

Media Release

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One in seven patients miss cancer surgery during COVID lockdowns - study

Global study - list of participating countries at bottom of release

One in seven cancer patients around the world have missed out on potentially life-saving operations during COVID-19 lockdowns, a new study reveals.

Planned cancer surgery was affected by lockdowns regardless of the local COVID-19 rates at that time, with patients in lower income countries at highest risk of missing their surgery.

While lockdowns have been essential in protecting the general public from spreading infection, they have had collateral impact on care for other patients and health conditions. In one of the first studies that have measured these effects directly, researchers showed that lockdowns led to significant delays to cancer surgery and potentially more cancer deaths. These could have been prevented if operations had gone ahead on time.

Researchers are calling for major global reorganisation during the recovery from the pandemic to provide protected elective surgical pathways and critical care beds that will allow surgery to continue safely, as well as investment in 'surge' capacity for future public health emergencies.

They believe that 'ring-fenced' intensive care beds would support patients with other health conditions and those with advanced disease (who are the highest risk from delays) to undergo timely surgery. In parallel, long-term investment in staffing and infrastructure for emergency care would mitigate against disruption of elective services.

Led by experts at the University of Birmingham, almost 5,000 surgeons and anaesthetists from around the world, including Fellows and Trainees from the Royal Australasian College of Surgeons, worked together as part of the NIHR-funded COVIDSurg Collaborative to analyse data from the 15 most common solid cancer types in 20,000 patients across 466 hospitals in 61 countries. The team published its findings in *The Lancet Oncology*.

The researchers compared cancellations and delays before cancer surgery during lockdowns to those during times with light restrictions only. During full lockdowns, one in seven patients (15%) did not receive their planned operation after a median of 5.3 months from diagnosis - all with a COVID-19 related reason for non-operation. However, during light restriction periods, the non-operation rate was very low (0.6%).

Patients awaiting surgery for more than six weeks during full lockdown were significantly less likely to have their planned cancer surgery. Frail patients, those with advanced cancer, and those waiting surgery in lower-middle income countries were all less likely have the cancer operation they urgently needed.

Co-lead author and Royal Australasian College of Surgeons surgical Trainee Dr Nagendra Dudi-Venkata, University of Adelaide, commented: "Our research reveals the collateral impact of lockdowns on patients awaiting cancer surgery during the pandemic. While lockdowns are critical to saving lives and reducing the spread of the virus, ensuring capacity for safe elective cancer surgery should be part of every country's plan to ensure continued health across the whole population."

"In order to prevent further harm during current and future lockdowns, we must make the systems around elective surgery more resilient – protecting elective surgery beds and operating theatre space, and properly resourcing 'surge' capacity for periods of high demand on the hospital, whether that is COVID, the flu or other public health emergencies."

Co-lead author and Royal Australasian College of Surgeons Fellow, Associate Professor Tarik Sammour, from the University of Adelaide, added: "The most vulnerable patients to lockdown effects were those in lower income countries, where capacity issues that were present before the pandemic were worsened during lockdown restrictions. Patients in these environments were at highest risk of cancellation, despite being younger and having fewer co-morbidities."

“While we only followed patients that underwent a delay for a short period of time, evidence from other research suggests that these patients may be at higher risk of recurrence. To help mitigate against this, surgeons and cancer doctors should consider closer follow-up for patients that were subject to delays before surgery.”

Researchers analysed data from adult patients suffering from cancer types including colorectal, oesophageal, gastric, head and neck, thoracic, liver, pancreatic, prostate, bladder, renal, gynaecological, breast, soft-tissue sarcoma, bony sarcoma, and intracranial malignancies.

The team believes that this data can help inform governments when making decisions about whether to prolong or reduce restrictions.

Country-level lockdowns have a direct impact on hospital procedures and planning, as health systems change to reflect stringent government policies restricting movement. They found that full and moderate lockdowns independently increased the likelihood of non-operation after adjustment for local COVID-19 case notification rates.

