Inpatient COVID-19 Testing Protocol

Guidelines Effective: 11/30/2020

A. Who to test?

- BMC tests all patients being admitted to the hospital, with the exception of COVID-recovered patients who are within 90 days of their initial positive COVID test and **remain asymptomatic** (for outpatient testing algorithms, please refer to the outpatient testing protocol).
    - All patients admitted with flu-like febrile respiratory illness and sepsis-like syndrome requiring hospitalization require testing with Comprehensive Respiratory Panel. Refer to "COVID-Flu Testing Winter 2020 Guidance".
- If a patient who is already admitted develops symptoms potentially attributable to COVID-19 and warrants testing *per your clinical opinion*, they should be retested (even if their admission test was negative). *Note: For COVID-recovered patients who have new symptoms of COVID-19 within 90 days of initial positive test AND for whom an alternate etiology cannot be identified, also consider retesting.*
    - Promptly alert the nurse of your concern so precautions are instituted
    - There are a wide range of symptoms and presentations potentially compatible with COVID including: Fever, cough, shortness of breath, new anosmia, diarrhea (more than 3 watery bowel movements per day), nausea or vomiting, dizziness, headache, muscle aches, throat pain, rhinorrhea, fatigue and others.
    - In accordance with guidelines, testing *should be* conducted for patients with:
        - ST elevation MI
        - Unprovoked venous thromboembolism
        - Multifocal PNA or ground glass opacities on CT without clear alternative diagnosis
    - Diagnoses for which one *should consider* testing for COVID:
        - New seizure
        - New stroke
        - Myocarditis, stress cardiomyopathy, coronary spasm, right heart failure
- Direct admissions to BMC should be assessed for symptoms of COVID (or results of prior COVID testing) by the accepting physician prior to accepting the patient.
    - A negative COVID test within 48 hours of transfer is acceptable for screening purposes.
    - For patients who are not tested prior to transfer:
        - An asymptomatic patient should be admitted to a private room on a non-COVID floor without precautions and be tested immediately on admission
        - A symptomatic patient should be admitted as a PUI to a COVID floor with COVID precautions and have COVID testing as dictated by their probability.
- Patients who elope/AMA from the hospital and then return do not need a repeat test if it is within 24 hours of the initial test

B. How to test?

1. **Which test to order:**
   - **Specimen type**
     - The following patients require a Nasopharyngeal swab (NP) (see below for how providers should collect the specimen).
       - All patients being admitted
       - Patients with symptoms concerning for COVID or who are getting clearance after a positive test upon admission
     - Once admitted, anterior nares swabs may be used for the following asymptomatic patients with no confirmed exposure (note NP swabs are preferred any time there is clinical suspicion for COVID):
       - Patients who had a negative admission test using an NP swab AND who require further testing for pre-procedure or pre-discharge purposes
       - Patients with **anatomic reasons** that preclude nasopharyngeal testing
       - Patients who **absolutely refuse nasopharyngeal** testing but for whom COVID-19 testing is required
     - Patients with initial negative testing who need retesting due to ongoing clinical concern, consider a lower respiratory tract specimen – see below for specific guidance on when to do this
       - These are send out tests presently

2. **How to collect a specimen?**

- All swabs can be obtained via the unit coordinator placing an order in EPIC
- Nasopharyngeal (NP) swabs
  - General Instructions:
    - All specimen collection require use of an N95 mask and full PPE
    - Swab specimens should be collected by healthcare providers not patient self-collection
  - Advice on collection of nasopharyngeal (NP) swabs:
    - Tilt the patient's head slightly upward to allow easier entry into the nostril
    - The swab should be angled at 15 degrees downward to allow for passage into the nasopharynx
    - For more instruction on optimal technique, please view this video (YouTube NEJM Video: Collection of Nasopharyngeal Specimens with the Swab Technique)
    - Insert along septum until you hit resistance, gently rotate x 5 seconds, remove
  - Place swab in a viral transport tube.
  - Label the tube with the patient label and small label.

- Anterior Nares Swabs
  - General Instructions:
    - Swab specimens should be collected by healthcare providers not patient self-collection
    - They should be collected using the anterior nares collection kit (various swabs in use, they should have a label saying 'anterior nares').

