Cost and disparities in outpatient lumbar discectomies in four US States: and analysis of the State Ambulatory Database (SASD) and the State Inpatient Database (SID)

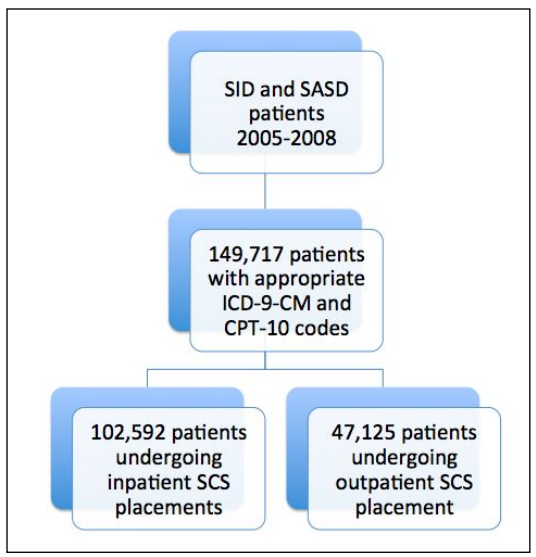
Kimon Bekelis MD; George V. Kakoulides MD; Symeon Missios MD
Dartmouth-Hitchcock Medical Center

Introduction

Several groups have demonstrated the safety of outpatient lumbar discectomies with no patients experiencing complications related to early discharge. Although they appear to be safe, the reasons factoring into the selection of patients undergoing ambulatory procedures have not been investigated.

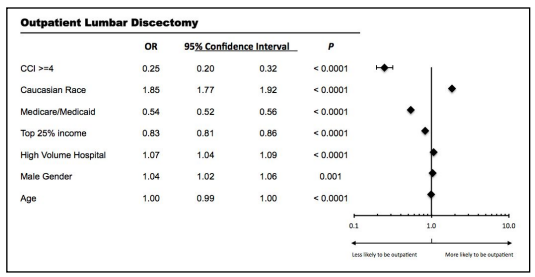
Methods

We performed a retrospective cohort study involving 40,001 patients who underwent outpatient and 139,322 patients who underwent inpatient lumbar discectomies and were registered in State Ambulatory Surgery Databases (SASD) and State Inpatient Databases (SID) respectively for 4 US States (New York, California, Florida, North Carolina) from 2005 to 2008.



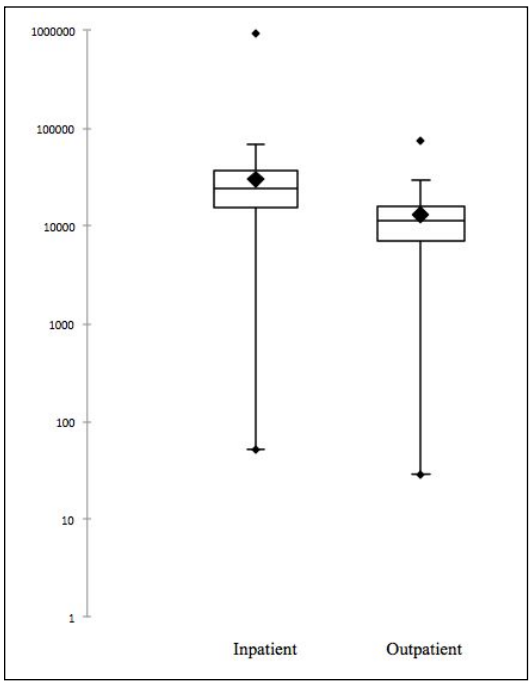
Results

In a multivariate analysis male gender (OR 1,22, 95% CI, 1.19, 1.25), and high volume hospitals (OR 1.11, 95% CI, 1.08, 1.14) were significantly associated with outpatient procedures. Older age (OR 0.99, 95% CI, 0.98, 0.99), non-white patients (OR 0.55, 95% CI, 0.53, 0.57), low income (OR 0.11, 95% CI, 0.10, 0.13), coverage by Medicare/Medicaid (OR 0.57, 95% CI, 0.55, 0.59), and higher Charlson Comorbidity Index (OR 0.23, 95% CI, 0.18, 0.29), were associated with a decreased chance of outpatient procedures. Institutional charges were significantly less for outpatient lumbar discectomies. There was no difference in the rate of 30-day postoperative readmissions among inpatient and outpatient procedures.



Conclusions

Access to ambulatory lumbar discectomies appears to be affected by several socioeconomic factors. Further investigation is needed in the direction of mapping these disparities in resource utilization.



Learning Objectives

By the conclusion of this session, participants should be able to:

1) describe the socioeconomic disparities among patients undergoing inpatient and ambulatory lumbar discectomies

2) describe the differences in cost among inpatient and outpatient lumbar discectomies

References

1.An HS, Simpson JM, Stein R: Outpatient laminotomy and discectomy. J Spinal Disord 12:192-196, 1999

2.Asch HL, Lewis PJ, Moreland DB, Egnatchik JG, Yu YJ, Clabeaux DE, et al: Prospective multiple outcomes study of outpatient lumbar microdiscectomy: should 75 to 80% success rates be the norm? J Neurosurg 96:34-44, 2002

3.Baker GR, Norton PG, Flintoft V, Blais R, Brown A, Cox J, et al: The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada. CMAJ 170:1678-1686, 2004

4.Bednar DA: Analysis of factors affecting successful discharge in patients undergoing lumbar discectomy for sciatica performed on a day-surgical basis: a prospective study of sequential cohorts. J Spinal Disord 12:359-362, 1999

5.Best NM, Sasso RC: Success and safety in outpatient microlumbar discectomy. J Spinal Disord Tech 19:334-337, 2006