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# Guidance for resuming GI endoscopy and practice operations after the COVID-19 pandemic

## Prepared by:

**Bruce Hennessy, MD, FASGE, Joseph Vicari, MD, MBA, FASGE, Brett Bernstein, MD, MBA, FASGE, Frank Chapman, MBA, Inessa Khaykis, MD, FASGE, Glenn Littenberg, MD, FASGE, David Robbins, MD, MSc, FASGE**

The rapid spread of coronavirus disease 2019 (COVID-19) has forced the temporary postponement of elective endoscopic procedures and nonessential GI office activity. As current containment measures take hold and the number of new COVID-19 cases is decreasing in some areas, GI practices need to plan for the gradual resumption of clinical operations. This must be achieved with the lowest possible risk of exposing patients, staff, and providers.

On April 19, 2020, the Centers for Medicare & Medicaid Services provided guidance to facilities on restarting non-COVID-19 care in accordance with a phased approach based on criteria outlined in the White House guidance to opening up America again.<sup>1</sup> The decision to reopen ultimately rests with state and local authorities. Protocols should be followed and updated based on best available public health information.

The purpose of this document is to present recommendations to use for mitigation of infection risks during the gradual reopening of endoscopy centers and GI clinics. It is anticipated that physician and facility readiness to resume clinical operations will vary based on the status of the pandemic in a given geographic location and will evolve gradually based on local conditions and guidance from public authorities. Not all proposed measures will be applicable to all practice settings at all times. Gastroenterologists and their administrators need to exercise discretion in implementing individual suggestions, with the goal of supporting their reopening efforts while ensuring the safety of patients, staff, and providers.

## TOP PRIORITY: SAFETY OF PATIENTS AND STAFF

Practices should consider the following:

*Abbreviations: COVID-19, coronavirus disease 2019; PPE, personal protective equipment.*

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1. Patients should be screened with a preprocedure COVID-19 questionnaire within 72 hours of their visit and responses updated, as needed, on arrival to the clinic or endoscopy facility. Staff should be similarly screened before starting each workday. Although preprocedure questionnaires are foundational, screening will evolve to include COVID-19 testing according to best available technology (see below). The supplemental use of telehealth services should be considered to further assess a patient's fitness. Although there is continued debate about its utility, onsite forehead temperature measurement (of patients and staff) using, for example, a noncontact infrared thermometer can be considered as well.<sup>2</sup>
2. Positive responses from patients or staff to any screening question should prompt their removal from care areas and, if clinically appropriate, into self-quarantine. Resources and a defined workflow for care of anyone presenting with illness should be in place and will vary with institution and practice. Appropriate follow-up and repeat screening (commonly including testing) will determine suitability for rescheduling or return to work.
3. Potential exposure to infected individuals should be reported to the proper authorities (eg, the Department of Health) to trigger contact tracing.
4. Room preparation and cleaning, as well as equipment reprocessing, should be performed in accordance with up-to-date requirements by licensing and society recommendations (see below).
5. All patients should be surveyed 1 to 2 weeks postprocedure to assess their satisfaction, to record potential adverse events, and to assess for interval COVID-19 symptoms or positive test results. Contact tracing should be initiated if the interval between the encounter and new symptom onset is sufficiently short or if, at any point, a staff member similarly tests positive.
6. Physical distancing rules (see below) need to be followed by patients and staff, except during intervals of close contact required by providers to prepare the patient for a procedure or conduct a physical examination.

7. When putting on or taking off personal protective equipment (PPE), proper hand hygiene must be practiced.<sup>3,4</sup>
8. Staff should remove watches, rings, earrings, necklaces, and other forms of jewelry before entering the endoscopy unit. Facial cosmetic products should not be worn if PPE is being reprocessed, such as with N95 masks.
9. All staff and providers should be oriented and trained on the unit's COVID-19 protocol, including proper hand hygiene, the required PPE in their designated work area, proper PPE don and doff technique, location within the unit of replacement PPE, and proper disposal. A "dry run" of the implemented protocol is suggested. New staff and providers who may rotate through the unit, such as anesthesia providers, must be properly oriented and trained before working in the unit for the first time. Training and orientation should be repeated as protocols change over time.

