New requirements for Inpatient and RSC locations (see p.7 for other Ambulatory locations)

As of August 5, 2020 all patients who have confirmed COVID, have signs or symptoms concerning for COVID and are undergoing evaluation (PUI), or have been exposed to a COVID case must be placed on Novel Respiratory Isolation.

- PPE for all health care personnel will include an N95 respirator with face shield (or PAPR), gown, and gloves
- Order Airborne Isolation in addition to Novel Respiratory Isolation for patients who are receiving continuous aerosol generating procedures (AGP) (e.g., high flow oxygen, non-invasive ventilation, mechanical ventilation, tracheostomy in place), to guide room placement.

Previously, N95 respirators (or PAPRs) were primarily required for care of COVID confirmed or suspected patients receiving AGPs.

General Information

Why is this change being made now?

- The N95 respirator inventory and supply chain have improved enough to support this change
- N95 respirator re-use and extended use practices are in place
- Options for N95 respirator reprocessing are available if needed
- The COVID PCR test turnaround time has improved, allowing faster discontinuation of isolation for patients with negative test results

What was the basis of the previous isolation and PPE approach for patients with suspected or confirmed COVID?

The focus of our PPE recommendations is to protect the healthcare personnel caring for patients during the COVID pandemic.

Our previous PPE approach aligned with the other UC medical centers, many other leading medical centers, the World Health Organization, and the CDC in the setting of limited N95 availability. Those recommendations included use of surgical masks, face shields, gowns, and gloves for care of patients with suspected or confirmed COVID not requiring aerosol generating procedures (AGPs). N95 respirators with face shields (or PAPRs), gowns, and gloves were required for care of patients undergoing AGPs.

Although our understanding about COVID-19 transmission is still evolving, the balance of evidence to date suggests that in the healthcare settings, outside of AGPs, transmission is mainly through droplets. Aerosol-based transmission can occur in some other select settings (e.g., prolonged exposure in a poorly ventilated space).\(^1\)
Our ability to transition to a single PPE standard in the setting of improved N95 supply allows us to standardize and streamline practices for care of all patients with suspected or confirmed COVID across a range of clinical situations. This PPE change is consistent with CDC guidance and other regulatory requirements when N95 respirator supplies are sufficient.

https://jamanetwork.com/journals/jama/fullarticle/2768396

Isolation Precautions and Personal Protective Equipment (PPE)
Summary of updated COVID isolation and PPE:

<table>
<thead>
<tr>
<th>Isolation sign on door</th>
<th>Isolation flags in Apex</th>
<th>Type of COVID flag</th>
<th>Type of room</th>
<th>PPE needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic patient awaiting COVID-19 admission/pre-procedure test result</td>
<td>Clinical concern for COVID (PUI) or COVID-positive patient NOT needing continuous AGP²</td>
<td>Clinical concern for COVID (PUI) or COVID-positive patient needing continuous AGP¹</td>
<td>Exposed to COVID (tested negative or not tested, but requires quarantine due to an exposure)</td>
<td>Surgical mask + eye protection. If receiving an AGP, use N95 + eye protection (or PAPR) + gown and gloves during the procedure and when entering the room for 1 hr afterwards</td>
</tr>
<tr>
<td>Use “AGP in progress” sign² for AGPs</td>
<td>Novel Respiratory (Droplet + Contact + N95/PAPR)</td>
<td>Novel Respiratory (Droplet + Contact + N95/PAPR) + Airborne</td>
<td>Novel Respiratory (Droplet + Contact + N95/PAPR)</td>
<td>N95 + face shield (or PAPR) + gown + gloves</td>
</tr>
<tr>
<td>Novel Respiratory Isolation</td>
<td>Novel Respiratory Isolation</td>
<td>Novel Respiratory Isolation</td>
<td>Novel Respiratory Isolation</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>COVID pending or COVID confirmed</td>
<td>COVID pending or COVID confirmed</td>
<td>COVID exposed</td>
<td></td>
</tr>
<tr>
<td>Ideally private (negative pressure NOT needed)</td>
<td>Private (negative pressure NOT needed)</td>
<td>Negative pressure – order Airborne Isolation in addition to Novel Respiratory</td>
<td>Private: if no continuous AGP</td>
<td></td>
</tr>
<tr>
<td>Negative pressure room: if continuous AGP—order Airborne Isolation in addition to Novel Respiratory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Last updated 8/11/20
Continuous AGPs include high flow oxygen, non-invasive ventilation, mechanical ventilation, patient with tracheostomy in place. For patients on Novel Respiratory Isolation receiving intermittent AGPs, the “Aerosol Generating Procedure in Progress” sign is no longer needed.

