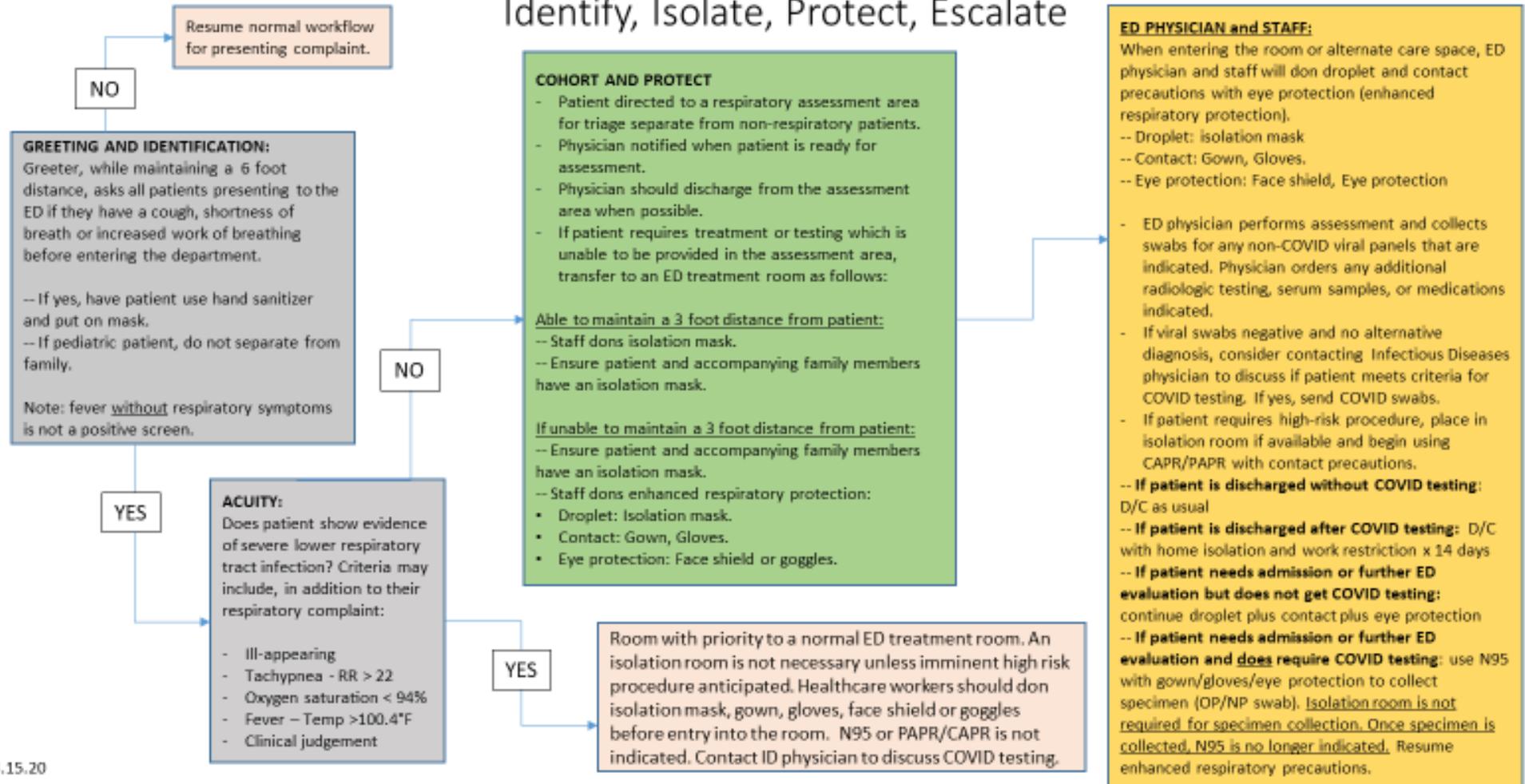
***If patient asks about clinical symptoms, suggest that the patient ask the doctor during the appointment.**