## **DISTANCING AND PPE CONSIDERATIONS FOR THE OFFICE**

Distancing of 6 feet (2 meters) or more between individuals should be enforced as much as possible and the following measures considered:

1. Patients should come by themselves or with only 1 essential family member/caregiver.
2. Patients should wait off premises or in a vehicle until they are called for the visit.
3. Lobby/waiting room chairs should be redistributed for social distancing (which may reduce capacity by 50%-75%).
4. The check-in process should be reworked to limit direct contact with staff, and patients should be roomed immediately after the initial screening.
5. Scheduling and check-out processes should be redesigned to ensure that distancing is maintained, preferably with separate entrance and exit. Staff performing prescreening and follow-up assessments can take advantage of telehealth services and work remotely over a virtual private network. Telehealth can also be used for scheduling and relaying prep information or answering questions about any planned procedures. Physical barriers (eg, plexiglass partitions) should be considered if sufficient physical distancing cannot be accomplished.

Patients and staff should be wearing washable cloth or surgical face masks at all times.

Resumption of minor office procedures should take into account the phased approach outlined in the introduction. PPE use for office procedures should follow PPE considerations for the endoscopy center (see below).<sup>3</sup> Whether such PPE requirements can be lessened will depend on the availability, accuracy, and affordability of point-of-care viral tests and should await public authorities and professional society guidelines.

## **DISTANCING AND PPE CONSIDERATIONS FOR THE ENDOSCOPY CENTER**

Distancing and entrance and exit considerations should follow parallel processes as described above for offices. The capacity of lobbies, admittance and recovery bays, and foot traffic to leave the center may be substantially reduced, and substantial capacity decreases will be common as long as distancing is needed. Availability of reliable point-of-care testing may eventually allow for reduced distancing requirements.

All staff and patients should wear surgical/ear loop masks provided by the center. Only essential caregivers should accompany a patient into the center. Family members or responsible adult companions should return later or stay in vehicles until called. Staff in specific areas should wear the following:

- Preadmission staff
  - Surgical/ear loop masks
  - Nitrile gloves
- Physical barriers (eg, plexiglass partitions) should be considered if sufficient physical distancing cannot be accomplished. If tablets are used for check-in, they should be cleaned and disinfected after each use. Use of devices in the lobby that cannot be easily disinfected should be discouraged.
- Pre- and postoperative areas
  - Surgical/ear loop masks
  - Nitrile gloves
  - N95 respirator or equivalent can be considered, depending on availability, if direct patient contact occurs (eg, helping patients gown or dress, conducting patients out of the center for discharge).
- Operative/procedure room
  - N95 respirator or equivalent
  - Nitrile gloves
  - Impervious gowns, if available. Laundered gowns have replaced lightweight disposable gowns in some centers
  - Face shields/eye protection
  - Head covering (hair net, bouffant type or surgical cap)

## **SCHEDULING OF PROCEDURES**

### **Priority tiering**

Scheduling of patients should be prioritized as urgent (tier 1), semiurgent (tier 2), or elective (tier 3), reflecting the potential of serious outcomes with delay of procedures. A detailed classification of symptoms and diagnoses by tier group can be found elsewhere.<sup>5</sup> Elective (tier 3), in this scheme, does not mean optional. If there are indications for the procedure, then inherently there are patient risks if it is not carried out. Patients should also be prioritized by the extent of their comorbidities, mainly

to identify those whose physiologic state might rapidly worsen if a procedure is deferred, or if their status might make them more vulnerable to COVID-19 adverse events. For example, a delayed evaluation of a colitis patient may mandate empiric high-dose corticosteroids.

The practice should follow a written policy outlining the priority protocol. In general, this parallels phases 1 to 3 in the White House guidance document and other similar guidance. An affidavit should be included with all notes and telephone encounters declaring that the procedure meets prioritization criteria.

Providers should indicate the patient's procedural tier in the telehealth visit or telephone encounter note. Patients should notify the practice of any change in symptoms or condition that may occur between scheduling and the date of the procedure.

### Timing of procedures

After a referral to the GI clinic, patients should be contacted and scheduled for a date appropriate to meet usual medical and COVID-19 screening needs and reflective of staff and provider availability. Offices or endoscopy facilities that have furloughed staff may find themselves unable to rapidly ramp back up, and staff will require training in detailed COVID-19–related processes. An extended work week, or extended hours, may be required in many cases during the ramp-up, particularly considering some of the capacity issues imposed by distancing. Patients who require emergent or urgent care should be expeditiously handled without bypassing essential safety steps for screening and for safe completion of their procedures.