- Advice on collection of Anterior Nares swabs
  - Insert a nasal swab 1 to 1.5 cm into a nostril. Rotate the swab against the inside of the nostril for 10 seconds while applying pressure with a finger to the outside of the nostril.
  - Repeat on the other nostril with the same swab, using external pressure on the outside of the other nostril. To avoid specimen contamination, do not touch the swab tip to anything other than the inside of the nostril.

  - Remove and place the swab into the tube containing 3 mL of viral transport medium. Cap the specimen collection tube tightly.

- If sending a sputum or BAL sample (if clinically warranted), you can choose the appropriate option under "Additional Testing," and follow the instructions in EPIC

3. Where should the patient be when collecting the specimen?

- Patients with a clinical concern for COVID-19 should be placed on COVID-19 precautions and tested with full PPE once isolated
- If testing a patient because a facility or procedure requires it (i.e., NO concern for COVID-19), they can stay on their initial floor and team.
  - Testing with Anterior Nares swabs: Patient may be tested in any location without precautions and provider does not need to wear PPE (just usual standard of eye protection, surgical mask, and gloves)
  - Testing with Nasopharyngeal (NP) swabs:
    - If the patient is in a private room, they can be tested there.
    - If the patient is in a semi-private room or an observation bay, they must be tested in a private room with a closed door; they can then return to their original room to await test results. Patients sharing a room can be tested in their room if their roommate wears a mask or is removed.
    - [As of 10/15/20] **Plexiglass enclosures** that fit over patients have been specifically recalled by the FDA, and **should not be used when taking swabs**
  - Room cleaning
    - COVID positive cases or Moderate Risk/High Risk patients who have not been ruled out when they leave the room: The room must be terminally cleaned once the patient leaves. The clinician needs to ask the unit coordinator to request EVS.
    - No risk patients or patients who are ruled out prior to leaving the room: routine cleaning (i.e. no terminal cleaning necessary)

4. What if I get an inconclusive test result?

- If results will change your clinical management, consider sending another sample for testing (see info on COVID-19 probability assessment below).

5. What if the patient refuses to be tested?

- All patients who refuse testing will be sent to a private room on a COVID floor until they allow testing to occur. Patients should be informed on refusal in the ED and on arrival to the floor that they cannot leave their room while under COVID investigation.
- They can be offered an anterior nares swab as an alternative to an NP swab.

C. How to assess COVID-19 probability

- Guidance on how to assess COVID-19 probability can be found on the Hub in the following document: **COVID-19 Probability Assessment**

D. How to Remove COVID-19 Precautions:

- Refer to **Guidelines for Removal of Isolation Precautions for PUI and COVID-19 patients**

E. Special Testing Considerations based on hospital location:

- Surgery/procedures: See surgical guidelines on Hub.
    - Tests are valid for 72 hours for the purposes of procedures or surgeries at BMC.
    - Retesting is **not required** for recovered patients who are within 90 days of initial positive test and do not have new COVID-related symptoms.

F. Testing considerations at discharge:

- **Patients with COVID-19** – Isolation precautions are resolved by symptom-based or test-based resolution. A test-based strategy is no longer recommended for most patients. See separate guidelines.
- Symptom-based removal of precautions alone can be considered if the patient has not developed new symptoms
- A test-based strategy for precautions removal is no longer recommended *except*:
    - If a patient has new symptoms of COVID-19 and an alternate etiology cannot be identified OR
    - For persons who are severely immunocompromised or have conditions that require test-based removal from isolation (test-based strategy recommended) OR
    - The receiving institution at discharge requires testing (use anterior nares swab)

- For most patients, repeat tests for the purposes of removal of isolation precautions should not be ordered unless the patient does not meet criteria for symptom-based clearance.
    - If a test-based strategy is needed and a repeat test is positive, wait 3 days before repeating the test, or 2 days from the resolution of fever and symptoms (whichever comes first).

- **Patients who are immunocompromised and have COVID-19**: Discharging patients who are immunocompromised and require testing confirmation of clearance post-discharge should have this arranged via EPIC message BMC COVID retesting pool prior to discharge, and they will arrange repeat testing either at home or in the ILI clinic.

- **Asymptomatic patients who never had COVID-19** and are being discharged to LTAC/NH/facility/dialysis where a negative COVID test is an admission requirement – use SAME DAY DISCHARGE order for quickest test (~2-4 hour turnaround)

- **Patients being discharged to shelter:**
  - Confirm with shelter regarding their requirements, many will accept letter of health detailing negative COVID swab on admission