

Editorial

Mortality may be Reduced after Hip or Knee Replacement – A New Study

Mohsin Masud Jan

Editor

The risk of death from hip or knee replacement surgery as dropped substantially in recent years. Dutch researchers found that since the early 1990s, death rates have fallen by almost two-thirds among Danish adults having the procedures. The length of patients' hospital stays also dropped — from more than two weeks, on average, to about one week.

The study did not dig into the reasons for the improvements, but it's likely that changes in post-surgical care have had a big impact, said lead researcher Arief Lalmohamed, of the Utrecht Institute of Pharmaceutical Sciences in the Netherlands.

Those changes, he said, include new blood-thinning medications that help prevent patients from developing potentially dangerous blood clots after surgery. Clots can, in some cases, lead to a heart attack, stroke or pulmonary embolism. In the United States, more than 1 million people have a hip or knee replacement each year, according to the U.S. National Institutes of Health. The surgery often is prompted by severe wear and tear on the joints due to arthritis.

The findings, reported recently in the *Journal Arthritis & Rheumatology*, are based on data from only one country. But Lalmohamed said he would expect to see a similar pattern in other countries that made the same changes in medical care over the years. Dr. Richard Lorio, chief of adult reconstruction at NYU Langone Medical Center in New York City, agreed that the trend would be similar in the United States. Lorio, who was not involved in the study, named a number of advances that have been made over the years to make joint-replacement surgery safer and better. Changes in the procedures and anesthesia techniques have been key, Lorio said. And patients start physical rehab much faster than they did in years past. "We get people out of bed

and moving on the first day after — or the day of — surgery," Lorio said. That mobility is important, he said, because it lowers patients' risk of developing blood clots. Lorio said doctors have also gotten better at managing chronic health conditions that many patients have. That, in turn, lowers the risk of complications.

For the study, Lalmohamed's team turned to Denmark's system of national health registries. The researchers found information on more than 112,000 people who had a hip or knee replacement between 1989 and 2007. Overall, the rate of death in the two months after surgery fell over time, from about 3.4 percent each year between 1989 and 1991 to 1.4 percent per year between 2003 and 2007, Lalmohamed said. Deaths from heart attack, stroke and pneumonia all dropped, despite the fact that heart and lung disease was more common in patients who had surgery in recent years.

Lalmohamed said there's still a need for similar studies in other countries. But he also said candidates for joint replacements can be reassured by his team's findings.

Lorio agreed, "Clearly, patients can take heart," he said. "This operation is safer than it was 20 years ago, and it's very effective."

However, some surgeons and hospitals are better than others. In general, surgeons and centers with the most experience in hip and knee replacements have better results than those who do fewer procedures.

And, of course, each patient is different, Lorio said. An individual's overall health — rather than age alone — is vital. But, he added, it's also possible to manage some of the health issues that can increase the risks of joint-replacement surgery. Patients can quit smoking or lose excess weight, for example.