### Previsit COVID-19 screening

A COVID-19 screening questionnaire (see [Appendix A](#) for suggested template) should be completed for all patients. The questionnaire should be completed at the time of scheduling and repeated within 72 hours of the procedure. Interpretation of answers to question 1 requires staff to have some knowledge about viral testing and its reliability. Reliance on viral testing becomes less important if all asymptomatic patients are treated as if they are potentially infected and contagious.

### Preprocedure evaluation

A telehealth visit or telephone consultation should be considered for each patient referred for endoscopy to assess for comorbidities and possible exposure to COVID-19. Expectations for the day of the procedure need to be explained during the same call. Specifically, the following process items need to be reviewed:

1. Endoscopy center intake process
2. Visitor policy
3. PPE policy
4. Consent form

Consideration should be given to including a paragraph in the procedure consent form regarding COVID-19 and

the potential risk of infection transmission related to entering a medical facility and undergoing a medical procedure during the current pandemic. After the preprocedure evaluation, the consent form, procedure instructions, and procedure prep, as needed, can be mailed or emailed to the patient.

### COVID-19 TESTING

A significant number of COVID-19 infections are being transmitted from asymptomatic or presymptomatic individuals.<sup>3</sup> Ideally, efforts to mitigate viral transmission would require all patients to demonstrate either the presence of convalescent antibodies to severe acute respiratory syndrome–coronavirus-2 or a negative molecular test within 48 hours of a scheduled procedure. Until such tests become widely available and assays have been standardized and their performance validated, GI practices will need to individualize their approach and will often have to rely on rigorous preprocedure screening and universal use of PPE for all unit staff and patients.

### DAY OF PROCEDURE

Specific steps for patient check-in, pre- and postoperative care, and procedure room protocols will vary based on the availability of COVID-19 testing and the type and size of the endoscopic facility. The following are suggestions for endoscopy unit leadership to consider and adapt to local needs. These suggestions will need to be periodically revisited and modified as new information and additional COVID-19 management tools become available.

### Endoscopy center check-in process

1. On arrival, the COVID-19 questionnaire should be repeated and the patient's temperature taken as noted above.
2. Cell phone numbers for patient and family or responsible adult should be recorded and questions answered.
3. If feasible, patients should wait in their vehicles or off premises until notified to come into the endoscopy unit.
4. Patients should proceed directly to the preoperative bay. Family members or responsible adults should return or wait in the vehicle until they are notified for postprocedure pickup.
5. Chairs in the waiting room should be spaced appropriately and face masks worn by all family members or caregivers who are unable to wait in the car or offsite.
6. Form signatures, insurance verification, and payment details should be handled remotely if possible at the time of initial screening and returned at check-in or provided to be completed in the vehicle before the patient enters the center.

### Pre- and postoperative room process

1. Patients should be admitted directly to their preoperative room or bay. Using the same space for postoperative care, if feasible, will reduce the need for cleaning between individual patients.
2. Patients should continue to wear their surgical mask throughout their entire stay at the endoscopy center (with the mask removed only for upper endoscopy).
3. If a procedural oxygen mask is used during upper endoscopy and left in place for a portion of the postoperative recovery time, it should be replaced again with a face mask as soon as the procedural oxygen mask is removed from the patient.
4. The family member or responsible adult should be notified by phone when the patient is ready for discharge. Procedure findings and follow-up plans can be discussed at that time if previously permitted by the patient.
5. The patient–provider discharge discussion can proceed as usual (with appropriate distancing and protective measures), including a conversation about endoscopy findings and follow-up plans.
6. The patient may ambulate to the vehicle or be transported by wheelchair at the nurse's discretion.
7. Follow-up phone calls will be made per unit policy.
8. Patient and family member or responsible adult should be instructed to call immediately if the patient has a positive COVID-19 test or develops any of the following symptoms within 14 days of the procedure:
  - a. Fever to 100.4°F (38°C) or higher
  - b. Cough
  - c. Shortness of breath, difficulty breathing, chest pain
  - d. Sore throat
  - e. Loss of sense of smell or taste
  - f. New-onset fatigue or lack of energy
  - g. New-onset nausea with or without vomiting
  - h. New-onset diarrhea
  - i. Any other significant new or unusual symptom

### Procedure room process

1. All members of the endoscopy team should wear a full set of PPE (gown, gloves, hair cover, eye protection), as noted above.<sup>3</sup>
2. The correct sequence of putting on and taking off PPE is critical and needs to be understood and practiced.<sup>3</sup>
3. All members of the endoscopy team should wear N95 respirators (or devices with equivalent or higher filtration rates) for all GI procedures. Given the high rate of infection transmission from presymptomatic or asymptomatic individuals, all patients should be considered potentially contagious. Negative COVID-19 molecular testing within 48 hours of the procedure and/or convalescent anti–COVID-19 antibodies may prove useful for procedural area management, but at present the moderate negative predictive value of polymerase chain

reaction testing done on nasal swab samples and insufficient data regarding waning infectivity with antibody development make it hard to rely on either test for alteration in procedural area practices.

