

Study examines postdischarge complications after general surgery

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A study of postdischarge (PD) complications after general surgery procedures found that overall, 16.7 percent of patients experienced a complication and 41.5 percent of complications occurred PD, according to a report published in the November issue of *Archives of Surgery*.

The immediate PD period is a vulnerable time for patients, and there are clinical and [economic costs](#) to patients and the [health care system](#) when patients have to be rehospitalized because of complications. The [Patient Protection](#) and [Affordable Care](#) Act has said reducing avoidable rehospitalization is a [target](#) for cost savings, according to the study background.

Hadiza S. Kazaure, M.D., of Stanford University, Palo Alto, Calif., and colleagues evaluated procedure-specific types, rates and risk factors for PD complications occurring within 30 days after 21 groups of inpatient [general surgery](#) procedures. Researchers utilized American College of Surgeons National Surgical [Quality Improvement Program](#) 2005 through 2012 participant use data files in the study, which included 551,510 patients (average age nearly 55 years).

"We found that more than 40 percent of all post-operative complications occurred PD; approximately 1 in 14 general surgery patients who underwent an inpatient procedure experienced a PD complication," the authors comment.

Proctectomy (14.5 percent, surgery involving the rectum), enteric fistula

repair (12.6 percent, abnormal passageway repair) and pancreatic procedures (11.4 percent) had the highest PD complication rates. Breast, bariatric and ventral hernia repair procedures had the highest proportions of complications that occurred PD (78.7 percent, 69.4 percent and 62 percent, respectively), according to the study results.

For all procedures, researchers note that surgical site complications, infections and thromboembolic (blood clot) events were the most common. An inpatient complication increased the likelihood of a PD complication (12.5 percent vs. 6.2 percent without an inpatient complication). Compared with patients without a PD complication, those with a PD complication had higher rates of reoperation (4.6 percent vs. 17.9 percent, respectively) and death (2 percent vs. 6.9 percent, respectively) within 30 days after surgery. Those whose PD complication was preceded by an inpatient complication had the highest rates of reoperation (33.7 percent) and death (24.7 percent), according to the study results.

"In summary, our analysis revealed that PD complications account for a significant burden of postoperative complications and are an important avenue for quality improvement in inpatient general surgery," the authors conclude. "More research is needed to develop and explore the utility of a cost-effective and fastidious PD follow-up system for surgical patients."

In an invited critique, Desmond C. Winter, M.D., of St. Vincent's University Hospital, Dublin, Ireland, writes: "Every surgeon will read the article by Kazaure et al with interest as complications are the statistics that define us all."

"Reducing morbidity was the driving force behind the scientific evolution of surgical departments. From ether and carbolic acid, penicillin and insulin to modern minimally invasive advances, the

imperative was to enhance patient safety, not to satisfy economists. Insurers and surgeons should remind themselves to whom the moral debt of professional courtesy is owed," Winter continues.

"Patient needs, not financial penalties, should be everyone's primary focus. Let us see further advancements in surgical care through research funded by the proposed insurer savings and together strive for safer surgery," Winter concludes.

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