Yale New Haven Health

Digestive Health

Endoscopy Standard Operating Procedure
Airborne & Contact Precautions
(COVID-19, TB) Provision of Care

Original: 3-16-2020
Last Reviewed: 3-30-2020 @ 9:27 AM

Purpose:

To provide systematic guidance for caring for those patients who require airborne isolation precautions for COVID 19, TB, or other airborne illness. Utilize this guidance in conjunction with YNHHS Airborne & Contact Precautions policies dated 3/1/2018.

Preparation:

All staff should review at a minimum the following information on the COVID 19 Clinical Resources for Employees and Medical Staff Website: https://www.ynhhs.org/patient-care/covid-19/for-employees.aspx
1. Reuse Extended Use N95
2. Link for video on proper use of PPE for Yale New Haven Health for COVID 19: https://vimeo.com/397424618/5e69e27680
3. COVID-19 Tool Kit

Scheduling Location Prioritization:
1. Option 1: When possible, patient requiring airborne isolation precautions should have their procedure performed bedside in the patient’s ICU negative pressure room.
2. Option 2: If the patient is not roomed in a negative pressure room, patient should complete the procedure in a negative pressure room in the endoscopy center. Every effort should be made to schedule procedure as the last case of the day for that specific procedure room to allow for terminal cleaning.
3. Option 3: Patient may be scheduled to have procedure in the OR. If the need is to schedule procedure in the OR, the scheduling of the case needs to be escalated through the OR Charge Nurse and/or Anesthesia OR Floor Runner.

Pre Procedure Process in Endoscopy Center:

1. Determine medical necessity of endoscopic procedure (airborne patients are transported to the endoscopy center only as medically necessary).
2. Endoscopy Charge RN designates the negative air pressure room to be utilized for endoscopic procedure.
3. Equipment to be utilized for procedure is designated by Proceduralist & Procedure RN. Equipment not needed for procedure is removed from room prior to patient arrival.
4. Patient is called for by Endoscopy Charge RN in collaboration with the Endoscopy
Procedure RN once procedure room has been prepared and is ready for patient.

5. Patient (ICU and floor) transported directly to negative pressure rooms in the endoscopy center wearing a **surgical mask** (if not intubated).

6. For YNHH, please refer to **Appendix B for negative pressure** air exchanges for each room and the length of time the room needs to remain vacant for adequate air turnover.

**Personal Protection Equipment:**

1. Staff performing aerosol-generating procedures (upper endoscopy procedures) are to don a respirator, eye protection, gloves and gown regardless of patients’ COVID-19 status for the procedure. Refer to **Appendix A: Use of N95 Respirators in Endoscopy Units, Recommendations** for detailed information regarding personal protection equipment use and reuse.

2. **One staff member should be designated to support donning, doffing for all staff entering/exiting COVID 19 procedure room.**

3. Place airborne precautions sign on procedure room door to prohibit access on door to alert staff of patients with Suspected or Confirmed COVID

**Endoscopy Center Post-Procedure Process:**

1. Patients will have pre-, procedural, and post-procedure care performed and completed in the endoscopy procedure room.

2. Transport all non-ventilated patients back to unit bed wearing a **surgical mask.**

**Procedure Room Cleaning Process:**

To be conducted per hospital policy. In summary, after cleaning is as follows:

1. **Turnover Cleaning** should be performed after each procedure. Turnover cleaning includes:
   a. High-touch objects and equipment cleaned using recommended hospital approved disinfectant. High-touch objects may include: anesthesia machines, carts, and equipment, IV poles and pumps, procedure tables/beds, patient monitors
   b. Floors cleaned as needed

2. **Terminal Cleaning Daily**
   a. Involves cleaning and disinfecting of all exposed surfaces using recommended hospital approved disinfectant, including wheels and casters, of all equipment
   b. Cleaning and disinfecting the floor which includes moving equipment to ensure thorough cleaning

**Bedside Endoscopy/Bronchoscopy Procedures:**

1. Procedure carts have been designated for bedside procedures at both the YSC – Center for Advanced Endoscopy and SRC Endoscopy sites.

2. **Endoscopy staff should remember to bring their daily designated N95 Respirators and eye protection/face shields with them in the brown paper storage bags to the patient room**

3. Carts are to be moved to the ICU negative pressure rooms by trained endoscopy/bronchoscopy procedure staff.

4. Only equipment that will be used during the procedure should be taken into the negative
pressure room. Additional equipment that may be needed should be left outside the procedure room for easy access should it be needed during the procedure and to prevent contamination.

5. Staff performing aerosol-generating procedures are to don a respirator, eye protection, gloves and gown regardless of patients’ COVID-19 status for the procedure. Please reference “Appendix A: Use of N95 Respirators in Endoscopy Units Recommendations” for further clarification regarding use and reuse of N95 masks.