Emergency Management System – COVID-19 Workflow Diagram



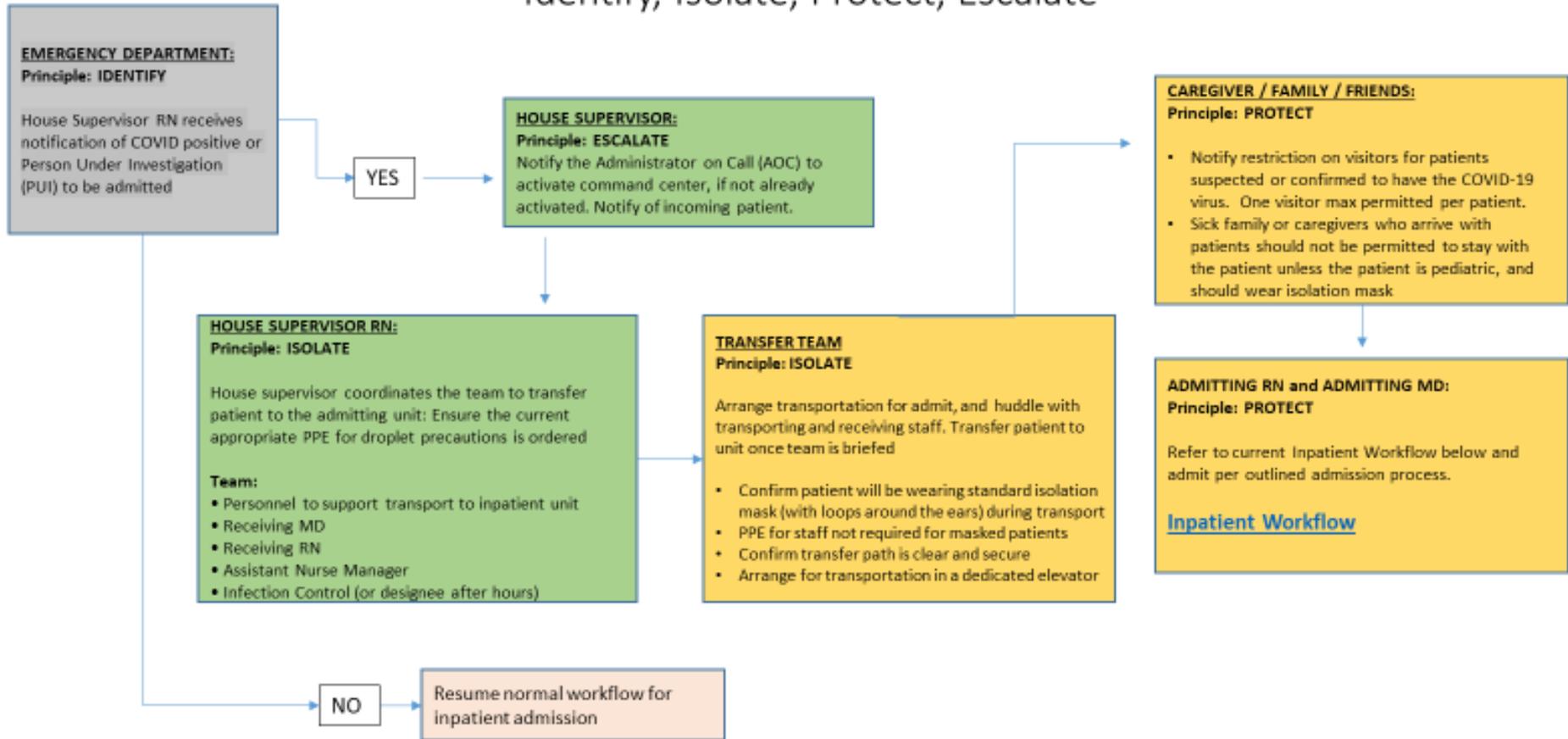
Emergency Department Adult and Pediatric COVID-19 workflow

