SLH Pre-Procedural COVID-19 Testing Guidance

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Background

The following guidance is subject to modifications as additional scientific data becomes available and as to the community prevalence of the SARS-CoV-2 virus. As the virus becomes more endemic, and as infection and hospitalization rates in our community drop, our threshold for testing has also been relaxed, particularly as vaccination rates continue to rise. This guidance is predicated on the following two observations: 1) While an up-to- date positive vaccination status does not preclude infection with SARS-C0V-2, it does ultimately lead to decreased transmissibility in the competent host. 2) During low community prevalence of the SARVS-Co-V-2 virus, asymptomatic individuals with no known recent exposures have a low likelihood of being infected.

Pre-Procedural Screening

Regardless of the COVID-19 prevalence in the community, pre-operative evaluation for all patients should continue to include screening for exposure to SARS-CoV-2 and for symptoms of COVID-19 (e.g. fever, cough, shortness of breath, muscle pain, sore throat and /or new loss of taste or smell) within the prior two weeks. Patients with COVID-19 associated symptoms and/or exposures should be referred for further evaluation. Ideally, these screenings should take place using tele-medicine. Additionally, patients should be clinically screened on the day of procedure for symptoms of COVID-19 infection.

Procedures Requiring COVID-19 Testing

Procedures that do not involve intubation or general anesthesia, or do not involve the upper aero-digestive tracts and lower respiratory tract, can forgo pre-procedure COVID-19 testing. When in the

low and moderate/substantial transmission state pre-procedural testing is not indicated for the fully vaccinated patient unless the patient is symptomatic or has had a recent exposure.[JB1]

Aerosolized generating procedures (AGP) or procedures that create uncontrolled respiratory aerosols are at highest risk for transmission.

Although the list of AGPs remains somewhat controversial, the following is a reasonable listing (1):

- Endotracheal intubation and extubation
- Manual ventilation
- Mechanical ventilation (unless using a closed system where expired air is filtered)
- Open suctioning of airways (including open tracheostomy suctioning)
- Cardiopulmonary resuscitation
- Bronchoscopy (unless carried out through a closed-circuit ventilation system)
- Dental procedures employing the use of ultrasonic scalers high speed dental handpieces; air/water syringes; air polishing; and air abrasion
- Non-invasive ventilation (NIV) (e.g. bi-level positive airway pressure ventilation (BiPAP and continues positive airway pressure (C-PAP))
- Induction of sputum
- Pulmonary function testing, including spirometry
- Transesophageal echocardiogram (TEE)
- Upper endoscopy

COVID-19 Testing

When indicated, pre-procedure testing should be completed within 3 days prior to a procedure. Patients should be reminded to mask and self-quarantine as much as possible between testing and their procedure. Patients must be rescreened for symptoms and exposure history on presentation for surgery.

Home performed rapid antigen tests will not be considered sufficient to meet pre-procedural testing requirements. Patients needing pre-operative testing will be routinely screened with a nucleic acid amplification test (NAAT). At SLH, the Panther NAAT should be ordered for scheduled procedures. A lab performed antigen test will also be acceptable. Patients who screen positive on home antigen test should be encouraged to procure lab-based test as soon as possible as this will facilitate their documentation as COVID recovered.

For patients unable to obtain testing prior to scheduled surgery, a rapid NAAT test should be utilized. At SLH, this is the Cepheid NAAT, which results within one hour. If due to a variety of extenuating circumstances, pre-procedural testing is not possible and the patient is symptomatic, appropriate personal protective equipment (PPE) should be utilized. For asymptomatic cases, decision on the use of PPE will be decided by the attending physician with the multidisciplinary team. Recently positive COVID-19 patients should follow CDC guidance on the discontinuation of isolation precautions (2).

Inpatients who have tested negative and in whom no new or worsening symptoms have developed, do not require repeat testing for the sole indication of surgery.

Rescheduling Elective Cases in COVID-19 Positive Patients

The risk of perioperative morbidity and mortality may be increased in patients with COVID-19 and persists for some time after recovery. Several large retrospective, observational studies suggest that perioperative risk of pulmonary complications and mortality are highest **within seven or eight weeks following COVID-19 infection**, particularly in those who had symptomatic infection (3). Thus, the decision to perform surgery must balance this risk against the risk of delaying or avoiding the planned procedure. Please refer to the Elective Surgery Activity Scale (ESAS) published by the American College of Surgeons for assistance in triaging surgery for a COVID—19 positive patient (4).

