

Local guideline



Health
Hunter New England
Local Health District

Timing of elective procedures for patients with recent COVID-19 infection

Sites where Local Guideline applies	John Hunter Hospital
This Local Guideline applies to:	
1. Adults	Yes
2. Children up to 16 years	No
3. Neonates – less than 29 days	No
Target audience	Surgeons, anaesthetists, perioperative nurses, admissions clerical staff, Direct Access Nursing Clinic, proceduralists.
Description	This document provides guidance on determining care pathways for patients with recent COVID-19 infection

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Keywords	COVID-19, elective surgery, endoscopy, bronchoscopy
Document registration number	
Replaces existing document?	No
Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:	
	<ul style="list-style-type: none"> See references on page 4
Prerequisites (if required)	
Local Guideline note	
Position responsible for the Local Guideline and authorised by	JHH Perioperative Executive Committee
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Date authorised	
This document contains advice on therapeutics	No
Issue date	
Review date	

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PURPOSE AND RISKS

The timing of elective surgery after COVID-19 infection must take into account the following factors:^{1,2}

- Increased perioperative risks of morbidity and mortality after COVID-19 infection
- The risks associated with delaying surgery, taking into account the patient's surgical pathology, age and comorbidities

Regarding the perioperative morbidity and mortality risks, current evidence suggests that:^{1,3}

- Increased morbidity is largely due to pulmonary and thrombotic complications.
- Mortality is increased in patients having surgery within 0–2 weeks, 3–4 weeks and 5–6 weeks of their COVID-19 diagnosis (odds ratio 4.1, 3.9 and 3.6, respectively).³
- Surgery performed ≥ 7 weeks after COVID-19 diagnosis is associated with a similar mortality risk to baseline.
- After a ≥ 7 -week delay, patients with ongoing symptoms have a higher mortality than patients whose symptoms have resolved or than those who have been asymptomatic throughout.³
- Hospital or ICU admission for COVID-19 are associated with further increased perioperative risk.

Based on this evidence it is currently advised that planned surgical procedures in adults be delayed until a patient has recovered from COVID-19, and until specified timeframes have been met, unless the risks of deferring surgery outweigh the benefits.³⁻⁷

Patients who are immunosuppressed or who had severe illness from COVID-19 may require longer than the above the time frames.⁸

This document seeks to provide a local process for providing safe surgery post COVID-19 infection. This information may change over time as new data becomes available with subsequent outbreaks or viral variants.

Risk Category: Clinical Care & Patient Safety

GLOSSARY

Acronym or Term	Definition
COVID-19	The infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
ICU	Intensive care unit
PAC	Pre Admission Clinic
PCR	Polymerase Chain Reaction COVID-19 test
Periop	Perioperative Service
RAT	Rapid Antigen Test for COVID-19
VTE	Venous Thromboembolism

GUIDELINE

Determining the timing of elective surgery in a patient with recent COVID-19 infection

The following steps are to be followed when a patient is identified as having recently been diagnosed with COVID-19. The patient's COVID-19 history may be identified by:

- Admissions
- Surgical or procedural team
- Waitlist Co-ordinator
- Perioperative team
- General Practitioner
- Direct Access Nursing Clinic

Designation of responsibility for determining timing of elective surgery:

- **For patients managed directly by the surgical/procedural team (i.e. 'No PAC' – or No Pre-Admission Clinic)** these steps are followed by Admissions in direct discussion with the procedural/surgical team, when indicated.
- **For patients triaged to Pre-Admission Clinic**, these steps are followed by the Perioperative Service in discussion with the procedural/surgical team, when indicated.
- **For patients identified by the Direct Access Nursing Clinic** these steps are followed in direct collaboration with the medical leads for this service.

How to determine the appropriate timing of elective surgery:

Please refer to the attached tools to assist with executing steps 1-6 in the yellow box below:

- **Examples of major and intermediate versus minor surgery (Appendix A)**
- **Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MINOR surgery (Appendix B)**
- **Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MAJOR & INTERMEDIATE surgery (Appendix C)**

Steps for patients recently diagnosed with COVID-19

1. Identify whether the procedure is minor, intermediate or major
2. Confirm the date of diagnosis for COVID-19
3. Determine whether the patient has recovered from COVID-19
4. Determine whether the patient was treated as an inpatient for COVID-19
5. Determine whether the patient should proceed as planned or should be escalated to the treating team
6. Compile this information in the appropriate template (Appendix B or C) and include this, along with documentation of any discussions with medical officers, in the patient's notes.