Royal Australasian College of Surgeons’ Professor David Watson said he welcomed this latest in a series of high-quality, high-impact research outputs from the NIHR-funded COVIDSurg Collaborative.

“We are proud of how our Clinical Trials Network of Australia and New Zealand swiftly joined this collaborative and adapted to help colleagues around the world study the impacts of the global COVID-19 pandemic. These findings will help build the evidence base for how surgical services can ‘build back better’ and working with the World Health Organization and national coordinating bodies including the Royal Australasian College of Surgeons, develop guidance for global surgery.”

Ends.

Notes for editors

- 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 was established in 2006 to improve the health and wealth of the nation through research and is funded by the Department of Health and Social Care. In addition to its national role, the NIHR supports applied health research for the direct and primary benefit of people in low- and middle-income countries, using UK aid from the UK government.
- **Clinical Trials Network Australia and New Zealand (CTANZ)** is the Royal Australasian College of Surgeons group that has led the COVIDSurg project in Aotearoa New Zealand, Australia and the Pacific region. It continues to collaborate with surgical colleagues across the globe in pursuit of better data to improve standards in surgical care in our own countries and elsewhere.

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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

Patients included by country and income group

High income			Upper middle income			Lower middle income		
Country	Patients	Centres	Country	Patients	Centres	Country	Patients	Centres
Australia	716 (4.5)	18	Argentina	71 (3.8)	2	Egypt	287 (12.8)	12
Austria	163 (1.0)	2	Azerbaijan	3 (0.2)	1	Ghana	14 (0.6)	1
Barbados	19 (0.1)	1	Botswana	9 (0.5)	1	India	1566 (69.6)	15
Belgium	25 (0.2)	3	Brazil	430 (22.7)	8	Indonesia	90 (4.0)	1
Canada	373 (2.4)	10	Colombia	138 (7.3)	5	Morocco	140 (6.2)	1
Chile	50 (0.3)	2	Guatemala	1 (0.1)	1	Nigeria	50 (2.2)	6
Croatia	19 (0.1)	1	Jordan	31 (1.6)	2	Pakistan	81 (3.6)	8
Czech Republic	3 (0.0)	1	Libya	66 (3.5)	3	Philippines	5 (0.2)	1
Denmark	174 (1.1)	2	Malaysia	194 (10.3)	7	Reunion	3 (0.1)	1
Finland	103 (0.6)	2	Mexico	128 (6.8)	1	Sudan	11 (0.5)	3
France	508 (3.2)	14	Peru	34 (1.8)	1	Syria	2 (0.1)	1
Germany	399 (2.5)	9	Romania	17 (0.9)	2	Uganda	1 (0.0)	1
Greece	266 (1.7)	11	Russia	4 (0.2)	1	Yemen	2 (0.1)	1
Hong Kong	62 (0.4)	3	Serbia	179 (9.5)	4			
Hungary	45 (0.3)	1	South Africa	92 (4.9)	1			
Ireland	177 (1.1)	8	Sri Lanka	19 (1.0)	1			
Italy	2291 (14.4)	47	Turkey	475 (25.1)	15			
Japan	19 (0.1)	1						
Kuwait	7 (0.0)	1						
Netherlands	234 (1.5)	7						
Oman	2 (0.0)	1						
Portugal	435 (2.7)	15						
Saudi Arabia	373 (2.4)	11						
Singapore	191 (1.2)	2						
Slovak Republic	3 (0.0)	1						
Slovenia	51 (0.3)	1						
Spain	1478 (9.3)	38						
Sweden	171 (1.1)	5						
Switzerland	127 (0.8)	5						
United Kingdom	6160 (38.8)	113						
United States	1219 (7.7)	21						

Relevant readings

- *Lancet Oncol 2021: [Effect of COVID-19 pandemic lockdowns on planned cancer surgery for 15 tumour types in 61 countries: an international, prospective, cohort study](#)*
- *The Lancet Oncology: [Supplementary Appendix](#)*