

Interim COVID-19 Testing Guidance for Patients having Surgery or Other Procedures May 29, 2020 (replaces guidance from May 15, 2020)

ALL hospitalized and ambulatory patients scheduled for aerosol-generating procedures or surgery or other procedures that require general anesthesia, deep sedation, or moderate sedation should be tested for SARS-CoV-2, the virus that causes COVID-19, by PCR *before* the procedure.

NEW UPDATES FROM PRIOR GUIDANCE PUBLISHED ON 3/20/20:

- Expanded and updated description of surgeries and procedures that require testing
- Specific requirements for SARS-CoV-2 testing prior to elective surgery and procedures
- Guidance for retesting and scheduling patients who test positive for SARS-CoV-2

GENERAL PRINCIPLES OF PRE-PROCEDURE TESTING

Pre-procedure testing is recommended for three main reasons: 1) to identify pre-symptomatic patients who may be at higher risk for adverse clinical outcomes if they undergo a major procedure immediately before developing COVID-19 clinical illness; 2) to identify patients who may pose a risk of transmission to health care personnel (HCP) during the procedure; and 3) to adhere to New York State requirements for testing prior to certain elective surgeries and procedures.

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

SYMPTOM SCREENING

Prior to and upon arrival for pre-procedure/pre-surgery testing and prior to the procedure/surgery, screen all patients for symptoms of COVID-19: subjective or measured ***fever, cough, shortness of breath, sore throat, muscle aches, diarrhea, fatigue, nasal congestion, headache, chills/rigors, new onset loss of smell, or altered sense of taste.***

- If patient is SYMPTOMATIC:
 - Non-emergent procedures/surgery should be postponed or canceled
 - If a symptomatic patient requires emergent surgery, see **Table 1** for additional guidance regarding transmission-based precautions and personal protective equipment (PPE).
- If patient is ASYMPTOMATIC, proceed with pre-procedure/pre-surgery testing.

SARS-CoV-2 TESTING

Patients for Whom Testing Should be Performed: ALL inpatients and ambulatory patients scheduled for aerosol-generating procedures OR surgery or procedures that will require general anesthesia, deep sedation or moderate sedation (see **Table 1** below).

Type/Method of Testing: Conduct PCR-based testing for SARS-CoV-2 on a nasopharyngeal swab sample. Antibody testing for SARS-CoV-2 is NOT appropriate for pre-procedure/pre-surgery

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testing. Individuals known to have antibodies to SARS-CoV-2 are still required to undergo pre-procedure PCR-based testing.

Timing of Pre-Procedural Testing: Patients should undergo SARS-CoV-2 PCR testing as close to the time of the procedure as possible and within the 3 days prior to the procedure, according to campus-specific processes.

- Testing at outside facilities is acceptable so long as a PCR has been collected within the 3 days prior to procedure and the health care provider is able to obtain written documentation of results (i.e., paper copy or through patient portal) that includes the date of the test, patient's name and another identifier (e.g., date of birth), type of test, and test result.
- For patients who require subsequent procedures/surgery, if the initial test was negative, testing should be repeated if the subsequent procedure/surgery will occur more than 3 days after the initial test was performed.

PROTOCOL FOR PRE-PROCEDURE /PRE-SURGERY TESTING AND PROCEDURE SITES

Upon Arrival for Testing or Procedure

- All patients and any accompanying visitors don a surgical mask. Patient should keep surgical mask on before and after the procedure.
- Screen patient for symptoms of COVID-19: subjective or measured **fever, cough, shortness of breath, sore throat, muscles aches, diarrhea, fatigue, nasal congestion, headache, chills/rigors, new onset loss of smell, or altered sense of taste.**

If patient has symptoms:

- Institute Contact and Droplet precautions
- Postpone or cancel non-emergent procedures in consultation with provider
- If procedure or surgery cannot be postponed, obtain NP swab for SARS-CoV-2 PCR test and refer to **Table 1** for additional guidance regarding transmission-based precautions and personal protective equipment (PPE).

