Hospital Readmissions After Colon Surgery Common, Costly - and Preventable

Johns Hopkins researchers find nearly one in four patients readmitted within 90 days at a cost of $300 million a year

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Nearly one-quarter of privately insured colon surgery patients are readmitted to the hospital within three months of discharge at a cost of roughly $9,000 per readmission, according to Johns Hopkins researchers, who've identified a major area for quality improvement and cost reduction in health care.

The most common reason for returning to the hospital: complications from surgical-site infections, which are likely preventable, they say.

Readmission rates, an increasingly popular yardstick by which hospitals are judged and penalized by insurers, are a major financial burden on the health care system. Nationwide, these findings account for $300 million in readmission costs annually for colorectal surgery alone.

"Readmissions after surgery are common and they burden the health care system with exorbitant costs," says Martin A. Makary, M.D., M.P.H., an associate professor of surgery at the Johns Hopkins University School of Medicine and the senior author of a report on the new study published in the December issue of the journal Diseases of the Colon & Rectum. "While readmissions are sometimes unavoidable, many times they result from poor coordination of medical care. Everyone knows you can't get readmissions down to zero but, at 23 percent, there's a huge amount of room for improvement.

There is no reason we can't cut that rate in half." Says study leader Elizabeth Wick, M.D., an assistant professor of surgery at Johns Hopkins: "Hospital readmissions are costly to the patient, costly to the system, delay recovery and victimize some patients multiple times."

Using data from BlueCross BlueShield plans in eight states, Makary, Wick and their colleagues reviewed records of 10,882 patients who underwent colorectal surgery between 2002 and 2008. They found that 11.4 percent of patients were readmitted to the hospital within 30 days of discharge and another 12 percent were readmitted between days 31 and 90. Nearly 7 percent -- 725 patients -- were readmitted two or more times within the first three months after discharge.

Colorectal surgery patients are at high risk for readmission because of the location and complexity of their operations. Many suffer from a postsurgical infection or dehydration as the digestive system recovers from surgery. Stoma (ostomy) complications are also common. A stoma is sometimes needed to divert the intestinal tract outside the body.

Patients with a stoma are three times more likely to be readmitted within 30 days, and those with surgical-site infections are twice as likely, they found. Patients in the study needed colorectal surgery primarily because of cancer or diverticulitis, a chronic inflammation of the intestines. Nearly 19 percent of patients in the study contracted a surgical-site infection within 30 days of their operations.

Even a 5 percent reduction in surgical-site infections would have a significant impact on readmission rates and the associated costs, Wick says.

She notes that hospitals and surgeons are actively investigating ways to prevent surgical-site infections, and testing various interventions.

At The Johns Hopkins Hospital, for example, nurses are independently reviewing discharge plans before patients leave, making follow-up appointments for them and reviewing medication lists, tasks shown to prevent some return visits to the emergency department for minor concerns.

Makary says some hospitals are beginning to have nurses follow up with patients by phone in the days after discharge. Those deemed at high risk for readmission receive home visits from a nurse.

Both interventions are significantly less expensive than the cost of a new hospital stay.

He adds that many readmissions may be related to patients falling through the cracks. Sometimes they get lost in the process of setting follow-up appointments, don't know what is considered to be a normal recovery, lack the right phone numbers to call for questions or are discharged with the wrong medications. He also suggests that some patients may be leaving the hospital too early and that "a little extra care on the front end" might stem costly readmissions.

The Centers for Medicare and Medicaid Services has targeted readmission rates after hospitalization for certain medical conditions as a factor in determining how much a hospital should be paid for treatment. Beginning in 2013, hospitals with higher than expected risk-adjusted 30-day readmission rates for patients with heart attacks, congestive heart failure and pneumonia will incur financial penalties. Public reporting of readmission rates is also planned, and health care experts anticipate that patients with other diagnoses, including those undergoing colorectal surgery, will be incorporated into this pay-for-performance measure in the future.

"Hospital readmissions are being used as a surrogate measure for determining quality of care," Wick says. "If care isn't as good, patients end up back in the hospital. We need to make sure patients don't have to come back."

Other Johns Hopkins researchers who worked on the study include Andrew D. Shore, Ph.D.; Kenzo Hirose, M.D.; Andrew M. Ibrahim, B.A.; Susan L.Gearhart, M.D.; Jonathan Efron, M.D.; and Jonathan P. Weiner, Dr.P.H.