

HEPATITIS C TREATMENT UPTAKE FOLLOWING DRIED BLOOD SPOT TESTING FOR HEPATITIS C RNA IN NEW SOUTH WALES, AUSTRALIA: THE NSW DBS PILOT

Conway A^{1,2}, Stevens A³, Murray C³, Prain B³, Power C³, McNulty A⁴, Carrington N^{3,4}, Lu H⁴, McGrath C⁵, Read P⁶, Starr M^{7,8}, Catlett B^{1,7,8}, Cunningham P^{7,8}, Grebely J¹

¹The Kirby Institute, UNSW Sydney, Sydney, Australia

²Centre for Social Research in Health, UNSW Sydney, Sydney, Australia

³Centre for Population Health, NSW Ministry of Health, Sydney, Australia

⁴Sydney Sexual Health Centre, Sydney, Australia

⁵NSW Justice Health & Forensic Mental Health Network, Sydney, Australia

⁶Kirketon Road Centre, South Eastern Sydney Local Health District, Sydney, Australia

⁷ St Vincent's Centre for Applied Medical Research, St Vincent's Hospital, Sydney, Australia

⁸NSW State Reference Laboratory for HIV, St Vincent's Hospital, Sydney, Australia

Background: Dried blood spot (DBS) testing for HCV RNA provides a client-centred sampling option, avoiding venepuncture. Large-scale evaluations are needed to understand how DBS testing can reduce HCV burden. This study estimated prevalence of, and factors associated with, current HCV infection and treatment initiation among people enrolled in a state-wide pilot.

Methods: The NSW DBS Pilot is an interventional cohort study of people testing for HIV Ab and/or HCV RNA in New South Wales, Australia. People at risk of HIV/HCV could participate via: 1) self-registration online with a DBS collection kit delivered and returned by conventional postal service; or 2) assisted DBS sample collection at 36 community health sites (including drug treatment clinics and sexual health services) and 21 prisons, with postal delivery to the laboratory. Participants received results by text (negative) or a healthcare provider (positive). Logistic regression was used to identify factors associated with current HCV infection and treatment initiation within six months of testing.

Results: Between November 2016 and December 2020, 5,960 people tested for HCV (76% men, 35% Aboriginal and/or Torres Strait Islander, 55% recently injected drugs); 21% online self-registration, 34% assisted registration in community, 45% assisted registration in prison. 15% had detectable HCV RNA (878/5,960). Factors associated with current HCV infection included being Aboriginal or Torres Strait Islander (aOR 1.18, 95%CI 1.01-1.38), and recently injecting drugs (aOR 2.94, 95%CI 2.47-3.50). Overall, 45% (n=393/878) of people with current HCV initiated treatment within six months (13% online self-registration, 27% assisted registration in community, 61% assisted registration in prison). Treatment initiation was associated with testing in prison (vs. online self-registration; aOR 11.31, 95%CI 2.45-52.22), and being male (aOR 1.49, 95%CI 1.04-2.14).

Conclusions: The NSW DBS Pilot demonstrates the feasibility of using DBS to promote HCV testing and treatment in community and prison settings.

Disclosure of Interest Statement: JG is a consultant/advisor and has received research grants from AbbVie, Cepheid, Gilead, and Merck outside the submitted work.