Updated 7/12/2022

Discontinuing Isolation for Patients with COVID-19 at UCSF Health

Patients who are diagnosed with COVID-19 and require Novel Respiratory Isolation should receive time-sensitive health care using appropriate PPE and workflows. Only non-urgent medical care should be deferred until criteria to discontinue isolation are met.

I. Criteria for discontinuing isolation

The revised COVID-19 isolation discontinuation criteria below are based on updated CDC recommendations and apply to all UCSF healthcare settings (i.e., inpatient, outpatient, and procedural areas), including encounters where an aerosol generating procedure will be performed. For more information refer to this FAQ.

<table>
<tr><th></th><th>Not severely immunocompromised[1] and did not have severe or critical COVID-19 illness[3]</th><th>Severely immunocompromised[1] (see footnote[2] for specific exceptions requiring repeat testing) and/or had severe or critical COVID-19 illness[3]</th><th>Specific groups of severely immunocompromised patients requiring repeat PCR testing prior to discontinuation of isolation[2]</th></tr>
<tr><td colspan="4">INPATIENT</td></tr>
<tr><td rowspan="2">Symptomatic or Asymptomatic, initial infection

NOTE: symptom onset date = Day 0, if asymptomatic, date test collected = Day 0</td><td>• At least 10 days[4] have passed since symptom onset (or if asymptomatic since first positive test collected) AND
• 24 hours since last fever (without use of fever reducing medication) AND
• improvement in symptoms</td><td colspan="2">• At least 20 days[4] have passed since symptom onset (or if asymptomatic since first positive test collected) AND
• 24 hours since last fever (without use of fever reducing medication) AND
• improvement in symptoms[4]
• all immunocompromised patients will require a COVID test once all criteria are met. See footnote[2] for details.</td></tr>
<tr><td colspan="3">Place an inpatient (IP) COVID Recovered Consult Order to request review by HEIP for discontinuation of isolation/removal of “COVID-19 (Confirmed)” flag once all criteria are met</td></tr>
<tr><td colspan="4">OUTPATIENT</td></tr>
</table>

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	Not severely immunocompromised[1] and did not have severe or critical COVID-19 illness[3]	**Severely immunocompromised[1] (see footnote[2] for specific exceptions requiring repeat testing) and/or had severe or critical COVID-19 illness[3]**	**Specific groups of severely immunocompromised patients requiring repeat PCR testing prior to discontinuation of isolation[2]**
Symptomatic or Asymptomatic, initial infection NOTE: symptom onset date = Day 0, if asymptomatic, date test collected = Day 0	• At least 10 days[4] have passed since symptom onset (or if asymptomatic since first positive test collected) AND • 24 hours since last fever (without use of fever reducing medication) AND • improvement in symptoms Place an outpatient (OP) COVID Recovered Consult Order to request review by HEIP for discontinuation of isolation/removal of "COVID-19 (Confirmed)" flag once all criteria are met If not manually resolved earlier by HEIP, the "COVID-19 (Confirmed)" flag will automatically resolve at 20 days after the first positive test.	• At least 20 days[4] have passed since symptom onset (or if asymptomatic since first positive test collected) AND • 24 hours since last fever (without use of fever reducing medication) AND • improvement in symptoms "COVID-19 (Confirmed)" flag will automatically resolve at 20 days after the first positive test.	• At least 20 days[4] have passed since symptom onset (or if asymptomatic since first positive test collected) AND • 24 hours since last fever (without use of fever reducing medication) AND • improvement in symptoms • Once all criteria are met, repeat PCR. See footnote[2] for details.

FOLLOWING RECOVERY FROM COVID-19 INFECTION	
Patient has a 'COVID Recovered' banner (patient has ended isolation and ≤90 days since first positive test collected)	• Pa**tient remains asymptomatic:** -Do **not** repeat SARS-CoV-2 PCR testing ≤90 days since first positive test collected including for pre-procedure testing and inpatient screening. Asymptomatic patients who are tested during this 90-day time period and found to be PCR-positive will need additional review by the Hospital Epidemiology and Infection Prevention (HEIP) team; submit an order to HEIP for further review: *Inpatients:* "Inpatient Consult to HEIP/IC for COVID Recovered Evaluation." *Outpatients*: "Ambulatory Referral to HEIP for COVID Flag Removal." -In some cases, these patients will not be placed on Novel Respiratory isolation, will not generate contact tracing, and will be allowed to return to care without Novel Respiratory isolation. -Exception: Some severely immunocompromised patient populations will require repeat PCR testing prior to discontinuation of isolation. See footnote 2 for specific exceptions. • **Patient with new or worsening signs/symptoms concern for COVID-19** **I**f new signs or symptoms consistent with COVID-19 develop within 90 days of first positive test collected, place the patient on Novel Respiratory Isolation, consider SARS-CoV-2 PCR testing. The primary team can consult with the infectious disease consult service for additional guidance via Voalte or pager: Adult 415-443-8996 or Pediatrics pager 415-443-2384. ○ If PCR positive, decisions about the need to continue isolation should be made on a case-by-case basis with input from HEIP and the clinical infectious disease team. ○ Some COVID-19 infected patients treated with Paxlovid (nirmatrelvir/ritonavir) will have a recurrence of COVID-19 symptoms after an initial improvement, or a new positive test after having tested negative. These patients will require re-initiation of isolation starting from the date of their symptom recurrence or new positive test; refer to footnote 4 for more information. • **COVID-19 exposures** -In the event that a patient with a 'COVID recovered' banner comes into close contact with an infected person during this 90-day time period, neither quarantine nor PCR testing is recommended unless symptoms develop. • **'COVID Recovered' Banner** ○ Once the "COVID-19 (Confirmed)" Apex infection flag is resolved, a "COVID Recovered" banner will display. A Best Practice Alert (BPA) will appear when a provider attempts to place an order for COVID-19

