Comparison of Buprenorphine and Methadone Treatment among Medicaid Enrollees

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ABSTRACT

Aim: The availability of buprenorphine (Bup) maintenance treatment for opioid dependence has expanded medication assisted treatment options, yet little is known about the use of Bup in a Medicaid managed care organization (MCO). The purpose of this study was to examine the characteristics and treatment retention of Medicaid enrollees prescribed Bup as compared to those being treated with methadone (Meth) maintenance.

Methods: Four years of medical claims data (FY2006-2009) were used to identify enrollees initiating Bup or Meth treatment. This intention-to-treat analysis grouped members by initial type of treatment. Chi-square and t-tests were used to compare demographic and health status characteristics of enrollees initiating treatment. Propensity score matching was used to select Meth enrollees who were similar to Bup enrollees to examine treatment retention. Cox proportional hazards models were used to examine characteristics associated with treatment retention during the 12-months after treatment initiation among Bup enrollees, and to compare retention between Bup and Meth enrollees, controlling for demographics and health status.

Results: 1,021 unique enrollees who initiated treatment for opioid dependence were identified; 38% initiated Bup treatment and 62% Meth. Compared to Meth, those on Bup were significantly (p<0.05) more likely to be Caucasian (50% vs. 43%), from rural areas (21% vs. 9%), and have receiving diagnoses for co-occurring: psychiatric disorder (49% vs. 32%), renal disease (17% vs. 10%), respiratory illness (10 vs. 6%), and to have cocaine abuse/dependence (25% vs. 6%), and alcohol abuse/dependence (18% vs. 2%). Among enrollees on Bup, urban-living (vs. rural, HR=0.6, p<0.01), older age (vs. age 18-29, HR=0.6, p<0.03), TANF (vs. TANF, HR = 0.7, p<0.02), and very high morbidity level (vs. very low/mod., HR = 0.6, p<0.02) were associated with decreased risk of dropout. Those enrollees who were HIV+ (HR=1.5, p<0.003), had psychiatric diagnosis (HR=1.4, p<0.03), and respiratory illness (HR=1.9, p<0.005) had increased risk of dropout. The adjusted hazard ratio comparing retention on Bup vs. Meth was 1.41 (p<0.0003), indicating, after controlling for demographics and health status characteristics, Bup enrollees had a higher risk of dropout than Meth enrollees.

Conclusions: In this sample of opioid dependent Medicaid MCO enrollees, those treated with Bup had a different demographic profile and higher rates of comorbidities than those on Meth. Controlling for these differences, treatment retention was lower for Bup enrollees.

SPECIFIC AIMS

1. To examine the demographic and health status characteristics of Medicaid enrollees who receive Bup vs. Meth.
2. To examine characteristics associated with treatment retention, and compare retention between Bup vs. Meth enrollees.

METHODS

Study Period: FY2006-2009

Data Source: Medicaid administrative and claims data from Maryland MCO

Total Sample: Bup N = 388  Meth N = 633

Statistical Analyses: Chi-square and t-tests  Cox Proportional Hazards Models

RESULTS

SUBSTANCE ABUSE TREATMENT RETENTION

Kaplan-Meier Survival Curves

Bup: Mean= 183 days, Median = 175 days

Meth: Mean= 136 days, Median = 75 days

Bup Enrollees:
• Shorter enrollment
• More likely white and from rural area

HEALTH STATUS

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>Bup (N = 388)</th>
<th>Meth (N = 633)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine Abuse/Dep.</td>
<td>24.5%</td>
<td>5.7%</td>
<td>p = 0.0001</td>
</tr>
<tr>
<td>Alcohol Abuse/Dep.</td>
<td>17.5%</td>
<td>2.4%</td>
<td>N.S.</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>22.7%</td>
<td>18.0%</td>
<td>N.S.</td>
</tr>
<tr>
<td>Type I &amp; 2 Diabetes</td>
<td>10.3%</td>
<td>9.2%</td>
<td>N.S.</td>
</tr>
<tr>
<td>Gastrointestinal/Hep.</td>
<td>48.2%</td>
<td>43.9%</td>
<td>N.S.</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>49.0%</td>
<td>31.9%</td>
<td>p &lt; 0.0001</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>46.1%</td>
<td>40.1%</td>
<td>N.S.</td>
</tr>
<tr>
<td>Renal Disease</td>
<td>17.3%</td>
<td>10.4%</td>
<td>p = 0.0016</td>
</tr>
<tr>
<td>Respiratory Illness</td>
<td>9.8%</td>
<td>6.0%</td>
<td>p = 0.0251</td>
</tr>
</tbody>
</table>

Bup Enrollees:
• Higher ACG Scores (predicted higher cost and morbidity)
• More likely to be diagnosed with cocaine or alcohol abuse/dep, psychiatric diagnosis, renal or respiratory illness.

CONCLUSIONS

• Bup enrollees had different demographic profile than Meth enrollees.
• Bup enrollees have higher rates of co-occurring diagnoses (medical, psychiatric).
• After controlling for these differences, treatment retention was lower for Bup enrollees.

QUESTIONS?

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None of the authors have a conflict of interest.