"Aerosol Generating Procedure in Progress” sign requires N95 respirator/eye protection (or PAPR) during and when entering the room for one hour after the intermittent/discrete AGP (e.g., administration of nebulized medications)

Which patients are considered symptomatic patients with suspected COVID (PUIs)?
Those with signs or symptoms concerning for COVID and who are undergoing clinical evaluation including COVID PCR testing. Refer to the adult and pediatric clinical algorithms for more details on the UCSF Health COVID website.

Which asymptomatic patients need isolation because of exposure to someone with COVID?
Patients who have had close contact with someone with PCR-confirmed COVID infection in the previous 14 days. Close contact includes:
- Household contacts
- Being within 6 feet of the infectious person for more than 15 minutes while either the patient or the infected person was not wearing a mask

Contact Hospital Epidemiology and Infection Prevention to place the “COVID Exposed” infection flag in the patient’s Apex record.

What PPE is recommended for asymptomatic COVID exposed patients?
Healthcare personnel should wear N95/face shield (or PAPR), gloves, and a gown, irrespective of whether the patient is undergoing an AGP.

What PPE is recommended for asymptomatic patients who have COVID test results pending?
The PPE approach for asymptomatic COVID test pending admissions will not change—these patients are automatically placed on Droplet isolation until their COVID results are finalized. If the COVID test result returns as negative, Droplet isolation can be discontinued.

If an asymptomatic patient awaiting COVID test results requires an AGP, healthcare personnel must use N95 respirator/eye protection (or PAPR), gloves and gown during and when entering the room for 1 hour after the procedure has ended.

Do we have enough N95 respirators to support this change in PPE practice?
Yes. We have sufficient N95 respirator supplies for this PPE change. We also have approximately 120 PAPRs and sufficient PAPR shields at UCSF Health.

What if we experience future reductions in our N95 respirator supply?
Our Materiel Services group is continually working to support our N95 respirator supply. If the N95 respirator inventory and supply chain become more unstable, it is possible
that we will consider implementing additional strategies such as procurement of and fit testing to alternative N95 respirators and activating N95 reprocessing and reuse strategies.

**Isolation Signs**

**Will there be a change to the ‘Respiratory Illness Isolation’ and ‘Novel Respiratory Isolation’ signage for symptomatic COVID testing pending and COVID confirmed patients?**

Yes, a new sign will be used for patients who have confirmed COVID, have signs/symptoms concerning for COVID and are undergoing evaluation (PUI), or have been exposed to a COVID case. For all three categories of patients, the updated ‘Novel Respiratory Isolation’ will be used irrespective of the patients’ need for AGPs. The former ‘Respiratory Illness Isolation’ and ‘Novel Respiratory Isolation” signs will be retired.

For patients on Novel Respiratory Isolation who are receiving intermittent AGPs, the ‘Aerosol Generating Procedure in Progress’ sign is no longer needed.

**Will there be a change in signage for asymptomatic patients with pending COVID test results?**

No. Continue to use the ‘Droplet Isolation’ sign. For asymptomatic patients with pending COVID test results who are receiving AGP, also use the “Aerosol Generating Procedure in Progress” sign.
Isolation Orders
Will the isolation and infection flags seen on Apex change for symptomatic COVID test pending, COVID exposed, and COVID confirmed patients?

Yes. The “Respiratory Illness Isolation” flag will be retired.

For patients who have confirmed COVID, have signs/symptoms concerning for COVID and are undergoing evaluation (PUI), or have been exposed to a COVID case, order “Novel Respiratory isolation (Droplet, Contact, N95/PAPR)”.

