Comparing the Impact of Surgery vs. Nonsurgical Care for Single-Level Lumbar Stenosis on Total Cost and All Cause Mortality

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Surgical treatment of single-level lumbar stenosis is associated with lower mortality and lower total 2-year cost compared to nonsurgical care

Prediction of 2-year mortality risk (risk stratification index, RSI)

88% Patients matched by RSI and demographics

Surgical Treatment of Single-Level Lumbar Stenosis Is Associated with Lower 2-Year Mortality and Total Cost Compared with Nonsurgical Treatment: A Risk-Adjusted, Paired Analysis

Retrospective review of the Medicare National Database Fee for Service Files from 2011 to 2017

However, data on its impact on cost, utilization, and mortality are relatively sparse

86,534 Patients with stenosis

83,813 Patients with stenosis and spondylolisthesis

Total 2-year Medicare payments

<table>
<thead>
<tr>
<th>Stenosis</th>
<th>Stenosis + Spondylolisthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laminectomy</td>
<td>Laminectomy + Fusion</td>
</tr>
<tr>
<td>$34,998</td>
<td>$58,786</td>
</tr>
</tbody>
</table>
| Nonsurgical               | Nonsurgical + Fusion         | $65,194
| $59,071                   | $68,890                      |

Comparison of all cause mortality, spine-related healthcare utilization, and 2-year total Medicare payments between matched patients undergoing surgical or nonsurgical treatment

Patients matched by RSI and demographics

Prediction of 2-year mortality risk (risk stratification index, RSI)

88% Patients matched by RSI and demographics

Spine surgery alleviates pain, restores function, and is cost-effective

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