For **COVID-19 positive patients who require urgent/emergent surgeries** that cannot be postponed, all Procedural and Operating Room personnel should wear N95 respirator, eye protection, and gown and gloves. The Cepheid (rapid NAAT) should be used to assess COVID-19 status. If urgency of surgery does not permit pre-procedural testing, proceed with case using infection prevention precautions and PPE based on standard transmission-based precautions relevant to the procedure and the patient's screening and clinical status.

Patient Type	When to Reschedule Surgery (Intermediate or Elective Cases)
Asymptomatic COVID Test Positive Outpatient	Surgery may be scheduled starting day 11 after + COVID test. If immunocompromised, consider extending to 20 days. Repeat testing not needed.
Symptomatic COVID Test Positive Outpatient	Surgery may be scheduled starting day 11 after + COVID test, if the patient has improved*. If case was more severe [ie, required O2], persistent fever, immunocompromised, consider extending to 20 days and until symptomatically improved. Depending on severity of illness & surgical urgency, even longer delay may be appropriate. Repeat testing not needed.
Symptomatic or recently exposed outpatients, not COVID tested	• These procedures can be delayed without COVID testing. Wait until at least 10 days have passed since symptom onset or at least 10 days have passed since exposure, and patient has re-screened negative. At this point the patient can undergo pre-procedural COVID testing if indicated and proceed with scheduling. • Consider COVID testing to confirm diagnosis for symptomatic patients at the time of illness, but regardless of result, do not proceed with non-emergent surgeries for symptomatic patients. If patient has + lab performed COVID test at that time, retesting before procedure is not indicated.
COVID Test Positive Inpatients	• Surgery may be scheduled starting day 11 after COVID hospitalization discharge (if need for earlier surgery and patient meets criteria for isolation discontinuation*, contact infection prevention to have "COVID-19:Positive" flag changed to "COVID-19:Recovered"). Repeat testing not needed. • Depending on severity of illness & surgical urgency, even longer delay may be appropriate. Repeat testing not needed.

*****Patient must be afebrile x 24 hours without use of antipyretics and improvement in symptoms AND >10 days have passed since symptom onset; extend to 20 days for severely immunocompromised or if requiring supplemental O2.

Procedural Use of PPE

Urgent or Emergent Procedure/Surgery			
Symptom Status	Recent Exposures	Test Result	Recommended PPE
Asymptomatic	No	Positive	Wear N95's, eye protection, gown, gloves
Asymptomatic	No	Negative/ No Test	Usual surgical attire; use N95's at discretion of OR personnel
Symptomatic	Yes/unknown	Positive	Wear N95's, eye protection, gown, gloves
Symptomatic	Yes/unknown	Negative/ No Test	Default is a Person Under Investigation (PUI): Wear N95's, eye protection, gown and gloves. IF NOT PUI: Usual surgical attire; use N95's at discretion of OR personnel

