Quality of Life and Healthcare Utilization Burden of HCV-infected Patients in Europe

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Introduction

- Approximately 180 million people (3% of the world’s population) are infected with hepatitis C virus (HCV). There are 10 to 15 million new infections occur annually, and 70%-80% of patients develop chronic HCV.
- HCV infection carries a high economic and societal burden. This burden is increasing as an aging infected population is more likely to develop the more serious consequences of infection including treatment failures and serious comorbidities (HCV) and advanced liver disease (ALD).

Methods

National Health and Wellness Survey (NHWS)

- The NHWS is an annual cross-sectional survey of the adult population in 6 countries: France, Germany, Italy, Spain, UK, and USA.
- It includes information regarding healthcare utilization, behaviors, demographic and disease characteristics, measures of utilization, and health-related outcomes.

HRQoL Assessments

- Mental and physical well-being was assessed by the Medical Outcomes Trust Short Form Health Survey (SF-12(TM) score).

Baseline Demographics

- The overall survey population was 112,470, of which 864 patients and 864 closely matched controls were included in this sample population.

Results

Objectives

- Independent variables were:
  - Alcohol consumption (drinker/non-drinker)
  - Marital status (single/married/divorced/separated/widowed/living with partner)
  - Employment (employed/not employed)
  - Education (grouped into 5 categories, which varied by country)
  - Gender
- Propensity scores, calculated by logistic regression and rounded to 3 decimal places, were used to match patients to controls.
- The propensity scores were then used as weights in the analysis.

Conclusions

- This study, based on the outcomes of the 2008-2009 NHWS, demonstrates the significant impact of HCV infection on healthcare resources utilization.

Acknowledgments

This research was funded by Johnson & Johnson Pharmaceutical Services and was conducted by Consumer Health Sciences International and EpiData.

References


Healthcare Utilization During the Previous 6 Months

- Compared with controls, during the 6 months prior to the survey, HCV-infected patients:
  - were significantly more likely to have visited an emergency room, internist, gastroenterologist, nephrologist or another medical specialist (Figure 1);
  - reported 2.35 more medical visits (95% CI: 1.16, 3.53, p<0.01)
- had more visits to traditional medical providers (Figure 1).

Figure 1. Healthcare Utilization in the 6 Months Prior to Completing the Survey

Figure 2. Adjusted Mean Number of Visits to Traditional Medical Providers by Patients Infected with HCV and non-HCV Infected Controls.

Table 1. Baseline Demographics of the Patient and Control Populations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Patients (n = 864)</th>
<th>Controls (n = 864)</th>
<th>Estimate</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>56 (9)</td>
<td>57 (9)</td>
<td>-0.1727</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 60%</td>
<td>Male 60%</td>
<td>2.8369</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Education</td>
<td>College graduate</td>
<td>College graduate</td>
<td>2.3538</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>Single</td>
<td>2.3538</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Employment</td>
<td>Employed</td>
<td>Employed</td>
<td>2.8369</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Total estimated mean difference (95% CI)</td>
<td>2.3538, 3.941 NS</td>
<td>2.3538, 3.941 NS</td>
<td>2.3538, 3.941 NS</td>
<td>2.3538, 3.941 NS</td>
</tr>
</tbody>
</table>

Table 2. Mean Scores (With SD) and Logistic Regression Analysis, for Self-reported Mental and Physical Well-being in Patients Infected with HCV and non-HCV infected Controls.

<table>
<thead>
<tr>
<th>Score</th>
<th>Patients (mean (SD))</th>
<th>Controls (mean (SD))</th>
<th>Parameter estimate</th>
<th>p-value</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-8(SF-12(TM) mental score)</td>
<td>48.80 (10.3)</td>
<td>46.82 (10.1)</td>
<td>-1.6282</td>
<td>&lt;0.01</td>
<td>0.20 (0.12, 0.35)</td>
</tr>
<tr>
<td>SF-12(TM) mental score</td>
<td>51.09 (12.1)</td>
<td>49.21 (11.7)</td>
<td>-1.6282</td>
<td>&lt;0.01</td>
<td>0.20 (0.12, 0.35)</td>
</tr>
</tbody>
</table>

Table 3. Mean Scores (With SD) and Logistic Regression Analysis, for Self-reported Productivity in Patients Infected with HCV and non-HCV infected Controls.

<table>
<thead>
<tr>
<th>Score</th>
<th>Patients (mean (SD))</th>
<th>Controls (mean (SD))</th>
<th>Parameter estimate</th>
<th>p-value</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPAI scale</td>
<td>Emergency</td>
<td>7.2500</td>
<td>7.2500</td>
<td>0.0001</td>
<td>1.00 (0.00, 1.00)</td>
</tr>
<tr>
<td>WPAI scale</td>
<td>Internist</td>
<td>7.2500</td>
<td>7.2500</td>
<td>0.0001</td>
<td>1.00 (0.00, 1.00)</td>
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<tr>
<td>WPAI scale</td>
<td>Gastroenterologist</td>
<td>7.2500</td>
<td>7.2500</td>
<td>0.0001</td>
<td>1.00 (0.00, 1.00)</td>
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<tr>
<td>WPAI scale</td>
<td>Nephrologist</td>
<td>7.2500</td>
<td>7.2500</td>
<td>0.0001</td>
<td>1.00 (0.00, 1.00)</td>
</tr>
<tr>
<td>WPAI scale</td>
<td>Other Medical</td>
<td>7.2500</td>
<td>7.2500</td>
<td>0.0001</td>
<td>1.00 (0.00, 1.00)</td>
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