LIKELIHOOD OF EMPLOYMENT TERMINATION FOR EMPLOYEES WITH BIPOLAR DISORDER TREATED WITH DIFFERENT PSYCHOTROPIC MEDICATIONS

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Abstract

Objective: To evaluate the likelihood of employment termination among patients with bipolar disorder treated with different classes of psychotropic medications.

Methods: Patients with bipolar disorder (classified according to ICD-9-CM codes) were identified from the Human Capital Management Services Reference Database. Patients with continuous eligibility 6 months before and 12 months after their initial prescription for a bipolar disorder were categorized into those using atypical antipsychotics only (ATYP); conventional antipsychotics, mood stabilizers (including lithium, divalproex, lamotrigine, and carbamazepine), and specific anticonvulsants only (OTHER); and no study-specified psychotropic medications (NONE). The index “prescription” date for the NONE group was defined as 6 months after the initial diagnosis. Both voluntary and involuntary terminations of employment were included. Regression models controlled for possible confounding factors (age, gender, location, race, marital status, full-time/part-time status, prior comorbidity index, prior medical costs related to bipolar disorder, prior other medical costs, index date, and medical services related to bipolar disorder). Treatment groups were compared over a follow-up period of 12-24 months after the index prescription date.

Results: Six hundred ninety-four patients with bipolar disorder were classified into the ATYP (n=25), BOTH (n=190), NONE (n=170), and OTHER (n=314) treatment groups. The ATYP group demonstrated the lowest rate of employment termination (1.5%; 95% CI 0.0%, 6.0%), followed by the BOTH (5.8%; 95% CI 2.5, 9.1), NONE (8.9; 95% CI 4.7, 13.2), and OTHER (9.3%; 95% CI 6.1, 12.5) groups. Differences between treatment groups were not significant. The numerical difference between ATYP and OTHER did not reach significance (P=0.25).

Conclusions: The ATYP group demonstrated the lowest employment termination rate in the follow-up period of 12-24 months after the index prescription date. Further research is warranted to examine the influence of specific patient variables and treatment regimens on employment termination in patients with bipolar disorder.

Introduction

Bipolar disorder is expensive: US $7.6 billion in direct inpatient and outpatient costs (2003 estimate).

Individuals with bipolar disorder in the workforce are reported to:
- Be married compared with the BOTH cohort (significantly older than BOTH; F=0.05).
- Be older than the remaining cohorts (significantly older than BOTH; F=0.05).
- Be married compared with the BOTH cohort (significantly older than BOTH; F=0.05).
- Be at least 6 months pre-index prescription date and prior other medical costs related to bipolar disorder*.
- Have 11.5 more adjusted annual absence days than employees without bipolar disorder.
- Be more likely to report declines in job status, including loss of employment and income at the end of a 1-year follow-up.

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Methods

Data Source

- Retrospective database analysis
- Human Capital Management Services Research Reference Database

Demographic statistics were similar among the groups (Table 1): People using only therapy (NONE) were more likely to:
- Be older than the remaining cohorts (significantly older than BOTH; P=0.05).
- Have more absences than the remaining cohorts (significantly higher than BOTH; P=0.05).
- Be married compared with the remaining cohorts (significantly greater than BOTH; P=0.05).
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- Be married compared with the BOTH cohort (P=0.05).
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- Be treated with atypical antipsychotics only (ATYP); conventional antipsychotics, mood stabilizers (including lithium, divalproex, lamotrigine, and carbamazepine), and specific anticonvulsants only (OTHER); and no study-specified psychotropic medications (NONE). The index “prescription” date for the NONE group was defined as 6 months after the initial diagnosis. Both voluntary and involuntary terminations of employment were included. Regression models controlled for possible confounding factors (age, gender, location, race, marital status, full-time/part-time status, prior comorbidity index, prior medical costs related to bipolar disorder, prior other medical costs, index date, and medical services related to bipolar disorder). Treatment groups were compared over a follow-up period of 12-24 months after the index prescription date.

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Conclusions: The ATYP group demonstrated the lowest employment termination rate in the follow-up period of 12-24 months after the index prescription date. Further research is warranted to examine the influence of specific patient variables and treatment regimens on employment termination in patients with bipolar disorder.

It is also likely that patients with severe bipolar disorder are not employed and thus are not included in the current analysis3

These data are in line with the self-reported survey indicating employment problems among the population with bipolar disorder4

References


Table 1. Demographics of Employees With Bipolar Disorder in the Reference Database (2001-2004)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Age</th>
<th>Male/Female</th>
<th>Married, %</th>
<th>Location</th>
<th>Income Status</th>
<th>Prior Medical Costs Related to Bipolar Disorder, %</th>
<th>Prior Other Medical Costs, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATYP</td>
<td>25</td>
<td>39.0</td>
<td>190/150</td>
<td>47.8</td>
<td>77.5</td>
<td>5%</td>
<td>9/18</td>
<td>19/0</td>
</tr>
<tr>
<td>BOTH</td>
<td>190</td>
<td>41.3</td>
<td>131/59</td>
<td>48.9</td>
<td>79.7</td>
<td>4%</td>
<td>13/32</td>
<td>26/3</td>
</tr>
<tr>
<td>NONE</td>
<td>170</td>
<td>56.0</td>
<td>109/61</td>
<td>59.2</td>
<td>57.1</td>
<td>3%</td>
<td>23/42</td>
<td>30/38</td>
</tr>
<tr>
<td>OTHER</td>
<td>314</td>
<td>58.0</td>
<td>200/114</td>
<td>58.2</td>
<td>56.6</td>
<td>3%</td>
<td>27/51</td>
<td>34/52</td>
</tr>
</tbody>
</table>

Table 2. Expected Likelihood of Employment Termination (12-24 Months After Index Date) by Bipolar Disorder Treatment Group

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Employment Terminated, %</th>
<th>Standard Error</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATYP</td>
<td>1.5%</td>
<td>2.5%</td>
<td>[0.3, 3.3]</td>
</tr>
<tr>
<td>BOTH</td>
<td>5.8%</td>
<td>2.5%</td>
<td>[3.3, 8.2]</td>
</tr>
<tr>
<td>NONE</td>
<td>8.9%</td>
<td>2.5%</td>
<td>[5.1, 13.2]</td>
</tr>
<tr>
<td>OTHER</td>
<td>9.3%</td>
<td>2.5%</td>
<td>[6.1, 12.5]</td>
</tr>
</tbody>
</table>

*As of the index diagnosis date (the date of the first bipolar diagnosis in the 2001-2003 time period such that the patient had 12 months of enrollment after that date).