1. Introduction

This directive outlines the surgical admission criteria for adult patients that present for elective surgery following COVID-19 at UHL. This directive has been draft in consideration of the Association of Anaesthetist publication, **SARS-CoV-2 Infection, COVID-19 and Timing of Elective Surgery** on when it would be safe and reasonable to progress to surgery following COVID-19. The recommendations are detailed in Appendix 1 and include;

'Surgery within 7 weeks of SARS-CoV-2 infection is associated with increased morbidity and mortality. Elective surgery should not be scheduled within 7 weeks of a diagnosis of SARS-CoV-2 infection, unless outweighed by the risk of deferring surgery such as disease progression or clinical priority
'
Patients with persistent symptoms of COVID-19 are at increased risk of postoperative morbidity and mortality even after 7 weeks. Therefore, delaying surgery beyond this point should be considered, balancing this risk against their risk of disease progression and clinical priority. Specialist assessment and personalised, multidisciplinary peri-operative management is required.

SARS-CoV-2 infection, COVID-19 and timing of elective surgery - El-Boghdadly - 2021 - Anaesthesia - Wiley Online Library

Anaesthetic technique

There is currently no strong evidence that anaesthetic technique is associated with an alteration in postoperative outcome in patients who have had peri-operative SARS-CoV-2 infection. In patients with persistent respiratory pathophysiological changes after severe COVID-19, the benefits of avoiding general anaesthesia are likely to be the same as in other respiratory disease. The use of local or regional anaesthetic techniques may have outcome and resource-utilisation benefits, but this is not specific to patients with previous or current SARS-CoV-2 infection.

https://associationofanaesthetists-publications.onlinelibrary.wiley.com/doi/10.1111/anae.15464

More recently, the multidisciplinary guidance, **Preoperative Assessment and Optimisation for Adult Surgery,** issued in June reads,

'Where possible, surgery should be avoided for 7 weeks after COVID-19 infection, or until symptoms have resolved, to avoid the higher risk of postoperative complications and death associated with earlier surgery'

'Decision making on whether to defer surgery because of acute COVID-19 infection or persistent symptoms should be informed by multidisciplinary discussion including the patient, surgeon, anaesthetist and/or perioperative physician and a physician with expertise in COVID-19 and/or long COVID as appropriate'

https://www.cpoc.org.uk/sites/cpoc/files/documents/2021-06/Preoperative%20assessment%20and%20optimisation%20guidance.pdf

This directive seeks to provide a pathway for the management of this patient group for both clinical and non-clinical staff to reduce the risk of adverse patient outcomes. As part of the restoration of surgical activity this directive will further support the 'dating' of elective surgical patients that present following COVID-19.

2. Scope

Patients may be considered positive or past positive that present with a history suggestive of COVID 19 although COVID-19 testing was not completed, and those with a positive COVID-19 test result.

Adult patients that present for surgery following COVID 19 on an *expedited* (cancer pathway/2WW) or *urgent* pathway are outside the scope of this policy – Although it is noted that formal anaesthetic assessment would be required to determine fitness to proceed and the plan of management in consultation with the Consultant Surgeon and the patient, including IPC Lead as appropriate.

The 'Infection Prevention and Control' (IPC) requirement for pre-operative testing (LFT and PCR testing) and the isolation requirements, and retesting requirements at 90 days post COVID positive are outside of the scope of this guidance and staff should refer to UHL IPC policy and guidance.

3. Definitions

The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) define elective surgery as, *Intervention planned or booked in advance of routine admission to hospital. Timing to suit patient, hospital and staff*

More recently the Federation of Surgical Specialty Associations (FSSA) 'Clinical Guide to Surgical Prioritisation during the Coronavirus Pandemic' defines five categories for prioritisation of patients

https://fssa.org.uk/_userfiles/pages/files/covid19/prioritisation_master_30_12_20.pdf

Post-COVID-19 syndrome is defined as signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks and are not explained by an alternative diagnosis.

