Level 1, 517 Flinders Lane
Melbourne Vic 3000 Australia
Telephone: 1300 766 176
Website: www.gesa.org.au
ABN: 44 001 171 115

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TIMING OF ELECTIVE ENDOSCOPIC PROCEDURES IN PATIENTS WITH RECENT COVID-19 INFECTION

Dr Mehul Lamba, Royal Brisbane and Women's Hospital
Dr Neha Tiwari, Royal Brisbane and Women's Hospital
Dr Steven Bollipo, Director of Gastroenterology, John Hunter Hospital, Newcastle
A/Professor Britt Christensen, Chair, IBD Faculty GESA
A/Professor Jake Begun, Director, GESA
Dr Matthew Remedios, Chair, Endoscopy Faculty GESA
Professor Benedict Devereaux, President, GESA

SARS-CoV-2 is currently widely prevalent in the Australian community. Rapid antigen tests (RATs) are being routinely used in several facilities in Australia for point-of-care testing of patients presenting for endoscopic procedures. Consequently, asymptomatic, or mildly symptomatic patients are being diagnosed with COVID-19 on the day of their scheduled procedure. Active COVID-19 infection has been associated with increased risk of post-operative morbidity and mortality in patients undergoing major surgery.[1-3] This has led to local and international guidelines recommending delaying elective surgical procedures in patients with active COVID-19 infection where possible.[4-6] Questions as to whether elective endoscopic procedures should be delayed, and the duration of delay, are therefore of contemporaneous importance. We reviewed the published current evidence to develop this guidance statement regarding timing of elective endoscopic procedures in patients with recent COVID-19 illness.

The appropriateness of point of care rapid antigen tests (RATs) on the day of endoscopic procedures is not reviewed in this document. We acknowledge that there is lack of evidence supporting routine use of COVID-19 screening tests prior to outpatient endoscopy procedures in asymptomatic individuals. However, as this is an evolving situation, and depends on various

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factors such as local prevalence and community transmission rate, the use of RATs is left to the discretion of individual endoscopic / hospital facilities and health department jurisdictions.

There have been several large cohort studies that have assessed post-operative outcomes in patients with COVID-19. In a prospective cohort study from the Unites States involving patients undergoing elective major surgery, patients with recent SARS-CoV-2 infection (< 4 weeks before surgery) were found to be at increased risk of developing post-operative pneumonia and respiratory failure.[1] In an international collaborative study by COVIDSURG group, patients with COVID-19 infection undergoing any surgery were found to have significantly increased risk of 30-day mortality up to 6 weeks after infection compared to COVID-19 negative patients.[2]. A previous COVIDSURG study assessing risk of COVID-19 infection on post-operative morbidity and mortality early in the pandemic reached a similar conclusion.[3] Following an evaluation of the literature, Kovoor et al recommended that minor surgery be delayed for 4 weeks and major surgery 8-12 weeks following laboratory confirmation of symptomatic SARS-CoV-2 infection[7].

While these studies have been instrumental in risk-stratifying patients and informing timing of elective surgeries in patients with COVID-19, extrapolation of these data to endoscopy practice requires caution. Patients undergoing endoscopic procedures were excluded in all these cohort studies. Furthermore, there are no data directly assessing risk of post-procedure outcomes in patients with COVID-19 undergoing endoscopy procedures. Given that major surgeries require general anaesthesia, and involve a measurable inflammatory insult, these are not comparable to endoscopic procedures performed under intravenous sedation, where patients routinely return to their normal activity level within 12-24 hours after the procedure. Significantly, all large cohort studies examined outcomes in unvaccinated patients. Since the highly effective vaccines became available in Australia in early 2021, over 93% of Australia's population age 16 and over have now received at least two doses of vaccine.[8]

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In summary, high quality evidence informing endoscopy practice in the 2022 phase of the COVID-19 pandemic is lacking. The implications for patient health outcomes as a result of further delays in endoscopic management, need to be assessed in the context of potential waiting list pressures due to legislated elective surgery restrictions. The recommendations below must be individualised and do not obviate the need for appropriate clinical judgement regarding risks and benefits for a given patient. The recommendations are intended to advise planning elective endoscopy procedures only. Any patient requiring an urgent endoscopic procedure should proceed based on the clinical indication with attention to local infection prevention and control policies.

Disclaimer

The Gastroenterological Society of Australia (GESA) provides the above advice to guide gastroenterologists and hepatologists who provide care for patients with chronic liver diseases, transplant recipients and IBD during the COVID-19 pandemic. This advice should be modified to fit the context of individual medical practice based on the local policies of the relevant health facilities. Given the rapidly evolving situation, this advice is subject to change, and we will make efforts to update them as needed. Please check the Australian Government website for the latest information on COVID-19 vaccines.

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Timing of endoscopic procedures for patients with a recent COVID-19 diagnosis

Asymptomatic COVID-19 infection	Asymptomatic COVID-19 infection diagnosed on the day[a] of or within 2 weeks prior to scheduled procedure	Defer endoscopic procedure for ≥ 2 weeks after diagnosis
	Asymptomatic COVID-19 infection diagnosed > 2 weeks prior to scheduled procedure	Proceed with endoscopic procedure as scheduled
Mild COVID-19 illness • Mild symptoms and signs[b] • No new dyspnoea • No evidence of LRTI on clinical exam or imaging if available	Mild symptomatic COVID-19 illness diagnosed on the day[a] of or within 2 weeks prior to scheduled procedure	Rebook endoscopy procedure ≥ 2 weeks after diagnosis
	Mild symptomatic COVID-19 illness diagnosed > 2 weeks prior to scheduled procedure	Proceed with endoscopic procedure as scheduled
Moderate COVID-19 illness • Evidence of LRTI on clinical exam such as a. Sa02 92-94% on room air b. Desaturation or dyspnoea with mild exertion • Evidence of LRTI on imaging	Moderate symptomatic Covid-19 illness diagnosed on the day[a] of or within 4 weeks prior to scheduled procedure	Rebook endoscopy procedure ≥ 4 weeks after diagnosis
	Moderate symptomatic Covid-19 illness diagnosed > 4 weeks prior to scheduled procedure	Proceed with endoscopic procedure as scheduled
Severe or Critical COVID-19 illness • Deteriorating respiratory function[c] • Respiratory failure[d] • Other organ failure	Severe or Critical COVID-19 illness within 6 months of scheduled procedure	Defer endoscopic procedure until cleared at medical review

a – diagnosis made by rapid antigen test and/or PCR test

b - Mild symptoms and signs of covid-19 illness include fever, cough, sore throat, malaise, headache, muscle pai, nausea, vomiting, diarrhoea, loss of taste and smell

c - deteriorating respiratory function is defined as any of: respiratory rate ≥ 30 breaths/min, Sa02 < 92% on room air, lung infiltrates > 50%

d - Respiratory failure defined as any of: $PaO_2/FiO_2 < 200$, respiratory distress or acute respiratory distress syndrome, deteriorating despite non-invasive forms of respiratory support, requiring mechanical ventilation

COVID-19 severity definition adapted from National COVID-19 clinical evidence taskforce: Available at: https://app.magicapp.org/#/guideline/L4Q5An/section/nV2P3n Accessed on 15/02/2022