Do longer waits for heart surgery worsen patient health?

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Long NHS waiting times are now a familiar topic of public debate and indeed are a major policy concern in many countries. One key question is whether waiting longer, especially for urgent care, means that health may deteriorate and ultimately result in poorer health outcomes.

Our research looked at two common procedures for treating coronary heart disease in England: coronary artery bypass grafting (often called bypass surgery) and angioplasty, a less invasive method to open narrowed arteries. We measured health outcomes using data on post-surgery mortality rates at 30 days and 1 year and emergency readmissions within 28 days of discharge from the hospital. For angioplasty, we also measured the probability of reintervention within 6 months. For waiting times, we considered the entire waiting period – from the date of referral by the GP or specialist to the date of surgery.

Our study examined whether extended waiting times affected survival and recovery rates, using data from before and during the COVID-19 pandemic. We used robust methods to take account of potential biases because patients with more severe heart disease may be prioritised with shorter waiting times but also have a higher risk of experiencing an adverse health event.

We found that before the pandemic, there was little evidence that longer waits worsened outcomes. But during the pandemic, when delays grew significantly, the situation changed for patients needing bypass surgery. An increase of two months in waiting time was linked with a higher risk of death within 30 days and after a year, as well as slightly longer hospital

stays. These effects were most noticeable among older patients, those with more complex health issues, and individuals from more deprived areas. This was not the case for angioplasty patients, for whom no clear pattern emerged. Our study also highlighted that waiting times should be measured from the first referral to treatment, not just from when a patient is added to a waiting list, as much of the delay occurs earlier in the process.

The results show that waiting lists are not just an administrative issue. For some patients, they pose a real clinical risk. The message for policymakers is important: when waiting times become very long, they can cause real harm, especially for those awaiting bypass surgery. Investing in mechanisms that cut these delays may not only improve the patient experience but can also improve health and save lives.

Read the full paper, funding sources and disclaimers in the Journal of Economic Behavior & Organization.

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