

## Media Release

Thursday 25 March 2021

### **Surgical patients must get priority COVID-19 vaccine to save lives - study**

Patients waiting for elective surgery should get COVID-19 vaccines ahead of the general population – potentially helping to avoid post-operative deaths linked to the virus, according to a new study.

Scientists calculate that vaccination of surgical patients is more likely to prevent COVID-19 related deaths than vaccines given to the population at large – particularly among the over-70s and those undergoing surgery for cancer.

They estimate that global prioritisation of pre-operative vaccination for elective patients could prevent an additional 58,687 COVID-19-related deaths in one year.

This could be particularly important for low- and middle-income countries (LMICs) where mitigation measures such as nasal swab screening and COVID-free surgical pathways, which can reduce the risk of complications related to the virus, are unlikely to be universally implemented.

The COVIDSurg Collaborative international team of researchers, coordinated from the Global Health Research Unit on Surgery at the University of Birmingham in England, has published its findings today in the *British Journal of Surgery*, after studying data for 141,582 patients from across 1,667 hospitals in 116 countries including Aotearoa New Zealand, Australia, Brazil, China, India, UAE, UK and USA - creating the world's largest ever international study on surgery.

Project lead, Dr Deborah Wright, from the University of Otago, commented: "Preoperative vaccination could support safe elective surgery in New Zealand, by significantly reducing the risk of COVID-19 complications in patients if a significant outbreak occurred while they are being prepared for surgery.

"Many countries, particularly low- and middle-income countries, will not have widespread access to COVID vaccines for several years. While vaccine supplies are limited, governments are prioritising vaccination for groups at highest risk of COVID-19 mortality. Our work can help to inform these decisions."

Co-lead author Chris Varghese, from the University of Auckland, commented: "Continuing elective surgery is a global priority. Over 15,000 surgeons and anaesthetists from across 116 countries came together to contribute to this study, making it the largest ever scientific collaboration. It's crucial that policy makers use the data we have collected to support safe continuation of elective surgery and consider whether COVID vaccination should be prioritised for elective surgery patients ahead of the lower risk groups in the general population."

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**About the Royal Australasian College of Surgeons (RACS)**

RACS is the leading advocate for surgical standards, professionalism and surgical education in Australia and New Zealand. The College is a not-for-profit organisation that represents more than 7000 surgeons and 1300 surgical trainees and International Medical Graduates. RACS also supports healthcare and surgical education in the Asia-Pacific region and is a substantial funder of surgical research. There are nine surgical specialties in Australasia being: Cardiothoracic surgery, General surgery, Neurosurgery, Orthopaedic surgery, Otolaryngology Head-and-Neck surgery, Paediatric surgery, Plastic and Reconstructive surgery, Urology and Vascular surgery. [www.surgeons.org](http://www.surgeons.org)

During the first wave of the pandemic, up to 70 per cent of elective surgeries were postponed, resulting in an estimated 28 million procedures being delayed or cancelled. Whilst surgery volumes have started to recover in many countries, ongoing disruption is likely to continue throughout 2021, particularly in the event of countries experiencing further waves of COVID-19.

Prioritisation of COVID-19 vaccination for surgical patients could help to protect elective surgery. Vaccination is also likely to decrease post-operative pulmonary complications - reducing intensive care use and overall healthcare costs.

Researchers studied the data and calculated the number needed to vaccinate (NNV) to prevent one COVID-19-related death in one year - based on post-operative COVID-19 rates and mortality in both the international surgical patient cohort and general population. NNVs were consistently lower for surgical patients than for the general population.

## ENDS

### Notes to editors

- This project was supported by Clinical Trials Network Australia and New Zealand, a Royal Australasian College of Surgeons project to involve medical students and trainee surgeons in research. Over 600 surgeons, trainees and students collected data on over 5,000 patients in Australia and Aotearoa New Zealand from more than 50 hospitals as part of this project.
- *'SARS-CoV-2 vaccination modelling for safe surgery to save lives: data from an international prospective cohort study'* - COVIDSurg Collaborative is published by the *British Journal of Surgery*.
- The National Institute for Health Research (NIHR) awarded £7 million to the University of Birmingham to establish the NIHR Global Health Research Unit on Global Surgery. This unit is engaged in conducting multi-country randomised controlled trials testing interventions to reduce SSI across a range of low- and middle-income countries.

### The NIHR:

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- Attracts, trains and supports the best researchers to tackle the complex health and care challenges of the future
- Invests in world-class infrastructure and a skilled delivery workforce to translate discoveries into improved treatments and services
- Partners with other public funders, charities and industry to maximise the value of research to patients and the economy.