

Understanding the acceptability of rapid, point-of-care hepatitis C testing in people who inject drugs

Latham N^{1,2}

Pedrana, A^{1,3}

Doyle, J^{1,4}

Howell, J^{1,3,5,6}

Williams, B¹

Higgs, P^{1,6}

Thompson, A^{5,6}

Hellard, M^{1,3,4}

1. Disease Elimination Program, Burnet Institute, Melbourne, Victoria, Australia
2. Department of Infectious Diseases, Monash University, Melbourne, Victoria, Australia
3. School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia
4. Department of Infectious Diseases, The Alfred and Monash University, Melbourne, Victoria, Australia
5. Department of Gastroenterology, St Vincent's Hospital, Melbourne, Victoria, Australia
6. Department of Medicine, University of Melbourne, Melbourne, Victoria, Australia
7. Department of Public Health, La Trobe University, Melbourne, Victoria, Australia

Background and Aims: To eliminate hepatitis C (HCV) increasing the number of people who inject drugs (PWID) undergoing HCV treatment is critical [1]. When treated, it has been shown that PWID can achieve similar rates of HCV cure to non-PWID [2]. However, a known barrier to commencing treatment in this population is the need to attend multiple appointments to be diagnosed [3]. Rapid point-of-care (RPOC) tests provide results within 20 to 120 minutes, allowing for same-day diagnosis, and can be offered opportunistically in non-clinical settings. In this nested qualitative study we explore factors influencing the acceptability of HCV RPOC testing for PWID attending needle syringe program (NSPs).

Method: The Rapid-EC pilot study offered RPOC testing to PWID at three NSPs in Melbourne, Australia. PWID were screened using the OraQuick HCV antibody mouth swab (result in 20 minutes); those who tested positive then underwent venepuncture for an RPOC RNA test: the Xpert HCV Viral Load (result in 108 minutes). Convenience sampling was used to select Rapid-EC participants for a semi-structured interview. A hybrid thematic analysis of the interview transcripts was performed, guided by Sekhon's 'Theoretical Framework of Acceptability'.

Results: Nineteen participants were interviewed; all but one participant reported injecting drugs in the preceding month. Three core themes emerged: people and place, method of specimen collection, and rapidity of result return. It was highly acceptable to be offered testing at the NSP by nurses and NSP workers, who were described as competent and non-judgmental. Most participants reported that even if a finger stick RPOC RNA test were an option in the future, they would prefer to undergo venepuncture,

as the same sample could be used for pre-treatment workup tests (if required) and bundled HIV and HBV testing. The 20 minutes required to receive the antibody test result was acceptable, whereas the 105 minutes required for the RNA result was largely unacceptable. No participants waited onsite to receive their RNA result, and only five participants received this result on the same day (via telephone).

Conclusions: RPOC diagnostic tests that avoid venepuncture are not necessarily the most attractive to PWID, given that venepuncture is still required for pre-treatment workup and testing for other blood-borne viruses. Currently available RPOC RNA technology was not perceived as rapid and did not allow a diagnosis to be delivered in a single visit.

References

1. Scott N, McBryde ES, Thompson A, Doyle JS, Hellard ME. Treatment scale-up to achieve global HCV incidence and mortality elimination targets: a cost-effectiveness model. *Gut*. 2016;66(8):1507-1515
2. Bielen R, Moreno C, Van Vlierberghe H, Bourgeois S, Mulkay J-P, Vanwolleghem T, et al. Belgian experience with direct acting antivirals in people who inject drugs. *Drug and Alcohol Dependence*. 2017;177:214-20.
3. Grebely J, Applegate TL, Cunningham P, Feld JJ. Hepatitis C point-of-care diagnostics: in search of a single visit diagnosis. *Expert Review of Molecular Diagnostics*. 2017;17(12):1109-1115.