

# Analysis suggests surgery is safe for patients two weeks after positive COVID diagnosis, as long as they have recovered

March 23 2023

---



Credit: Unsplash/CC0 Public Domain

A new study of some 3.6 million surgeries from National Health Service (NHS) databases in England suggests that in most cases, it will be safe to

carry out planned surgery as early as two weeks after a positive COVID test, as long as the patient has recovered—compared to current guidance that recommends delaying surgery for seven weeks.

The study is published in *Anaesthesia* and is by Dr. Alwyn Kotzé, University of Leeds, UK and Dr. Ciarán McInerney, University of Sheffield, UK, and colleagues.

## **Why did previous guidance suggest surgery should be delayed for seven weeks?**

Surgical decision making after SARS-CoV-2 [infection](#) is influenced by the presence of comorbidity, infection severity, and whether the surgical problem is time-sensitive. Prior to this new research, the COVIDSurg collaborative was the largest prospective study on surgical outcomes after SARS-CoV-2 infection to date, showing an increased risk of postoperative (30-day) mortality and lung complications up to seven weeks following a positive test in patients who have recovered fully. Mortality in that study was 9.1% within 30 days for surgery within two weeks of a positive COVID test, reducing to 2.0% for surgery six weeks or more after a positive test.

That study (involving over 140,000 patients from 116 countries) was conducted before vaccines or evidence-based drug therapy for severe COVID became available. However, United Kingdom (UK) and German guidance still recommends deferring deferrable elective surgery for seven weeks after SARS-CoV-2 infection. In contrast, latest guidance in the U.S. recommends seven weeks' postponement in unvaccinated individuals only. Guidance from Australia and New Zealand recommends stratification by surgical magnitude, with postponement ranging from four weeks for minor surgery to 12 weeks in [major surgery](#)

## **Why was this new study conducted, and what did it show?**

Given that with all else being equal, delaying surgery usually leads to worse outcomes, the authors wanted to do a fresh analysis to see how safe surgery is following COVID infection in both the era with COVID vaccines and the era of the pandemic before vaccines.

The study considered operations performed in England between 17 March 2018 and 17 March 2022 (two years before and after 17 March 2020, when all elective surgery in the UK was temporarily postponed as part of the first COVID lockdown), yielding a cohort of 3,658,140 patients undergoing surgical procedures. Of these, 1,242,180 were conducted after vaccines became widely available, on patients with a mean age of 55 years.

Overall, 30-day post-operative mortality was 0.2% and 30-day post-operative complications under 1.0% in the pandemic-with-vaccine era. Mortality for surgery conducted within two weeks of a positive test was 1.1% (compared to 9.1% in COVIDSurg), declining to 0.3% by four weeks (5.5% in COVIDSurg).

Even when the authors looked at the pre-vaccine pandemic period (the same era covered by COVIDSurg), results from this new study showed lower mortality in England than in the global sample, of 4.1 % for surgery conducted within two weeks of a positive COVID test, declining to 1.3% by 4-6 weeks and 0.9% by six weeks and over.

Before the COVID pandemic began, 30-day mortality post-surgery overall in this study was 0.1%, so close to but slightly less than the post-pandemic 30-day post-surgery mortality rates found in this new study.

The authors say it is important to note that, in any six-month window, less than 3% of [surgeries](#) were conducted within the seven-week threshold after a positive PCR assay, showing that most UK hospitals were sticking to the seven-week window for no surgery after a positive COVID test suggested by the COVIDSurg study. This led to low numbers of patients in various groups. Across all time periods, a higher proportion of emergency surgery was conducted within seven weeks of a positive SARS-CoV-2 test than elective surgery, although again, always less than 3% of the emergency surgical caseload.

The authors say, "We conclude that patient outcomes were better for patients receiving care in hospitals in England than the COVIDSurg global average.... While the most recent UK guidelines suggest a risk-based approach to timing of surgery after SARS-CoV2 infection, [clinical experience](#) suggests that for all but the most urgent elective or emergency surgery, clinicians continue to postpone operations if they are scheduled within seven weeks of SARS-CoV-2 infection. If, as our data suggest, the risk associated with surgery after SARS-CoV-2 infection is much lower than previously thought, delaying surgery might cause more harm than good, particularly in patients who have already waited longer than desirable for surgery."

The authors note limitations to the study, including that the findings should not be used to guide decision-making for higher-risk groups, e.g., those who remain symptomatic beyond the acute phase of COVID-19, or those individuals who are immunosuppressed, because the statistics are represent the overall general patient population and do not reveal the heightened risk experienced by these groups.

Dr. Kotzé concludes, "This is the first large-scale analysis of surgical outcomes throughout the COVID-19 pandemic timeline. It suggests that in England, surgical patients' overall risk following an indication of SARS-CoV-2 infection may be lower than previously thought. Clinicians

followed national guidance by operating on very few patients within seven weeks of a positive [COVID-19 test]. across all eras of the pandemic to date, [surgical outcomes](#) were substantially better than previously thought, even within seven weeks of a positive test.

"Given that delaying surgery is likely to worsen patient outcomes in the longer term, we recommend that UK guidelines should reduce the seven-week threshold for low-risk patients who have fully recovered after a positive SARS-CoV-2 test. A simple change in emphasis could suffice—for example, suggest that surgery is delayed for no more than two weeks after indication of a SARS-CoV-2 infection unless there are specific circumstances that places an individual at higher risk of poor outcomes. This would bring clinical guidance on surgical timing after an indication of SARS-CoV-2 infection into line with common practice regarding other acute respiratory infections."

Professor Ramani Moonesinghe, study co-author from University College London and National Health Service England (NHSE) National Clinical Director for Critical and Perioperative Care, London, UK, said, " This analysis provides new and important data on the safety of surgery after COVID infection, and should provide reassurance to patients and clinicians. It remains really important to take up the opportunity for vaccination when it is offered, to reduce the risk of severe COVID infection."

**More information:** Postoperative mortality and complications in patients with and without pre-operative SARS-CoV-2 infection: a service evaluation of 24 million linked records using OpenSAFELY, *Anaesthesia* (2023). [DOI: 10.1111/anae.16001](https://doi.org/10.1111/anae.16001)

Provided by AAGBI

Citation: Analysis suggests surgery is safe for patients two weeks after positive COVID diagnosis, as long as they have recovered (2023, March 23) retrieved 27 April 2024 from <https://medicalxpress.com/news/2023-03-analysis-surgery-safe-patients-weeks.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.