If patient is asymptomatic and has not yet undergone SARS-CoV-2 PCR testing:

- Obtain NP swab for SARS-CoV-2 PCR testing
- Unless emergent, the procedure should be delayed until test results are available

Personal Protective Equipment and Isolation Precautions

- **All staff at all times:** wear universal surgical mask and follow Standard Precautions.
- **During collection of NP swab from asymptomatic patients:** all staff wear surgical mask, eye protection, and gloves.
- **Before procedure:**
 - Asymptomatic patients with a pending PCR test should practice social distancing and continue to wear a surgical mask, but do NOT require placement in a single room or a negative pressure isolation room.

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- If test subsequently returns positive or indeterminate, implement Contact and Droplet precautions.
- Symptomatic patients with a pending, positive, or “presumptive positive” PCR test should be placed on Contact and Droplet precautions.

TIMING OF SURGERY/PROCEDURE BASED ON THE RESULTS OF SYMPTOM SCREENING AND SARS-COV-2 TESTING

The decision to proceed with surgery or a procedure is based on the urgency of the procedure and the results of symptom screening and SARS-CoV-2 testing (**Table 2**).

Patients who are asymptomatic and who test negative for SARS-CoV-2:

Surgery and procedures may proceed as clinically indicated. See Table 1 for discussion of recommended PPE to be used during surgery/procedure.

Patients with symptoms or a history of COVID-19 OR who test positive for SARS-CoV-2 at the time of initial pre-surgery/pre-procedure testing:

For patients who have symptoms of COVID-19 or who test positive for SARS-CoV-2, the timing of surgery and other procedures depends on 1) the urgency of the procedure, 2) the potentially increased risk of adverse outcomes for the patient, 3) the risk of transmission within the health care setting, and 4) current public health recommendations and requirements (see **Table 3**). In general, non-emergent procedures should be deferred. The guidance in **Table 3** is intended to assist clinicians in balancing these priorities and avoiding unnecessarily prolonged deferral of surgery and procedures.

SARS-CoV-2 RNA may be detected by PCR-based testing of nasopharyngeal samples for many weeks after initial infection. Recent studies, however, have shown that live/viable virus has not been cultured from such samples for more than 9 days after onset of illness, suggesting that persistently positive PCRs do not indicate ongoing infectivity.

REFERENCES

Hanson KE, Caliendo AM, Arias CA, et al. Infectious Diseases Society of America guidelines on the diagnosis of COVID-19. April 27, 2020. <https://www.idsociety.org/practice-guideline/covid-19-guideline-infection-prevention/>

New York State Department of Health. COVID-19 directive regarding the resumption of elective outpatient surgeries and procedures in general hospitals in counties and facilities without a significant risk of COVID-19 surge. April 29, 2020.

New York State Department of Health. Resumption of elective outpatient surgeries and non-urgent procedures (deferred procedures) in ambulatory surgery centers, office-based surgery practices and diagnostic and treatment centers in counties without a significant risk of COVID-19 surge. May 19, 2020.

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Table 1: PPE Requirements Based on Type of Surgery/Procedure and SARS-CoV-2 Test Result

Type of Surgery/ Procedure	Examples	Pre- Procedure SARS-CoV-2 PCR Testing	PPE Requirements During Procedures Performed on Asymptomatic Patients Based on SARS-CoV-2 PCR Results		
			Positive or Indeterminate or Result Pending	Negative	Test Not Performed
Surgeries/procedures that require general anesthesia, deep sedation or moderate sedation		Required¹	N95, eye protection, gown, gloves	Universal surgical mask (patient and HCP), routine PPE appropriate for procedure +/-N95 ²	N95, eye protection, gown, gloves
Aerosol-generating procedures	Bronchoscopy, TEE, upper GI endoscopy, procedures of aerodigestive tract that involve insufflation of air, dental procedures, tracheostomy placement, sleep studies that may require NIPPV	Required¹	N95, eye protection, gown, gloves	Universal surgical mask (patient and HCP), routine PPE appropriate for procedure +/-N95 ²	N95, eye protection, gown, gloves
Procedures/tests during which patient cannot wear a surgical mask AND that may increase generation of respiratory droplets	Testing that involves exercise (e.g., treadmill, bicycle), pulmonary function tests (PFTs)	Consider (Consider testing if result would influence decision to delay/perform procedure/test)	N95, eye protection, gown, gloves	Universal surgical mask (patient (except during procedure) and HCP), routine PPE appropriate for procedure +/-N95 and eye protection	N95, eye protection, gown, gloves.
Surgeries/procedures that do NOT generate aerosols and do NOT require general anesthesia, deep sedation, or moderate sedation	Skin biopsy, transthoracic echocardiography, imaging tests (e.g., CT, MRI)	Not Required or Recommended	N/A	N/A	Universal surgical mask (patient and HCP), standard precautions +/-N95 for prolonged close patient contact if patient is unable to wear a mask (e.g., Mohs surgery of the face)

