

Leveraging Ryan White Program Infrastructure to Achieve Hepatitis C Micro-elimination for People Living with HIV/AIDS

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Presenter Introductions



- Dr. Jennifer Brody is an Internist, HIV and Addiction Medicine Specialist, and the Director of HIV Services.
- Maggie Beiser is a nurse practitioner, HIV Specialist, and Director of HCV Services.
- Leah Shaw serves as the Data Manager on both teams.



At the conclusion of this activity:

1. The learner will be able identify challenges to achieving micro-elimination of Hepatitis C (HCV) among people living with HIV/AIDS (PLWHA) and who are experiencing homelessness.

2. The learner will be able to determine both individual and population-level strategies to promote successful integration of HCV treatment into a Ryan White program

3. The learner will be able to select strategies for leveraging existing Ryan White Program infrastructure to work towards HCV micro-elimination in their own programs





- Boston Healthcare for the Homeless Program Orientation
- HIV and HCV Teams
- Research
- Quality Improvement
- HCV team programmatic strategies
- Conclusion
- Challenges and lessons learned
- Acknowledgements
- Questions & Discussion

Boston Healthcare for the Homeless Program (BHCHP)







Geographical Context







HIV in Boston, Boston Public Health Commission, 2015

Epidemiology of Hepatitis C, Boston Public Health Commission, 2015

Substance Use Disorders





- 60% of BHCHP patients have a diagnosed substance use disorder (SUD)
- Drug overdose is the most common cause of death among BHCHP patients
- 42% of PLWHA at BHCHP identified injection drug use (IDU) as their risk factor for HIV infection

History of HIV Team

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- "Red Team" founded in 1986
- Ryan White-funded program since 1992
 - Serves 250-300 homeless PLWHA
 - Part A
 - Part C
 - Special Projects of National Significance (SPNS)
 - HIV/HCV 2012-2014
- Primary care providers with HIV Specialist credentials
 - All primary care providers are licensed buprenorphine prescribers
- Over 85% of patients are virally suppressed



HCV Team Inception



- Urgency for solutions at BHCHP
 - 23% prevalence of HCV¹
 - HCV associated with increased health care utilization and cost¹
 - Excess mortality from liver cause²
 - Survey of BHCHP patients' needs and preferences around HCV³
 - 74% indicated interest and confidence in ability to complete HCV treatment
- Opportunity afforded by new highly effective treatment

1 Bharel et al, 2013; 2 Baggett et al., 2015; 3 Beiser et al, 2017

HCV Team

- Founded in 2014
 - Significant growth over past few years
- Hybrid model of integrating short-term consult services into primary care
- Comprised completely of internal BHCHP providers, nurses, and care coordinators











VIRTUAL

HCV Program Fundamentals



- Low-barrier access to care
 - No period of abstention from substances required
 - Access to testing and treatment at outreach sites, including shelters and treatment programs
- High touch support driven by care coordinator and RN
 - Flexible adherence support tailored to patient needs
 - Collaboration with other health center teams
 - HIV team, Office Based Addiction Treatment team, Street Team, etc.
- Meticulous data tracking of all patients referred to HCV team
- In-house insurance and pharmacy processes
- Focus on harm reduction and reinfection prevention

Research





Research: PLWHA cohort







Research : Factors associated with cure



 Among treated individuals, there was no significant difference in sustained virologic response (SVR) by age, gender, race, ethnicity, incarceration hx, location of primary care, or insurance status

Factors associated with SVR		Odds Ratio Estimates (n=286)	
	Point Estimate	95% Wald Confidence Limits	
HIV Infection	10.428	1.327	81.958
Bipolar disorder	0.38	0.146	0.989
Opioid use disorder, on tx	0.36	0.135	0.964
Opioid use disorder, not on tx	0.176	0.054	0.573
On tx insurance change	0.16	0.038	0.671

 In multivariate analyses, an HIV diagnosis was the only factor associated with achieving SVR

Data Sharing: Internal quality metrics Where are we on HCV micro-elimination?



Prevalence of HCV among BHCHP Ryan White Cohort of PLWHA: Grant Years 2014-2019



The prevalence of HIV HCV coinfection has decreased from 54% in 2014 to 26% in 2019.

Cascade of care for PLWHA Linked to HCV Team





*"Total linked" excludes those who were referred to another clinic, spontaneously cleared, currently on treatment, became incarcerated, or who otherwise became inappropriate to treat.

Demographics of PLWHA linked to HCV treatment 2014-2020 (N=140*)

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- Race/ethnicity breakdown (n=130)
 - 41% Latinx
 - 31% Non-Hispanic Black/African American
 - 24% Non-Hispanic white
 - 4% Non-Hispanic of other/unknown race
- 80% identify as male (n=130)
- Mean age is 55 years (n=130)
- 87% of patients identify IDU as the main risk factor for HCV transmission (n=140*)
- 67% have a documented mental health disorder and SUD (n=140*)



Strategies for HCV micro-elimination: Cohort-level approaches



- Prioritize micro-elimination across quality plans of both teams
 - Incorporate HCV prevalence into quarterly RW quality reporting
 - Tracking HIV status HCV team quality reporting
- Leveraging well-established HIV team approaches to access
- Abbreviating HCV treatment structures in recognition of established HIV team relationships
 - Provide background infrastructure support (prior authorizations, pharmacy assistance) but transfer patient-facing support to HIV team staff

Strategies for HCV micro-elimination: Individual-level approaches



- NAG (Nurse Adherence Group)
 - Pillboxes, frequent HIV nurse visits
- Medication delivery to patients at their location of choice
 - Home, shelter, street
- Tolerance of less than ideal circumstances
 - Stability is relative

Strategies: NAG case study



HIV dx in 1992, Sustained viral suppression, CD4 ~500s on Lopinavir/ritonavir, TDF/FTC HCV hx: Genotype 1, VL 3 million, F4 fibrosis (cirrhosis). Tx naïve. SUD Hx: alcohol, opioids, benzodiazepines- on buprenorphine, staying at residential treatment program





- The patients that are challenging to engage for HIV treatment tend to also be hard to reach for HCV treatment
 - Some exceptions- short course, focused curative goal

 Structural-level factors such as incarceration, homelessness, addiction, immigration and language status, stigma, and racism are fundamental barriers that effect engagement in care

Challenges



Reinfection

- Evolving drug supply
- Access to harm reduction materials limited at night and on weekends
- Despite access to low-threshold treatment for opioid use disorder, ongoing stigma and roadblocks to safer consumption options remain
- New HIV cluster among people who inject drugs (PWIDs)
 - Since October 2018: 90 new HIV cases among homeless PWIDs in Boston
 - ~100% also have HCV
- COVID19 Pandemic









- Prevalence of HCV among PLWHA at BHCHP has decreased from 54% to 26% from 2014 to 2019
- Micro-elimination remains our goal
 - Reduced volume of HCV program in COVID era is affording more focus back on micro-elimination efforts

Lessons Learned



- Not if, but when
 - We must shift our thinking on HCV for PLWHA: After years of not being able to offer good options, we should now prioritize HCV treatment as soon as possible after entry to HIV care
- Work smarter, not harder
 - Administrative barriers are grueling, but centralizing insurance authorization expertise expedites the process
- Straight talk, no judgement
 - Comfort with harm reduction and destigmatizing approaches to working with PWIDs is imperative
- Teamwork makes the dream work!
 - Ryan White-funded programs with enhanced structural support offers a key opportunity for delivering HCV care to highly vulnerable populations

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Questions & Discussion



BOSTON HEALTH CARE *for the* **HOMELESS PROGRAM**



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