

An Approach to Resuming Elective Surgery during the COVID-19 Pandemic Informed by Clinical Assessment and Laboratory Testing

Resumption of elective surgery during the current COVID-19 pandemic requires careful consideration using both clinical assessment and laboratory testing.

Initial clinical assessment. Pre-operative evaluation includes assessment for symptoms of COVID-19 (fever, cough, SOB, loss of smell or taste) as well as history of recent contact with a known COVID-19 case. If these are positive, elective surgery should be deferred pending assessment of symptoms or in the case of COVID-19 contact, 14-day quarantine after the known contact.

Laboratory testing. If patients are asymptomatic and have no known exposures, they undergo pharyngeal swab sampling for COVID-19 PCR testing 24-48 hours prior to surgery. Patients must remain in household quarantine without exposure to new persons until the time of surgery.

Analytical sensitivity. Testing will be performed using only methods known to have excellent analytical sensitivity, including nucleic acid amplification tests by Hologic (Panther), Roche (Cobas), Cepheid (Xpert), and/or the in-house modified CDC test. All tests are very sensitive, detecting 100-250 copies/mL or lower.

Clinical sensitivity. Patients in the pre-symptomatic or asymptomatic phase of COVID-19 are in the phase of the disease that will have the highest concentration of virus in the pharynx, including the nasopharynx and oropharynx, and so clinical sensitivity of the test should be maximal at this time.

If the pre-operative COVID-19 PCR test is positive, the elective surgery is deferred pending further evaluation of the patient, unless the surgery is deemed urgent. If the surgery must be performed despite the positive test, COVID-19 personal protective equipment should be used.

If the preoperative COVID-19 PCR test is negative, the elective surgery should proceed with routine surgical personal protective equipment.

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