A Controlled Substances (CS) score: is it related to health care utilization and total cost of care?

Background

- More than half of drug overdose deaths involve prescription drugs, with the majority being opioid analgesics.
- Analgesics are prescribed at least once in 3 out of 5 adults. 11
- There is data demonstrating an association between high doses of opioid analgesics and increased rates of emergency room (ER) visits, total costs, and months of use.
- Spinal pain frequently occurs in controlled substance users.
- There is no association between the CS score and healthcare utilization, and costs.
- Opioid abusers frequently use other controlled substances (e.g., benzodiazepines, stimulants).

Methods

- The study included commercial members from one health plan across the U.S. (16)
- Members were required to be continuously insured in the plan for at least 90 days in 2012 and have at least one pharmacy or medical claim in 2012.
- The CS program managed pharmaceutical care with a focus on reducing controlled substance use. The program used a CS score to determine members at risk for overuse.
- A CS score was calculated using a result of 16 CS violations with healthcare utilization and costs. A higher score was more likely to indicate an increased risk of misuse.

Results

- Approximately 6 million members across 21 health plans were enrolled in December 2012 (Figure 1).
- Of the 6 million members, 408,500 (6.82%) were assigned a CS score.
- Thirty percent of these members had a score of 12 or greater.

Conclusions

- In policy, about 2% of claims were identified as CS violations.
- In practice, about 6.8% of claims were identified as CS violations.
- The results of this study validate a linear association between a CS score and increased healthcare utilization, and costs.
- The CS score and healthcare utilization, and costs are positively correlated.
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Table 1. Controlled Substance Score Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage of Members</th>
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</thead>
<tbody>
<tr>
<td>Medication misuse</td>
<td>84%</td>
</tr>
<tr>
<td>Prescription abuse</td>
<td>84%</td>
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<tr>
<td>Illegal use</td>
<td>84%</td>
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</tbody>
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Limitations

- Members with high risk CS patients may be under represented in the claims data.
- Pharmacy claims data include all assertions of controlled substance use, not just billed use.
- Healthcare providers may not be accurately identifying members who may be overusing CS.
- Future studies will examine the drug utilization and healthcare costs for a subset of members using data.

References