



# Clinical Digest

ONLINE EDITION

## QUALITY IMPROVEMENT

### The Benefits of Coordinated Discharge

Providing hospital patients with a package of discharge services reduced their return hospital visits within 30 days of discharge by 30%, say researchers from Boston Medical Center (BMC), Boston, MA and Brown University Alpert Medical School, Pawtucket, RI. They tested the efficacy of a “reengineered discharge” program through a randomized, controlled trial with a final sample of 738 patients admitted to BMC. The program was provided to 370 patients in an intervention group but not to 368 patients in a control group.

Through the program, a team of nurses worked with patients during their hospital stay to arrange follow-up appointments and confirm medication reconciliation. In addition, the nurses provided patient education with an individualized instruction booklet that also was sent to the patients’ primary care providers. A clinical pharmacist called the patients two to four days after discharge to reinforce the discharge plan and review medications, and the pharmacist informed a program nurse or the patient’s primary care provider about any medication-related problems.

After reviewing data on hospital utilization in the month following discharge, the researchers found that patients in the intervention group had a rate of 0.314 hospital visits per patient per month, compared with a rate of 0.451 visits in the control group. The difference remained statistically significant when the researchers excluded data on one patient in

the control group who had more than eight hospital admissions. Subgroup analysis showed that the discharge program reduced hospital utilization most effectively among patients who had been hospitalized within the previous six months.

Telephone surveys conducted about 30 days after discharge also indicated that the intervention had positive effects. When the patients were asked if they had visited their primary care provider since discharge, 62% of those in the intervention group and 44% of those in the control group said they had. In addition, 79% of patients in the intervention group versus 70% of patients in the control group were able to identify their index discharge diagnoses. And 95% of patients in the intervention group versus 89% of patients in the control group could name their primary care provider. Furthermore, patients in the intervention group reported higher levels of preparedness for discharge.

The researchers performed a cost analysis that considered the estimated costs of hospital and primary care provider visits for members of the two patient groups. They found these costs to be 33.9% lower in the intervention group than in the control group—an average savings of \$412 per person.

Source: *Ann Intern Med.* 2009;150(3):178–187.

## SURGERY

### Surgical Site Infection in Older Patients

Among older patients undergoing surgery, surgical site infection (SSI) is strongly associated with increased mortality, longer postoperative hos-

pitalization, greater risk of rehospitalization, and higher hospital charges. Those were the conclusions of researchers from Duke University Medical Center and Durham VA Medical Center, both in Durham, NC, who performed a retrospective, matched-outcomes study of patients older than 65 years who underwent surgery between 1991 and 2003. Of the study’s 1,337 patients, 561 had deep incisional or organ space SSI and 576 served as controls.

The results indicated that the 90-day mortality risk was 3.51 times greater in patients with SSI than in control patients. An association between SSI and mortality persisted after multivariable logistic regression. Postoperative hospitalization was 2.9 times longer in patients with SSI, with a mean duration of 15.7 days attributable to the complication. Rehospitalization occurred in 68.3% of patients with SSI compared with 13.5% of control patients. And compared with control patients, patients with SSI paid 1.9 times more in hospital charges; a mean of \$43,970 was attributable to SSI.

The researchers conclude that SSI affects elderly patients more severely than the general surgical population and that “improvements in SSI prevention and management in older adults are warranted.” They also note that, of the comorbidities they evaluated, “only chronic obstructive lung disease and congestive heart failure were associated with SSI.” This finding suggests that there might be an association between perioperative oxygenation and SSI, they say, and future studies should evaluate this possibility. ●

Source: *J Am Geriatr Soc.* 2009;57(1):46–54.