4. Reuse of N95 respirators may be necessary in the event of resource shortages.<sup>3</sup> Guidance is available on how to wear, remove, decontaminate, and store respirators for reuse.<sup>6</sup>
5. Patients with persistent coughing postprocedure should remain in the procedure room until their cough has subsided.
6. If nebulizer treatments are required, these should be administered in the procedure room rather than the pre- or postoperative area. Metered dose inhalers are preferred over nebulizers. Patients with a history of nebulizer/metered dose inhaler use should bring their own devices with them.
7. Procedural oxygen masks should be left in place until the patient is weaned off supplemental oxygen, as noted above.
8. Patients should be transported to the recovery area as soon as they are deemed safe and ready for transfer.
9. Procedure staff and proceduralists should remove PPE and perform proper hand hygiene before completing procedure reports. Computer terminal keyboards and computer mice will be disinfected regularly using appropriate wipes (see below).
10. Procedure room vacancy should be built into the schedule to allow for extended patient recovery and room cleaning times between individual procedures. Rooms lacking negative pressure benefit from additional aeration time for adequate clearance of droplets and aerosols.

### CLEANING

1. No changes are recommended to established reprocessing procedures for endoscopes and accessories. Standard bedside precleaning, followed by manual cleaning and high-level disinfection, in the reprocessing facility should continue.<sup>7,8</sup>
2. Reprocessing staff should be donning PPE that includes gloves, gown, face shield, bonnet, and mask. Although there are no data to support a requirement for the use of N95 respirators in the reprocessing room, their use should be considered, if available.<sup>3</sup>
3. Environmental Protection Agency–registered hospital-grade disinfectant solutions and wipes should be used in procedure rooms to clean all high-touch and horizontal surfaces.<sup>9</sup>
4. Clorox or bleach wipes can be used for kitchen and personal desk spaces.<sup>9</sup>
5. Desks, counters, keyboards, computer mice, phones, doorknobs, faucets, and so on should be disinfected at least twice daily.

6. Restrooms should be cleaned frequently, ideally after each patient.
7. No changes are recommended to “terminal cleaning” procedures for cleaning and disinfecting the endoscopy unit at the end of the day.<sup>7</sup>

## DISCLOSURE

*All authors disclosed no financial relationships.*

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## APPENDIX A

### COVID-19 questionnaire

This is a suggested template to be adapted as needed.

1. Have you had testing for COVID-19? Clarify if this was a direct viral test (eg, swab, saliva) or serologic (blood antibody) test.
  - a. Was your test positive or negative?
2. Do you have any of the following? (yes or no)
  - a. Fever to 100.4°F (38°C) or higher
  - b. Cough
  - c. Shortness of breath, difficulty breathing, chest pain
  - d. Sore throat
  - e. Loss of sense of smell or taste
  - f. New onset of fatigue or lack of energy
3. Do you have nausea with or without vomiting?
4. Do you have diarrhea?
5. Have you recently traveled to any current COVID-19 hot spot? If so, where? The top impacted states in the United

States and hot spots around the world can be found in the *New York Times Coronavirus Map: Tracking the Global Outbreak* (<https://www.nytimes.com/interactive/2020/world/coronavirus-maps.html>).

6. In the past 14 days, have you come into close contact (within 6 feet [2 meters]) with someone who has a laboratory-confirmed COVID-19 diagnosis?
7. Are you a first responder, healthcare worker, or do you work or volunteer at a hospital or healthcare facility?
8. Are you an employee of a daycare facility, senior living location, adult daycare, or extended care or rehabilitation care facility?

Answering “yes” to any of the above symptom questions (1-4) should result in referral to a primary care provider for assessment and possible testing. Answering “yes” to any other question should trigger COVID-19 testing performed less than 72 hours before the procedure.