An Interdisciplinary Team Approach to Hepatitis C Virus (HCV) Evaluation and Treatment: Assessing the Impact of Clinical Pharmacist Involvement on HCV Clinical Practice and Treatment

Autumn Bagwell, PharmD, BCPS1; Cody A. Chastain, MD2
1Vanderbilt Specialty Pharmacy, 2Division of Infectious Diseases, Department of Medicine, Vanderbilt University Medical Center

BACKGROUND

The new era of hepatitis C virus (HCV) direct-acting antivirals (DAAs) allows an increased number of patients to be treated with more efficacious and tolerable therapies to prevent the progression of HCV infection. Recent reports have outlined the challenges posed by the increased labor and cost burden imposed on current HCV providers; thus, there is a need for innovative treatment approaches to provide efficient and affordable care.

The involvement of clinical pharmacists in the management of HCV has been shown to be equivalent or superior to that of clinics not utilizing a pharmacist.1,2

OBJECTIVE

The objective of this pilot program was to assess the benefit of integrating a clinical pharmacist (CP) in an existing infectious diseases (ID) clinic to manage patients with HCV infection.

METHODS

Single center, IRB-exempt quality improvement initiative with retrospective cohort review performed at the Vanderbilt University Medical Center ID Clinic. The quarter before integration of Vanderbilt Specialty Pharmacy (VSP) Services was compared to median values of the three quarters following integration.

PharmD Integration

- Initial Evaluation
  - General HCV treatment education
  - Mediation reconciliation and interaction evaluation
  - Barriers to adherence assessment
  - Monitor for completion of work-up needed for prior authorization (PA)

- Prior Authorization Application
  - Denied 
  - PharmD authors appeal, reviewed by MD
  - Approved 
  - Set up financial assistance
  - Discuss/approve therapy with the patient and schedule a medication education visit

- Medication Education and Counseling
  - Patient-specific education
  - Adherence action plan
  - Pharmacy materials discussed and provided
  - First fill of medications provided

- Treatment Monitoring
  - Week 1 phone follow-up
  - Adherence, side effect, and medication reconciliation follow-up every four weeks as needed and at end of treatment

RESULTS

Clinical Workflow Comparison

<table>
<thead>
<tr>
<th></th>
<th>Pre-VSP Integration</th>
<th>Post-VSP Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD Visits (Day 1)</td>
<td>6 PharmD Visits: 1</td>
<td>5 Collaborative visits: 1</td>
</tr>
<tr>
<td>4 week clinical visit</td>
<td></td>
<td>4 week clinical visit</td>
</tr>
<tr>
<td>SVR12 visit</td>
<td></td>
<td>SVR12 visit</td>
</tr>
<tr>
<td>End-of-treatment visit</td>
<td></td>
<td>End-of-treatment visit</td>
</tr>
</tbody>
</table>

Decrease in Provider Burden

- Integration of VSP services led to fewer patients on HCV treatment with fewer visits by MD/PA and more by PharmD providers.
- Results are reported as median MD/PA appointments per clinic day.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Treatment Visits</th>
<th>Post-Treatment Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 8 Appointments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>End of Treatment Appointments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSIONS

- Patients benefited from decreased time to medication approval and initiation, and they expressed satisfaction in care delivery.
- Provider burden was decreased, shown by a decrease in pre-treatment and follow-up appointments seen by MD/PA providers.
- Pharmacists are in an ideal position to improve the HCV care continuum by decreasing provider burden, improving medication access, and educating and monitoring patients receiving DAA therapy.

- Given the high cost of HCV treatment, it is imperative that patients receive the appropriate regimen and are supported to facilitate treatment completion.

REFERENCES