Identify, Isolate, Protect, Escalate



3.15.20

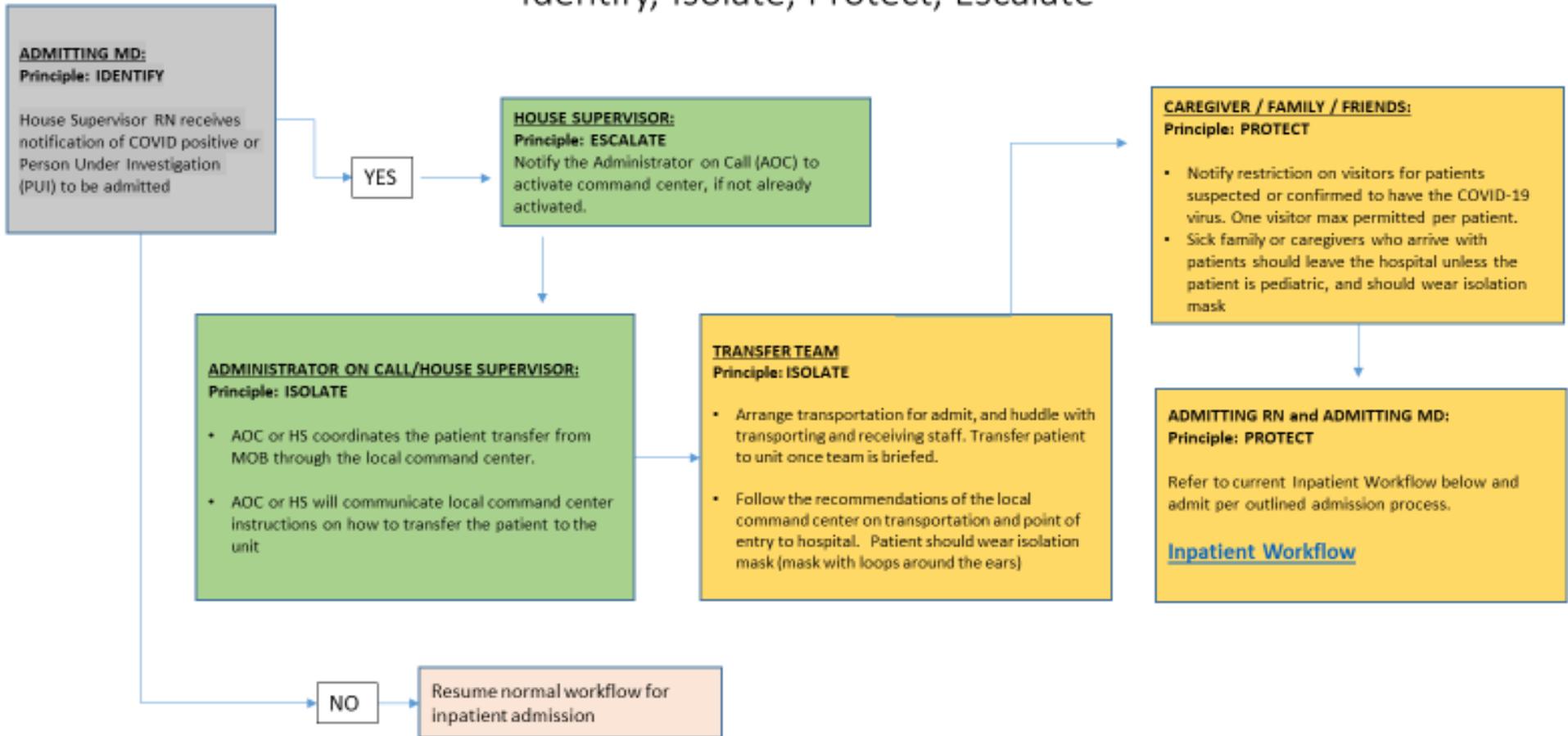
Inpatient COVID-19 (ED Admit) Identify, Isolate, Protect, Escalate



