The Effect of the Medicare 3-day Rule on Patient Length of Stay and Disposition after Total Hip Arthroplasty

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Introduction: Medicare will only cover a stay in a skilled nursing facility if it follows a hospital inpatient stay of at least 3 days. The 3-day rule was instituted in 1965 to prevent excessive utilization of the skilled nursing benefit. Our objective was to describe the trend in post-operative disposition of patients undergoing primary total hip replacement (THA) in the past 10 years. In addition, we compared the length of stay and inpatient cost between Medicare patients and those with private insurance.

Methods: We queried the Nationwide Inpatient Sample database for patients with a history of primary THA over the period of 2002-2011. The data was weighted to allow national estimates. Only patients that had elective admissions, unilateral, primary THA, and a primary diagnosis of OA were included. Changes in demographics, hospital stays, disposition, and insurance were evaluated. Patients were matched based on age, gender, Elixhauser comorbidities (30 total), and chronic heart disease.

Results: A total of 1,946,006 procedures were estimated in the period 2002 to 2011. The change in patients discharged on day 1 went from 3% to 5.5% in the private group and from 1% to 1.9% in the Medicare group. The percentage of patients not discharged until the 3rd day remained unchanged in the private group (49 to 51%) while for Medicare patients it went from 49 to 57%.

Conclusions: The change in disposition associated with rapid recovery protocols after THA has been realized mostly in patients with private insurance. In contrast, the number of Medicare patients staying longer after THA has increased. This increase may likely be due to the Medicare 3-day rule. As the Medicare population increases in age, and are more likely to require inpatient rehabilitation after THA, revision of this rule is critical to increase the cost effectiveness of THA.