6. Upon completion of procedure, staff are to move the procedure cart to outside the negative pressure patient room. The cart is to be wiped down using a hospital approved cleaning solution wipe. Please ensure appropriate dry times are followed for the solution used to disinfect cart. Cart is considered clean and may be immediately used for next case.

7. **Individual N95 Respirators and eye protection/face shields should be removed and stored for transport in the designated brown bags**

Addendum: Updates to this SOP will be based on Infection Prevention Guidelines as updated guidelines become available from the CDC.
Appendix A: USE OF N95 RESPIRATORS IN ENDOSCOPY UNITS

N95 respirators will be provided to all team members involved in potentially aerosol-producing procedures, including EGD, ERCP, EUS, intubation, and bronchoscopy.

Given the rapidly increasing spread of COVID-19 and the limitations in supply, responsible stewardship of PPE, including N95 respirators, is an important component of our policy. A variety of steps will be taken to ensure appropriate stewardship.

A) Obtaining N95 respirators
- One N95 respirator will be provided to each team member each day. The N95 respirator will be used by this team member for the entire day of procedures. A brown paper bag will also be provided to facilitate re-use (see Section B). A log of N95 and paper bag distribution will be maintained each day by a designated individual in each endoscopy unit.
- In order to minimize need for PPE and reduce risk of infection, only essential personnel will be in the procedure room.
  - General GI endoscopy room: 1 CRNA, 1 gastroenterology attending, 1 RN
  - Advanced endoscopy room: 1 CRNA, 1 advanced endoscopist, 1 RN, 1 assistant (fellow or GI Tech), 1 x-ray technician if needed
  - Bronchoscopy room: 1 CRNA, 1 pulmonologist, 1 RN, 1 assistant (Fellow or GI Tech)
  - 2 attending anesthesiologists will be required if 3 procedure rooms are active, while only 1 attending anesthesiologist will be required if 1-2 procedure rooms are active. The anesthesiology attending(s) will also receive an N95 respirator.
- Face shields also must be used over the N95 respirators. A single face shield will be provided for use for the entire day given limitations in supply.

B) Use and Re-use of N95 respirators
- Every effort will be made to consolidate procedures to minimize the total number of procedure rooms and procedure teams needed each day:
  - 1 general GI endoscopy procedure room
  - 1 advanced endoscopy procedure room
  - 1 bronchoscopy room
- The same personnel will staff each procedure room for the entire day. Breaks will occur between and not during procedures. Other individuals should not be entering the procedure rooms during procedures to minimize potential for infection and use of PPE
- After each case, when personnel are ready to exit the procedure room, they will doff their face shield and N95 respirator, wipe down with hospital-approved disinfectant, and place in a brown paper bag.
- The brown paper bag will be left in a designated cart placed outside of the procedure room
- Each individual will re-use the N95 throughout the day
- When N95 respirators are used throughout a full day of procedures they will be placed in designated bins for reprocessing.
- When N95 respirators have been used sporadically or for only a partial day of procedures they should be stored in the brown paper bag for continued use on subsequent days.
- N95 respirators that are damaged or visibly soiled should be discarded in the garbage and not recycled.
- Healthcare workers using N95 respirators, face shields, and protective goggles cannot use facial make-up because it prevents the ability to reprocess these items.

Additional Resources

Link for video on proper use of PPE:  [https://vimeo.com/397424618/5e69e27680](https://vimeo.com/397424618/5e69e27680)

Attached PDF regarding re-use of N95 respirators
Appendix B:

YALE NEW HAVEN ENDOSCOPY NEGATIVE PRESSURE ROOMS

The following rooms are negative pressure rooms for the Yale New Haven Hospital Saint Raphael and York Street Campuses:

1. SRC Endoscopy Center:
   a. Pre Procedure room – No negative pressure room available
   b. Procedure room – C2013
   c. Post Procedure room – C2021
2. YSC – Center for Advanced Endoscopy (North Pavilion):
   a. Pre Procedure room – 4-316
   b. Procedure rooms: 4-415, 4-416, 4-418, 4-419, 4-421
   c. Post procedure Room – 4-303

Please refer to the table below for negative pressure air exchanges for each room and the length of time the room needs to remain vacant for adequate air turnover.

<table>
<thead>
<tr>
<th>Campus</th>
<th>Room</th>
<th>Room Exchanges</th>
<th>Time room needs to be vacated post procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>YSC – North Pavilion</td>
<td>4-415</td>
<td></td>
<td>Minimum of 35 minutes (per Airborne Precautions/Airborne Infection Isolation Policy. Procedure room door needs to remain closed)</td>
</tr>
<tr>
<td></td>
<td>4-416</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-418</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-419</td>
<td>12 exchanges or greater per hour</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-421</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre Procedure</td>
<td>4-316</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PACU</td>
<td>4-303</td>
<td></td>
</tr>
<tr>
<td>SRC - Celentano</td>
<td>C2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C2021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>