V4.3.15.20PCS

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

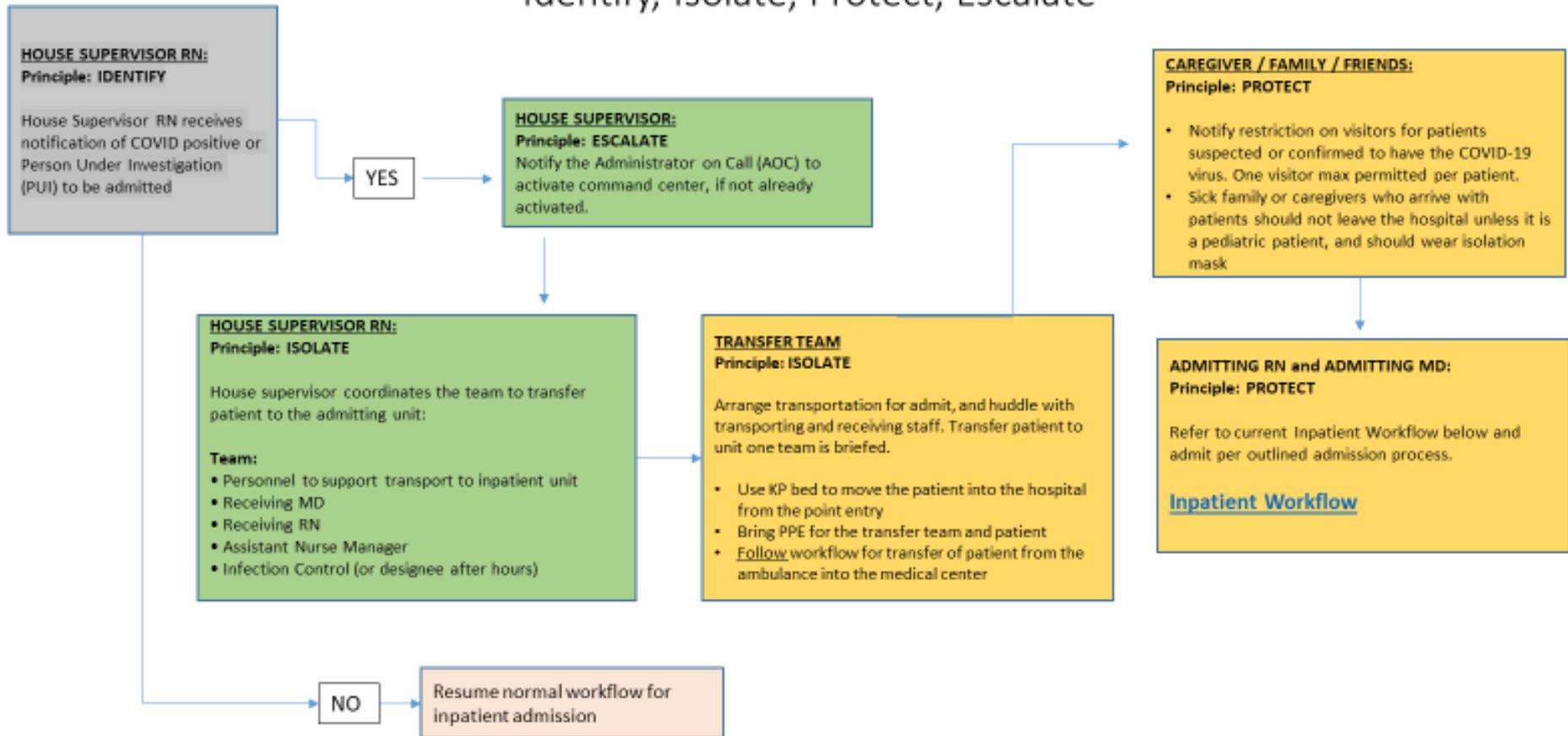
Inpatient COVID-19 (MOB Admit) Identify, Isolate, Protect, Escalate



