

The Implementation of a Novel, Multidisciplinary Hepatitis C Program in an Established HIV Program

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INTRODUCTION

- The prevalence of chronic hepatitis C infection (HCV) in the United States is estimated to be 1.0% of the general population or approximately 2.7 million individuals¹ without accounting for high-risk, institutionalized individuals including those who are homeless or incarcerated.
- Delaware began to report cases of chronic HCV in 2004 yet remains one of many states where there is inconsistent case reporting and limited hepatitis C screening.^{2,3}
- With the advent of direct acting antivirals (DAAs) allowing for short courses of tolerable and highly efficacious HCV treatment, there is a concerted statewide effort to increase screening of high-risk individuals and to actively report cases of HCV.³
- The lack of a functional referral system to link patients with HCV to care - specifically recently incarcerated individuals, PWID, and persons engaged in substance abuse treatment - is an acknowledged state-wide challenge.

STUDY AIMS

- To evaluate the impact of employing the HIV care model in the real-world treatment of HCV mono-infected patients in an urban setting with high HCV prevalence
- To create a HCV Program care cascade to aid in identifying barriers to care and areas for programmatic improvement

METHODS

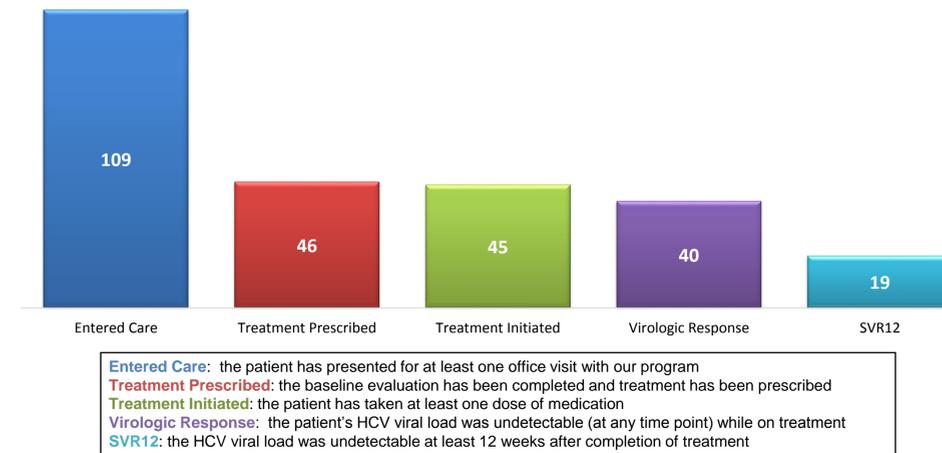
The HIV Community Program, part of Christiana Care Health System, has been caring for patients with HIV and HIV/HCV co-infection since 1989. It is the only Ryan White-funded HIV treatment program in Delaware and cares for over 1,650 patients living with HIV. In response to the growing unmet need to link persons with HCV mono-infection to specialty care, we sought to bridge this gap through the development of a dedicated HCV program nested within the HIV Community Program in Wilmington.

The HCV Program has grown to be a multidisciplinary care team comprised of 1 administrative assistant, 1 nurse, 1 nurse practitioner, 1 pharmacist, and 2 physicians with active board certification in Infectious Diseases. Clinic is held every Friday morning and is open to any individual with HCV over the age of 18. The HCV Program immediately adopted and embraced the HIV Ryan White care model for the management of patients with HCV mono-infection. We offer comprehensive care including but not limited to vaccinations, harm-reduction counseling, access to social work and pharmacy services, assistance with establishing health insurance and a primary care physician, and referrals for appropriate screening procedures and specialist consultations. Our care team performs weekly rounds to facilitate real-time follow through on patient cases, support the ongoing evaluation of work flow processes, and maintain relevant databases.

We performed a retrospective chart review of all patients evaluated in the HCV Program from March 1, 2014 through September 14, 2016. We evaluated patient demographics, sources of HCV care referrals, and HCV disease and treatment status. All data was extracted from electronic medical records and specific programmatic databases which are updated on a weekly basis.