¹If surgery or procedure is required emergently prior to test result availability, proceed as outlined in “Positive or Indeterminate” column.

²For persons who will have close contact with the patient’s airway or be present during aerosol-generating procedures (e.g., intubation, ENT procedures)

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Table 2: Timing of Surgery and Procedures Based on Results of INITIAL Pre-Surgery/Pre-Procedure Symptom Screening and SARS-CoV-2 Testing

Clinical status and/or SARS-CoV-2 PCR Test Result	Surgery or Procedure Category		
	Emergent	Urgent	Elective Outpatient ¹
Symptomatic and/or SARS-CoV-2 PCR- positive	Consider risks/benefits to patient and HCP. If procedure performed, implement COVID-19 precautions (see Table 1).	Defer if possible. If procedure must be performed within 14 days of symptom onset, implement COVID-19 precautions (see Table 1).	Defer
Asymptomatic and SARS-CoV-2 PCR- negative	Proceed as clinically indicated		

¹NYSDOH recommends deferral of elective procedures for a minimum of 21 days after a patient initially tests PCR positive for SARS-CoV-2.

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Table 3: Recommendations for Retesting and Scheduling Surgery/Procedures for Patients with a Recent History of COVID-19 or Prior Positive SARS-CoV-2 PCR

Time Since Symptom Onset or Positive SARS-CoV-2 PCR	Surgery or Procedure Category	
	Emergent or Urgent	Elective Outpatient
<14 days	Consider risks/benefits to patient and HCP. Defer urgent surgery/procedures if possible. If procedure performed, implement COVID-19 precautions (see Table 1).	Defer for a minimum of 21 days as per NYS DOH¹
<p>≥14 days and < 4 weeks</p> <p>OR</p> <p>≥14 days AND patient has remained hospitalized since initial presentation</p>	<p>Perform SARS-CoV-2 PCR if time allows and if patient has not already been cleared from isolation by IP&C.</p> <ul style="list-style-type: none"> If test is positive or testing not performed AND procedure is indicated, implement COVID-19 precautions (see Table 1). If test is negative, obtain second test (≥24 hours later) if time allows. <ul style="list-style-type: none"> If second test is negative, discuss discontinuing precautions with IP&C. If second test is positive or repeat testing not performed AND procedure is indicated, implement COVID-19 precautions (see Table 1). 	<p>Perform SARS-CoV-2 PCR ≥21 days after initial positive test.</p> <ul style="list-style-type: none"> If test is positive, defer ≥1 week, then retest. If test is negative, obtain second test (≥24 hours later) if time allows. <ul style="list-style-type: none"> If second test is negative, discuss discontinuing precautions with IP&C. If second test is not performed AND procedure is indicated, implement COVID-19 precautions (see Table 1).
>4 weeks AND patient was never hospitalized or was discharged since initial presentation	<p>Perform SARS-CoV-2 PCR if time allows.</p> <ul style="list-style-type: none"> If test is positive or testing not performed AND procedure is indicated, implement COVID-19 precautions (see Table 1). If test result is negative, proceed as under “negative” in Table 1 above. 	<p>Perform SARS-CoV-2 PCR.</p> <ul style="list-style-type: none"> If test is positive, defer ≥1week, then retest. If test result is negative, proceed as under “negative” in Table 1 above.

¹NYSDOH recommends deferral of elective procedures for a minimum of 21 days after a patient tests positive for SARS-CoV-2.