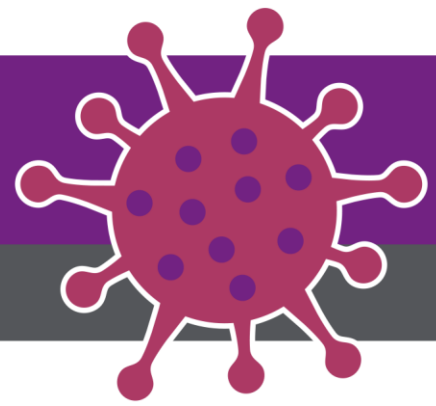


CORONAVIRUS DISEASE 2019 (COVID-19)

Preoperative or Pre-Procedure Testing for SARS-CoV-2 Based on COVID-19 New Hospital Admissions Rate



Audience: Providers/Colleagues

Revision Date: 3/1/2024

Version: #6

COVID-19 Response Team Owner: Clinical and Operations

Date of Last Review: 3/1/2024

UNIVERSAL Guide

What's updated: Edited reference to reflect current CDC metric to weekly rate of new COVID-19 admissions for hospitals by county of location

Important: Ministries are to follow any local or state specific rules or regulations regarding screening testing of patients at time of admission even if more stringent than requirements in this guide.

Table 1. Summary Comparison of Key Elements

Parameter	COVID-19 New Hospital Admissions Rate	
	Not High (Low/Medium)	HIGH
Who to test	<ul style="list-style-type: none"> Anyone with symptoms or who reports close contact exposure to a person with acute COVID-19 within the 10 days prior to the procedure Based on need determined by the provider (see also key considerations) Screening test of those without symptoms is not required. 	<ul style="list-style-type: none"> Anyone with symptoms or who reports close contact exposure to a person with acute COVID-19 within the 10 days prior to the procedure Consider testing for patients anticipated to need an overnight stay after their procedure– see also key considerations Preop. testing is recommended for those undergoing non-emergent cardiovascular and or thoracic surgery Based on need determined by the provider (see also key considerations)
• Type of Test	SARS-CoV-2 Viral Test: <ul style="list-style-type: none"> Antigen or PCR Nucleic Acid Amplification Test (NAAT) If antigen test is used and result is NEGATIVE, repeat test 48 hours later and if second antigen test is negative repeat antigen test 48 hours after the second. 	
• Timing	Plan to obtain the specimen for testing so that the results will be available within 3 midnights (three calendar days) prior to the procedure.	
• Transition from one level to another	<ul style="list-style-type: none"> Implement recommendations for broader testing when the hospitalization level is high. Other indicators of increasing local COVID-19 activity and other respiratory viral infections should also be monitored for significant increases, e.g., percent positivity for testing, influenza like illness, and incidence of RSV. Return to Not High status when hospital level is decreasing below high and is remaining below for 7-14 days. 	

Key Considerations:

- Preoperative Screening testing of Persons who are Asymptomatic:
 - The Society for Healthcare Epidemiology of America (SHEA), an organization representing infectious disease specialists and healthcare epidemiologists, has issued the following recommendation regarding preoperative or pre-procedure screening testing of patients without symptoms or recent exposure to COVID-19. This also has been endorsed by the Anesthesia Patient Safety Foundation.
 - SHEA recommends against routine universal use of asymptomatic screening for SARS-CoV-2 in healthcare facilities. Specifically, pre-procedure asymptomatic screening is unlikely to provide incremental benefit in preventing SARS-CoV-2 transmission in the procedural and perioperative environment when other infection prevention strategies are in place, and it should not be considered. [Talbot T, et al 2022]
 - **Note:** The use of asymptomatic screening for the purpose of preprocedural risk assessment for postprocedural complications is not within the scope of this commentary.
 - A recent meta-analysis of several published investigations of benefit of including screening testing of preoperative, asymptomatic patients found the overall prevalence of detecting infection was 0.76%, with low corresponding positive predictive value (PPV). Consequently, nearly three-quarters of postponed surgical procedures in asymptomatic preoperative patients may be false positive tests. [de Bock, 2022]
 - In a 2022 study, a single facility investigated outcomes among those scheduled for elective surgery finding overall COVID-19 positivity was low (0.35%) throughout the study period, which included 6 months prior to vaccine availability and during the Delta (B.1.617.2) variant surge in late summer of 2021. Based on this the facility transitioned to testing only those with symptoms of possible COVID-19 and determined this more cost effective. [Liu JK, 2022]
 - Another recent investigation found increased time from COVID-19 diagnosis to surgery was associated with a decreased odds of experiencing major postoperative cardiovascular morbidity. This should be considered by the provider to inform risk-benefit discussions concerning optimal surgical timing. [Bryant JM 2022]
 - A recent investigation by O'Brien et al, found that recent COVID-19 infection was not associated with risk of adverse postoperative outcomes, regardless of timing within the previous 60 days. [O'Brien WJ 2023]
- Other aspects of pre-operative or pre-procedure testing:
 - Test results can help with bed placement, especially if a significant proportion of inpatient rooms are multi-occupancy. For example, if inpatient admission is needed and test is positive place in single occupancy room, if available.
 - Testing prior to operative or other invasive procedure for those at higher risk of potential cardiac or pulmonary complications after the procedure can inform decision on safest time to schedule these patients for the procedure if test is positive.

See [COVID-19 PPE Guide Booklet](#) for more information about required use of PPE to protect colleagues and clinicians as well as use during AGPs

For more information about operative/procedural patient and personnel management, see the [COVID-19 Operative and Other Invasive Procedures Guidance](#).

References:

1. Talbot T, et al. Asymptomatic screening for severe acute respiratory coronavirus virus 2 (SARS-CoV-2) as an infection prevention measure in healthcare facilities: Challenges and considerations. Infect Control Hosp Epidemiol 2022.
2. ASA and APSF Updated Statement on Perioperative Testing for SARS-CoV-2 in the Asymptomatic Patient. 12/21/2022
3. de Bock E, et al. Meta-analysis of COVID-19 prevalence during preoperative COVID-19 screening in asymptomatic patients. BMJ Open 2022;12:e058389.

4. Liu JK, et al. Routine pre-operative Covid testing in elective surgeries: Is it worth it? *Am J Surg* 2022; 224:1380–1384
5. Bryant JM, et al. Association of Time to Surgery After COVID-19 Infection With Risk of Postoperative Cardiovascular Morbidity. *JAMA Network Open*. 2022;5(12):e2246922.
6. O'Brien WJ, et al. Estimated Risk of Adverse Surgical Outcomes Among Patients With Recent COVID-19 Infection Using Target Trial Emulation Methods. *JAMA Network Open*. 2023;6(3):e234876.