Considerations for the Procedural Team, Perioperative Anaesthetists and Medical Leads for the Direct Access Nursing Clinic:

- For those patients who required inpatient admission for COVID-19 or who report ongoing symptoms, consider whether the patient is still suffering sequelae of COVID-19 through a multisystem review (**Appendix D**). Use this information to assist in determining timing of surgery, and to ascertain any additional investigations, reviews or management that may need to occur preoperatively.
- The medical officers involved may decide that the balance of risk versus benefit supports proceeding with surgery within the time period usually recommended for delay. In this instance their discussions with the patient should include the increased risks relating to recent their recent COVID-19 infection, while acknowledging that these recommendations are largely based on evidence from previous (non-Omicron) COVID-19 variants.(6)

Note: All patients must complete their isolation period (10 days from diagnosis) prior to attending hospital for an elective procedure or for a 'Face to Face' Pre-Admission Clinic appointment.

FEEDBACK

Any feedback on this document should be sent to the Contact Officer listed on the front page.

IMPLEMENTATION, MONITORING COMPLIANCE AND AUDIT

This document was developed with engagement from the Admissions office, the Perioperative Service and the various surgical and procedural specialties at the Joh Hunter Hospital. The document will be reviewed as additional evidence becomes available regarding new COVID-19 variants and their impact on the perioperative risks for patients.

APPENDICES

Appendix A – Examples of major and intermediate versus minor surgery

Appendix B – Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MINOR surgery

Appendix C - Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MAJOR & INTERMEDIATE surgery

Appendix D – Recommended assessments for patients post COVID

Appendix E. Definition of severe immunocompromise

REFERENCES

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Appendix A – Examples of major and intermediate versus minor surgery

(From JHH Perioperative Clinical Triage Guidelines)

SURGICAL GRADE	EXAMPLES
Minor surgery	Cataract excision Excision skin lesion Gastroscopy/colonoscopy Myringotomy tubes Cystoscopy Hysteroscopy Carpal tunnel release Trigger finger/Dupuytren's release Bronchoscopy
Intermediate	Hernia repair Laparoscopic cholecystectomy Tonsillectomy Lower limb angioplasty/stenting Knee arthroscopy Single level lumbar laminectomy Stapedectomy
Major/Complex	Total abdominal hysterectomy TURP Thoracic procedures Spinal surgery –scoliosis/cervical spine surgery/fusions/tumour resections Thyroidectomy Joint replacement Open abdominal surgery Colonic resection Craniotomy Renal transplant Head and neck surgery Cardiac surgery

Appendix B – Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MINOR surgery

Patients having <u>MINOR</u> surgery (see appendix A for categorisation of surgery)	
Patient Sticker	Procedure: Date of scheduled procedure:
1. Did the patient test positive for COVID-19 <i>more than 4 weeks ago?</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> Date of test: _____ Test type (PCR or RAT): _____
2. Has the patient recovered from COVID-19 infection?	Yes <input type="checkbox"/> No <input type="checkbox"/> Describe ongoing symptoms _____ _____
3. Did the patient manage their COVID-19 infection at home?	Yes <input type="checkbox"/> No <input type="checkbox"/> Admission date: _____ Discharge date: _____ HDU or ICU required? YES / NO
If YES to all, proceed with standard process, as scheduled. <input type="checkbox"/>	If NO to <u>any</u> , patients should be discussed: <ul style="list-style-type: none"> • by Admissions with the procedural team (for 'No PAC' patients) • by the Direct Access Nursing Clinic with the Medical Leads for this service <i>or</i> • by the Perioperative Service with the procedural team (for 'PAC' patients) <input type="checkbox"/>
Screening completed by: Name: _____ Role: _____ Date: _____	
All completed screening forms should be forwarded to the AMO and saved in the patient record.	

Appendix C – Screening tool to determine timing of surgery for patient with recent COVID-19 undergoing MAJOR & INTERMEDIATE surgery

Patients having <u>MAJOR or INTERMEDIATE</u> surgery (see appendix A for categorisation of surgery)	
Patient Sticker	Procedure: Date of scheduled procedure:
1. Did the patient test positive for COVID-19 <i>more than 8 weeks ago?</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> Date of test: _____ Test type (PCR or RAT): _____
2. Has the patient recovered from COVID-19 infection?	Yes <input type="checkbox"/> No <input type="checkbox"/> Describe ongoing symptoms _____ _____
3. Did the patient manage their COVID-19 infection at home?	Yes <input type="checkbox"/> No <input type="checkbox"/> Admission date: _____ Discharge date: _____ HDU or ICU required? YES / NO
If YES to all, proceed with standard process, as scheduled. <div style="text-align: center;"><input type="checkbox"/></div>	If NO to <u>any</u> , patients should be discussed: <ul style="list-style-type: none"> by the Perioperative Service with the procedural team <div style="text-align: center;"><input type="checkbox"/></div>
Screening completed by: Name: _____ Role: _____ Date: _____	
All completed screening forms should be forwarded to the AMO and saved in the patient record.	

