Multimorbidity and COPD Medication Receipt Among Medicaid Beneficiaries With Newly Diagnosed COPD

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BACKGROUND

- Multimorbidity defined as the coexistence of at least two chronic conditions, is highly prevalent and associated with chronic obstructive pulmonary disease (COPD).
- A recent study using the National Health and Nutrition Examination Survey (2009-2010) reported that those with COPD had higher rates of diabetes (54% vs. 36%), cardiovascular disease (56% vs. 37%), and arthritis (48% vs. 41%).
- Existing evidence suggests that the presence of multimorbidity among adults with COPD may complicate existing COPD management due to interactions with therapies for other co-existing chronic conditions.
- To date, no study has specifically examined the relationship between multimorbidity and COPD medication receipt among young adults with COPD.

OBJECTIVES

- The aim of this study was to estimate the prevalence of co-existing chronic conditions (multimorbidity) among Medicaid beneficiaries with newly diagnosed COPD. 
- This study also examined the association between multimorbidity and receipt of chronic care medications in this population. 

METHODS

- Data Source: Medicaid beneficiaries with newly diagnosed COPD were identified using the Medicaid claims data for the year 2010. 
- Methods: Bivariate analyses were used to examine the relationship between multimorbidity and COPD medication receipt. 

RESULTS

- The final study population (after applying all exclusion criteria) included 5,947 individuals with physical only multimorbidity, 850 with mental only multimorbidity, and 1,200 with both physical and mental multimorbidity.
- Among Medicaid beneficiaries without COPD, the rates of long-acting bronchodilator use were 57.8% and 59.5% for physical and mental multimorbidity, respectively.
- Among Medicaid beneficiaries with physical multimorbidity, the rates of long-acting bronchodilator use were 59.2% and 58.7% for physical and mental multimorbidity, respectively.
- Among Medicaid beneficiaries with mental multimorbidity, the rates of long-acting bronchodilator use were 58.7% and 57.8% for physical and mental multimorbidity, respectively.

DISCUSSION

- The current study examined the relationship between multimorbidity and receipt of COPD medications among Medicaid beneficiaries with newly diagnosed COPD.
- In the study cohort, approximately three-quarters of individuals had multimorbidity. Patients with mental conditions were more likely to receive short-acting bronchodilator only than those with no multimorbidity (Table 2).

CONCLUSIONS

- After controlling for patient characteristics and county-level socioeconomic and health care environment, Medicaid beneficiaries with newly diagnosed COPD and multimorbidity were less likely to receive COPD medications, including bronchodilators.
- An a priori study that has been designed to assess the relationship between multimorbidity and COPD medication receipt is ongoing.

REFERENCES


Table 1: Prevalence of Multimorbidity Among Medicaid Beneficiaries With Newly Diagnosed COPD: MANOVA 2009-2010

<table>
<thead>
<tr>
<th>Multimorbidity</th>
<th>N</th>
<th>%</th>
<th>OR</th>
<th>95% CI</th>
<th>Significance</th>
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</thead>
<tbody>
<tr>
<td>Physical only</td>
<td>5,947</td>
<td>63.9</td>
<td>1.05</td>
<td>0.98-1.13</td>
<td>0.82</td>
</tr>
<tr>
<td>Mental only</td>
<td>850</td>
<td>66.3</td>
<td>1.16</td>
<td>1.02-1.33</td>
<td>0.81</td>
</tr>
<tr>
<td>Both</td>
<td>1,200</td>
<td>32.1</td>
<td>0.63</td>
<td>0.56-0.72</td>
<td>0.86</td>
</tr>
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Table 2: Multimorbidity Prevalence Among Medicaid Beneficiaries With Newly Diagnosed COPD

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Figure 1: Algorithm Describing Selection of Study Population

Figure 2: Distribution of Community-Dwelling Chronic Conditions Among Medicaid Beneficiaries With Newly Diagnosed COPD

Figure 3: Distribution of Multimorbidity Among Medicaid Beneficiaries With Newly Diagnosed COPD