Treatment rates and prevalence of high priority comorbidities for treatment initiation in people with hepatitis C

Background
Approval of novel antivirals with fewer adverse events and higher viral clearance rates, in conjunction with updated recommendations by the Centers for Disease Control and Prevention that all adults born between 1945 and 1965 be tested for Hepatitis C Virus (HCV), has precipitated a dramatic shift in the management of HCV in the United States. In addition, clinical guidelines specify high priority comorbidities indicating the need to initiate HCV treatment. These factors, combined with an aging population, warrant better understanding of HCV treatment use in clinical practice.

Objective
To report HCV treatment rates in a large population of people diagnosed with HCV, as well as the prevalence of high priority comorbidities for treatment initiation and total health care costs for both treated and untreated groups.

Methods
Study Design: Retrospective, descriptive analysis
Data Source: Pharmacy and medical claims, and enrolment data, from the Humana Research Database, which includes data from approximately 17.1 million members nationwide across commercial, Medicare Advantage and prescription drug plans from 2007 to present.

Inclusion and Exclusion Criteria:
• Individuals aged 19-89 years, with commercial or Medicare Advantage insurance and an initial diagnosis of HCV (ICD-9-CPT codes: 002.02, 070.4, 070.04, 070.01, 070.4, 070.07, 0701, G8461, G8463, 4150F, 4153F) between 1/1/2008 and 6/30/2012 were eligible for inclusion.
• Continuous enrollment with the health plan was required for 12 months before and 24 months after the first diagnosis of HCV to ensure complete follow-up.
• Patients diagnosed with Hepatitis B virus (ICD-9-CPT codes: 070.20-070.23, 070.30-070.38, 050.61) or evidence of HCV treatment on or before the first HCV diagnosis date (index date) were excluded.

Results

Table 1. Baseline Demographics

<table>
<thead>
<tr>
<th>Measure</th>
<th>All HCV Patients (n=10,864)</th>
<th>Treated HCV Patients (n=857)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yrs, Mean (SD)</td>
<td>60.3 (12.3)</td>
<td>54.9 (10.2)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Gender, % (n)</td>
<td>Female</td>
<td>483 (44.5%)</td>
<td>325 (37.9%)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>603 (55.5%)</td>
<td>522 (62.1%)</td>
</tr>
<tr>
<td>*Race/Ethnicity, % (n)</td>
<td>Caucasian</td>
<td>566 (70.6%)</td>
<td>347 (72.6%)</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>145 (18.1%)</td>
<td>73 (15.3%)</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>233 (2.9%)</td>
<td>15 (3.1%)</td>
</tr>
<tr>
<td></td>
<td>Other/Unknown</td>
<td>669 (6.2%)</td>
<td>43 (9.5%)</td>
</tr>
</tbody>
</table>

Table 1. Baseline Demographics

Figure 1. Prevalence of Treatment

7.9% of patients with HCV were treated with antiviral medications (n=857 / 10,864)

Treated patients were younger, had lower comorbidity scores and pre-index health care costs

Figure 2. Prevalence of Priority Comorbidities for HCV Treatment Initiation

4 of 7 high priority comorbidities for treatment initiation were significantly more prevalent in the untreated population.

Table 2. Cost Differences Between Treated and Untreated Patients over 18 Months of Follow Up

In the HCV treated population, total mean healthcare costs were significantly higher and HCV treatments accounted for $28,024 per treated patient.

Implications for Policy and Practice
• Despite available treatment options, the vast majority of patients diagnosed with HCV were untreated.
• The prevalence of high priority comorbidities for treatment initiation was higher for multiple conditions in untreated group, suggesting that clinical guideline recommendations for whom to initiate HCV therapy are not being fully applied in practice.

Limitations
• Patient factors such as genotype, sustained virologic response, disease severity, reasons for treatment discontinuation and other factors that could influence treatment decisions could not be obtained or controlled for.
• Limitations common with claims analyses (missing values, inability to capture all relevant confounders, etc.) pertain to this study.
• The study time period excluded newer direct acting antivirals and all oral regimens approved since June 2013. Future research should assess how newer HCV therapies can be used appropriately in highest priority populations.

References

Academy Health
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