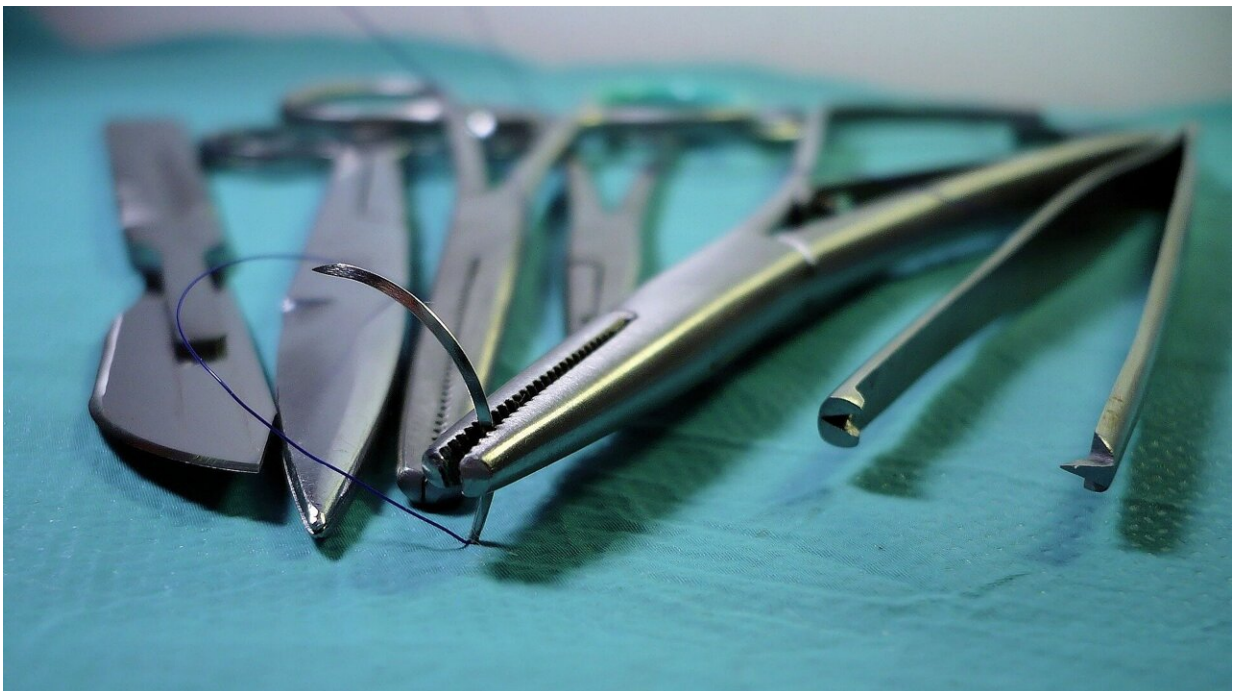


# Routine preoperative medical consultations don't improve surgery outcomes, suggests large study

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A large observational study published in *JAMA Internal Medicine* suggests that most patients do not medically benefit from consultation with a medical specialist before their surgery.

In Canada, surgeons refer more than 40,000 patients each year for consultation with a medical specialist (such as a general internist, cardiologist, endocrinologist, geriatrician, or nephrologist) before [surgery](#). Between 10% and 40% of elective surgery patients will have a preoperative medical consultation.

These preoperative medical consultations are meant to address health issues that could lead to complications during surgery, but the evidence to support them has been limited and conflicting.

Based on data from 359,618 patients in Ontario, 0.9% of those who had a preoperative medical consultation died 30 days after surgery, compared with 0.7% of patients who did not.

"As a specialist who sees patients for preoperative medical consultations, I'm not convinced these visits are always helpful," says lead author Dr. Weiwei Beckerleg, a general internist at The Ottawa Hospital and assistant professor at the University of Ottawa and ICES fellow. "Most patients I see have already covered the same ground with their anesthesiologist. I've had patients ask me 'Why am I here?'"

Using Ontario healthcare data from 2005 to 2018, the research team looked at all patients 40 years and older who had intermediate to high-risk non-cardiac surgeries, such as hip or knee replacement, surgery of the digestive tract, or surgery to remove cancer or part of an organ.

Of the 530,473 patients in the study, 35% (186,299) had a preoperative medical consultation within four months of their surgery.

The research team then paired 179,809 surgical patients who had preoperative medical consultations with similar patients who did not. They were matched based on age, sex, [health conditions](#), neighborhood income, hospital type, surgery type, year of surgery, and whether they

had a consult with an anesthesiologist.

Analysis of these matched pairs showed that preoperative medical consultations were an [independent risk factor](#) for a slightly higher chance of death 30 days after surgery. Importantly, there were no clear benefits from these consultations regardless of a patient's risk going into surgery.

While this study can't explain why preoperative medical consultations may be causing some patients harm, delayed surgeries are a possible explanation.

"The goal of a preoperative medical consultation is to help patients get healthy enough for surgery while not delaying an urgent surgery. It could be that some time-sensitive surgeries were delayed by ordering unnecessary tests," said senior author Dr. Daniel McIsaac, scientist and anesthesiologist at The Ottawa Hospital and Chair in Innovative Perioperative Care at the University of Ottawa and ICES scientist.

For example, according to current guidelines, few patients need a heart test before surgery. However, patients in the preoperative medical consultation group were more likely to be referred for echocardiograms and cardiac stress tests than the control group.

In addition, patients in the preoperative medical consultation group were three times more likely to be prescribed beta blockers. While these drugs have many benefits for patients not having surgery, starting new prescriptions immediately before surgery has been discouraged ever since large clinical trials found that they increased the risk of stroke and death.

Consistent with previous studies, the hospital where the patient was seen was the best predictor of whether they had a preoperative medical

consultation. Large teaching hospitals are the most likely to offer preoperative medical consultation because they have more staff, see more complex patients, and perform higher-risk surgeries.

"We're not saying that preoperative medical consultations should be abolished," says Dr. Beckerleg, "But based on the way they're run now, we're not convinced they always make a difference. More research is needed to find which patients benefit most from these consultations. In the meantime, we hope our findings inspire healthcare organizations to optimize preoperative care."

For example, preoperative medical consultations at The Ottawa Hospital are only done to address a specific health problem, rather than simply clearing a patient for surgery. The hospital has also reduced the amount of cardiac testing done before surgery.

Going forward, the research team recommends that [older patients](#) be prioritized for a special kind of [consultation](#) called a preoperative geriatric assessment. [Past studies](#) have shown these assessments do improve survival, and The Ottawa Hospital is a research leader in this area.

"Preoperative geriatric assessment can help older [patients](#) determine if surgery will help them or put them more at risk," said Dr. McIsaac. "If they do decide to have surgery, we can put together a personalized plan that addresses their specific needs. We've seen clear evidence of benefit from these assessments, which will be increasingly important as our population ages."

**More information:** Association of preoperative medical consultation with reduction in adverse postoperative outcomes and use of processes of care among residents of Ontario, Canada, *JAMA Internal Medicine* (2023). [DOI: 10.1001/jamainternmed.2023.0325](https://doi.org/10.1001/jamainternmed.2023.0325)

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