COVID-19 INFECTION MITIGATION PROTOCOL FOR STANFORD ENDOSCOPY UNITS
(Updated 03/22/2020)

ASSESSING PATIENT RISK CATEGORIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Condition</th>
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</table>
| Low Risk          | No symptoms  
No contact with someone infected with COVID-19  
*As prevalence of the infection in the community increases, patients falling in this group must be considered to be possible asymptomatic carriers. |
| Intermediate Risk | Presence of symptoms  
or  
Contact with someone infected with COVID-19 |
| High Risk         | At least one symptom  
and  
Contact with someone infected with COVID-19 |
| COVID-19 positive | Tested positive for COVID-19 |

Adapted from Alessandro Repici et al. In press, Gastrointestinal Endoscopy

SCHEDULING PROCEDURES FOR INPATIENTS AND OUTPATIENTS

Low risk patients and patients testing negative for COVID-19 (with low concern over a false negative): may be scheduled for endoscopic procedures.

Intermediate and High risk patients: will require a screening COVID-19 swab test prior to scheduling endoscopic procedures.
  • If the swab is negative, and the endoscopist feels this is NOT a high suspicion patient with concern for a false negative test, the patient may be scheduled for endoscopic procedures.
  • If the swab is positive, endoscopy will be performed only if it is an emergency life saving procedure.
  • If the swab is negative, but this is a high suspicion patient with concern for a false negative test, a multidisciplinary discussion (ID, gastroenterology, and radiology) will be required to determine the need for additional/alternative COVID-19 testing, the possibility of an alternative diagnosis, and the need for endoscopy.

PROCEDURE PROTOCOLS AND PPE USE IN PROCEDURE ROOMS

Low Risk patients and Intermediate Risk patients testing negative for COVID-19 in last 72 hours (with low concern over a false negative). Risk of exposure to providers is low:
  • Procedures may be performed in any endoscopy room.
• All personnel in the procedure room to wear gown, gloves (Endoscopists, Anesthesiologists and Techs should double glove), hairnet, eye protection and N-95 masks. Wear a faceshield over the N-95 mask to decrease contamination and allow extended use of the N-95 masks (see below).
• Avoid in-room personnel changes during procedures. *ie.* No ‘breaking’ during procedures.
• No general GI fellows or IM residents in the procedure room to conserve PPE. They may observe the procedure remotely from the conference room.
• No trainee nurses or trainee technicians in the procedure room to conserve PPE.
• Limit irrigation during colonoscopy to decrease risk of inadvertent bowel evacuation on the gurney. Reschedule patients with suboptimal bowel preps.

Covid-19 Positive Patients and High Suspicion but unproven cases (with concern for a false negative), PUI. *Risk of exposure to providers is high:*

• Procedure must be approved by Dr. Kim, Dr. Pearl, Dr, Wald and surgeon in chief, Dr. Dunn.
• All patients will be intubated and procedures performed under GA.
• ICU patients should undergo endoscopy in the ICU where feasible.
• Consider a negative pressure room in the OR for all other patients if feasible.
• For patients requiring endoscopy in the endoscopy unit, all non-fluoroscopy procedures will be performed in a negative pressure room, if feasible.
• The endoscopy will be performed as the last procedure of the day, if the level of urgency permits this.
• Patients will be wheeled directly into the procedure room. Pre-procedural evaluation, the procedure and and post-procedural recovery will all be performed within in the procedure room to minimize contamination of other endoscopy unit spaces.
• The patient will be wheeled into and out of the procedural room with a mask on. Patient mask should be removed just before initiation of sedation/anesthesia for the procedure. Face mask reapplied to patients post-procedure when O2 saturations are satisfactory.
• All personnel in the procedure room to wear gown, gloves (Endoscopists, Anesthesiologists and Techs should double glove), hairnet, eye protection with goggles or face shield and N-95 masks – *single use only.* *These N95 masks should be discarded after use in these higher risk procedures.*
• Avoid personnel changes during procedures. *ie.* No ‘breaking’ during procedures.
• No general GI fellows or IM residents in the procedure room to conserve PPE. They may observe the procedure remotely from the conference room.
• No trainee nurses or technicians in the procedure room to conserve PPE.
• Limit irrigation during colonoscopy to decrease risk of inadvertent bowel evacuation on the gurney. Reschedule patients with suboptimal bowel preps.
EXTENDED USE AND REUSE OF N95 MASKS