Appendix D – Multisystem assessment for patients post COVID

Amended from 'Delaying Surgery for Patients Recovering from COVID-19' A rapid review commissioned by RACS April 2021. ³

Assessment Type	Statement
General	<ul style="list-style-type: none"> Consider using a risk scoring tool to evaluate the patient's baseline perioperative risk, <i>in addition</i> to that conferred by their recent COVID-19 infection.⁶ Patients who required hospitalisation, particularly critical care admission, may also be deconditioned, have received immunosuppressive therapy and are more likely to have residual COVID sequelae.⁷ The time before surgery should be used for optimisation of medical conditions, rehabilitation from their COVID-illness and improvement of exercise capacity.⁶
Pulmonary	<ul style="list-style-type: none"> Assess the patient for residual respiratory symptoms or impairment. Investigate and manage as indicated. Always consider non-COVID-19 pathology in patients presenting with new onset shortness of breath or chest pain.
Cardiac	<ul style="list-style-type: none"> Assess the patient for any cardiac symptoms or impairment resulting from their COVID-19 infection, in particular arrhythmias and myocardial injury. If concerns, consider discussion with a cardiologist and additional investigations as indicated. Always consider non-COVID-19 pathology in patients presenting with new onset shortness of breath or chest pain.
Musculoskeletal	<ul style="list-style-type: none"> All patients requiring rehabilitation following COVID-19 should have a functional assessment to determine residual musculoskeletal impairments.
Neurological	<ul style="list-style-type: none"> Assess the patient for immediate or delayed neurologic symptoms. Consider a cognitive screen for those at risk (post-critical care or with residual cognitive impairment).
Hepatic and Renal	<ul style="list-style-type: none"> Check UEC and LFTs to identify persistent abnormalities and refer for further investigation and management if indicated.
Haematological	<ul style="list-style-type: none"> Check if the patient has suffered a venothromboembolic complications and refer to local guidelines for timing of elective surgery. Patients may have an increased postoperative VTE risk. Plan appropriate prophylaxis.
Immunologic	<ul style="list-style-type: none"> For severely immunocompromised patients (see Appendix E) consider discussion with the Infectious Diseases team and the consultants involved in their care, as these patients may be infectious for longer periods, may have more severe disease and may be at increased perioperative risk after recent COVID-19 infection.⁷

Appendix E. Definition of severe immunocompromise.

Amended from: The UK Green Book on Immunisation, definitions of Primary or Acquired Immunodeficiency and Immunosuppressive Therapies.⁹

- immunosuppression due to acute and chronic leukaemias and lymphoma (including Hodgkin's lymphoma)
- severe immunosuppression due to HIV/AIDS
- cellular immune deficiencies (such as severe combined immunodeficiency, Wiskott-Aldrich syndrome, 22q11 deficiency/DiGeorge syndrome)
- being under follow up for a chronic lymphoproliferative disorder including haematological malignancies such as indolent lymphoma, chronic lymphoid leukaemia, myeloma and other plasma cell dyscrasias
- having received an allogenic (cells from a donor) stem cell transplant in the past 24 months and only then if they are demonstrated not to have ongoing immunosuppression or graft versus host disease
- having received an autologous (using their own stem cells) haematopoietic stem cell transplant in the past 24 months and only then if they are in remission
- those who are receiving, or have received in the past 6 months, immunosuppressive chemotherapy or radiotherapy for malignant disease or non-malignant disorders
- those who are receiving, or have received in the past 6 months, immunosuppressive therapy for a solid organ transplant (with exceptions, depending upon the type of transplant and the immune status of the patient)
- those who are receiving or have received in the past 12 months immunosuppressive biological therapy (such as monoclonal antibodies), unless otherwise directed by a specialist
- those who are receiving or have received in the past 3 months immunosuppressive therapy including:
 - adults on high-dose corticosteroids (>40 mg prednisolone per day) for more than 1 week
 - adults on lower dose corticosteroids (>20 mg prednisolone per day) for more than 14 days
 - adults on non-biological oral immune modulating drugs, for example, methotrexate >25 mg per week, azathioprine >3.0 mg.kg⁻¹.day⁻¹ or 6-mercaptopurine >1.5 mg.kg⁻¹.day⁻¹