	PCR testing during the 90-day period following the patient's initial positive test. ▪ Repeat SARS-CoV-2 PCR testing should **not** be used to guide the discontinuation of isolation ○ If a patient provides a history of COVID-19 infection within the previous 90 days but does not have a 'COVID Recovered' banner, follow the same testing and isolation practices as for patients who never had COVID-19 infection. ▪ If a patient with a history of COVID-19 in the past 90 days who has ended isolation does not have a 'COVID recovered' banner, enter an order to HEIP for further review whether the patient qualifies for this banner: ▪ *Inpatients:* "Inpatient Consult to HEIP/IC for COVID Recovered Evaluation." ▪ *Outpatients*: "Ambulatory Referral to HEIP for COVID Flag Removal."
Recovered from COVID-19 AND >90 days since first positive test collected	Same testing and isolation practices as for patients who have never had COVID-19 infection. Even after 90 days, some people will continue to shed non-infectious viral RNA debris from the initial infection. Including for questions about interpreting a positive COVID-19 test, the primary team can consult with the HEIP and infectious disease consult service for additional guidance via Voalte or pager: Adult 415-443-8996 or Pediatrics pager 415-443-2384.

[1] The degree of immunocompromise for the patient is ultimately determined by the treating provider. Conditions include but are not limited to (adapted from CDC guidance):

1. Receiving current chemotherapy for malignancy including but not limited to chemotherapy within the last 6 months, any oral anti-cancer agent except endocrine therapy alone, immunotherapy with check point inhibitor or equivalent
2. Having a hematologic malignancy that may be suppressing the immune system
3. Untreated HIV infection and CD4 T lymphocyte count < 200
4. Primary severe immunodeficiency disorder
5. Solid organ transplant recipient
6. Hematopoietic stem cell (bone marrow) transplant recipient within the last 2 years
7. CAR-T therapy within the last 2 years
8. Receipt of prednisone of 20 mg/day (adult patients) and 1mg/kg/day (pediatric patients) or the equivalent for more than 14 days, or treatment with other high-risk immunosuppressive medications (see Appendix A for examples)

A subset of immunocompromised patients will be required to have a repeat COVID-19 PCR before the "COVID-19 (Confirmed)" infection flag is resolved—see footnote 2 below.

[2] For **all immunocompromised inpatients**, a COVID-19 test will be required before the "COVID-19 (Confirmed)" infection flag is removed.

A COVID-19 test will also be required for specific **select severely immunocompromised outpatients** before the "COVID-19 (Confirmed)" infection flag is removed. For these patients, a test-based strategy that includes repeat PCR testing around 20 days after symptom onset or, if asymptomatic, 20 days after the initial positive test was collected to determine whether the infection flag can be removed. Refer to the isolation discontinuation guidance for select severely immunocompromised patients for details. Any patient with a COVID-19 Confirmed infection flag will require Novel Respiratory Isolation during any encounter including those in the outpatient, procedural, or inpatient areas. Specific select severely immunocompromised patient populations include:

- **All (adult and pediatric) services:**
  -BMT
  -Solid organ transplant recipients within 1 year of transplantation or on augmented immunosuppression
  -Primary immunodeficiencies
  -Receiving rituximab or other B-cell depleting agents within the last 6 months
  -HIV with CD4 <50

- **Adult services:**
  -Hematologic malignancy, CVID

- **Pediatric services:**
  -For BMT patients until >6 months from transplant AND has documented T/B cell reconstitution
  -All oncology patients until 3 months after completing therapy, aplastic anemia

[3]Disease severity definitions (adapted from CDC guidance):

Mild Illness: Individuals who have any of the various signs and symptoms of COVID-19 (e.g., fever, cough, sore throat, malaise, headache, muscle pain) without shortness of breath, dyspnea, or abnormal chest imaging and who do not meet criteria for moderate, severe, or critical illness.
Moderate Illness: Individuals who have evidence of lower respiratory disease by clinical assessment or imaging, and a saturation of oxygen (SpO2) ≥94% on room air at sea level.
Severe Illness: Individuals who have respiratory frequency >30 breaths per minute, SpO2 <94% on room air at sea level (or, for patients with chronic hypoxemia, a decrease from baseline of >3%), ratio of arterial partial pressure of oxygen to fraction of inspired oxygen (PaO2/FiO2) <300 mmHg, or lung infiltrates on >50% of a chest radiograph. *(Patients should meet one of these criteria for at least 12 hours when deciding whether severe illness is present).*
Critical Illness: Individuals who have respiratory failure, septic shock, and/or multiple organ dysfunction.

