Efficacy of All-Oral HCV Therapy in People Who Inject Drugs

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Background
People who inject drugs (PWID) represent a disproportionate fraction of Hepatitis C (HCV) infected individuals in Canada (1). Sharing of injection equipment is a significant source of viral transmission. Recently, novel all-oral therapies have supplanted interferon-based regimens as the standard of care for the infection, consistently demonstrating higher rates of sustained virologic response (SVR) and comparatively favorable side effect profiles (2). This has initiated a new era with a possibility of cure for all patients. This study seeks to assess the efficacy of such all-oral therapies in PWID and, as such, provide further support for the treatment of this vulnerable population without a mandated abstinence period.

Methods
A retrospective cohort analysis was performed on all HCV-infected patients who were treated at a tertiary clinic in downtown Vancouver and had a history of injection drug use. Appropriate treatment regimens were chosen and follow-up visits (weeks 2, 4, 6, 8, 10, 12, and/or 24 weeks) were scheduled. The primary outcome of the analysis was achievement of SVR. Other gathered data included ongoing HCV-related risk factors and co-morbidities.

Results
Within our cohort, 50 patients received and completed all-oral HCV regimens. The mean age was 52.4 (range 34-75), 37 (74%) were male, 20 (40%) were on opiate substitution therapy, 33 (66%) were using cocaine, 31 (62%) were using opioids, and 23 (46%) were using other stimulants. Among the 50 patients who completed treatment, 44 (88%) achieved SVR. In addition, 4 (8%) exhibited HCV relapse and 0 (0%) were re-infected.

Table 1: Baseline Patient Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
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<tr>
<td>Mean Age</td>
<td>52.4 (Range 34-75)</td>
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<tr>
<td>Male (%)</td>
<td>37 (74%)</td>
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<tr>
<td>Opiate Substitution Therapy (%)</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>Cocaine Users (%)</td>
<td>33 (66%)</td>
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<tr>
<td>Opioid Users (%)</td>
<td>31 (62%)</td>
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<tr>
<td>Other Stimulant Use (%)</td>
<td>23 (46%)</td>
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</tbody>
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Conclusions
High SVR rates expected with new all-oral HCV treatment regimens can be replicated in clinical practice, at least within a multidisciplinary care model. These data (along with the low re-infection rate we report) support current guidelines for the treatment of HCV-infected PWID who are not abstinent from recreational drug use.

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Conflict of Interest
Brian Conway: Advisory Committees of Review Panel: Vertex Pharmaceuticals, Merck, Boehringer Ingelheim, Janssen Pharmaceuticals; Grant/Research Support: Vertex Pharmaceuticals, AbbVie, Gilead Sciences Gilead

References