As low supplies of N95 masks may potentially become an issue, we will aim to conserve these where possible following use in patients where risk of exposure to providers is low. A link to SHC recommendations for PPE use will be provided soon.

A link to CDC Recommended Guidance for Extended Use is provided.

We suggest:

- Endoscopists, technicians and procedure room nurses should be given one N95 mask per person to wear continuously all day for all low risk patients and patients who have tested negative. The mask should not be discarded between procedures and cannot be removed and then put back on as that risks contamination of hands, mouth, nose, etc.
- **Faceshields should be worn over the N95 masks during each of these procedures** in order to minimize to the extent possible, COVID-19 deposition on the N95 mask that will be worn all day.

Conservation of N95 masks for later reuse:

- At the end of a day where only low risk patients have been scoped, the N95 mask should be saved in a dated Ziplock bag and held for a minimum of 4 days. If supplies of N95 masks become scarce, the saved masks could potentially be reused after this holding period.

Rotation of Endoscopists and Jeopardy Policy:

- To conserve PPE, we will move to consolidate endoscopists to 1-2 per site on any given day. This should be possible as procedure volumes will shrink significantly in the short term.
- We need to be mindful that some of our colleagues may develop symptoms that will prevent them from working. A jeopardy system will be put in place so that additional endoscopists can be called in as necessary.

GUIDELINES FOR OTHER ENDOSCOPY UNIT AREAS

General Guidelines:

- Daily mandatory check in/monitoring of all staff, physicians and vendor representatives with supervisor at the start of the shift or work day as per SHC Employee Monitoring COVID-19 policy document.
- Staff should change into fresh scrubs in the endoscopy unit at the start of the work day and discard these at the end of the work day. Used scrubs should not be worn when departing the endoscopy unit for home.
• Educator to repeat education for all staff on use of PPE/hand hygiene on a weekly basis initially.
• Staff who have had exposure to a COVID-19 patient should consult the SHC protocol for the management of healthcare personnel with COVID-19 exposure.
  Link here

Cleaning protocols:
• Door handles at endo unit – wipe down with antiseptic wipes hourly. Nurse to open all doors for all patients.
• Pre/post bays between patients: standard cleaning.
• Procedure rooms:
  o Cleaning of rooms following procedures on Low risk/negative testing patients: standard cleaning/disinfection
  o Cleaning of rooms following procedures on COVID-19 positive patients and high suspicion but unproven cases: terminal cleaning
• Close of working day: All procedure rooms receive UV-light treatment using mobile units brought in by Environmental Services.

Endoscopy Unit Reception Area:
• Receptionists should wear surgical face masks and exercise hand hygiene after each patient contact.
• Staff should understand that passing of objects back and forth (cards, pens, clipboards, etc.) could potentially transmit virus from hand to hand. Pens and clipboards should be cleaned with an antiseptic wipe between patients.
• Patients will be screened by receptionist with questions regarding symptoms, and contact.
• A nurse wearing a surgical face mask will be stationed at reception to check patient temperature. Febrile patients/those with symptoms will be directed to their PCP for testing.
• Patients should apply antiseptic hand gel prior to entry into endo unit.
• Family members will not be allowed to accompany patients into the endoscopy unit beyond the reception desk. Consider exceptions in very extenuating circumstances.
• After the patient is brought into the endoscopy unit, direct family members away from the reception area to decrease crowding.
• Family members should leave a mobile phone number where they can be reached. Inform patient’s family that they will be called with an estimated time for patient pickup and directed them to pick up patient directly at curbside following transportation out of endoscopy.
• Inform patient and family that the Endoscopist will discuss findings with the patient following the procedure and will call the patient again later the same evening again to discuss findings, assuming many patients may not remember the prior discussion due to medication related amnesia.
Pre and Post-procedural areas:

