

# Integrated Procedural Platform (IPP)

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COVID-19 Testing for Operations and Procedures in the IPP	V17a	10/12/2020	David McAneny, Jennifer Tseng, Alik Farber

## A. Pre-Procedure Clinic (PPC) Testing

All patients will undergo nasopharyngeal (NP) swab testing for COVID-19 two to three calendar days before their scheduled operation or procedure. Testing one calendar day before an operation or procedure will be allowed, but is discouraged. After testing, patients should self-quarantine prior to arrival to BMC for their operation or procedure. Because the sensitivity of the NP swab is operator-dependent, it is best that BMC 710 Testing clinic staff obtain the specimen given their proficiency with such testing. The BMC 710 Testing clinic is located at 710 Albany Street and has both walk-up and drive-thru options for patients. Their phone number is 617-638-7670. All orders for NP swab tests will be placed by Pre-Procedure Clinic (PPC) providers regardless of whether the surgeon's office uses PPC for pre-procedure visits, except in instances of COVID-19 positive patients being rescheduled and retested (See Section H).

1. Scheduling an Operation or Procedure and Pre-Procedure Visit
  - a. When discussing and scheduling a patient's operation or procedure, the surgeon and/or their team will instruct the patient to quarantine for at least 14 days prior to their operation or procedure, to the extent possible
  - b. The Surgical Scheduler will schedule the operation or procedure, in compliance with the current prioritization process in Epic, and will schedule a pre-procedure visit, preferably, 10-14 days prior to the operation
    - i. **Services that DO NOT use PPC**
      1. Surgical Scheduler will schedule a pre-procedure visit with their Department's provider
      2. Surgical Scheduler will then send an InBasket message to the PPC at InBasket pool **BMC Amb PPC Admin**
      3. The subject line of the InBasket message will state "COVID-19 Testing" and the date of the operation or procedure
      4. The following information will be provided in the InBasket message
        - a. Patient name
        - b. Patient MRN or DOB
        - c. Name of surgeon
        - d. Date of operation or procedure
        - e. If testing MUST occur 48 hours prior to the operation or procedure, please state this in the InBasket message
      5. If the operation or procedure is cancelled or rescheduled, another InBasket message will be sent to the PPC InBasket pool notifying them of such change

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### ii. Services that DO use PPC

1. Surgical Scheduler will schedule one of three visit types with PPC in Epic. The type of PPC visit will be determined by the surgeon based on established criteria. **See PPC Lab Matrix (Appendix, Exhibit A).**
    - a. Phone visit
      - i. APP will call patient
      - ii. If patient needs pre-procedure supplies that PPC provides (e.g., Chlorhexidine washes, ERAS supplies, etc.), they will be given to the patient at the BMC 710 Testing clinic
    - b. APP and Anesthesia visit
      - i. Patient will come to PPC for an in-person visit
      - ii. Patient will be given pre-procedure supplies in the PPC, as needed
    - c. Anesthesia only visit
      - i. Patient will come to PPC for an in-person visit
      - ii. Patient will be given pre-procedure supplies in the PPC, as needed
  2. There is no need to also send an InBasket message to the PPC if the patient is being scheduled for a PPC visit several days prior to the operation or procedure
  - c. The APP performing the pre-procedure visit, whether using phone, in the PPC or in the home Department, will verbally screen for COVID-19 (e.g., unexplained fever, cough, shortness of breath, chills, muscle pain, headache, sore throat, chest pain, new loss of taste or smell, or exposure to a COVID-19 positive individual during the past 14 days)
    - i. APP will notify the surgeon via an Outlook email message as well as call the surgeon on their cell phone of a positive verbal screen
    - ii. If the patient is at BMC for an in-person pre-procedure visit and screens positive
      1. At an entrance wellness check station, they will be directed to the CRO ILI 2 clinic for testing
      2. After they arrive at the clinic for their visit, the clinic will follow current Ambulatory protocols for positive screens
2. PPC NP Swab Order Entry
    - a. The PPC will be responsible for entering **ALL** orders for NP swab tests to be completed two to three calendar days prior to the operation or procedure. They will also schedule an appointment for the patient at the BMC 710 Testing clinic in Epic. **See Tip Sheet on Pre-Procedure COVID-19 Testing in BMC 710 Testing Clinic (Appendix, Exhibit B).** Depending on the surgical department/division, the PPC may either receive a message via InBasket notifying them that an order needs to be entered or the patient will be scheduled for a PPC visit.
      - i. InBasket message
        1. APP will enter the order for NP swab and either the APP or administrative support staff will schedule an appointment for the patient with the BMC 710 Testing clinic for 2-3 days before the operation or procedure on the day the InBasket message is received. The patient will be contacted to advise them of the testing requirement, coordinate and

