MedStar Health Guidelines for Surgical/Procedural Patient Flow

This document is meant to serve as a guideline. Different entities may need to modify these recommendations based on their available resources. Additionally, this document and the links/references will continue to be updated as the guidelines evolve.

For guidance on pre-operative and intraoperative processes, follow the guidelines below:
All relevant information will be contained and updated on the following link to the Surgical Resource Page: https://covid19.medstarapps.org/2020/05/18/surgical-resource-page/

Key Principles:

- All updated **surgical guidance** can be found in one single **[COVID SURGERY SUMMARY PAGE]**, with further details all located on the MedStar COVID resource page: **www.MedStarHealth.org/COVID19Resources**
  - To determine if a case is appropriate for elective posting: **[ELECTIVE PROCEDURE Decision Algorithm]**
  - For pre-op testing:
    - Inpatients requiring surgery: **[Inpatient Urgent Case Testing Protocol]**
    - Outpatients requiring surgery (includes Urgent/Semi-Urgent/Elective): **[Ambulatory Testing Protocol]**

Critical MedStar Health COVID Safety and Infection Prevention Principles:

1. Standards are different for elective surgeries and urgent/emergent surgeries and procedures. Thoughtful classification of the procedure is important.
   a. Pre-operative/pre-procedural testing is expected for elective cases to allow proper risk stratification (all operative cases and procedures involving an aerosol generating procedure or moderate sedation), and cases should generally be cancelled if testing is not complete. COVID positive patients will be rescheduled beyond 30 days.
   b. Elective surgeries and procedures must be delayed if a patient is COVID+ or has symptoms suspicious for COVID19.
2. MedStar Health system standards for PPE use should be followed all times, to ensure safety to associates and patients and to conserve nationally constrained PPE items where possible. Guidance on proper PPE use is located on the **[PPE Essentials Page]** on the resource website **www.MedStarHealth.org/COVID19Resources**
3. Surgical cases on PUI or COVID+ patients should be performed in negative pressure ORs whenever available, and system standards for room cleaning and disinfection should be followed.
4. Further supporting resources for facilities will be available on the COVID19 Resource Site and StarPort.

SECTION I: NON-COVID/NON-PUI PATIENTS (Negative pre-op COVID testing, no COVID symptoms):

Physical Distancing Guidelines

I. Prior to Patient Arrival
   A. Consider options for pre-registration and/or touch free registration options to limit contact with admitting personnel on day of surgery.

II. Patient Arrival
   A. Consideration of any person accompanying patient must be made in accordance with the current visitor policy at the care location. Current MSH visitor policy can be found at https://covid19.medstarapps.org/2020/04/16/combined-temporary-patient-visitor-restrictions-during-covid-19/ .
   B. Screen all patients and visitors for COVID symptoms.

C. Ensure all associates, visitors and patients are wearing the appropriate mask.

III. Registration
A. Install proper indicators on floor in waiting areas (6 feet apart) to prohibit congregating or violating physical distancing requirements.
B. Explore possibilities to achieve contactless registration.

IV. Surgical/Procedural Waiting Area
A. Ensure proper physical distancing
i. Install proper indicators on floor (6 feet apart) to prohibit congregating or violating physical distancing requirements.
B. If waiting room exceeds limits of physical distancing, consider leveraging technology (phone/text/app) to notify visitor of patient's status so that they may wait in a more open area (e.g. wait in car, outside etc.).

V. Preoperative/Preprocedural Holding Area
A. For preoperative/procedural areas without solid walls between patients, ensure physical barrier (such as curtain) is drawn.
B. Install proper indicators on floor to prohibit congregating or violating physical distancing requirements.
C. Follow entity visitor policy, which can be found at the following [Visitor Policy Summary link].

VI. Recovery Area
A. Ensure physical distancing requirements can be maintained between patients (6 feet apart or separated with a physical barrier).
B. No visitors allowed unless patient has a specific need (e.g. Disability).

VII. Discharge
A. Recommend alternate solutions to discharge process to achieve physical distancing requirements and limiting contact.

Disinfection Guidelines

I. Use approved disinfecting products
A. For updated list of approved disinfecting products for various applications and environments, please visit the MedStar COVID-19 [Approved Disinfectants Link].

