Interim Guidance for Surgery and Other Procedures: Screening, Testing, and Personal Protective Equipment (PPE) for COVID-19
April 19, 2021 (Replaces April 2, 2021 Guidance)

This document provides guidance for (1) initial pre-procedure COVID-19 symptom screening and SARS-CoV-2 testing, (2) personal protective equipment, and (3) subsequent testing and scheduling of patients who have a history of a previous positive SARS-CoV-2 test or have a positive SARS-CoV-2 test at the time of initial pre-procedure testing.

FIGURE 1: OVERVIEW of Screening, Testing, and PPE for Surgery and Other Procedures

1. SCREEN\(^1\) patient prior to and upon arrival for pre-procedure testing and prior to procedure using questions below:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms of COVID-19?(^2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis of COVID-19 within past 10 days?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure to COVID-19 within past 14 days?(^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel from another country within 10 days?(^1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If YES to any question OR positive TEST DEFERRAL may be required. See footnote 1 and Figure 2.

IF DEFERRAL IS INDICATED BUT NOT FEASIBLE (e.g., emergent surgery), implement COVID-19 precautions. See Table 1, Figure 3, and Figure 4.

If NO to all questions AND negative TEST PROCEED with procedure using appropriate PPE.

2. TEST for SARS-CoV-2
   - Use a nucleic acid detection test (e.g., PCR, NAAT).
     Antibody tests and antigen tests are not acceptable.
   - Perform test on a respiratory tract specimen (i.e., nasopharynx, oropharynx, nasal, mid-turbinate, saliva).
   - Test no more than 5 days prior to procedure date.
   - For non-elective surgery, patients with a prior positive test within the previous 90 days do not routinely require testing. See Figure 3.

3. USE APPROPRIATE PPE
   - Well-fitting surgical mask at all times
   - Eye protection for ALL patient care (regardless of COVID-19 status)\(^3\)
   - N95 respirator for ALL aerosol-generating procedures, including intubation and extubation, regardless of COVID-19 status
   - Implement contact and droplet precautions (N95 recommended [surgical mask is acceptable alternative], gown, gloves, eye protection) for patients with confirmed or suspected COVID-19, exposure to COVID-19, travel-related risk factors, and those for whom SARS-CoV-2 test results are not available at the time of surgery/procedure.
1**PLEASE NOTE:** CDC and NYSDOH have eliminated certain quarantine restrictions following exposure to someone with COVID-19 and international travel based on vaccination status and/or recovery from COVID-19 infection within the previous 3 months. However, because vaccinated persons are still required to strictly adhere to other interventions (e.g., hand hygiene, use of face coverings) through Day 14 after an exposure to COVID-19 and because this may not be possible during surgery, procedures and hospitalization, **quarantine is continued through DAY 14 for certain patients undergoing procedures or hospitalization at NYP, CU, and WCM facilities.** Deferral of elective procedures may also be required:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Patient’s Vaccination Status¹</th>
<th>Contact and Droplet Precautions</th>
<th>Deferral of Elective Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to COVID-19⁵</td>
<td>Vaccinated or Unvaccinated</td>
<td>14 days after last exposure</td>
<td>14 days after last exposure</td>
</tr>
<tr>
<td>International Travel⁵</td>
<td>Fully Vaccinated†</td>
<td>Not required</td>
<td>Defer until SARS-CoV-2 testing on Day 3-5 after arrival has been completed</td>
</tr>
<tr>
<td></td>
<td>NOT fully vaccinated†</td>
<td>7 days after arrival to US if test negative on day 3-5 OR 10 days if not tested</td>
<td>7 days after arrival to US if negative SARS-CoV-2 test on Day 3-5 after arrival OR 10 days after arrival if no SARS-CoV-2 test 3 or more days after arrival</td>
</tr>
</tbody>
</table>

²**“COVID Recovered”** patients (i.e., recovered from documented COVID-19 infection within the previous 3 months) do NOT require contact and droplet precautions or deferral of procedures in the setting of exposure or international travel.

³**Fully vaccinated:** ≥2 weeks following receipt of the second dose in a 2-dose series, or ≥2 weeks following receipt of one dose of a single-dose vaccine.

**NOTE:** As of April 1, 2021, travelers to New York from other US states or US territories are no longer required to quarantine or undergo post-travel testing.