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schedule the testing appointment and provide them helpful information. The order will be entered as part of a Telephone Encounter or an Orders Only Encounter.

- ii. Phone visit
  1. APP will enter order for NP swab and schedule an appointment for the patient with the BMC 710 Testing clinic for 2-3 days before the operation or procedure on the day they perform the phone visit. The order will be entered as part of a Telephone Encounter or an Orders Only Encounter.
- iii. APP and Anesthesia visit
  1. APP will enter order for NP swab and schedule an appointment for the patient with the BMC 710 Testing clinic for 2-3 days before the operation or procedure on the day they perform the in-person visit. The order will be entered from the PPC Encounter.
- iv. Anesthesia only visit
  1. APP or administrative support staff will run a report in Epic each morning to determine the Anesthesia only visits happening that day and APP will enter the order for NP swab and either the APP or administrative support staff will schedule an appointment for the patient with the BMC 710 Testing clinic for 2-3 days before the operation or procedure the day the Anesthesia only visit occurs. The patient will be contacted to advise them of the testing requirement, coordinate and schedule the testing appointment and provide them helpful information. The order will be entered as part of a Telephone Encounter or an Orders Only Encounter.
3. BMC 710 Testing Clinic
  - a. Patients will be instructed to go to the BMC 710 Testing clinic two to three calendar days before their operation or procedure. **If testing is done one day prior to their operation or procedure, the patient must be tested between 8am-11am.**
  - b. The BMC 710 Testing clinic will be open Monday-Friday from 8am-2pm and on Saturdays and Sundays from 8am-noon
  - c. Patient will arrive at BMC 710 Testing clinic:
    - i. BMC 710 Testing clinic staff member will check that the NP swab order is in Epic
      1. If yes, he/she will print labels and label appropriate tubes
      2. If no, he/she will check EPIC to verify that patient's operation or procedure is scheduled for the next day or two.
        - a. If yes, clinic staff member will enter the order in Epic and the BMC 710 Testing clinic will then print labels and label tube
    - ii. Once the swab is completed, if the patient's operation or procedure is the following day, the BMC 710 Testing clinic will send the specimens to the Lab to arrive there no later than 11:30am in order for results to be returned by 4pm-5pm the day prior to the operation or procedure
      1. The specimens collected by the BMC 710 Testing clinic will run on the Roche assay (batched twice daily at noon and 5pm with average TAT 4-5 hours from receipt in Lab)
4. PPC Results Monitoring
  - a. NP swab test results will be sent directly from the Lab to the ordering PPC provider as well as the surgeon via InBasket and PPC staff will also monitor results

