Is the Current Insurance Structure leading to Seasonality in Demand for Spinal Surgery? A Quarterly, Yearly, and Insurance based Analysis

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Disclosures

• None
Posterior Lumbar Fusion Utilization

• Posterior lumbar fusion (PLF) is one of the most commonly employed *elective* lumbar spine procedure.

• Utilization rate impacted by type of insurance and time of year
4th Quarter Utilization of Resources

- Increase in primary care visits in the 4th quarter has been previously demonstrated

- Patients more likely to visit physicians with less emergent problems in the latter part of the year

- This discrepancy may be attributable to the structure of out-of-pocket insurance costs, where deductibles are more likely to be paid off or the out of pocket maximum reached by the end of a year
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4th Quarter Utilization of Resources

Los Angeles Times

Staying smart about end-of-year healthcare

By LISA ZAMOSKY  NOV. 16, 2012  |  12 AM

But once you’re set for 2013, experts say, shift your attention back to 2012 and those use-'em-or-lose-'em benefits awaiting you.

“Anything employees can do to accelerate elective care at year end allows them to get the full benefit” of their health plans, says Mike Thompson of consulting firm...
Objective

• To analyze the utilization of PLF earlier in the year (Q1) compared to the end of the year (Q4) for patients with varying insurance coverage statuses (i.e. Private, Medicare/Medicaid) using a national administrative database
Methods - Cohort

- HCUP – NIS
- Largest public all-payer database
- Patients undergoing PLF for degenerative disease
Methods - Outcomes

- Utilization: dividing the quarterly number of PLFs performed for patients with lumbar DDD by total number of patients with lumbar DDD that quarter.

- Analyzed on a quarterly basis between 2012 and 2014 and by insurance type (Medicare, Medicaid, Private, and Uninsured).
Results

• 221,466 patients hospitalized with Lumbar DDD b/w 2012 - 2014.

• 67,343 (30.4%) underwent PLF
  • (53.5%, n=118,573) - Medicare
  • (38.0%, n=84,107) - Private insurance,
  • (7.17%, n=15,877) - Medicaid
  • (1.31%, n=2,909) – Uninsured
Results
Results

Pearson Chi-Squared analysis of PLF (Q4 v. Q1-Q3)

<table>
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<th>Year</th>
<th>All insurance Types</th>
<th>Medicare</th>
<th>Medicaid</th>
<th>Privately Insured</th>
<th>Uninsured</th>
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<td>2012</td>
<td>&lt;0.001</td>
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<td>2014</td>
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<td>Overall</td>
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<td>0.78</td>
<td>&lt;0.001</td>
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</table>
Results

Privately insured patients were 2.5% more likely to undergo PLF in quarter 4 compared to quarters 1-3.
Conclusion

• Utilization of PLF for degenerative lumbar spine disease was found to be higher in the fourth quarter of the year

• Specially for patients with private insurance.

• This phenomenon may be due to reduced out of pocket expenditure for healthcare later in the year.

• These findings may assist policymakers in conducting targeted interventions that ensure timely access to treatment for patients with Lumbar DDD.