

# HEPATITIS C TREATMENT OUTCOMES

## Among Patients Treated in Co-Located Primary Care and Addiction Treatment Settings

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### BACKGROUND

With the spread of the opioid epidemic, there has been a spike in Hepatitis C (HCV) incidence. Public health experts believe it is possible to eliminate HCV with direct acting antivirals (DAAs) and advocate for extending treatment to groups actively transmitting HCV.

People who inject drugs are at highest risk for HCV infection but have the lowest treatment rates. Barriers include practices and policies which exclude patients who actively use drugs and restrict prescribing authorization to specialists. There is a need for evidence to show that patients with opioid use disorders (OUD) treated in primary care settings can have equivalent treatment outcomes to counter-act such barriers.

Harborview Medical Center (HMC) has been treating patients with HCV in co-located primary care and addiction treatment settings since 2016. Many are enrolled in office-based opioid treatment (OBOT) at HMC or methadone treatment at the satellite clinic Evergreen Treatment Services (ETS).

### METHODS

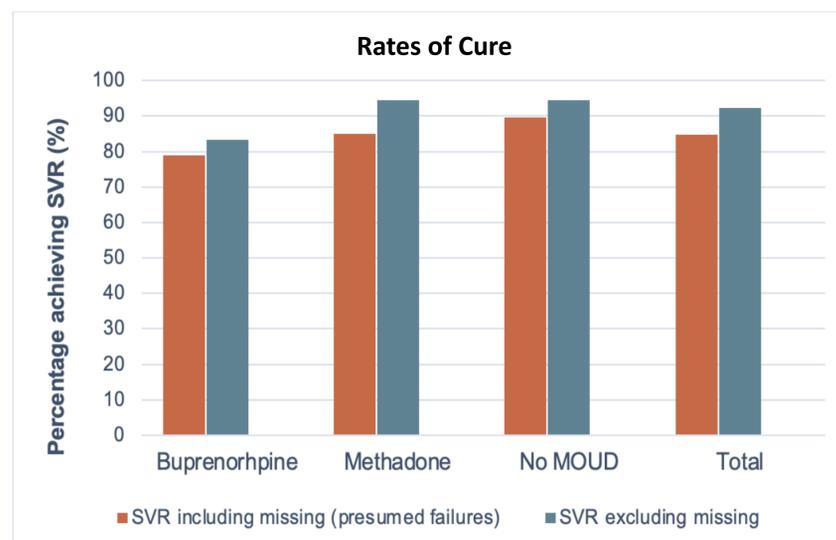
- A retrospective review was conducted for all patients who initiated HCV DAA treatment at HMC or ETS from 2016-2018. A final chart review was conducted in 2020. All data for patient demographic and clinical characteristics were manually extracted by a single reviewer (BN) using a standard data entry form.
- Patients were divided into 3 groups by OUD treatment status:
  1. Buprenorphine
  2. Methadone
  3. No medication for opioid use disorder
- Descriptive analyses were used to analyze patient demographic and clinical characteristics.
- Sustained virologic response (SVR) was the primary outcome and defined as an undetectable HCV viral load at least 12 weeks after completing treatment.

### RESULTS

#### Treatment Related Outcomes

Outcomes	Buprenorphine n=19 (%)	Methadone n=60 (%)	No MOUD <sup>1</sup> n=19 (%)	Total n=98 (%)
<b>Treatment Course</b>				
<b>Complete</b> (≤7 days missed)	15 (78.9)	48 (80.0)	17 (89.5)	80 (81.6)
<b>Incomplete</b>	1 (5.3)	7 (11.7)	2 (10.5)	10 (10.2)
Interruption during treatment (>14 days)	0 (0.0)	0 (0.0)	1 (5.3)	1 (1.0)
Unknown	0 (0.0)	0 (0.0)	1 (100.0)	1 (100.0)
Missing intermittent doses (>7 & ≤14 days)	1 (5.3)	6 (10.0)	1 (5.3)	8 (8.2)
Incarceration	0 (0.0)	2 (33.3)	0 (0.0)	2 (25.0)
Patient forgot	0 (0.0)	3 (50)	1 (100.0)	4 (50.0)
Unknown	1 (100.0)	1 (16.7)	0 (0.0)	2 (25.0)
Early termination <sup>2</sup>	0 (0.0)	1 (1.7)	0 (0.0)	1 (1.0)
<b>Unknown</b>	3 (15.8)	5 (8.3)	0 (0.0)	8 (8.2)
<b>Sustained Virologic Response (including missing)</b>				
Achieved	15 (78.9)	51 (85.0)	17 (89.5)	83 (84.7)
Failed	3 (15.8)	3 (5.0)	1 (5.3)	7 (7.1)
Missing	1 (5.3)	6 (10.0)	1 (5.3)	8 (8.2)
<b>Sustained Virologic Response (excluding missing)</b>				
Achieved	15 (83.3)	51 (94.4)	17 (94.4)	83 (92.2)
Failed	3 (16.7)	3 (5.6)	1 (5.6)	7 (7.8)

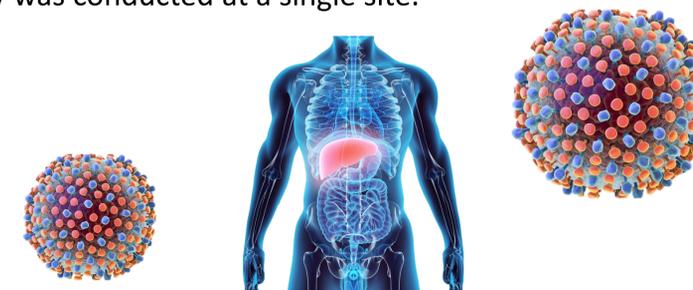
MOUD: Medication for Opioid Use Disorder, <sup>1</sup>Irrespective of opioid use disorder, <sup>2</sup>Due to side effects (headache)



### DISCUSSION

- High rates of SVR (>80%) were achieved in the setting of co-located addiction and primary care services despite high prevalence of homelessness, substance use, mental health conditions, and incarceration.
- The majority of patients were unemployed, smoked tobacco, and had psychiatric comorbidities.
- The methadone group had the highest rate of incomplete treatment (11.7%) and highest rates of active injection drug use (28.3%) but still maintained high rates of cure
- The majority (81.6%) of patients in all OUD treatment groups completed HCV DAA treatment without interruptions or missed doses.
- Those with and without SVR data appear to have similar demographic and clinical characteristics.

Study limitations: The sample size was modest, we did not access the entire HCV treatment evaluation cascade, and the study was conducted at a single site.



### CONCLUSIONS

Persons with substance use disorders treated with DAAs in co-located primary care and addiction treatment settings can achieve high rates of cure despite significant comorbidities and barriers. DAA treatment should be expanded to co-located HCV and addiction settings.

### ACKNOWLEDGEMENTS

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