

Improvements Following Clinical Pharmacist Integration in the Management of Hepatitis C

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BACKGROUND

- An increasing number of patients with Hepatitis C virus (HCV) infection can now be treated due to improved efficacy and safety of recently approved direct acting antivirals (DAA).
- However, insurance prior authorization and cost of these advanced therapies can be barriers and results in delays to treatment initiation.
- Furthermore, a greater number of patients may now seek care for HCV, stressing a limited number of clinical providers.
- The involvement of clinical pharmacists in the management of chronic diseases and specifically HCV has been shown to be equivalent or superior to that of clinics not utilizing a pharmacist.**

PURPOSE

- To quantify the patient and provider benefits of implementing a multidisciplinary team approach to HCV management involving a clinical pharmacist in an existing infectious diseases (ID) clinic.

METHODS

- Single center, IRB-exempt retrospective/prospective 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.

Encounter	Activity
Initial Evaluation	MD/PA: -Clinical evaluation for therapy PharmD: -General HCV treatment education -Medication reconciliation and interaction evaluation -Barriers to adherence assessment
Prior Authorization Approval	PharmD: -Discuss approved therapy with the patient and schedule a medication education visit
Medication Counseling and Initiation	PharmD: - Patient-specific medication education -Adherence action plan -Pharmacy materials discussed and provided -First fill of medications provided
Treatment Monitoring	MD/PA: -Week 4 clinical evaluation PharmD: -Week 1 phone follow-up -Adherence, side effect, and medication reconciliation follow-up every 4 weeks as needed and at end of treatment

RESULTS

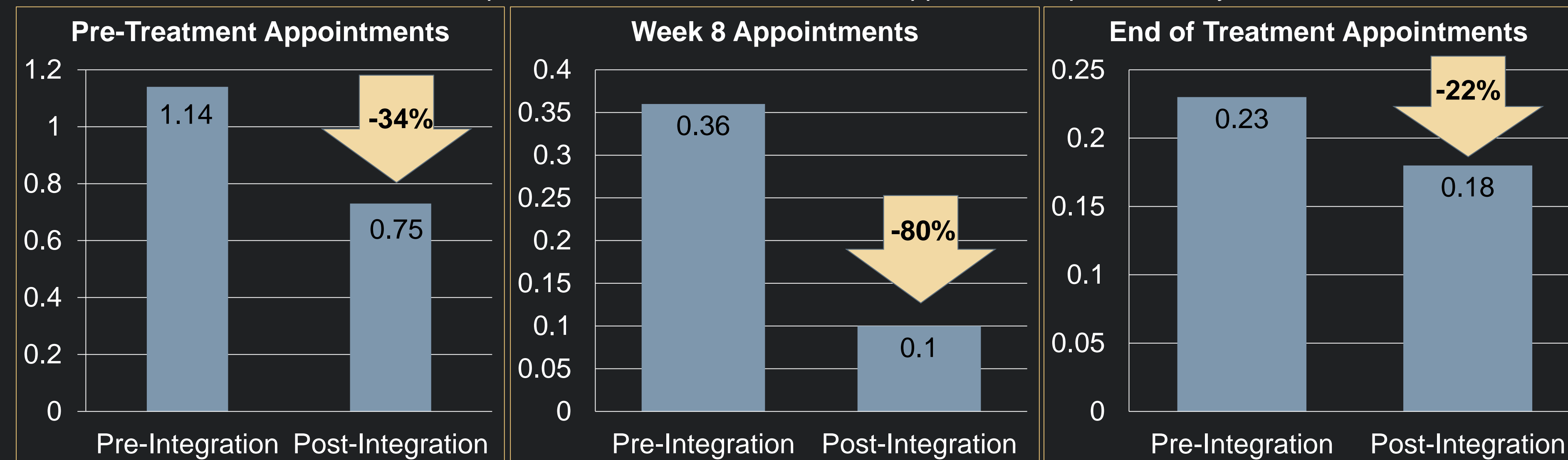
Decrease in Time to Medication Approval and Initiation

	Pre-Integration (Median Days)	Post Integration (Median Days)	Change (%)
First appointment to medication approval	67	15	-78
First appointment to medication initiation	82	26	-68
Benefits investigation to medication approval	7	4	-43
Benefits investigation to medication initiation	21	12	-43

- Following integration of VSP services, the time to medication approval and treatment initiation decreased measured from both patients' first clinic appointment and from an initial benefits investigation.

Decrease in Provider Burden

Results are reported as median fulfilled MD/PA appointments per clinic day.



- Integration of VSP services led to more patients on HCV treatment with fewer visits by MD/PA and more by PharmD providers.
- PharmD performed adherence, side effect, and medication reconciliation visits at week 8 and/or at the end of HCV treatment as clinically necessary instead of MD providers.
- Pre-treatment appointments were decreased after close monitoring by PharmD providers for lab/imaging completion.

RESULTS

Increase in Prescription Volume

- VSP integration allowed for prescribing providers to see more new patients, generating an increase in prescriptions per clinic day.

Results are reported as median prescriptions for an HCV treatment regimen generated per clinic day.

	Pre-Integration	Post-Integration	Change (%)
Prescriptions generated	0.8	1.1	+38

Patient Satisfaction

- Patient satisfaction surveys were provided at end of treatment.
- Nonrandomized but unanimously positive (18/18) responses by patients:

“Pharmacists at this clinic help me better understand how to take medications and what to expect when taking them.”

“I believe I receive overall better care because of the team approach at this clinic.”

CONCLUSIONS

- Patients benefited from decreased time to medication approval and initiation as well as expressed satisfaction in care delivery.
- Provider burden was decreased, shown by a decrease in pre-treatment and follow-up appointments.
- As prescribing providers had increased bandwidth to see more new patients, an increase in the number of prescriptions generated was observed.
- VSP integration in the VUMC ID clinic resulted in benefits to patients, providers, and the health system. This study demonstrates these benefits and adds to the current body of literature evidencing the value of clinical pharmacy services integration in specialty care.

**References:

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