II. Registration
A. After each patient, wipe all non-porous surfaces (including table tops, chairs, pens, clipboards, pin pads, etc.) with an approved disinfectant effective against COVID-19. Follow manufacturer's instructions for contact time.
1. Alternatively, supplies such as pens and clipboards should be sequestered after use by a patient and periodically disinfected in bulk.

III. Waiting Area
A. Frequently (including at start and end of day shift), wipe non-porous horizontal and high touch surfaces with an approved disinfectant effective against COVID-19 (at least twice per day).

IV. Preoperative and preprocedural areas/PACU
A. After each patient, wipe all non-porous surfaces (including table tops, chairs, pens, clipboards, pin pads, etc.).
1. Alternatively, supplies such as pens and clipboards can be sequestered after use by a patient and periodically disinfected in bulk.

V. Operating Room
   A. Clean OR utilizing standard OR turnover protocols for non-PUI, non-COVID-19 patients.
      i. For asymptomatic, COVID negative patients undergoing an aerosol-generating operative procedure, standard OR procedures should be followed

Personal Protective Equipment

I. PPE use should be according to guidelines: https://covid19.medstarapps.org/wp-content/uploads/2020/05/COVID-Preop-Testing-and-PPE_05.03.20.pdf .
   A. For asymptomatic, COVID negative patients undergoing an aerosol-generating operative procedure, OR teams should don N95 + standard surgical attire according to their role
   B. For asymptomatic, COVID negative patients not undergoing an aerosol-generating operative procedure, standard surgical attire should be worn
   C. During intubation and extubation of all patients, proceduralist should don an N95

SECTION II: PATIENTS TESTING POSITIVE FOR COVID IN THE PREOPERATIVE PERIOD

Surgical Planning Guidelines

I. Elective surgeries that can be delayed for 1 month
   A. Postpone surgery until asymptomatic and re-test in at least 1 month from positive test.
   B. In the event that the test is still positive, and the procedure cannot be further delayed, perform surgery under COVID precautions.

II. Urgent surgeries that can be delayed past 2 weeks
   A. Postpone surgery and re-test in 2 weeks.
      1. If still positive, then take to surgery under COVID precautions.

III. Urgent surgeries that cannot be delayed past 2 weeks
   A. Take to surgery under COVID precautions.

IV. If retesting is required, one test should be performed. If results are **negative**, an asymptomatic patient can be considered negative for COVID19.

Pre-Operative Preparation: Outpatient

I. See pre-operative testing guidance for urgent procedures via this [LINK].
II. See pre-operative testing guidance for elective procedures: Located via this [LINK]

III. Patient arrival
   A. Ensure current visitor policies are being followed
   B. Screen all patients and visitors for COVID symptoms at the entrance
   C. Ensure all visitors and patients are wearing the appropriate mask
      1. Patients who are COVID+ should wear a procedural mask

IV. Registration
   A. Establish a process to rapidly identify a COVID positive patient on arrival

V. Physical Distancing
   A. Asymptomatic, recovered COVID+ patients
      1. Consider dedicated waiting room area for COVID+ patients

2. Maintain 6 feet of spacing between patients in waiting, pre-operative, and recovery settings. Physical barriers (such as curtains) should be used when available.

B. Symptomatic COVID+/PUI patients
1. Patients should bypass registration and be brought straight to an isolated area for processing.

Pre-operative Preparation: Inpatient

I. An updated summary guidance on preoperative testing is provided via this [LINK].

II. All consents and pre-procedure paperwork / lab work should be completed prior to patient's departure from inpatient unit.

III. Patients should be transported directly to the OR from their inpatient room following standard precautions.

Preoperative Process

I. Preparation for surgery
A. Place COVID-19/PUI sign on all exterior entrances to OR.
B. While setting up the room, room staff will wear standard surgical mask, and shoe covers.
1. Remove unnecessary equipment from the OR.
C. Anesthesia
1. Confirm the presence of a CMAC/Glidescope.
2. New HEPA filters on anesthesia circuit should be placed distal to the EtCO2 connector and on the expiratory limb of the circuit. (EtCO2 connector should be placed between the HEPA filter and circuit).
3. Pyxis machines stay in the ORs and ideally should be 6 feet away from the head of the bed during intubation. If the Pyxis machine cannot be moved (against wall or other restriction,) the bed may be moved away from the Pyxis prior to intubation and then returned.
4. If for any reason drawers of a Pyxis machine needs to be accessed, immediate hand hygiene must occur immediately before and after drawer access.
5. Prepare medications needed for induction in standard fashion. Acquire all anticipated narcotics from Pyxis machine prior to patient entering room.
D. Nursing (RN and tech)
1. Standard OR preparation.
2. Have only necessary supplies and PPE in the room to avoid waste.
3. Repeated exit and entry into the room during the case to retrieve supplies should be avoided.
4. A runner will be assigned to obtain necessary supplies to minimize door openings. The OR door should only be opened to exchange supplies.
E. After patient is transferred to OR table, follow same steps to clean the bed as for patients under Contact Precautions.