²Symptoms of COVID-19 include fever (subjective or measured ≥ 100°F or 37.8°C), cough, shortness of breath, sore throat, muscle aches, diarrhea, nasal congestion, headache, chills/rigors, new onset loss of smell, and altered sense of taste.

³**An exception to the eye protection requirement** is made in situations where the HCP’s essential work cannot be done while wearing eye protection (e.g., a surgeon using an operating microscope or eye protection interfering with visualization). **Specialty eyewear (e.g., loupes mounted on safety glasses) is ONLY considered to be protective if it extends to the brow and covers the sides of the eyes. Side shields may be worn with specialty eyewear (or prescription eyeglasses, e.g., while performing surgery under a microscope) to provide additional coverage of the sides of the eyes ONLY when other forms of eye protection cannot be used. The use of side shields with prescription eyeglasses should NOT be used alone as eye protection in other situations. Please note that side shields are suboptimal as compared to other eye protection (e.g., face shields, eye shields, goggles) and should only be worn when other eye protection cannot be worn as above.

Contact Infection Prevention & Control:

<table>
<thead>
<tr>
<th>NYP-AH: 212-932-5219</th>
<th>NYP-CU and NYP-MSCH: 212-305-7025</th>
<th>NYP-WC: 212-746-1754</th>
</tr>
</thead>
</table>
Table 1: Health Care Personnel PPE Requirements
Based on Surgery/Procedure Type and SARS-CoV-2 Test Result

<table>
<thead>
<tr>
<th>Type of Surgery/Procedure</th>
<th>Examples</th>
<th>Pre-Procedure SARS-CoV-2 PCR Testing</th>
<th>PPE Requirements During Procedures Performed on Asymptomatic Patients WITHOUT Recent Exposure to COVID-19 or Travel(^2) Based on SARS-CoV-2 PCR Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeries/procedures that require general anesthesia, deep or moderate sedation</td>
<td></td>
<td>Required</td>
<td>Positive, Indeterminate or Pending</td>
</tr>
<tr>
<td>Aerosol-generating procedures (AGPs)</td>
<td>Bronchoscopy, TEE, upper GI endoscopy, procedures of aerodigestive tract with insufflation of air, some dental procedures, tracheostomy placement, sleep studies that may require NIPPV</td>
<td></td>
<td>N95, eye protection, gown, gloves</td>
</tr>
<tr>
<td>Procedures/tests during which patient cannot wear a surgical mask AND that may increase generation of respiratory droplets</td>
<td>Testing that involves exercise (e.g., treadmill, bicycle, walk test), pulmonary function tests (PFTs)</td>
<td>Consider testing if result would influence decision to delay/perform procedure/test</td>
<td>N95, eye protection, gown, gloves</td>
</tr>
<tr>
<td>Surgeries/procedures that do NOT generate aerosols and do NOT require general anesthesia or deep or moderate sedation</td>
<td>Skin biopsy, transthoracic echocardiography, imaging tests (e.g., CT, MRI)</td>
<td>Not Required or Recommended</td>
<td>Surgical mask, eye protection(^3), routine PPE appropriate for procedure, +/-N95 for prolonged close contact if patient unable to wear a mask</td>
</tr>
</tbody>
</table>

\(^1\)PPE requirements are the same for all HCP, regardless of COVID-19 vaccination status. \(^2\)See Figure 1/Footnote 1 (page 2) to determine if a patient with exposure to COVID-19 or recent international travel requires use of contact/droplet precautions (N95/surgical mask, gown, gloves, eye protection), based on vaccination status and/or prior history of COVID-19 within previous 3 months. \(^3\)Exemption for eye protection for HCP who cannot perform their essential work while wearing eye protection (see page 2, footnote 3 above for more details). \(^4\)Although testing is not required, if performed and positive or patient is known to have COVID-19 (e.g., was tested due to symptoms), implement contact and droplet precautions with use of N95 respirator.
Figure 2: INITIAL POSITIVE SARS-CoV-2 TEST OR POSITIVE SCREEN for Symptoms, Exposure, or Travel: Timing of Surgery/Procedure

SARS-CoV-2 PCR is POSITIVE or INDETERMINATE OR patient has SYMPTOMS of COVID-19 OR requires quarantine and/or testing due to EXPOSURE to COVID-19 or INTERNATIONAL TRAVEL.¹

No

PROCEED with surgery or procedure.

Yes

Assess urgency of surgery/procedure

Emergent or Urgent

Elective³

Consider risks/benefits to patient and HCP.

