

**News Release**  
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## **COVID-19 Vaccination of Surgical Patients Should be Priority, Study Involving UAMS Finds**

LITTLE ROCK — Providing COVID-19 vaccines for patients awaiting elective surgery could save 58,687 lives worldwide over the next year, according to results of an international study in which the University of Arkansas for Medical Sciences (UAMS) participated.

The study findings, based on data gathered in 2020 by COVIDSurg Collaborative, an international network of surgeons, suggests that patients should receive a COVID-19 vaccine before surgery to reduce risk of postoperative death.

Patients who develop COVID-19 infection have a four to eight times higher risk of death in the 30 days following surgery. For example, where patients aged 70 years and over undergoing cancer surgery would usually have a 2.8% mortality rate, this increases to 18.6% if they develop COVID-19 infection.

Based on the high risks that surgical patients face, 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 those 70 and older who are undergoing surgery for cancer. For example, where 1,840 people aged 70 and over in the general population need to be vaccinated to save one life over one year, this figure drops to only 351 in patients aged 70 years and over who are having cancer surgery.

“Surgical patients, particularly patients 70 years or older having cancer surgery, are a vulnerable group who are at increased risk of COVID-19 related death,” said [Emmanouil \(Manos\) Giorgakis, M.D.](#), a transplant surgeon at UAMS and an assistant professor in the College of Medicine’s Division of Transplant Surgery who led UAMS’ participation in the study. “Preoperative vaccination can significantly reduce postoperative mortality. Vaccination is also likely to decrease postoperative pulmonary complications, reducing intensive care use and overall health care costs.”

Other UAMS surgeons who co-authored the study were Avi Bhavaraju, M.D., assistant professor of trauma surgery; Nolan Bruce, M.D., assistant professor of trauma surgery; Lyle Burdine, M.D., assistant professor of transplant surgery; Kyle Kalkwarf, M.D., assistant professor of trauma surgery; Mary Kimbrough, M.D., associate professor of trauma surgery; Garrett Klutts, M.D., resident physician; Joseph Margolick, M.D.,

assistant professor of trauma surgery; Tamara Osborn, M.D., resident physician; Anna Privratsky, M.D., assistant professor of trauma surgery; and Matthew Roberts, M.D., assistant professor of general surgery.

The COVIDSurg Collaborative international team of researchers, led by experts from the United Kingdom’s University of Birmingham, has [published its findings in the BJS](#) (incorporating the British Journal of Surgery and the European Journal of Surgery), after studying data for 141,582 patients from across 1,667 hospitals in 116 countries, including Australia, Brazil, China, India, the United Arab Emirates, the United Kingdom and the United States — creating the world’s largest ever international study on surgery. The United States contributed data from 10,658 patients.

“Restarting elective surgery is a global priority,” said co-lead author Dmitri Nepogodiev, Ph.D., from the University of Birmingham. “Over 15,000 surgeons and anesthesiologists 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 a safe restart to elective surgery; COVID vaccination should be prioritized for elective surgery patients ahead of the general population.”

The study was undertaken in response to a need for evidence to guide surgical care during the pandemic, after a previous study showed that contracting the virus around the time of surgery can be catastrophic, increasing the risk of complications and death despite preoperative risk-reduction measures.

Another motivation was an urgent need for strategies to support the safe restart of backlogged surgeries.

The study concluded that as the global rollout of COVID-19 vaccines proceeds, patients needing elective surgery should be prioritized ahead of the general population. It recommends that governments prioritize vaccination of surgical patients.

UAMS is the state’s only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS’ clinical enterprise including its hospital, regional clinics and clinics it operates or staffs in cooperation with other providers. UAMS is the only adult Level 1 trauma center in the state. *U.S. News & World Report* named UAMS Medical Center the state’s Best Hospital; ranked its ear, nose and throat program among the top 50 nationwide; and named six areas as high performing — COPD, colon cancer surgery, heart failure, hip replacement, knee replacement and lung cancer surgery. UAMS has 2,876 students, 898 medical residents and four dental residents. It is the state’s largest public employer with more than 10,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children’s Hospital, the VA Medical Center and Baptist Health. Visit [www.uams.edu](http://www.uams.edu) or [www.uamshealth.com](http://www.uamshealth.com). Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).

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