Intraoperative

I. One negative pressure room, if available, will be dedicated to COVID and PUI patients. All efforts, whenever possible, should be made to utilize the dedicated negative pressure OR for COVID patients if available. Efforts should be made with environmental safety and facilities to develop alterations to additional rooms whenever possible.
Staff transitions and handoffs should be minimized. Minimum staff to conduct the procedure should be utilized.

II. Follow standard MedStar Health guidelines for use of PPE, donning, doffing, and disinfection of PPE.
https://covid19.medstarapps.org/wp-content/uploads/2020/04/Safe-N95-PPE-Reuse-Extended-Use-Process-in-COVID-19-4.22.20-v2.pdf

https://covid19.medstarapps.org/2020/05/12/ppe-instructional-videos/

http://starport.medstar.net/msh/NaP/EmployeeInitiatives/Documents/Coronavirus/COVID19%20Personal%20Protective%20Equipment%20for%20HOSPITAL%20Locations%203.30.20%20Final.pdf

https://covid19.medstarapps.org/wp-content/uploads/2020/04/COVIDPPEPoster_ExtendedReuse_Horizontal_v4_04302020.pdf

III. Airway Management

A. For induction (intubation)
   1. Minimize/avoid positive pressure masking. Ensure deep paralysis prior to intubation.
   2. Video laryngoscope recommended for all intubations to position provider farther away from airway and to maximize 1st attempt success. Intubation should be performed by the most experienced member of the anesthesia team assigned to case.
   3. ETT cuff should be inflated immediately after intubation.
   4. Supraglottic Airway Device is the preferred method of rescue ventilation.
   5. Use inline suction systems if suctioning is necessary.
   6. Surgical team will be using N95 respirators and may remain in the room during intubation, minimizing door openings. Follow CDC guidelines for donning/doffing PPE when exiting/entering room.

IV. Specimen/Trash Handling

A. Positive COVID status should be indicated on the pathology form.
B. Send specimen direct to pathology in cooler or Oxford Box. If no box is available, specimen may be placed in a biohazard bag.
C. Trash and waste will be collected in standard trash bags for disposal.
D. All exposed/unused supplies will be discarded.
E. Medications that are removed from the PUI/COVID room Pyxis should be discarded if unused and should not be placed in the return bins.

V. SPD/Case carts

A. Follow standard practices for high-level disinfection and sterilization of semi-critical and critical medical devices contaminated with COVID-19, as described in the CDC "Guideline for Disinfection and Sterilization in Healthcare Facilities at the following website: https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html .

VI. During emergence (extubation)

A. Consider strategies to minimize coughing on emergence.
B. Use of a towel or plastic sheet placed over the airway during extubation (to minimize aerosolized secretions during cough) is encouraged. Place well-sealed face mask as soon as possible.

VII. Recovery

A. ICU patients will return to ICU. For patients remaining intubated, the HEPA filter from the anesthesia circuit will be applied to the bag/mask ventilator for transport.
B. Non-ICU patients will be recovered in the operating room initially by anesthesia provider and PACU nurse. Surgical team member will provide handoff report to PACU nurse.
   1. Once patient is stable, an additional PACU nurse is immediately available, and the primary PACU nurse is comfortable with handoff, the anesthesia provider may depart.
   2. Once PACU criteria are met, patient may be transported to the floor wearing a procedural mask.
   3. Persons performing transport will wear a surgical or procedural mask.