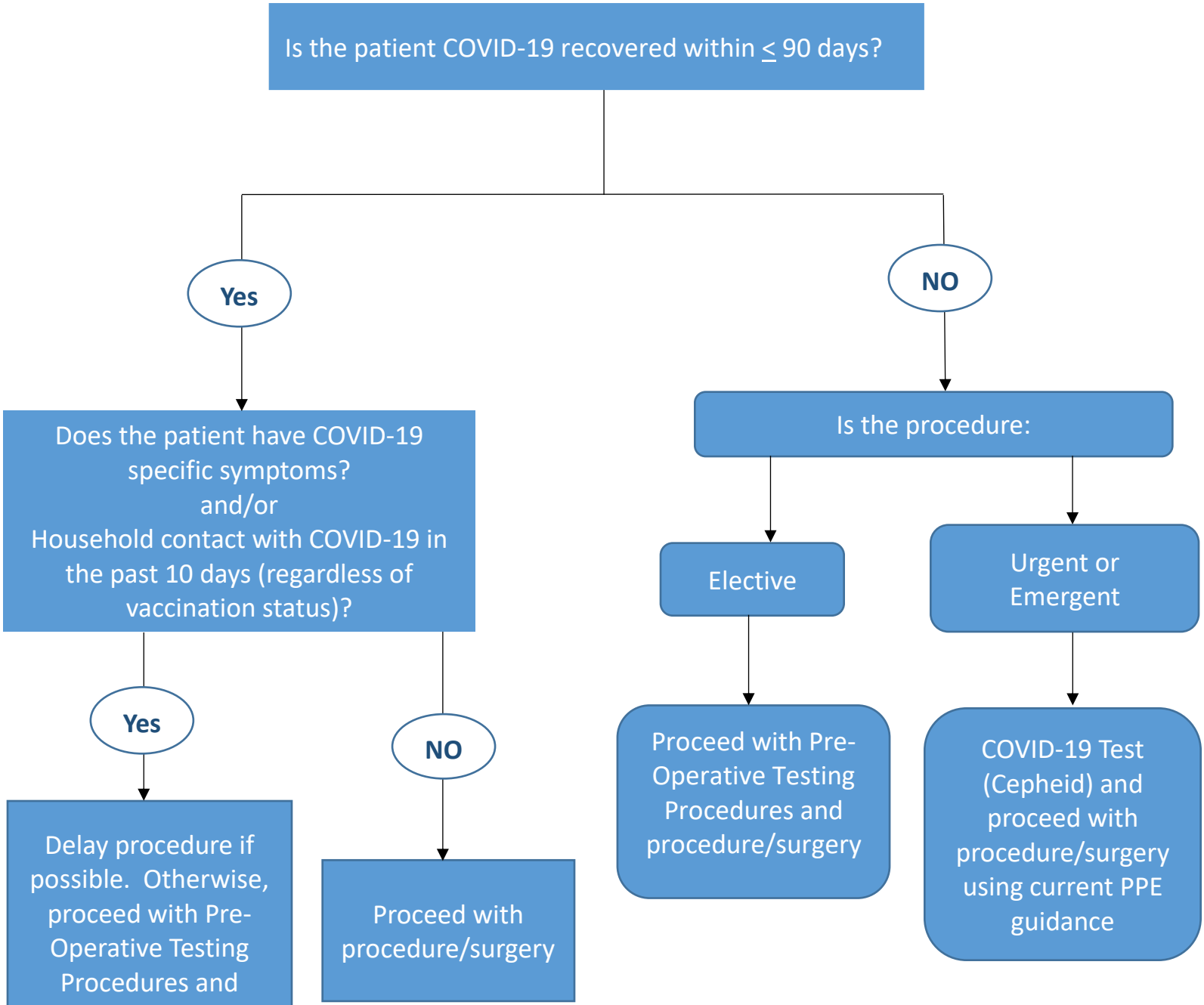
Intermediate or Elective Procedure/Surgery			
Symptom Status	Recent Exposures	Test Result	Recommended PPE
Asymptomatic	No	Positive	Delay case (Emergencies addressed above).
Asymptomatic	No	Negative/ No Test	Usual surgical attire; use N95's at discretion of OR personnel
Symptomatic	Yes/unknown	Test Not Indicated	Delay case. (Emergencies addressed above).

References

1. Washington State Department of Health. Preventing Transmission of SARS-CoV-2 During Aerosol Generating and Other Procedures. (https://doh.wa.gov/sites/default/files/2022-02/COVID19InfectionControlForAerosolGeneratingProcedures.pdf)
2. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhcp%2Fdisposition-hospitalized-patients.html
3. UpToDate. COVID-19: Perioperative risk assessment and anesthetic considerations, including airway management and infection control. Last updated February 23, 2022.
4. American College of Surgeons. COVID-19 Guidance for Triage of Non-Emergent Surgical Procedures.(https://www.facs.org/covid-19/clinical-guidance/triage)
5. CDC COVID Data Tracker: https://stlouiscountymo.gov/st-louis-county-departments/public-health/covid-19/covid-19-data-reports/