Defer non-emergent procedures if possible.²

If procedure is performed, implement Contact and Droplet precautions and use PPE appropriate for patients with COVID-19 (see Table 1).

DEFER surgery or procedure.⁴

See Figure 4 for patients deferred due to a positive SARS-CoV-2 test.

¹See Figure 1/Footnote 1 on page 2 of this document for more information about requirements after exposure and international travel.

²Deferral is generally recommended for non-emergent surgery/procedures if, within the previous 14 days, the patient has had exposure to COVID-19 or international travel (if not fully vaccinated).

³Surgeries and procedures related to the diagnosis of cancer (e.g., lumpectomies, biopsies), the treatment of intractable pain, or other diagnostic and treatment services for highly symptomatic patients are NOT considered to be elective.

⁴NYSDOH requires deferral of elective procedures for a minimum of 21 days after a patient initially tests PCR positive for SARS-CoV-2. For patients with international travel or exposure to COVID-19, please refer to Figure 1/Footnote 1 on page 2 for the duration of deferral.

Contact Infection Prevention & Control:

NYP-AH: 212-932-5219
NYP-CU and NYP-MSCH: 212-305-7025
NYP-LMH: 212-312-5976
NYP-HVH: 914-734-3950
NYP-VC: 212-746-1754
NYP-WBHC: 914-997-4377
NYP-LMH: 212-312-5976
NYP-LH: 914-787-3045
NYP-Q: 718-670-1255
NYP-BMH: 718-780-3569
NYP-HVH: 914-734-3950
NYP-Q: 718-670-1255
Repeat testing of patients with a prior positive SARS-CoV-2 PCR is NOT REQUIRED in order to proceed with emergent or urgent surgeries and procedures. The timing of such procedures should be based on clinical need. When possible, deferral of surgery and procedures for at least 10 days after onset of symptoms or a first positive test for SARS-CoV-2 should be considered. Routine pre-procedure testing for SARS-CoV-2 should be performed for those with a more remote (i.e., >90 days) history of a positive test for SARS-CoV-2.

**Is patient severely immunocompromised?**

- **Yes**
  - Isolation is NOT required. Testing is NOT required.
- **No**

**Did patient have severe or critical COVID-19 illness?**

- **Yes**
  - Are the following criteria met?
    - \( \geq 10 \) days since date of positive test
    - Afebrile \( \geq 24 \) hours
    - Marked improvement in other symptoms (if patient had symptoms of COVID-19)
  - Isolation is NOT required. Testing is NOT required.
- **No**

**Are the following criteria met?**

- **Yes**
  - Are the following criteria met?
    - \( \geq 20 \) days since date of positive test
    - Afebrile \( \geq 24 \) hours
    - Marked improvement in other symptoms (if patient had symptoms of COVID-19)
  - Isolation is NOT required. Testing is NOT required.
- **No**

**PPE and isolation for COVID-19 are REQUIRED**

1. **Severely immunocompromised**: bone marrow or solid organ transplant recipient, receipt of cytotoxic chemotherapy for cancer, untreated HIV infection with CD4 count <200, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for >14 days.
2. **Severe or critical illness**: SpO2 <94% on room air, respiratory failure, septic shock, and/or multiple organ dysfunction.

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Figure 4: ELECTIVE SURGERY/PROCEDURES and PRIOR POSITIVE SARS-CoV-2 PCR Test: Retesting, Scheduling and PPE/Isolation Requirements

NYSDOH requires a negative test for SARS-CoV-2 within 5 days of elective surgery and procedures.¹ For patients who test positive at the time of initial pre-surgery/pre-procedure testing, NYSDOH requires (1) the surgery/procedure be deferred for at least 21 days and (2) the patient to have a subsequent negative test prior to the surgery/procedure. For patients who had symptoms of COVID-19, repeat testing should not be performed until patient has been afebrile ≥ 24 hours and other symptoms have markedly improved. While the surgery/procedure may proceed after a single negative test result, the use of PPE and isolation for COVID-19 will be required during and after the surgery/procedure in some situations.

1Surgeries and procedures related to the diagnosis of cancer (e.g., lumpectomies, biopsies), the treatment of intractable pain, or other diagnostic and treatment services for highly symptomatic patients are NOT considered to be elective.

2Severely immunocompromised: bone marrow or solid organ transplant recipient, receipt of cytotoxic chemotherapy for cancer, untreated HIV infection with CD4 count <200, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for > 14 days.