TITLE: Insurance Status and Other Factors Associated with Hospital Length of Stay in Patients Undergoing Primary Lumbar Spine Surgery.

SPEAKER: JOSE DOMINGUEZ, MD
CITY/STATE: VALHALLA, NY

AUTHORS: Jose Dominguez MD, Piyush Kalakoti MD, Xintong Chen MD, PhD, MPH, Kaisen Yao BS, Nam K. Lee, BS, Meic Schmidt MD, MBA, Chad Cole, MD, MA, Chirag Gandhi, MD, Fawaz Al-Mulfti, MD, Christian Bowers MD

ABSTRACT:
Study Design: In a single-center retrospective study, we reviewed medical record data from patients who underwent primary lumbar spine surgery (PLSS).

Objective: The aim of this study was to identify independent risk factors for increased hospital length of stay (LOS) in patients undergoing PLSS.

Summary of Background Data: The Medicaid patient population and health care costs for spine surgeries among these patients have increased since 2010. LOS contributes appreciably to hospital costs for patients undergoing PLSS.

Methods: We reviewed demographic and clinical data from electronic medical records for 181 consecutive adult patients who underwent PLSS from July 2014 to July 2017. We performed regression analyses to identify independent risk factors for increased LOS and to quantify their effects as percent changes in LOS.

Results: Among 181 patients who underwent PLSS, the mean LOS was 3.57 days. Based on the Charlson comorbidity index (CCI), patients with Medicaid insurance were healthier than non-Medicaid patients (mean CCI: 0.34 versus 0.65; p = 0.041) yet Medicaid patients had a longer LOS compared with non-Medicaid patients (mean LOS: 4.03 versus 3.30 days; p = 0.047). Multivariable regression modeling identified independent risk factors positively associated with increased LOS as age (+1.0% per year; p=0.007), Medicaid insurance status (+28.7%; p=0.007), and CCI (10.1% per increment in CCI; p=0.030). Fusion surgery also was an independent risk factor for increased LOS when compared with laminectomy (-54.1%; p<0.001) or discectomy (-51.3%; p<0.001).

Conclusions: Increasing age, Medicaid insurance status, higher CCI, and fusion surgery were independently associated with increased LOS after PLSS. This information is useful for preoperative patient counseling, shared decision-making, and risk stratification and may help to further ongoing discussion regarding contributors to rising health care costs. Findings of increased LOS among Medicaid patients may exacerbate existing reluctance among providers and hospitals to serve this population.