

HUP guidelines for REPEAT COVID-19 testing for patients admitted from ED to inpatient units after initial negative NP swab testing
Updated: 5.5.2020

While our current in house COVID-19 testing is very sensitive in detecting low levels of viral shedding in the nasopharynx and oropharynx of infected patients, some patients admitted with high clinical suspicion for COVID-19 and negative initial testing may warrant repeat testing (either of nasopharynx/oropharynx or sputum if applicable). To date, UPHS as a health system has had a small percentage of admitted patients with repeat COVID-19 testing convert from negative to positive with repeat testing shortly after admission, all with compatible clinical syndromes and/or imaging consistent with respiratory viral infection. The following information should be used to guide inpatient teams when there is a clinical suspicion for COVID-19 on admission, despite an initial negative test.

Inclusion criteria for repeat testing:

Patients being admitted from the ED should be considered for repeat COVID-19 testing via a second NP/OP swab (or sputum sample if intubated) >12-24 hours from initial negative testing in the following situations that indicate HIGH clinical concern for COVID-19 infection:

1. Respiratory viral syndrome symptoms:

- Fever and pulmonary infiltrates on imaging not otherwise explained
- Hypoxia, tachypnea, or respiratory distress not otherwise explained
- Immunocompromised patients (active hematologic malignancy, recent chemotherapy, organ or stem cell transplant, HIV, biologic agents) with respiratory symptoms and pulmonary infiltrates without alternative etiology

2. CXR or CT chest findings highly typical of COVID infection, including:

- Bilateral pulmonary infiltrates and/or findings consistent with ARDS
- CT chest with multifocal ground glass opacities or other findings with an intermediate or high likelihood of reflecting COVID-19 as per radiology read

3. Symptomatic patients with a close contact who has confirmed or suspected COVID infection, or residence in a group facility (such as a SNF) with known COVID cases

Recommended Workflow for ED to Inpatient FLOOR patients (flow chart at end):

1. For non-ICU patients being admitted from the ED with initial negative COVID test:
 - a. ED provider decides to send initial COVID-19 test and if negative, can resolve "COVID-19 rule out" infection flag and call D2D with planned admission to non-COVID med/surg unit
 - b. If admitting team or ED provider has continued clinical concern for COVID-19, ED can leave "COVID-19 rule out" infection flag in place, or admitting team can add this flag again
 - c. Non-ICU patients being admitted with continued clinical concern for COVID should be maintained on droplet + contact precautions (face mask, eye shield, gown and gloves) and go to a private room on a **non-covid unit** (if available)
 - i. Team should call admissions to inquire about private room availability.
 - ii. If no private room is available on non-COVID floor, decision may be made to place patient as PUI on COVID unit
 - iii. If patients are already on the floor in a semi-private room, their roommate will be preferentially moved per the assistance of bed management to another private or semi-private room pending the results of the patient's repeat COVID test
 - d. Primary admitting team can then order / repeat COVID test at 24 hours from their first negative test (approval is no longer needed, as of 5/6/2020 this is an EPIC orderable for inpatients)
2. When the result of the repeat COVID test is known:
 - a. If repeat test positive, patients should move to COVID unit (if not already on COVID unit)

- b. If repeat test negative and clinical concern still exists for COVID infection, please consult Infectious Disease (via rolodoc pager numbers), additional chest imaging may be indicated
- c. If repeat test negative and clinical concern no longer exists for COVID infection, please call HUP infection control (215-662-6995) for guidance on clearing COVID rule out flag and de-escalating isolation precautions

Contact the infection control department at 215-662-6995 with any Covid-19 questions or concerns related to staff safety, exposures and appropriate isolation.

Recommended Workflow for ED to Inpatient ICU patients:

1. For patients being admitted from the ED to the ICU with initial negative COVID test:
 - a. ED provider decides to send initial COVID-19 test and if negative, can resolve "COVID-19 rule out" infection flag and call D2D with planned admission to non-COVID ICU
 - b. If admitting ICU team, ICU arbitrator, or ED provider has continued clinical concern for COVID-19, teams should leave "COVID-19 rule out" infection flag in place
 - c. ICU patients being admitted with continued clinical concern for COVID should be maintained on droplet + contact precautions (face mask, eye shield, gown and gloves) with airborne precautions for AGPs and priority of negative pressure room
 - d. ICU patients being admitted with continued clinical concern for COVID should be admitted to a **COVID ICU** with plan for repeat COVID testing
 - e. Primary ICU admitting team can then make clinical decision to order COVID-19 testing from ET aspirate (at any time) and/or repeat NP swab at 24 hours from initial negative NP swab.
2. When the result of the repeat COVID test(s) are known:
 - a. If repeat test positive, patients should remain in COVID ICU
 - b. If repeat test negative and clinical concern still exists for COVID infection, please consult Infectious Disease (via rolodoc pager numbers), additional chest imaging may be indicated
 - c. If repeat test negative and clinical concern no longer exists for COVID infection, ICU team can remove COVID rule out infection flag and de-escalate isolation precautions

Contact the infection control department at 215-662-6995 with any Covid-19 questions or concerns related to staff safety, exposures and appropriate isolation.

HUP: Guidelines for repeat COVID-19 testing in patients with prior negative NP/OP swab

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