VIII. Room Disinfection

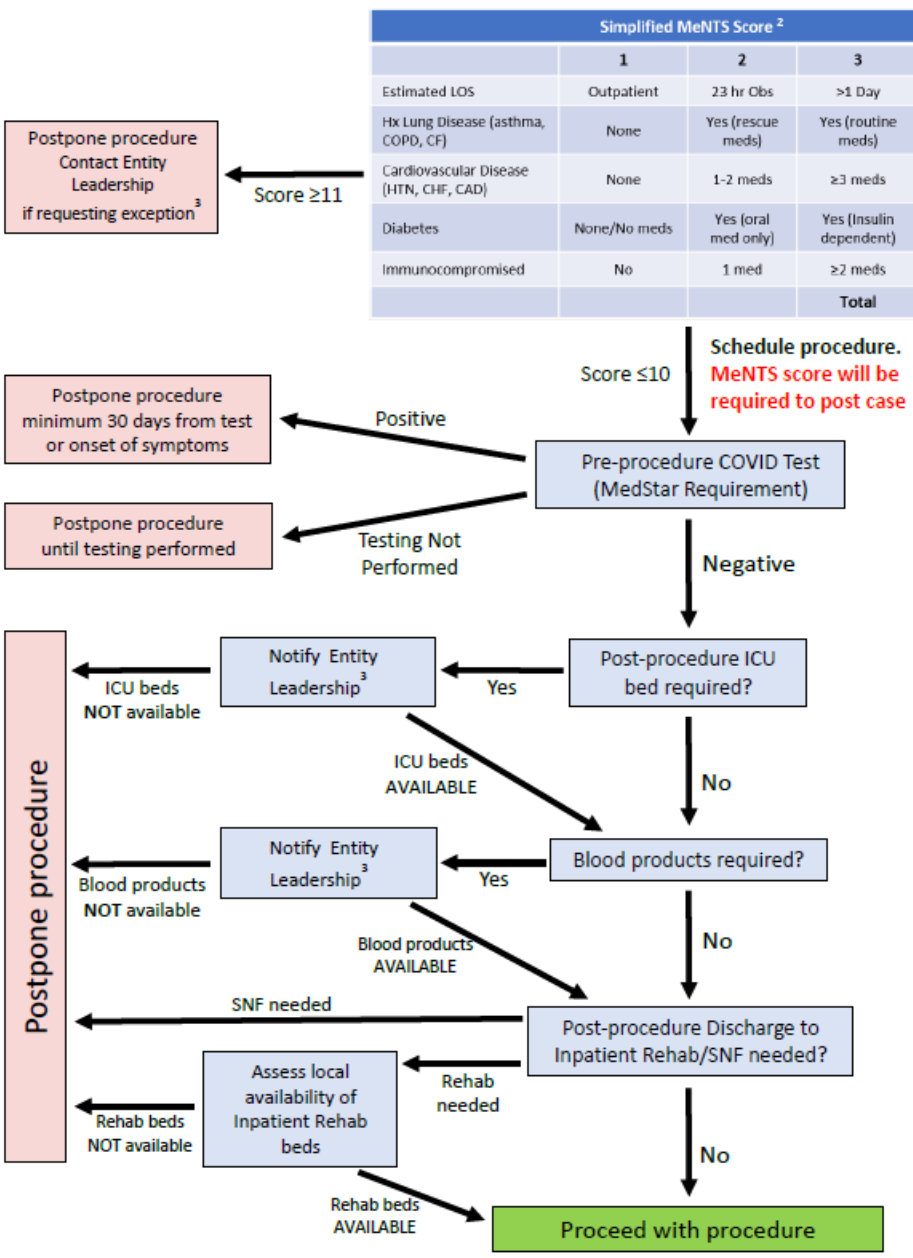
A. Place a sign on the door to indicate what time the room can be cleaned and EVS will be notified.
B. Wait one hour for negative pressure room prior to decontamination or two hours if non-negative pressure.
C. The OR will be terminally cleaned, and it is recommended (but not required) to use the Surfacide machine after.
D. The Pyxis machines will be restocked in the evening after terminal cleaning by pharmacy – there is no increased risk to the pharmacy technician and no need for N95 mask during restocking.