- Order “Airborne Isolation” in addition for patients receiving continuous AGP—this will indicate that the patient should be placed into a negative pressure room (AIIR).

The “COVID Pending” and “COVID Confirmed” infection flags will continue to be automatically populated depending on the status and result of the COVID test result.

See screen shot below demonstrating “Covid-19 Pending” infection flag and “Novel Respiratory” infection flag.

The “COVID Exposed” infection flag is used for asymptomatic patients who have had close contact with a COVID confirmed person within 14 days. Contact Hospital Epidemiology and Infection Prevention (HEIP) to add a COVID exposed flag.
Will the isolation flag seen in Apex change for COVID exposed patients?
Yes, see screen shot above. For COVID exposed patients enter an isolation order as follows:

- Not getting a continuous AGP \(\rightarrow\) **Novel Respiratory** (Droplet, Contact, N95/PAPR)
- Getting an continuous AGP \(\rightarrow\) **Novel Respiratory** (Droplet, Contact, N95/PAPR) **and** **Airborne**

The COVID exposed flag will be added by HEIP for select patients including those exposed in the healthcare setting.

**Room placement**

**Which patients need to have a negative pressure room (AIIR)**?
This will not change. Consistent with current practice, patients who have confirmed COVID, have signs/symptoms concerning for COVID and are undergoing evaluation (PUI), or have been exposed to a COVID who are receiving continuous AGP should be placed in a negative pressure room (AIIR). Patients getting an intermittent or no AGP should be placed in a private room with the door closed.

Continuous AGP include high flow nasal cannula, non-invasive ventilation, mechanical ventilation, patient with tracheostomy in place, etc.

Do not place patients who have confirmed COVID, have signs or symptoms concerning for COVID and are undergoing evaluation (PUI), or have been exposed to a COVID case in a Protective Environment (positive pressure room).

**Where can I find a list of AGP?**
A list of AGPs is available [here](#).

**What if there is no negative pressure room and my patient is getting a continuous AGP?**
Every effort should be made to place COVID confirmed patients receiving continuous AGPs, symptomatic patients with suspected COVID and COVID exposed patients into a negative pressure room (AIIR). If there is an insufficient number of negative pressure rooms, prioritize the rooms in the following order:

1. Patients with confirmed or suspected airborne-transmitted diseases (e.g., tuberculosis, varicella, measles)
2. Patients with confirmed COVID
3. Symptomatic patients with suspected COVID
4. Patients exposed to COVID
If a negative pressure room is not available for a symptomatic patient with suspected COVID, COVID exposed, or COVID confirmed patient receiving continuous AGPs, place **Novel Respiratory (Droplet, Contact, N95/PAPR) and Airborne** isolation orders. Move the patient into a negative pressure room when one is available.

**Clinical Algorithms**

**Will the pediatric and adult ED and inpatient clinical algorithms change?**
Yes, please refer to the updated **adult** and **pediatric** algorithms.

**Are there updated PPE and signage guidance available for hospitality staff?**
Yes. Hospitality staff will follow the recommendations in this guidance document.

**Are there updated PPE and signage guidance available for transport staff?**
Yes. Transport staff will follow the recommendations in this guidance document.

**What should I do if a symptomatic patient presents to an Ambulatory clinic?**
If a patient has passed the pre-appointment screening and registration screening and becomes suspected of having COVID during the visit, redirect the patient to the RSC for a walk-in appointment. If the patient cannot be redirected, place the patient in an exam room with the door closed. The designated provider in the clinic will don N95 and eye protection to expedite transition patient out of clinic to RSC for testing. Follow the recommendations here: https://infectioncontrol.ucsfmedicalcenter.org/sites/g/files/tkssra4681/f/Ambulatory%20On-site%20Primary%20and%20Specialty%20Workflow%20for%20Patients%20with%20Respiratory%20Illness.pdf.

**What should I do if a symptomatic patient presents to a Diagnostic or Treatment area?**
Areas that will see COVID positive patients (infusion center, radiation oncology) with workflows already established will follow their PPE strategy.

**Contact your unit, group, or service line leadership if you have additional questions.**

*Last updated 8/11/20*