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- i. If the result is **negative**
  1. The result will be routed directly to the ordering provider and the surgeon via InBasket
  2. No additional email or call will be made to the surgeon or the patient by PPC staff
  3. The operation or procedure will proceed as scheduled
- ii. If the result is **positive or inconclusive**
  1. PPC APP will send an Outlook email message to the surgeon advising them of the positive result as well as call the surgeon on their cell phone
  2. **The surgeon will contact the patient to advise them of the positive result** and discuss plans for the operation or procedure
    - a. If the decision is made to not proceed with the operation or procedure (advisable for most cases) follow steps in Section H below
    - b. If the decision is made to proceed with operation or procedure
      - i. Elective operations and procedures should be avoided on patients who test positive for COVID-19
      - ii. For elective cases, the surgeon will need to contact Dr. Jennifer Tseng, Dr. David McAneny, or their designee to discuss the decision to proceed with the operation or procedure
- iii. If patient is a **no-show** for the NP swab
  1. The case will need to be rescheduled if there is not sufficient time to schedule a new testing appointment for the patient
  2. PPC administrative support staff will send an Outlook email message to the surgeon and their Surgical Scheduler notifying them of the no show and their office will need to reschedule the operation or procedure
  3. Once rescheduled, the Surgical Scheduler will send a new InBasket message to the PPC with the new date of the procedure so the PPC can reschedule the COVID-19 test and the appointment with the BMC 710 Testing clinic

### B. Day of Surgery Testing

Pre-Procedure Testing @ 710 Albany St:

Mon-Fri: 8:00 am – 12:00pm

Saturday – Sunday: 8:00am – 12:00pm

In the event that an outpatient needs to have add-on emergent or urgent same day surgery/procedure:

1. If the case presents during 710 Albany St Hours of Operation (above) and the patient is able to go to 710 Albany St for testing, follow these steps to get patient scheduled and results marked STAT:
  - a. Page the 710 Pre-Op Testing STAT Results pager at 3623 – STAT pager runs on the same hours of operation as above.

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- i. Please include: Ordering department, ordering provider, patient name, MRN, call back number & add-on surgery.
    - b. Ordering department needs to place a COVID-19 STAT order in EPIC for the patient
      - i. Order Name: SIMPLEXA
      - i. Specimen will be run on the Simplexa assay (TAT 2.5-3 hours)
    - c. Upon arrival, 710 Albany staff will schedule the patient's appointment on EPIC and obtain a swab sample
      - i. PLEASE NOTE: 710 Albany testing site **cannot accommodate** bedded or critically ill patients. Patients need to have the ability to walk to 710 Albany and enter through the lobby for "walk-in" testing or use the drive-thru for "in-car" testing
2. If the patient is critically ill, bedded, and/or are clinically unable to go to 710 Albany for same day testing OR presents outside of the 710 Albany Pre-Op Testing Hours: the NP swab will be performed in the OR waiting area consult room. Because access to the rapid Cepheid test is limited, this option should only be considered if absolutely necessary.
  - a. Patients will be instructed to do the following when arriving to BMC for their operation or procedure
    - i. The patient will arrive at the Moakley lobby entrance 2-3 hours before the scheduled operation or procedure
      1. Patient should arrive at 6am for the first case of the day
    - ii. The patient will stop at the Moakley lobby wellness check station for screening
    - iii. If the screening is **negative**
      1. The patient will proceed to the OR Registration Desk
    - iv. If the screening is **positive**
      1. The staff at the Moakley wellness check station will send the patient to the CRO ILI 2 clinic for testing and the operation or procedure will be rescheduled
  - b. After the patient checks in with the OR Registration Desk, the following steps will be followed
    - i. Registration staff will contact a Pre-op RN or the Perioperative Nurse Educator by phone at 617-414-4151 and they will escort the patient to the consult room in the waiting area to perform an NP swab. The Surgical Liaison has a key to the consult room. This does not require a negative pressure room.
    - ii. The primary surgeon or a member of the surgery team will place the NP swab order as part of the pre-op order set
      1. The ordering provider must select one of the following
        - a. "For case starts prior to 0900, order the following" (specimen will be run on the Cepheid assay (TAT 1.5 hours)
        - b. "For case starts after 0900, order the following" (specimen will be run on the Simplexa assay (TAT 2.5-3 hours)

