Timing of surgery after COVID-19 in adults

This document provides information to aid decision making about when patients should have planned surgery after COVID-19.

Overview

These recommendations reflect the need to consider the clinical severity of the patient's COVID-19 infection and the complexity and risk of the surgery involved. The recommendations were informed by an evidence check (31 August 2023) by the Critical Intelligence Unit.[1]

If surgery is recommended outside the recommended timeframes, patients should have a documented discussion with the treating surgical team about the increased risks associated with surgery post COVID-19 infection weighed up against the risk of delaying surgery. Informed consent should be given and documented.

Vaccination at least two weeks before planned surgery, when practicable, may reduce risk to patients and staff.

Patients may benefit from prehabilitation prior to surgery.

Recommendations

Timing for surgery is measured from the date of first positive test.

1. For patients who have had **asymptomatic or mild COVID-19 infection**
    - It is safe to proceed with **major** surgery two weeks after COVID-19 infection if there are no ongoing symptoms.
    - For **minor** surgery, the procedure should be delayed until the infectious period is over (10 days).

    High risk patients should have an individualised risk assessment. The risk of proceeding with surgery should be weighed up against the risk of delaying surgery.

    Appendix 1 has general descriptions of major and minor surgery.
2. For patients who had **moderate or severe COVID-19 symptoms or continue to have persistent COVID-19 symptoms**, non-urgent planned surgery should be delayed for seven weeks or longer (if possible).

    Formal multidisciplinary clinical assessment is recommended and should include:
    - pre-anaesthesia consultation ahead of the day of planned surgery
    - input from an appropriate other clinician
    - history of acute COVID-19
    - presence of risk and protective factors associated with long COVID
    - nature and severity of previous and/or current symptoms
    - timing and duration of symptoms since the onset of acute COVID-19
    - history of COVID-19 vaccination

- history of other health conditions
- exacerbations of pre-existing conditions.

3. For patients with **long COVID**, the decision to delay or defer surgery should be based on a formal clinical assessment (as above). Where appropriate, surgery should be delayed or deferred until the patient returns to baseline functioning.

Definitions of clinical severity of COVID-19 infection

- **Asymptomatic:** Positive SARS-CoV-2 test with no symptoms
- **Mild**: Slight COVID-19 symptoms without shortness of breath
- **Moderate**: Evidence of lower respiratory disease (e.g. shortness of breath) during clinical or imaging assessment; peripheral blood oxygen saturation (SpO2) ≥94% on room air
- **Severe**: Signs and symptoms of severe lower respiratory disease necessitating hospitalisation; usually oxygen therapy and SpO2 ≤94% on room air
- **Long COVID**: Signs and symptoms that:
    - continue or develop usually three months from the onset of COVID-19 infection
    - last for at least two months
    - cannot be explained by an alternative diagnosis[2]

Background to the recommendations

Guidance from the Royal Australasian College of Surgeons and the Australian and New Zealand College of Anaesthetists state that for most patients it is safe to proceed with surgery two to three weeks post mild COVID-19 infection if no ongoing symptoms are present. However, high risk patients should have an individualised risk assessment. Patients with a history of moderate or more severe COVID-19 infection should delay non-urgent planned surgery for seven weeks.[3, 4]

The American Society of Anesthesiologists recommends that planned surgery not occur within two weeks of a COVID-19 infection. A risk assessment should be conducted between two and seven weeks post-COVID-19 infection and consider:

- age, comorbidities and functional or frailty status
- severity of recent SARS-CoV-2 infection, ongoing symptoms and vaccination status
- complexity of surgery or surgical risk
- potential impact of delayed surgery on patient's health.

Low risk procedures may be scheduled between two and seven weeks after COVID-19 infection.[5]

A multidisciplinary consensus statement from the Association of Anaesthetists, Centre for Perioperative Care, Federation of Surgical Specialty Associations, Royal College of Anaesthetists, and the Royal College of Surgeons of England, recommends avoiding elective surgery for two weeks after a positive SARS-CoV-2 test unless there is a clear indication to proceed. Surgery can proceed two to seven weeks after SARS-CoV-2 infection if the patient and surgery are low risk.[6]

References

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Appendix 1: Descriptions of major and minor surgery and indicative list of minor procedures

Major surgery

Procedures that involve significant physiological stress to the body as compared to minor surgery, e.g. endoscopic resection of prostate or major intraabdominal surgery, such as colorectal resection, thyroidectomy, total joint replacement or lung operations.[4]

Minor surgery

Procedures generally able to be managed as day procedures, typically superficial surgical procedures involving skin or soft tissues. Such procedures may also include elective minor ear-nose-throat procedures and simple endoscopy involving limited tissue sampling or resection.[4]

Other examples: axillary lymph nodes, Bartholin's cyst, bronchoscopy, cardioversion, carpal tunnel, cataract, colonoscopy, coronary angiogram, cystoscopy, dental surgery, drainage superficial abscess, electroconvulsive therapy, endoscopic retrograde cholangiopancreatography, excision skin lesions, gastroscopy, hallux valgus, hand surgery, hydrocoele, hysteroscopy, local skin flaps, minor amputation, pacemaker insertion, removal of hardware, trabeculectomy, transoesophageal echocardiogram, transrectal ultrasound scan, vasectomy and vitro-retinal surgery.

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