SECTION III: APPENDIX

Appendix A-1

MedStar Health Elective Procedure COVID Decision Algorithm[1]

Simplified MeNTS Score [2]				
	1	2	3	Score
Estimated LOS	Outpatient	23 hr Obs	>1 Day	
Hx Lung Disease (asthma, COPD, CF)	None	Yes (rescue meds)	Yes (routine meds)	
Cardiovascular Disease (HTN, CHF, CAD)	None	1-2 meds	≥3 meds	
Diabetes	None/No meds	Yes (oral med only)	Yes (Insulin dependent)	
Immunocompromised	No	1 med	≥2 meds	
			Total	



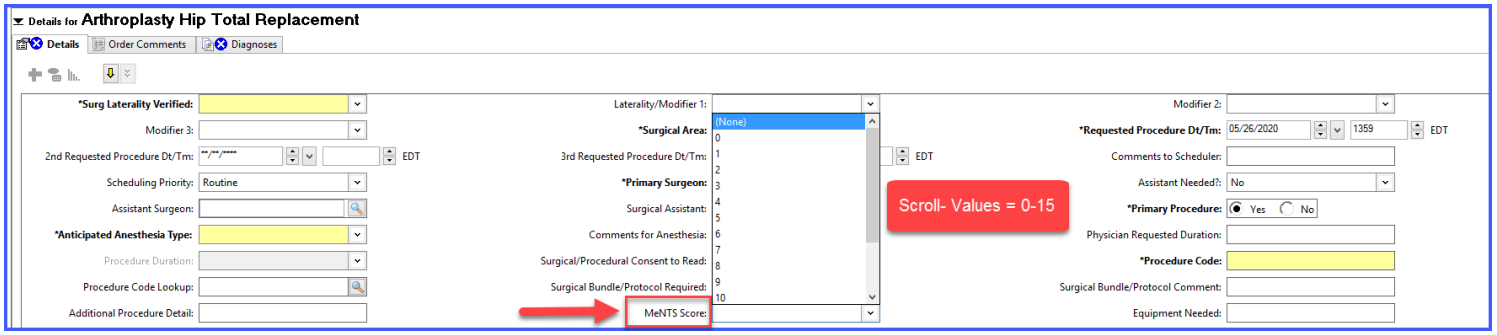
[1] Selected service lines will follow separate guidelines due to the nature of their procedures
[2] Modified from Prachang VN, et al. *J Am Coll Surg* 2020 Apr 9 (Epub ahead of print)
[3] Entity Leadership: Surgeon on President-appointed perioperative leadership group

Appendix A-2

MedStar Health Elective Surgery Decision Workflow in COVID era

The following workflow outlining the "MedStar Health Elective Procedure COVID Decision Algorithm" should be used for scheduling elective procedures while restrictions in the COVID pandemic still exist. This workflow will be discontinued when MedStar returns to normal operations.

1. Complete the Simplified MeNTS score for patients to stratify postoperative risk.
    a. Patients with score ≥11 should be postponed.
        i. If you feel the patient should still proceed with the procedure, contact Procedural Medical Director (or Chief of Surgery/Service if there is no Medical Director) to request an exemption.
    b. Patients with score ≤10 may be scheduled for procedure. You will **not** be able to post a case without the MeNTS score.
        i. If scheduling by fax or email, include the score in the description of the procedure. Example: "Left thyroid lobectomy with nerve monitoring (MeNTS 9)".
        ii. If scheduling by MedConnect, enter the MeNTS score in the Orders to Scheduling field. See screenshot below.