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- iii. The nurse performing the NP swab must wear appropriate PPE as per the IPP PPE Guidelines for care of a patient whose COVID-19 status is unknown
- iv. Before entering the consult room, the nurse will tape the empty plastic specimen bag to the outside of the consult room door then the consult room door must be closed for the NP swab procedure
- v. The necessary supplies for the procedure are located in a cart in the consult room. The cart must be kept closed during the procedure. Items in the consult room are covered in plastic to allow for ease of cleaning.
  1. The person using the supplies in the cart must replace them
    - a. Order in Epic, Service Tasks tab
- vi. Labels will print in Pre-op
- vii. Once the NP swab is completed, the nurse places the swab into the specimen bag hanging on the outside of the consult room door with the Pre-op call back extension
- viii. Specimen will be sent to the Main Lab (Station# 675) via pneumatic tube
- ix. Upon completion of the NP swab, the patient will replace their mask and then wait in the consultation room or be taken to an isolation room to wait for results to be obtained
- x. Surfaces in the room which the patient had contact with should be wiped down. There is no need for a waiting period to test another patient in the room.
  1. If the result is **negative**
    - a. The consult room does not need to be cleaned by EVS
    - b. Patient will be taken to Pre-op Area and the team will proceed with the normal pre-op process. A parent accompanying a pediatric patient, can stay in the Pre-op Area, but will not come into the OR.
  2. If the result is **positive or inconclusive**
    - a. EVS will perform a thorough cleaning of the consult room
    - b. The nurse will notify the surgeon of a positive result and the operation or procedure will be rescheduled
    - c.

### C. Testing Department of Corrections (DOC) Patients

1. DOC patients will not be scheduled for operations or procedures on Saturdays and Sundays due to the difficulty in transporting them to BMC on weekends and holidays
2. DOC patients who have an operation or procedure scheduled on a Monday will require testing on the previous Friday. Those scheduled for a procedure on the day after a Monday holiday, will receive day of surgery testing because of the difficulty in transporting them to BMC for COVID-19 testing on weekends and holidays
3. In all other instances, DOC patients will be tested as described above at the BMC 710 Testing clinic two to three calendar days prior to their procedure

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### D. Pediatric Surgical Patients

1. Testing of pediatric surgical patients will follow the same guidelines described above for adult patients
2. Parents will not be tested for COVID-19, but will be verbally screened at appropriate intervals and required to wear masks while at BMC
3. A pediatric patient will be accompanied by one parent only
4. COVID-19 testing on pediatric surgical patients will be performed using NP swabs only

### E. Inpatient Testing

1. All patients who are admitted to the hospital through the emergency room for possible admission will be tested for COVID-19, consistent with current practice.
2. If the patient's test is negative and they have no concerning symptoms or findings for COVID-19 (fevers, opacities on chest CT, etc.), they will be considered a candidate for surgery using the non-COVID-19 protocol.
3. The OR will continue to monitor the COVID-19 status through EPIC and an icon dedicated to COVID-19 status will remain on the main OR board. All patients being brought to the OR for an elective procedure must have blue icon which represents negative testing.
4. Because there is a possibility of infection during the hospitalization, all inpatients (excluding patients who previously tested positive and meet criteria below) will be retested within 72 hours or 3 calendar days of their procedure (whichever is longer) to confirm that they are negative, before bringing them to the OR. It will be the responsibility of the team that plans the OR procedure to obtain this documentation. **If patient is asymptomatic (no symptoms consistent with COVID-19), patient may remain in non-COVID ward while test is pending.** COVID-19 positive patients who require emergency operations or procedures will be treated in accordance with the COVID-19 protocols.
  - a. If a COVID-recovered patient has previously tested positive for COVID-19 and is asymptomatic, retesting is not recommended within 3 months (90 days) after the date of the first positive test for the initial COVID-19 infection. These patients do not require a COVID test prior to a procedure.
5. **All inpatient COVID-19 tests will performed using NP swabs except that Anterior Nares (AN) Swabs will be used in in the following patients; those who had a negative NP swab for admission and who are asymptomatic, do not present a concern for COVID-19, and had no COVID-19 exposure within 14 days**

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### F. Emergent and Urgent Cases from ED