Characteristic	n = 109 (%)
Sex	
Male	73 (67%)
Age	
18-25	3 (3%)
26-50	24 (22%)
51-71	82 (75%)
Referral Source	
CCHS	41 (38%)
Community Provider	35 (32%)
DOC	14 (13%)
Substance Abuse Treatment Facility	12 (11%)
Self-Referral	7 (6%)
Fibrosis Stage	
F0	15 (14%)
F1	16 (15%)
F2	26 (24%)
F3	11 (10%)
F4	24 (22%)
Pending	5 (4%)
Not Required	12 (11%)

Figure 1: HCV Program Care Cascade



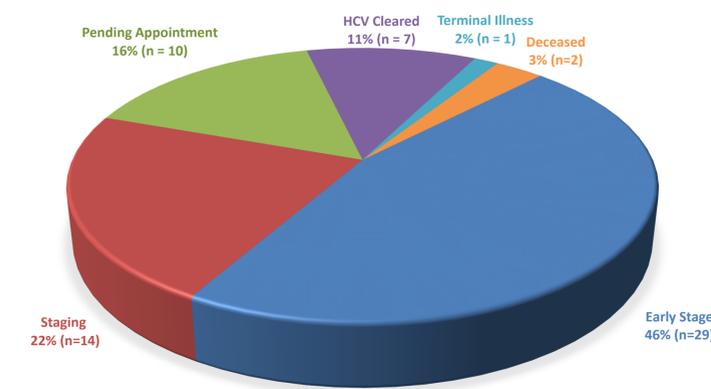
RESULTS

- 100% (40/40) of all patients on HCV treatment for 4 or more weeks have achieved an initial virologic response to date.
- 90.5% (19/21) of patients who have completed treatment with documented SVR12 have achieved cure.

SUMMARY

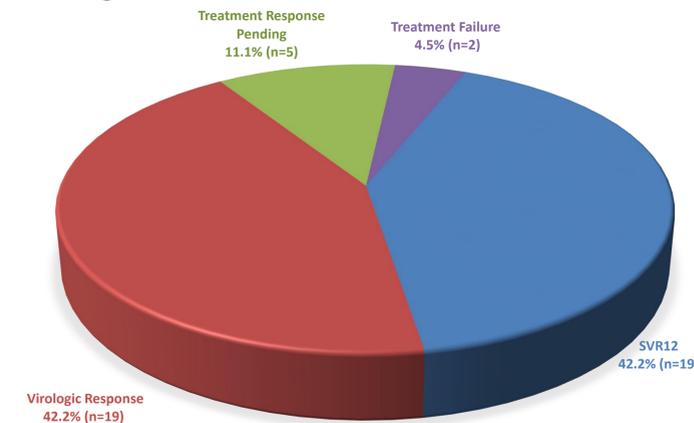
- The creation of a HCV Program within an established Ryan White funded HIV program in an urban environment is a novel model of HCV care delivery.
- This multidisciplinary, patient-centered model of care, recognized to provide high quality and successful HIV care,^{4,5,6} is also a valuable model to embrace when treating HCV mono-infected patients.^{7,8,9}
- HCV treatment outcomes in this real world setting are comparable to clinical trial results with new generation DAAs.
- The development of a HCV care cascade helped our program to identify barriers to care, programmatic strengths, challenges and opportunities for improvement as the HCV program expands within the HIV Program and satellite clinics statewide.
- The cascade highlights common ongoing challenges of capacity building, access to DAAs, and maintaining patient engagement in care during and following HCV treatment.¹⁰

Figure 2: Patients Without Prescribed Treatment



Early Stage: F0-F2 liver fibrosis and insured by a payer that would not be expected to approve treatment
Staging: Necessary testing to determine management plan not yet completed
Pending Appointment: Baseline workup completed and an office visit is scheduled prior to HCV treatment initiation
HCV Cleared: HCV viral load undetectable at baseline
Terminal Illness: The patient was diagnosed with an unrelated terminal illness prior to HCV treatment initiation
Deceased: The patient died prior to HCV treatment initiation

Figure 3: HCV Treatment Outcomes



Treatment Response Pending: No viral load measurement available since treatment initiation
Virologic Response: HCV viral load undetectable (at any time point) while on treatment

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