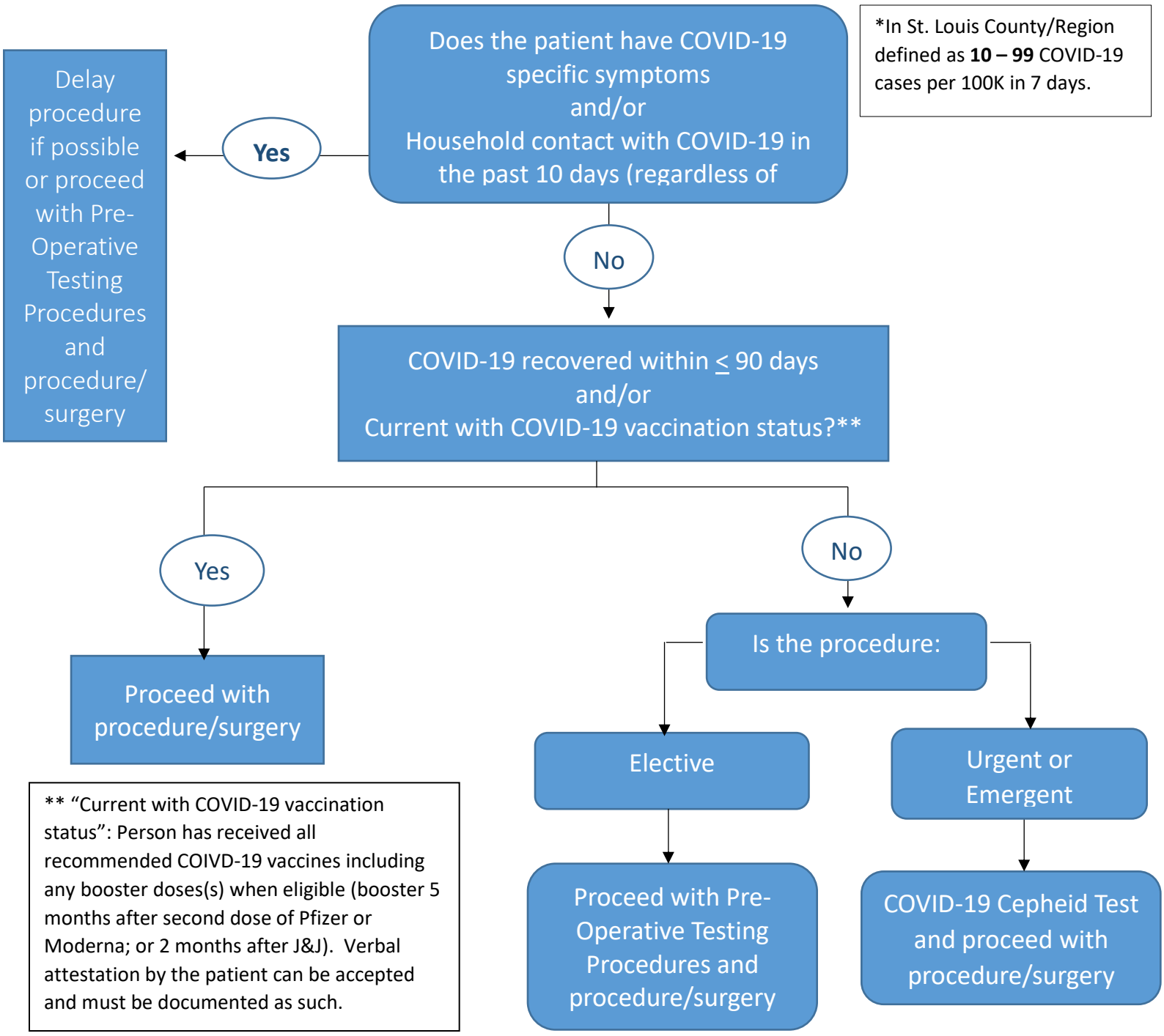
Pre-procedural COVID-19 Testing Algorithm during High* Transmission

***In St. Louis County/Region defined as >100 COVID-19 cases per 100K in 7 days.**



*https://stlouiscountymo.gov/st-louis-county-departments/public-health/covid-19/covid-19-data-reports/

Pre-procedural COVID-19 Testing Algorithm during Substantial or Moderate* Transmission