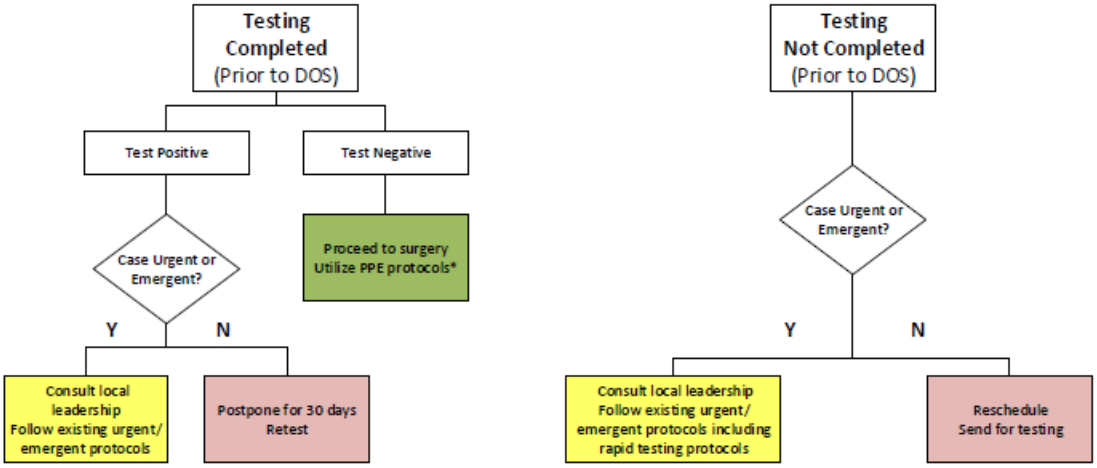
    c. MeNTS score threshold may be adjusted depending on hospital resources.
2. COVID testing 4-5 days prior to elective surgical procedures requiring anesthesia, aerosol generating procedures (EGD, Bronchoscopy, certain IR and EP procedures), and procedures requiring moderate sedation with independent monitoring, is considered a MedStar Health standard. Other procedures may be tested as laboratory resources allow. Indications for testing prior to procedures can be found at www.medstarhealth.org/covi19resources under Operations -> Elective Procedures.
    a. COVID positive patients should be postponed a minimum of 30 days.
        i. Prior to rescheduling, patients should be retested.
            1. One negative test would clear patients to proceed with standard precautions.
            2. If COVID test remains positive, consider proceeding with COVID precautions.
    b. If preop COVID testing is not performed or results have not returned, postpone procedure until testing is complete.
3. Assess need for post-procedure ICU status.

   a. If patient has high likelihood for requiring ICU, contact Procedural Medical Director (or Chief of Surgery/Service if there is no Medical Director) and notify of procedure date. Low ICU bed capacity may require postponement of postponement, but this may not be determined until the day prior to procedure.
4. Assess need for post-procedure discharge to inpatient rehabilitation or skilled nursing facility.
   a. If post-procedure discharge to inpatient rehab is anticipated, then surgeon should confirm availability of rehab beds with case management.
      i. If there are no inpatient rehab beds available, the procedure should be postponed.
   b. Patients requiring postop SNF should be postponed.
5. Assess need for intraoperative blood products.
   a. If patient has high likelihood for requiring blood products, contact Procedural Medical Director (or Chief of Surgery/Service if there is no Medical Director) and notify of procedure date. Low supply of blood products may require postponement of procedure, but this may not be determined until the day prior to procedure.
6. Schedule procedure – notify scheduler whether case is **elective or urgent** and this must be communicated to posting.
7. Patients proceeding with procedure will be screened for new COVID symptoms on the day of procedure. Those screening positive should be postponed, and testing required prior to rescheduling. Patients that have had pre-procedural COVID tests performed should be retested if they develop new symptoms between the testing date and procedure date. The MedStar Health COVID lab callback center will provide self care advice to COVID+ patients, however the primary surgical team is responsible for discussion with patient on the postponement of the surgical case.

Appendix A-3

Management of COVID Test Results for Elective Surgery and Elective Procedures With Negative COVID19 Screening

For the purposes of risk stratification and to avoid unnecessary PPE use, COVID Testing is expected prior to all elective surgeries and elective procedures that require moderate sedation or involve AGPs. The patient should self-quarantine continuously between the time of the test and the procedure. Patients must be rescreened for symptoms prior to the procedure. Asymptomatic patients without a test result, should not be considered PUI. Patients who screen positive for COVID19 symptoms are not candidates for elective surgery.



Notes:
- All first cases of the day must be pre-tested
- COVID testing for elective procedures shall be performed 4-5 days prior to procedure date to allow sufficient time for results

Reference Links: Pre-op outpatient testing COVID protocols:

All guidance can be found at www.MedStarHealth.org/COVID19resources

Inpatient/ED pre-op testing algorithm (urgent/emergent): https://covid19.medstarapps.org/wp-content/uploads/2020/04/Pre-Op-INPATIENT-testing-Protocol-COVID-_.pdf
Outpatient pre-op test ordering/reporting procedure: https://covid19.medstarapps.org/wp-content/uploads/2020/04/Pre-Op-OUTPATIENT-testing-Protocol-COVID.pdf
PPE use in OR following pre-op testing: https://covid19.medstarapps.org/wp-content/uploads/2020/05/COVID-Preop-Testing-and-PPE_05.03.20.pdf
Full PPE guidance including appropriate use, donning/doffing/conservation practices: https://covid19.medstarapps.org/2020/04/19/ppe-guidance-page/