'Long COVID' is commonly used to describe signs and symptoms that continue or develop after acute COVID-19. It includes both ongoing symptomatic COVID-19 and post-COVID-19 syndrome.

https://www.nice.org.uk/guidance/ng188

2. Guideline Standards and Procedures

The following table should be used to determine the patient pathway where patients present for elective surgery following COVID-19

COVID status	Action	Rationale
*Adult patients presenting for **elective** surgery within 7 weeks of a positive COVID 19 test, or symptoms of COVID 19*	*Not suitable for surgery under an elective pathway **unless** outweighed by the risk of deferring surgery such as disease progression or clinical priority – To be discussed with Surgeon and Anaesthetist*	*It is accepted that while patients might not have had respiratory symptoms, they may have had haematology issues which may present an increased thrombotic risk*
*Adult patients presenting for **elective** surgery with 'Long COVID' or symptoms of COVID 19 ≥ 7 weeks*	*Formal assessment in Anaesthetic Clinic or MDT with the plan of management documented in the medical records. Patients should be assessed by the associated Anaesthetic team for the speciality** *Listed for overnight stay and at UHL only*	*Increased thrombotic risk* **Physiological reserve* *RS symptoms* *CVS symptoms* *Mobility* *Psychological symptoms**
Where there is doubt as to whether the procedure is defined as 'elective', this should be discussed with the CMG Leads		

*History Taking

To assist in determining fitness to proceed for elective surgery post COVID 19 the pre-operative assessment (POA) must include clinical enquiry to support decision making by the Consultant Anaesthetist and Consultant Surgeon

- Proposed surgery
- Anaesthetic type
- Urgency of the surgery
- VTE risk assessment
- Date of COVID test and status e.g. COVID positive
- Symptoms of COVID, the duration of symptoms, and intervention during this period (hospitalised)
- Individual risk factors of the patient (extremely clinically vulnerable/clinically vulnerable)
- Breathlessness and any on-going COVID 19 symptoms
- Exercise tolerance: Activity levels pre and post COVID 19 and any factors that limit activity

Postponement

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Although outside the scope of this document, where postponement is considered reasonable by the Consultant Surgeon and Consultant Anaesthetist, care should be taken to ensure that the patient is aware of the plan of management moving forward, and further provided with a point of contact to ensure that the patient is not lost in the system. The plan should be communicated to the patient and their GP for completeness. Where practicable the timescale for reassessment and listing should be recorded.

3. Education and Training

None

4. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Incident reporting	Review of incident reports in relation to day of surgery cancellations due to COVID positive status	CMG	On going	As per CMG arrangements

5. Supporting References (maximum of 3)

https://www.nice.org.uk/guidance/ng188

6. Key Words

- COVID-19
- Surgery
- Procedure

CONTACT AND REVIEW DETAILS	
Guideline Lead: Jo Mahoney - Improvement Lead	**Executive Lead: Natalie Green - Deputy Chief Nurse**
Details of Changes made during review:	

Appendix 1

Recommendations
https://associationofanaesthetists-publications.onlinelibrary.wiley.com/doi/10.1111/anae.15464

1. Shared decision-making regarding timing of surgery after SARS-CoV-2 infection between patient and multidisciplinary clinical teams must consider: severity of the initial infection; ongoing symptoms of COVID-19; comorbid and functional status,

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both before and after SARS-CoV-2 infection; clinical priority and risk of disease progression; and complexity of surgery.

2. Planned surgery should not be considered during the period that a patient may be infectious: 10 days after mild/moderate disease and 15–20 days after severe disease. For patients who are severely immunosuppressed (online Supporting Information Appendix S1), which may include patients treated with dexamethasone or monoclonal antibodies for severe COVID-19, specialist advice should be sought. If emergency surgery is required during this period, full transmission-based precautions should be undertaken for the protection of staff.
3. Surgery within 7 weeks of SARS-CoV-2 infection is associated with increased morbidity and mortality. Elective surgery should not be scheduled within 7 weeks of a diagnosis of SARS-CoV-2 infection, unless outweighed by the risk of deferring surgery such as disease progression or clinical priority.
4. Most patients infected with SARS-CoV-2 have either transient or asymptomatic disease and require no additional precautions beyond a 7-week delay, but those who have persistent symptoms or have been hospitalised require special attention.
5. Patients with persistent symptoms of COVID-19 are at increased risk of postoperative morbidity and mortality even after 7 weeks. Therefore, delaying surgery beyond this point should be considered, balancing this risk against their risk of disease progression and clinical priority. Specialist assessment and personalised, multidisciplinary peri-operative management is required.
6. The time before surgery should be used for functional assessment, rehabilitation from severe illness, prehabilitation and multidisciplinary optimisation.
7. Vaccination several weeks before surgery will reduce risk to patients and might lessen the risk of nosocomial SARS-CoV-2 infection of other patients and staff. National vaccine committees should consider whether such patients can be prioritised for vaccination.
8. As a result of the increased risk of morbidity and mortality of peri-operative COVID-19, precautions to prevent admission of patients who are incubating SARS-CoV-2 and infection within the hospital should continue.
9. These recommendations are based on evidence available at the time of writing and may be subject to future review.

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