**COVID-19: Recommendations for Elective Surgery**

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**Abstract**:

Over the last two years, the coronavirus 2019 (COVID-19) pandemic has been the primary focus for healthcare services worldwide. Globally, COVID-19 has affected millions of people and over six million COVID-19-related deaths have been reported to the World Health Organization. It is increasingly likely that COVID-19 will become endemic; there has been a shift in focus from eradication of the disease to ensuring that sufficient proportions of the world’s population are vaccinated to reduce transmission and protect against severe manifestations of COVID-19.

In the United Kingdom, during past surges of COVID-19, the need to divert resources to care for COVID-19 patients and prioritisation of emergency surgical cases over elective procedures has resulted in a significant backlog of elective surgical cases. There is an ongoing need to tackle this growing surgical backlog which includes interventions to treat a variety of disabling orthopaedic conditions, such as those necessitating reconstructive or joint replacement surgery.

Acute infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; the virus causing COVID-19) during the perioperative period has been shown to increase the risks of post-operative mortality and pulmonary complications. Results from the GlobalSurg-CovidSurg Week multicentre study revealed that, over time, these post-operative risks decrease but remain significantly elevated until seven weeks and beyond following a diagnosis of COVID-19. Consequently, guidelines on the timing of surgery have recommended that patients testing positive for SARS-CoV-2 should have elective surgery delayed until beyond seven weeks, where clinically feasible. In the wake of newer variants of concern, such as omicron, that may cause milder clinical illness (including in the context of vaccination), there is a need to update existing guidance on elective surgery in relation to COVID-19 status.

Much like other elective surgeries, multidisciplinary teams engaged in day case major knee surgery will broadly encounter three ‘types’ of patients: (1) those who have never had COVID-19; (2) those who have acute COVID-19 infection; (3) those who have previously had COVID-19. Even with COVID-19 vaccination uptake and the omicron SARS-CoV-2 variant, there remains a lack of newer evidence on changes in perioperative outcomes and thus, avoiding elective surgery for 7 weeks following acute COVID-19 is still recommended where clinically feasible. There is, however, a shift in focus to consider not only the timing from SARS-CoV-2 infection, but also assessment of baseline and additional COVID-19-related risks, and shared decision making. Surgical patients should otherwise be encouraged to uptake COVID-19 vaccination (three doses where possible) and to optimise pre-operative status by focusing on modifiable risk factors (e.g. exercise regimes, optimisation of nutrition, smoking cessation).

**Useful Resources**:

* COVIDSurg Collaborative, GlobalSurg Collaborative. Timing of surgery following SARS-CoV-2 infection: an international prospective cohort study. *Anaesthesia*. 2021 Jun;76(6):748-758.
* K El-Boghdadly, T M Cook, T Goodacre, J Kua, L Blake, S Denmark, S McNally, N Mercer, S R Moonesinghe, D J Summerton. SARS-CoV-2 infection, COVID-19 and timing of elective surgery: A multidisciplinary consensus statement on behalf of the Association of Anaesthetists, the Centre for Peri-operative Care, the Federation of Surgical Specialty Associations, the Royal College of Anaesthetists and the Royal College of Surgeons of England. *Anaesthesia*. 2021 Mar 18. doi: 10.1111/anae.15464.
* K El-Boghdadly, T M Cook, T Goodacre, J Kua, S Denmark, S McNally, N Mercer, S R Moonesinghe, D J Summerton. Timing of elective surgery and risk assessment after SARS-CoV-2 infection: an update: A multidisciplinary consensus statement on behalf of the Association of Anaesthetists, Centre for Perioperative Care, Federation of Surgical Specialty Associations, Royal College of Anaesthetists, Royal College of Surgeons of England. *Anaesthesia*. 2022 Feb 22. doi: 10.1111/anae.15699.
* Preoperative Assessment and Optimisation for Adult Surgery including consideration of COVID-19 and its implications. June 2021. Available from: <https://www.cpoc.org.uk/preoperative-assessment-and-optimisation-adult-surgery>