For patients who need complex surgery, the best surgeon may be one who specializes in one procedure—not just an active surgeon who performs several operations.

Specialists reduced mortality rates for certain procedures by as much as half, new research shows. The new study builds on the longstanding view that the busiest doctors get the best results. Copious research shows patients of active surgeons are less likely to die or suffer complications from an operation.

The study, published in July in the BMJ, analyzed more than 695,000 operations performed by 25,000 surgeons in the U.S. between 2008 and 2013. Researchers looked at patients who had one of eight complex cancer and heart surgeries. Entering the study, mortality rates for the eight procedures ranged from 1% to 7%.

By MELANIE EVANS
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For six of those procedures, patients were less likely
to die in the first month after surgery when the operation they underwent accounted for a larger share of surgeons' overall practices. Researchers looked for doctors who specialized in a specific procedure, such as heart valve replacement, rather than whether surgeons specialized in cardiology.

The results suggest a surgeon who performs 20 valve replacements and nothing else may get better results than a doctor who performs 40 valve replacements and 60 other surgeries, the authors said.

Specialists mattered more for some procedures than others. Their presence was critical for a cystectomy, a procedure that removes all or some of the bladder to treat cancer. Surgeons' focus was less important for operations to bypass clogged coronary arteries.

Researchers didn’t examine why mortality rates dropped for more specialized surgeons. Doctors may be better able to keep abreast of evolving science and surgical techniques as they specialize, says Nikhil Sahni, a Harvard University fellow and one of the study’s researchers. Or perhaps specialists avoid the distraction that comes from switching between multiple procedures, Mr. Sahni says.

Dr. Ashish Jha is a Harvard University health policy professor who studies the performance of U.S. hospitals and doctors and who wasn’t involved in this study. He describes the new results as preliminary, but compelling enough for patients to consider when picking a surgeon.

Some hospitals operated by Dartmouth-Hitchcock, Johns Hopkins and the University of Michigan Health System in 2015, before the study’s results were published, had already said they would halt surgeries they don’t perform enough and tell surgeons to do the same. But officials at Dartmouth and Johns Hopkins say they don’t yet have plans to restrict operations to specialists.

Orthopedic surgeon Dr. David Jevsevar operated one day a week before Dartmouth-Hitchcock announced it would limit 10 surgeries, including hip and knee replacements, bariatric staple surgery and certain cancer surgeries, to surgeons who do them often.

Dr. Jevsevar, who is based in Lebanon, N.H., did enough operations to make the cut, but he now operates three days a week to keep up with demand after some Dartmouth-Hitchcock hospitals stopped performing joint replacements because they didn’t do enough.

Dr. Jevsevar says surgeons are increasingly specializing by procedure, even without pressure to do so. “There is a huge benefit,” says Dr. Jevsevar, who largely performs hip and knee replacements and avoids operating on feet or shoulders. He says he isn’t bored by focusing on a few procedures. Instead, surgeons who specialize are “trying to hone our craft.”
Patients often have little information to go on as they select a surgeon. Mr. Sahni urged patients to ask whether surgeons specialize to help narrow the search. “We would never say that this is the only measure you look at,” he says. “This is clearly a metric that should be considered.”

The degree to which surgeons focused on one procedure varied, the new study found. On average, heart valve repair made up roughly half the operations done by doctors who specialized the most in the procedure, compared with 7% for doctors who focused least on the surgery. That amounted to about 53 valve replacements a year for the most-specialized doctors and eight such operations annually for the least-specialized surgeons.

Patients should ask if surgeons do many procedures, say Mr. Sahni and others.

“There is simply no more practical and meaningful question than, ‘How many of these procedures do you do a year?’ ” says Dr. John Birkmeyer, an executive vice president for Dartmouth-Hitchcock and one of the researchers on the specialization study.

Patients should also ask whether hospitals’ operating rooms are busy. Research suggests that patients do better at busier hospitals, though why that would be is unclear.

Larger hospitals, such as academic medical centers, typically have more surgical experience, resources and technology than smaller community hospitals, says Dr. David Urbach, who studies hospital quality. He is surgeon-in-chief at Women's College Hospital in Toronto.

Busy hospitals may also benefit from experienced teams who care for patients before, throughout and after surgery, says Dr. Robert Higgins, director of the department of surgery at Johns Hopkins Medicine. “These are not surgeons working in isolation,” he says.

Doctors may be patients' best source of information on surgeons and hospitals, because there isn’t much public data, experts say.

Patients trying to decide where to get surgery can find some information on which hospitals are busy from the Leapfrog Group, U.S. News & World Report and companies such as Castlight Health.

The Leapfrog Group, a health-quality nonprofit, asks hospitals to report how many high-risk operations they perform and publishes the results. Leah Binder, the group’s president and chief executive officer, says the survey will add questions about the busiest surgeons next year and will consider asking about which surgeons are specialists. Dr. Birkmeyer is an adviser to the Leapfrog Group.

Castlight Health customers have access to data on how frequently hospitals perform certain surgeries. Dr. Howard Willson, the company’s head of clinical strategy, says the study on surgical specialization is exciting, but results are too preliminary to put to use.
Massachusetts General Hospital, a hospital owned by Partners HealthCare in Boston, last year rejected a proposal to limit surgery to busy hospitals and surgeons. “You can’t create a system that forces people into those choices,” says Dr. Keith Lillemoe, chief of surgery at Mass General.

Not all small hospitals or less-busy surgeons are worse at what they do, quality and surgical experts say.

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