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HCV Treatment for People who Inject Drugs Co-Located within a Needle Syringe Program

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ABSTRACT

Hepatitis C (HCV) is a significant public health problem that disproportionately afflicts people who inject drugs. The introduction of direct acting antiviral (DAA) agents for HCV has begun the discussion about potential viral elimination. To maximize the population impact of DAAs on the HCV epidemic, more people who inject drugs need to be cured of their infection.

Data from two prospective pilot programs was used to describe the clinical outcomes of treating HCV in active injection drug users on-site at a needle syringe program. Participants were eligible if they'd injected drugs within the prior 30 days and were ≥18 years of age. Those with decompensated cirrhosis were excluded for treatment at the needle syringe program and were referred to local hepatology clinics for management. Doctors' visits, blood draws, and medication distribution all occurred within the needle syringe program.

45 participants were enrolled in the HCV treatment program, 34 had prior authorizations submitted for medication, with 26 participants approved, started on therapy, and included in this analysis. Participants had an average age of 45.9 years, 92% men, 46% homeless, and all had active or were eligible for Medicaid. Participants injected a median of 25 time per month [range 4-150], and had been injecting for a mean of 19.3 years. 58% were currently receiving opioid substitution therapy. No participants were HIV-infected. 92% of participants were treatment naïve, 58% had genotype 1 infection, 96% received a sofosbuvir-based regimen, and 19% had a fibrosis score ≥F3. Overall, 22/26 (85%) participants achieved a sustained virologic response (SVR12). Three participants discontinued therapy, one due to adverse effects, one due to insurance lapse, and one due to incarceration. Two participants who achieved end of treatment response had return of viremia shortly after treatment discontinuation (both with unique genotypes that were not adequately covered by treatment regimen).

On-site HCV treatment with DAAs of people currently injecting drugs at a needle syringe program is effective, and can achieve high rates of SVR12. Needle syringe program provide a convenient and safe venue to engage HCV infected individuals who are continuing to inject. The rates of re-infection in this population, and the impact of HCV treatment at a needle syringe program on high risk behavior and community wide transmission (cure-as-prevention) need further investigation.

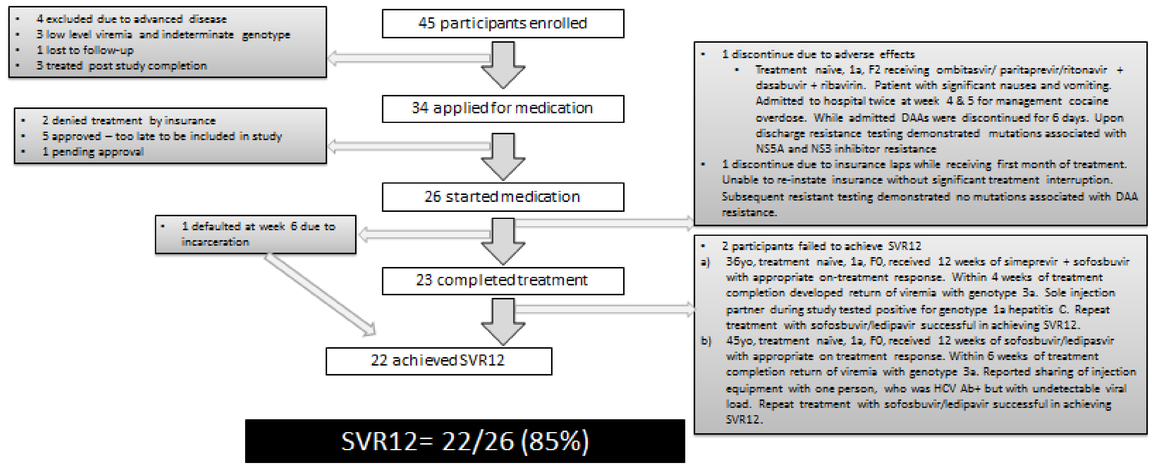
RESULTS

Table 1. Participant Demographics (n=26)

Age (years)		45.9	[range 30-60]
Sex			
	Male	24	92.3%
	Female	2	7.7%
Ethnicity			
	White (non-Hispanic)	13	50.0%
	Black (non-Hispanic)	1	3.8%
	Black Hispanic	2	7.7%
	White Hispanic	9	34.6%
	Other	1	3.8%
Homeless		12	46.2%
Insurance			
	Medicaid	23	88.5%
	Medicare	3	11.5%
	Private Insurance	0	0.0%
	Uninsured	0	0.0%
Years injecting drugs		19.3	[range 1-41]
Currently on opioid substitution		15	57.7%
Injections in last 30 days		25	[range 4-150]

Table 2. Hepatitis C Baseline Data (n=26)

Years since diagnosis		6.8	[range 0-19]
Treatment naïve		24	92.3%
HIV co-infected		0	0.0%
HCV Genotype			
	1	14	53.8%
	2	5	19.2%
	3	6	23.1%
	4	1	3.8%
	5	0	0.0%
	6	0	0.0%
Fibrosis Score (FibroSURE™)			
	0	8	30.8%
	1	6	23.1%
	2	6	23.1%
	3	3	11.5%
	4	3	11.5%
Treatment regimen			
	sofosbuvir/ledipasvir	11	42.3%
	sofosbuvir + simeprevir	3	11.5%
	sofosbuvir + ribavirin	5	19.2%
	sofosbuvir + daclatasvir	6	23.1%
	ombitasvir/paritaprevir/ ritonavir/dasabuvir + ribavirin	1	3.8%



DISCUSSION

- People who inject drugs can be effectively treated for hepatitis C with high rates of sustained virologic response.
- Co-located treatment of hepatitis C within a harm reduction center (needle exchange facility) is a potential approach to engage people who inject drugs in an accessible and de-stigmatized setting.
- Potential unrecognized mixed-genotype infection may complicate HCV treatment in people who inject drugs
- Longitudinal research is required to determine the risk of re-infection in people who inject drugs who achieve an SVR12.
- Further research is needed to evaluate novel strategies to enhance screening, linkage, engagement, treatment, and re-infection prevention in people who inject drugs

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