V4.3.15.20PCS

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

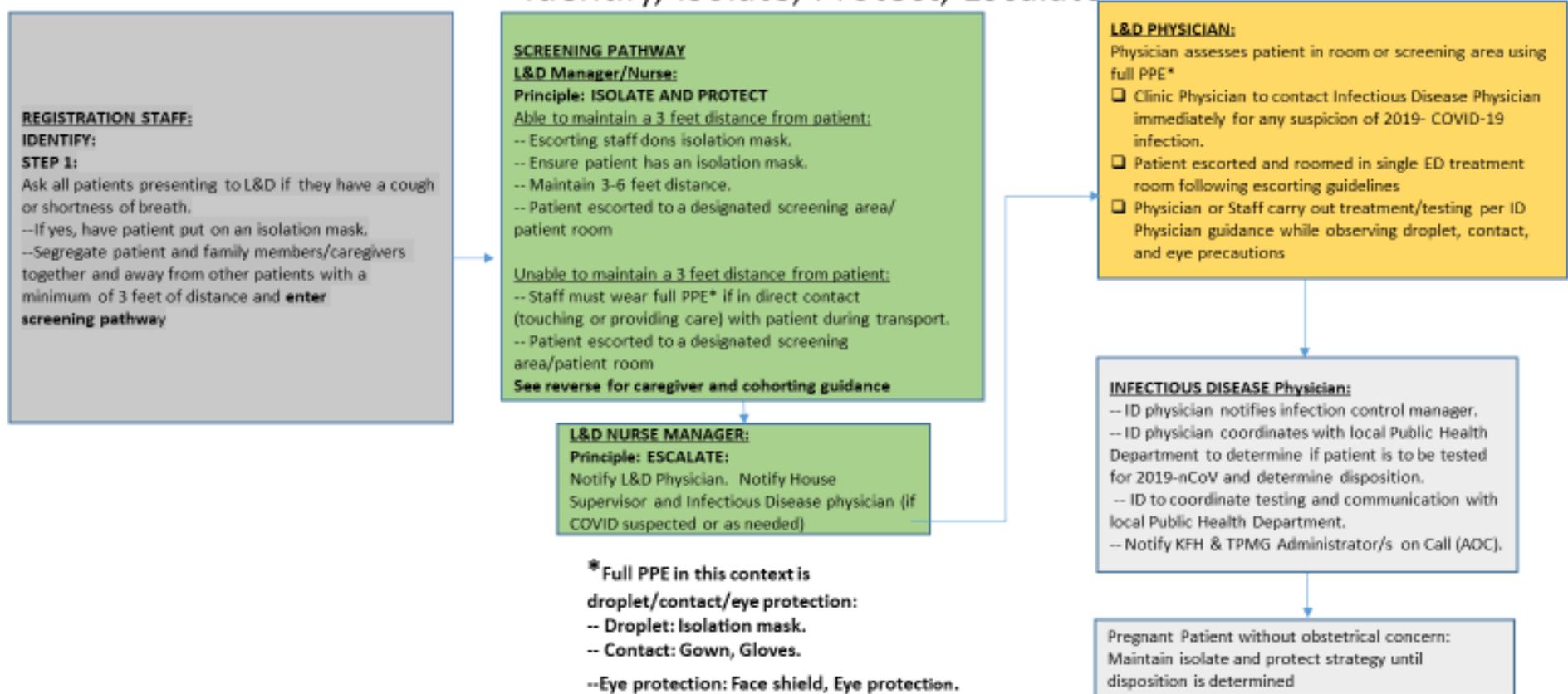
Inpatient COVID-19 (Ambulance Transfer) Identify, Isolate, Protect, Escalate



