

Self-report and serological HCV status amongst people who inject drugs in NSW and ACT

Authors: Ms Daisy Gibbs¹, Prof Jason Grebely², Dr Sarah Larney¹, Dr Kerryn Butler¹, Dr Rachel Sutherland¹, Mr Mitchell Starr³, Ms Antonia Karlsson¹, Ms Julia Uporova¹, Prof Louisa Degenhardt¹, Prof Michael Farrell¹, Dr Amy Peacock¹

¹National Drug and Alcohol Research Centre, UNSW Sydney ²Kirby Institute, UNSW Sydney ³St Vincent's Hospital Sydney

The issue

The estimated number of people who inject drugs (PWID) in Australia aged 15-64 years is between 68,800 and 118,000 [1]. PWID are at high risk of contracting and transmitting hepatitis C virus (HCV) [2-4], with an estimated 20% of PWID in Australia having viraemic infection [5, 6].

What our work found

Using data from face-to-face interviews with PWID conducted in Sydney and Canberra as part of the Illicit Drug Reporting System (IDRS; N=249), we found that in 2018:

- Overall uptake of antibody testing was high, with 94% reporting having ever received an antibody test for exposure to HCV. Of these 234 people, lifetime history of confirmatory HCV RNA testing was 71%.
- Of the 95 people who were RNA positive, 72% commenced treatment, and 98% of this group completed their treatment. Three-quarters (75%) of those who completed treatment reported having had a subsequent test for re-infection.

Self-report HCV testing and treatment	NSW n (%)	ACT n (%)	Total n (%)
Total sample	151/152 (99)	98/100 (98)	249/252 (99)
Antibody testing	144/151 (95)	90/98 (92)	234/249 (94)
RNA testing	88/126 (70)	61/85 (72)	149/211 (71)
RNA positive	59/84 (70)	26/55 (47)	85/139 (61)
Treatment uptake	47/59 (80)	14/26 (54)	76/85 (72)
Treatment completion	42/43 (98)	17/17 (100)	59/60 (98)
Testing for re-infection	31/41 (76)	10/14 (71)	41/55 (75)

Note: Participants who were not confident of their answer/recall were instructed that each question could be answered "don't know/can't remember"

Of this group, 189 participants were invited to provide a dried blood spot (DBS) sample for HCV testing. Of the 105 participants with viable DBS samples for testing we found that:

- 29% (n=30) had current HCV infection (Ab+, RNA+);
- 27% (n=28) had a previous HCV infection (Ab+, RNA-); and
- 45% (n=47) were unexposed (Ab-, RNA-).

Dried blood spot result	NSW n (%)	ACT n (%)	Total n (%)
Unexposed (Ab-, RNA-)	16 (35)	31 (53)	47 (45)
Previous infection (Ab+, RNA-)	17 (37)	11 (19)	28 (27)
Current infection (Ab+, RNA+)	13 (28)	17 (29)	30 (29)
Total	46 (100)	59 (100)	105 (100)

Note: Two of four NSW sites excluded as ethics approval not obtained. 189 participants attended participating sites and invited to provide DBS sample.

Implications

These results reinforce that there is a need for PWID to be regularly tested for HCV, and given accurate, comprehensive, and practical information about their results and the nature of the virus.

Overall, both antibody and RNA testing needs to be made simple and easy to access in order to improve engagement and retention in the treatment cascade. Further research could usefully focus on why people are not being followed up for RNA testing and subsequent treatment where indicated.

References

1. Larney S, Hickman M, Guy R, Grebely J, Dore GJ, Gray RT, et al. Estimating the number of people who inject drugs in Australia. *BMC Public Health*. 2017;17(1):757-.
2. Maher L, Jalaludin B, Chant KG, Jayasuriya R, Sladden T, Kaldor JM, et al. Incidence and risk factors for hepatitis C seroconversion in injecting drug users in Australia. *Addiction*. 2006;101(10):1499-508.
3. Gidding HF, Topp L, Middleton M, Robinson K, Hellard M, McCaughan G, et al. The epidemiology of hepatitis C in Australia: Notifications, treatment uptake and liver transplantations, 1997–2006. *Journal of Gastroenterology and Hepatology*. Drug and Alcohol Review. 2009;24(10):1648-54.
4. O'Keefe D, Aitken C, Higgs P, Dietze P. Concordance between self-reported and actual hepatitis C virus infection status in a cohort of people who inject drugs. *2013;32(2):208-10*.
5. Grebely J, Larney S, Peacock A, Colledge S, Leung J, Hickman M, et al. Global, regional, and country-level estimates of hepatitis C infection among people who have recently injected drugs. *Addiction*. 2019;114(1):150-66.
6. Heard S, Iversen J, Geddes L, Maher L. Australian Needle Syringe Program Survey National Data Report 2014-2018: Prevalence of HIV, HCV and injecting and sexual behaviour among NSP attendees. Sydney: Kirby Institute, UNSW Sydney; 2019.

Suggested citation: Gibbs, D., et al. (2019) Self-report and serological HCV status amongst people who inject drugs in NSW and ACT Drug Trends Bulletin Series. Sydney: National Drug and Alcohol Research Centre, University of New South Wales Sydney.

Funded by the Australian Government Department of Health under the Drug and Alcohol Program

©NDARC, UNSW SYDNEY 2019

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. All other rights are reserved. Requests and enquiries concerning reproduction and rights should be addressed to the information manager, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW 2052, Australia.