1. For patients who require immediate operations or procedures and who could not undergo COVID-19 testing in the Emergency Department, the patient will be treated as **Unknown COVID-19 Status** with regard to PPE
2. For urgent cases coming directly from the ED, if the patient has symptoms concerning for COVID-19 infection, the patient will wait in the ED until a COVID-19 test is performed and resulted
3. For urgent cases coming directly from the ED, if the patient does not have symptoms concerning for COVID-19 infection, the patient can proceed to the pre-operative area after the COVID-19 test has been performed, but before it has been resulted

### G. Testing Performed at another Facility

1. This is not a preferred method of pre-procedure testing, but if necessary, pre-procedure COVID-19 testing may be done at an outside facility within two to three calendar days of the scheduled operation or procedure and results received at BMC no later than 4pm the day before the operation or procedure
  - a. Results may be faxed to the PPC at 617-638-6284
2. The patient or the surgeon's staff will be responsible for arranging the outside test and obtaining results before 4pm the day prior to the operation or procedure as well as sending the results to the PPC
3. An InBasket message will be sent to the PPC notifying them that the patient will be having a COVID-19 test done at an outside facility
4. PPC will notify the surgeon if results have not been received by 4pm the day prior to operation or procedure
5. Results from Abbott NOW tests using nasal (not NP) swab will not be accepted. Abbott RT-PCR test using NP swab will be accepted.

### H. Retesting and Rescheduling Procedure after Positive Result Received Prior to Original Procedure Date

1. Patients who tested positive for COVID more than 90 days ago will only need to have **one** COVID test performed two to three calendar days prior to the operation or procedure. For these patients, the process through PPC as described in Section A of this document is to be followed.
2. COVID-recovered patients who had an initial positive test less than 90 days ago and remain asymptomatic will not require a repeat COVID test before their operation or procedure.
3. COVID-recovered patients who had an initial positive test less than 90 days ago and have **new** COVID-related symptoms should be re-tested.
4. If a patient had an initial positive test <90 days ago and does not meet [criteria for symptom-based clearance](#), the procedure will be placed back on the surgical schedule:

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- a. at least 10 days after the first positive test for mild-moderate COVID-19 OR at least 20 days after the first positive test for severe COVID-19; AND 24 hours after the resolution of fever (without antipyretics) and improvement in respiratory symptoms
  - b. The surgeon will notify their Surgical Scheduler once the patient's symptoms resolve and they are able to place the case back on the surgical schedule or if the patient is asymptomatic
5. The surgeon's office is responsible for scheduling the required COVID test at the CRO ILI 2 testing clinic
- a. If the NP swab is **positive or inconclusive**
    - i. The surgeon or their APP will contact the patient to advise them of the positive result
    - ii. The procedure is postponed for at least 10 days and the surgeon's office will schedule another NP swab at CRO ILI 2
  - b. If the NP swab is **negative**
    - i. The surgeon or their APP will contact the patient to advise them of the negative result and the operation or procedure will proceed as scheduled

### I. Postoperative Fever Testing for Inpatients

1. Patients on inpatient floors who develop a fever after an operation or procedure will be subjected to the following protocol:
  - a. For a fever 24-72 hours postoperatively, a standard postoperative work-up should be performed.
  - b. For a fever ( $T \geq 101$  F) occurring at 72 hours postoperatively, the surgical team will:
    - i. Order NP swab for COVID testing
    - ii. Send blood for Inflammatory markers including serum CRP, LDH and ferritin
    - iii. Send CBC with differential and platelet count
    - iv. Order a PA and lateral chest x-ray (or portable chest x-ray if patient unable to be transported to radiology department)
  - c. Patient will be placed under Droplet Contact Precautions (N95 mask, gown, face shield and double gloving) until test results are available.
    - i. If NP swab test is negative, but CXR has infiltrates or blood work shows lymphopenia or platelets  $\leq 135k/$  microL, then a repeat NP COVID will be sent and enhanced PPE care will continue.
    - ii. If the second COVID test is negative, then enhanced PPE care will be discontinued.

### J. Appendices

[Exhibit A: Pre-Procedure Clinic Lab Matrix](#)

[Exhibit B: Pre-Procedure COVID-19 Testing in BMC 710 TESTING Clinic](#)