Effective use of an integrated care model in managing the HIV and opioid syndemic

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Abstract

Background: Management of low-income HIV-positive populations with a high prevalence of co-occurring hepatitis C, mental health and substance use disorders is challenging. The Community Care Center (CCC) in Hartford, Connecticut is a Ryan White-funded inner-city HIV clinic with approximately 460 patients. Thirty-eight percent of patients are co-infected with hepatitis C (HCV), and an estimated 30% have a mental health and/or substance use disorder.

Methods: An integrated model exists in the CCC for HIV primary care, treatment of HCV, psychiatric care and management of opioid addiction. Medication-assisted treatment with buprenorphine and harm reduction services including overdose prevention and safe injection supplies are available on site. Psychiatric care, medical case management and social work services are embedded in the clinic. Treatment of HCV is facilitated by a pharmacy liaison. Clinic patients admitted to Hartford Hospital are followed by the infectious disease physicians and social worker affiliated with the HIV clinic, enabling smooth transitions to outpatient care.

Results: Ninety-five percent of HIV-positive patients are prescribed ART and 90% are virally suppressed. The screening rates for hepatitis C, mental health disorders and substance use disorders are 97%, 94% and 94% respectively. Seventy-eight percent of the HIV/HCV co-infected patients have been treated and cured of HCV, and the remainder is deemed not candidates for treatment.

Conclusion: A multidisciplinary approach with various on-site services including buprenorphine prescribing and harm reduction is essential for engagement in care, and enables outstanding outcomes in managing HIV-positive patients with multiple comorbid conditions. Ryan White funding is key in subsidizing services offered.

Members of the Community Care Center clinical team

Background

The Community Care Center (CCC) is a hospital-based clinic providing HIV primary care on the campus of Hartford Hospital since 1992 to a population with a high prevalence of mental health and substance use disorders. Many patients rely on a primary care clinic as the only setting in which behavioral health problems are recognized and treated. The CCC delivers comprehensive, patient-centered care and multidisciplinary services as part of an integrated care model which enables mitigation of barriers to attending medical appointments and adherence to medications, and promotes retention and engagement in care. The CCC receives Ryan White Part A funding in 5 service categories: Outpatient Ambulatory, Medical Case Management, Substance Use, Mental Health and Oral Health. Harm reduction supplies are provided by a local syringe services program.

Methods

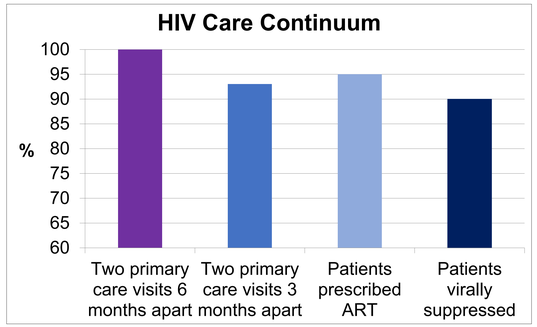
Data on HIV-positive patients is stored in the CAREWare software program. HIV/AIDS Bureau (HAB) Performance Measures are assessed and reported. Data was available in CAREWare for 370 patients in 2019.

Interventions

Key components of the integrated care model include:

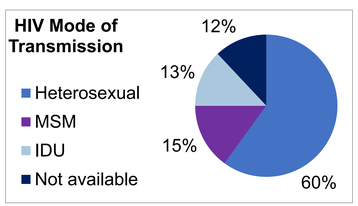
- Two medical case managers on site for case management and triage
- Social worker evaluates patients in the clinic and during hospitalizations
- RNs run a “Pillbox” medication adherence program; administer immunizations and STD treatment
- MD certified in Infectious Disease and Addiction Medicine does HIV primary care and treatment of opioid use disorder with buprenorphine
- Full-time APRN does HIV primary care and refers patients with opioid use disorder to collaborating MD
- Psychiatry care provided by resident continuity clinic
- Pharmacy liaison assists with medication refills, medication home delivery and prior authorizations.
- Harm reduction materials are available on site
- Hospital-based dental clinic does oral health
- Phlebotomy on site
- Smoking cessation program offered
- Referrals placed to community-based Early Intervention Services (EIS) workers to find patients out-of-care

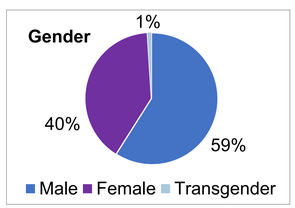
Results



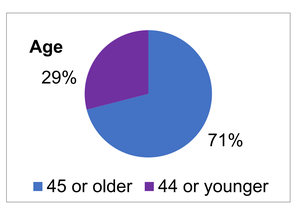
HAB Performance Measures:

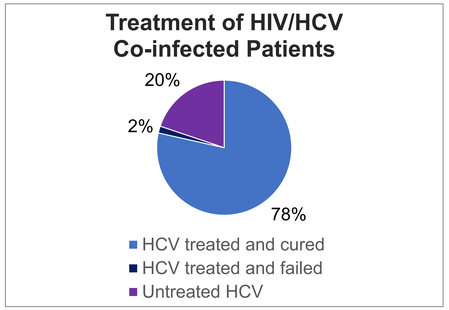
- 100% of patients attended 2 primary care visits 6 months apart
- 93% of patients attended 2 primary care visits 3 months apart
- 95% (352) of patients are prescribed ART
- 90% (334) of patients are virally suppressed
- 78% of patients were treated for HCV and cured
- 98% HCV treatment cure rate
- 20% of patients not considered candidates for HCV treatment
- 97% of patients screened for HCV
- 94% of patients screened for mental health disorders
- 94% of patients screened for substance use disorders





Portable harm reduction kit including syringes and safe injection kits supplied by Greater Hartford Harm Reduction Coalition





Lessons Learned

An integrated care model incorporating behavioral health and support services into an HIV primary care clinic produces high rates of HIV viral load suppression and cure of HCV despite socioeconomic challenges related to financial hardship, housing insecurity, substance use disorders, mental health disorders and medication adherence issues. Location of multiple services on site results in high rates of patient satisfaction. Harm reduction materials help engage patients who may not be ready for substance use disorder treatment, and prevent infection and death related to opioid overdose. Successful partnerships among healthcare institutions, outpatient substance use treatment programs, and syringe services programs result in increased engagement in care and enable improved outcomes in managing HIV, HCV, and other infections related to injection drug use among populations that may be traditionally difficult to reach.

Limitations

- Low patient volume affects reproducibility at larger sites
- Physical space limits expansion of services
- No dedicated therapist on site
- No substance use peer recovery support groups on site
- Yearly turnover of psychiatry residents
- Only one buprenorphine waivered-prescriber
- Medical case managers unable to transport patients
- Multiple databases for patient data without interface