In pediatric patients, radiographic abnormalities are common and, for the most part, should not be used as the sole criteria to define COVID-19 illness category. Normal values for respiratory rate also vary with age in children, thus hypoxia should be the primary criterion to define severe illness, especially in younger children.

[4]Rebound COVID-19 cases, including in patients treated with Paxlovid (nirmatrelvir/ritonavir): Some patients treated with Paxlovid will have a recurrence of COVID-19 symptoms after an initial improvement or a new positive COVID-19 test after having tested negative. Reports suggest that the viral load with the relapse of symptoms is similar to the initial infection and transmission can occur from individuals with recurrent symptoms. Therefore, patients with rebound COVID-19 symptoms or a new COVID-19 test after having tested negative will need to re-initiate their COVID-19 isolation. For example, day#0 of isolation for these patients will be the date they had recurrence of symptoms, or a new positive COVID-19 test after having tested negative.

II. Discontinuing isolation for hospitalized patients who continue to require critical care

For COVID-19 ICU patients with persistent systemic inflammatory response syndrome and/or respiratory failure for >20 days who are clinically stable and no longer suspected of having active SARS-CoV-2 infection, removal of the "COVID-19 (Confirmed)" infection flag may be considered on a case-by-case basis. Place a consult order to request review by HEIP: "Inpatient Consult to HEIP/IC for COVID Recovered Evaluation."

- After case review, HEIP may recommend
    - Two repeat COVID-19 PCR tests (if patient is intubated, include at least one lower respiratory specimen [e.g., tracheal aspirate]) ideally separated by 24 hours
    - If the COVID 19 PCR tests are negative or have CT values >35 (or RLU <1000 on TMA assay) and all other isolation discontinuation criteria are met, HEIP will consider discontinuing isolation

III. Discontinuing isolation for patients with presumed Multisystem Inflammatory Syndrome (MIS) of children (MIS-C) or adults (MIS-A)

Patients with suspected or confirmed MIS-C or MIS-A may or may not have a history of prior COVID-19 infection. The need for Novel Respiratory Isolation and if indicated removal of a "COVID (Confirmed) infection flag will be considered on a case-by-case basis. Send two repeat COVID PCR tests (if intubated, include at least one lower respiratory specimen [e.g., tracheal aspirate]) ideally separated by at least 8 hours and a SARS-CoV-2 nucleocapsid antibody.

Place a consult order to request review by HEIP:

I. *Inpatients:* "Inpatient Consult to HEIP/IC for COVID Recovered Evaluation."
II. *Outpatients*: "Ambulatory Referral to HEIP for COVID Flag Removal."

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Appendix A

High Risk Immunosuppressive Medications (Examples only, *not* all-inclusive)

High Risk Immunosuppression		
Class	**Generic**	**Trade**
Steroids	Prednisone > 20 mg/day (adults) or > 1mg/kg/day (children) for >14 days or the equivalent for other steroid agents	
Purine analog	Azathioprine > 3mg/kg/day 6-Mercaptopurine > 1.5 mg/kg/day	Imuran Purinethol
	Methotrexate > 0.4 mg/kg/week	
Alkylating agents	Cyclophosphamide Chlorambucil	Cytoxan
TNF inhibitor	Etanercept Infliximab Adalimumab Certolizumab pegol Golimumab	Enbrel Remicade Humira Cimzia Simponi/Simponi Aria
CTLA-4 Ig	Abatacept	Orencia
B-cell inhibitor	Rituximab Belimumab Ocrelizumab	Rituxan Benlysta Ocrevus
B- and T-cell inhibitor	Alemtuzumab	Campath
Anti-IL 12/23	Ustekinumab	Stelara
Anti-IL 17/23	Secukinumab Ixekizumab Broadlumab	Cosentyx Taltz Siliq
Anti-IL-1	Anakinra Rilonacept Canakinumab	Kineret Arcalyst Ilaris
Phosphodiesterase 4	Apremilast	Otezla
Jak/Stat inhibitors	Tofacitinib Baracitinib Ocalacitinib Ruxolitinib	Xelijanz Olumiant Apoquel Jakafi/Jakavi
Anti-IL-5/-IL-6	Tocilizumab Resilizumab Benralizumab	Actemra Cinquair Fasnera