- Pre and post area nurses should wear hair nets, surgical masks and exercise hand hygiene after all patient contact and after contact with potentially contaminated equipment or surfaces.
- Endoscopists should wear mask and exercise hand hygiene while obtaining consent.
- Patient Transportation crew, Housekeeping staff and SPD staff entering the endoscopy unit should wear surgical masks and exercise hand hygiene.

GUIDELINES FOR SCHEDULING OUTPATIENTS

- Follow SHC guidance on Emergent (Tier 1), Urgent (Tier 2) and Elective (Tier 3) procedures, as defined below in Table.
- Proceed with Tier 1 and Tier 2 procedures, with protocols as above and below (i.e. adjusted by patient risk, and with best practices for infection control).
- Cancel/defer Tier 3 procedures. Explain rationale to patients, with script.
- All endoscopists to review their schedules on a rolling basis 2 weeks ahead of time, until policy can be changed. Endoscopists to submit list of all patients with Tier determination (1 vs. 2 vs. 3) to Nurse Managers and Unit Medical Directors, per specific guidance provided to all endoscopists.
- New orders for endoscopy placed at clinic visits to state Tier (1 vs. 2 vs. 3) for appropriate near vs. later term scheduling.

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<thead>
<tr>
<th>Procedure Tier</th>
<th>Definition</th>
<th>Management Plan</th>
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<tbody>
<tr>
<td>Tier 1 – Emergent</td>
<td>Immediate threat of loss of life, limb, organ or permanent disability.</td>
<td>Schedule and perform per precautions and best practices in rest of this document</td>
</tr>
<tr>
<td>Tier 2 – Urgent</td>
<td>Threat to loss of life, limb, organ or permanent disability and/or necessary for progression of treatment for life limb, organ, disability within 30 days. Necessary for progression of care for hospital discharge or prevention of a hospital admission. Includes management of cancer and others solid and liquid malignancies.</td>
<td>Schedule and perform per precautions and best practices in rest of this document</td>
</tr>
<tr>
<td>Tier 3 – Elective</td>
<td>Treatment necessary, but able to be delayed at least 30 days. Delay of surgery may be remediated by medical management. Cosmetic procedures. Patient chooses to reschedule/cancel.</td>
<td>Cancel / defer until guidance changes</td>
</tr>
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- Schedulers should confirm patients don’t have concerning symptoms/history while scheduling calls.
- Patients should be advised to call and cancel if new concerning symptoms/history develops between scheduling and procedure date.
- Schedulers will mail/e-mail printed information leaflet on this subject to patients with prep instructions.
- Tier 3 patients (see below) will not be scheduled at this time.
- Inform patients that family members will not be allowed to accompany patients into the endoscopy unit beyond the reception desk and that pickup by family following the procedure will be at the curbside.

**PRE-PROCEDURE CALLS:**

**Day -2:**
- Call patients to risk stratify into low, intermediate or high risk, based on their symptoms (have you had fever, cough, shortness of breath over the last 2 weeks?), their travel history and contact history.
- Cancel procedure if patient replies indicate intermediate or high risk of infection – refer to PCP for testing.
- Patients who test negative will be rescheduled the following day if their procedure is very urgent. This may necessitate a change in endoscopist if their primary endoscopist is unavailable, and assuming the procedure does not need specialized endoscopic skills.
- Leave voice mail if patient not reached.
- Document in EPIC

**Day -1:**
- Call all patients not reached on day -2.
- Document in EPIC

**POST-PROCEDURE CALLS:**
- All patients should receive follow up calls (using script) at day 7 and 14 post procedure to ensure patient has not developed symptoms suggestive of COVID 19 infection (and that their family members/contacts have not developed infection). Direct to PCP for testing if concerning symptoms. Document in EPIC.