

A national program to scale-up decentralized hepatitis C virus point-of-care testing and treatment in Australia

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Background: Fingerstick point-of-care HCV RNA testing enables diagnosis and treatment in a single-visit, increases testing acceptability, and reduces loss to follow-up. This analysis evaluated HCV testing, RNA prevalence, and treatment uptake in a national program to scale-up point-of-care HCV testing.

Methods: Through an observational study, the National Australian HCV Point-of-Care Testing Program is evaluating the scale-up of point-of-care HCV testing (antibody: Biotest HCV test; RNA: Xpert HCV Viral Load Fingerstick test) at 90 sites in Australia, including drug treatment clinics, needle and syringe programs, prisons, mental health services, homelessness services, Aboriginal Community Controlled Health Organisations, and mobile outreach clinics. The program facilitates point-of-care testing for anyone at risk of HCV or attending a service providing care for people at risk of HCV. The program also includes standardised operator training for non-laboratory staff and a quality assurance framework. Immediate HCV RNA testing is performed in settings with high HCV antibody prevalence ($\geq 15\%$, drug treatment, needle syringe programs and prisons). HCV antibody testing with reflex RNA testing is performed in settings with low HCV antibody prevalence ($< 15\%$, mental health, homelessness).

Results: Between January 2022 and February 2023, 57 sites (community, n=47; prison, n=10) have been established in five states/territories (144 operators trained) with 7,783 HCV point-of-care tests performed (antibody, n=1,002; RNA, n=6,781), with 2,199 people tested in the community and 4,417 in prison. Among those receiving HCV RNA testing, 965 people (14%) have current HCV infection (community, 11%; prison, 15%). Among the evaluable population (reached 12 weeks post-testing), HCV treatment uptake is 86% (669 of 782) overall, including 51% (74/144) in the community and 93% (595 of 638) in prison.

Conclusion: Onsite point-of-care HCV testing has led to high treatment uptake across Australia, particularly in prison settings. Standardised operator training and quality assurance delivery and management have been critical for test performance.

Disclosure of Interest Statement: This study has received funding from the Australian Department of Health (LD21/1305), NSW Health, AbbVie, Gilead Sciences, and Cepheid. JG is a consultant/advisor and has received research grants from Abbvie, bioLytical, Camurus, Cepheid, Gilead Sciences, Hologic, and Indivior.