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

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

MCH SCREENING FOR PATIENT FOR COVID-19

3.15.20

T

Telephone Triage

C/O Fever, Cough, &/or Shortness of Breath

If no labor or symptoms requiring L&D evaluation, patient will be transferred to Appointment and Advice Call Center for appropriate disposition. If patient needs to be evaluated, instruct patient to go to ED. Inform ED that the patient is coming in. Follow ED COVID-19 workflow upon arrival

Patient Presenting to OB Triage

C/O Cough, &/or Shortness of Breath

Have patient put on a mask. Staff member wears a mask and maintains a 3-foot distance from the patient. Staff escorts the patient to an exam room and closes the door. Follow L&D COVID-19 workflow.

Visitors Presenting to MCH

C/O Cough &/or Shortness of Breath

Have visitor put on a mask. Staff member wears a mask and maintains a 3-foot distance from the patient. Staff escorts the patient to the ED. L&D staff informs ED that patient is coming. Follow ED COVID-19 workflow.

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

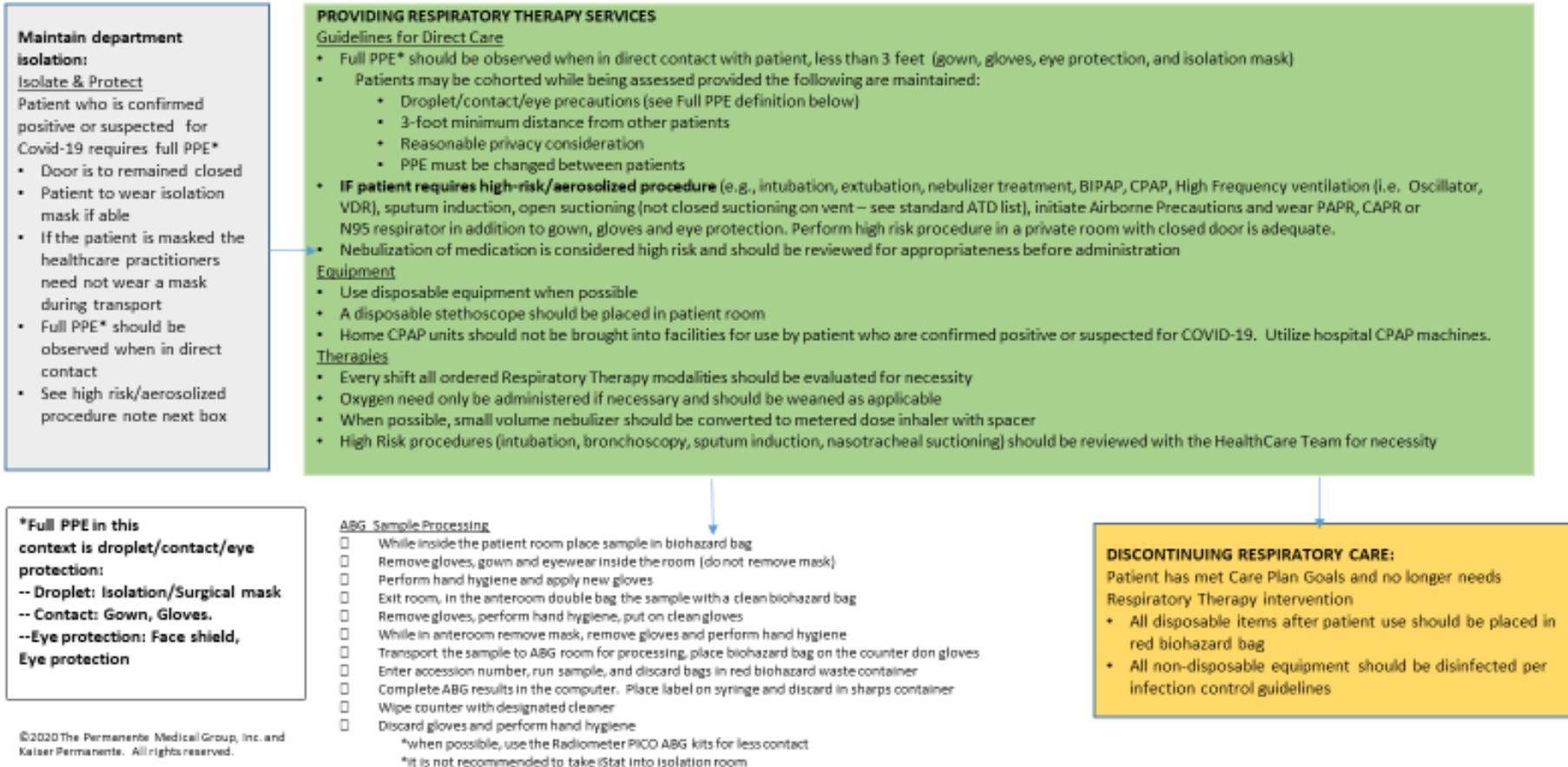
Able to maintain a 3-foot distance from person:

- 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



PPE Stewardship Support Document

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 not 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		

<p>Isolation face mask with ear loops</p>	<p>NON27120</p>	
<p>Isolation face mask with ear loops</p>	<p>NON27122</p>	
<p>Surgical Masks</p>		

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 unless a sterile procedure is being conducted.**
 - 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. Goggles should be the default form of eye protection unless another form is needed for procedures.**
 - 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 and goggles can be cleaned when soiled (or batched for cleaning at end of shift)
4. **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

Adult Inpatient – PPE Stewardship Guidelines

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>	<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>	<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,	Potential for healthcare	<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
	goggles for patient cohort (care for 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 	worker contamination 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	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
			Lock procedure carts with twist-off numbered locks				
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	

NO	STRATEGY	RISKS/BARRIERS	ACTIONS	RESPONSIBLE/ OVERSIGHT?	TARGET DATE	RESOURCES NEEDED	COMMENT
5c	Consider designating specific areas or teams for testing patients that require PPE	Lack of space/resource to provide testing	<input type="checkbox"/> Set up “Swab Swat Team” with HBS rounders	CNE, COO, HBS Chief, Emergency Management Team	3/13	Infection Control Nurse to train “Swab Swat Team”	Regional education— provide 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:

- N95 masks are not necessary in clinical laboratory operations unless processing Tuberculosis samples, or if blood collections are performed by Laboratory Staff on patients with tuberculosis or COVID-19 positive or PUI patients.
 - Processing of tuberculosis samples only occurs at the Regional Laboratory.
 - Lab personnel are not currently collecting swab samples from COVID-19 positive patients.
- N95 masks will be sequestered and only distributed for approved use by a designated Lab Manager/Supervisor.

Surgical Masks:

- Surgical masks are not used in Clinical Laboratory (testing) operations and are not recommended.
- Surgical masks will be worn when collecting blood from patients with precautions.
- Staff are currently required to wear a surgical mask in patient spaces in the hospital if unvaccinated for flu.

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 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 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. Safety glasses should be the default form of eye protection unless another form is needed for procedures.**
 - 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 – for example those on Enhanced Precautions/COVID/PUI.
 - c. Safety glasses 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 remark
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

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
 - iii. Recommend goggle use whenever possible as face shield stock is very low
5. Identify a PPE Manager responsible for the stewardship of PPE.