Coordination of a Multidisciplinary, Adaptive Toolbox Expedites HIV/Hepatitis C (HCV) Co-infection Eradication

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Background

Contributing to local, national and International HCV and HIV/HCV co-infection eradication goals are priorities of our ID Practice. However, identifying and successfully treating these infections in a large cohort is challenging, due to co-morbidities, psycho-social barriers and the complex healthcare system.

Objectives

To overcome the challenges in treatment and eradication of HIV/HCV co -infection, we developed a multi-disciplinary armamentarium of supports and interventions that were integrated, coordinated and adapted to developments in diagnostics, therapeutics, population, databases, staffing, outside resources, and insurance requirements over time

Goals

Hepatitis C Antibody Screening	Screen >98% of HIV-positive patients for HCV, regardless of birth year
HIV /Hepatitis C Co-infection Elimination	Successfully treat HCV in ≥90% of HIV/HCV co-infected patients, to reduce the HCV co-infection rate to <2.0%, to support CDC and AACO/DOH HCV infection elimination goals.

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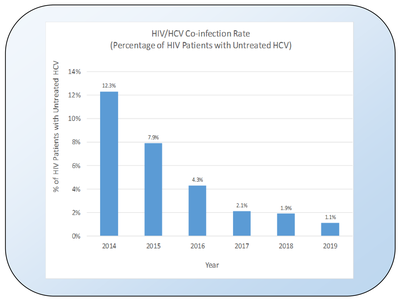
Methods

An adaptive, integrated, multi-disciplinary, multi-department "Toolbox" of interventions was developed to expedite eradication of HIV/HCV co-infection in an ID Practice of >1,300 patients living with HIV. The Toolbox adapts over time, dictated by developments in diagnostics, therapeutics, population, databases, staffing, outside resources, and insurance requirements. Key Tools included:

- Experienced Providers (screening, treatment, urgent/walk-in appts; BHC, MAT referrals)
- Ryan White Program (Critical infrastructure: CareWare; Program Manager, Integrated w/DOH/AACO, Data2Care, CYa)
- Retention and Engagement in Care Intervention (See abstract # 15524; Outreach, CM, Surveys, Food /housing insecurity, Transportation)
- ID Clinical Pharmacist Treatment Coordinators (Persistence, initiation, adherence, retention during treatment, med safety,/efficacy labs)
- Specialty Pharmacy Support (Refill coordination w/early detection of lapsed insurance & non-adherence, medicaton access)
- Social Work, Behavioral Health, Medical Assistants, Nurses, Patient Services Associates, Case Managers, CHWs, Financial Counselor, (Integrated, critical supports)
- ACTU (Clinical Research, medication access, retention, adherence)
- PPMC ID, Penn Hepatology (Treatment/care options; elastography, cirrhosis management)
- Enhanced Panel Management (Actionable HCV Ab and treatment reports for Providers, Coordinators)
- Weekly Multidisciplinary Meetings
- Staff Trainings

Results

- The coordinated , multidisciplinary interventions that comprised this adaptive Hepatitis C Treatment Toolbox expedited progress toward elimination of HIV/Hepatitis C Co-infection in this ID Practice
- Hepatitis C Screening was completed in 99.6% of patients, regardless of birth year or risk factors.
- HIV/HCV co-infection was eliminated in 90.7% (117/129) of co-infected patients (SVR-12)
- The HCV treatment was successful in 99% of treated patients, despite significant psychosocial obstacles and comorbidities.
- The risk of progression to end stage liver disease & hepatocellular cancer, and the risk of HCV transmission were reduced in the 91% of patients in whom HCV co-infection was eliminated. Hepatocellular cancer surveillance and Hepatitis A and B vaccination rates also improved
- Utilization of our adaptive Toolbox of interventions resulted in consistent, incremental, reductions in the HIV/HCV co-infection rates : From 12.3% in 2014, to 7.9% (2015), 4.3% (2016), 1.9% (2018), and 0.96% by 2019.



Year	HIV/Hepatitis C Co-infection Rate
Baseline	12.3%
2015	7.9%
2016	4.3%
2018	1.92%
2019	0.96 %

Conclusions

- This adaptive, persistent, integrated, Toolbox approach is an effective method for moving toward HIV/HCV co-infection elimination in our HIV Practice. HCV co-infection was reduced from 12.3% to < 1%.
- Combined with simultaneous treatment efforts at other RW sites in the city, (championed by RW AACO & the Dept of Health's D2C/DIS and CYa Programs), Philadelphia continues to move steadily toward HIV/HCV co-infection eradication.

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