Poster Id: 42121: Health care utilization and overall costs based on opioid dependence in patients undergoing surgery for Degenerative Spondylolisthesis.

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Disclosure:

No disclosures related to the study.
Introduction:

Opioid abuse is highly prevalent in patients with back pain. The aim of our study was to identify health care utilization and overall costs based on opioid dependence in patients undergoing surgery for Degenerative Spondylolisthesis (DS), using a Market Scan database from 2000-2012.
Methods:

Opioid dependency was defined as continued use or >10 opioid prescriptions for one year either prior to or 3-15 months following the procedure. Patients were segregated into four groups based on opioid dependence prior and post-surgery: group A (prior nondependent who remain non-dependent), group B (prior nondependent who become dependent), group C (prior dependent who become non-dependent) and group D (prior dependent who remain dependent). The outcomes of
interest were discharge disposition, length of stay, complications and health care resource costs.

**Results:**

A total of 10708 patients were identified, with 81.57%, 3.58%, 8.54% and 6.32% of patients in groups A, B, C and D. 96.3% of patients’ in-group D had decompression with fusion compared to 93.59% in-group A. Patients in group B, C and D had longer length of hospital stay compared to those in-group A. Patients in group D were less likely to be
discharged to home compared to those in group A (OR: 0.639, 95% CI: 0.52, 0.785). At 3-15 months post-discharge, patients in group D incurred 21% higher hospital readmission costs compared to those in group A. However, patients in groups B and D were likely to incur 2.8 times the overall costs compared to patients in group A (p<0.001), at 3-15 months post-surgery (Median group B: $20033, group D: $19654 vs. group A: $7994).
Figure 1: Bar graph showing the A) outpatient cost, B) medication cost and C) overall costs at 3 months post-discharge following surgery for DS, among patients in NDND, NDD, DND and DD groups.
Figure 2: Bar graph showing the A) outpatient cost, B) medication cost and C) overall costs at 3-15 months post-discharge following surgery for DS, among patients in NDND, NDD, DND and DD groups.
Discussion:

In our cohort of 10708 patients, we found that patients who remain opioid dependent (DD and NDD) after surgery for DS had longer length of hospital stay and were less likely to be discharged home compared to those who were opioid non-dependent prior and remained non-dependent (NDND) after surgery. Also, at 3-15 months, patients’ in-group DD incurred 21% higher hospital readmission costs compared to that in-group NDND.
Conclusion:

Patients who continued to be opioid dependent or become opioid dependent following surgery for DS incur significant health care utilization and costs at 3 months and 3-15 months. These findings can be used to formulate strategies to reduce the health care cost in this patient population, in current scenario of opioid crisis.