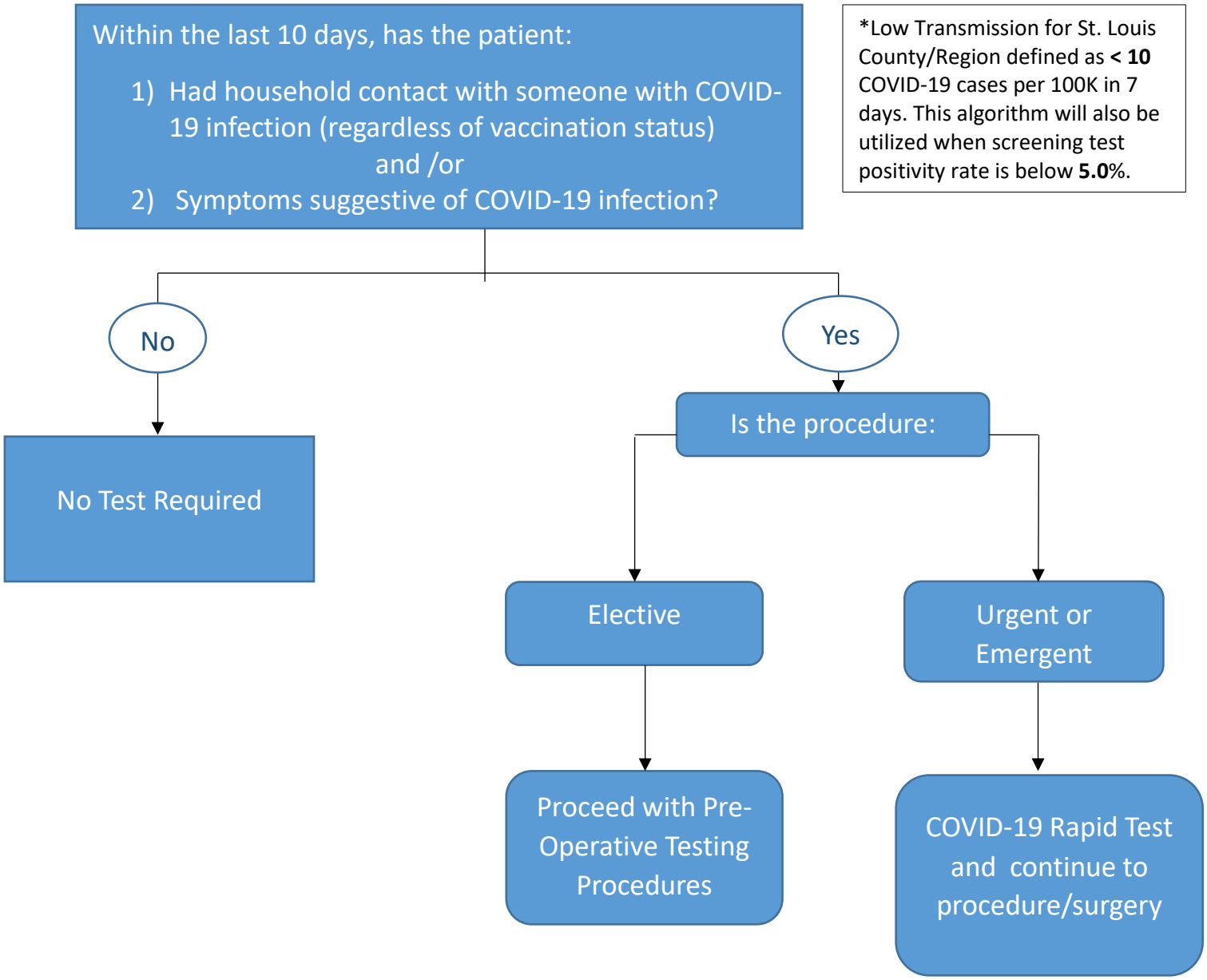


*In St. Louis County/Region defined as **10 – 99** COVID-19 cases per 100K in 7 days.

** "Current with COVID-19 vaccination status": Person has received all recommended COIVD-19 vaccines including any booster doses(s) when eligible (booster 5 months after second dose of Pfizer or Moderna; or 2 months after J&J). Verbal attestation by the patient can be accepted and must be documented as such.

*https://stlouiscountymo.gov/st-louis-county-departments/public-health/covid-19/covid-19-data-reports/

Pre-procedural COVID-19 Testing Algorithm during Low* Transmission



*Low Transmission for St. Louis County/Region defined as **< 10** COVID-19 cases per 100K in 7 days. This algorithm will also be utilized when screening test positivity rate is below **5.0**%.

*https://stlouiscountymo.gov/st-louis-county-departments/public-health/covid-19/covid-19-data-reports/