Feasibility and acceptability of blood-borne virus infection point of care testing in prisons: The Australian Hepatitis and risk survey in prisons (AusHep study)

Authors:
Bah R[1], Sheehan Y[1], Musarurwa B[1], Byrne M[1], Lloyd AR[1], Hajarizadeh B[1]

[1]The Kirby Institute, UNSW Sydney, Australia

Background: Prisons have a high prevalence of blood-borne virus (BBV) infections, particularly hepatitis C (HCV) and hepatitis B (HBV). Point-of-care testing (POCT) can improve efficiency in prison-based BBV surveillance. This analysis assessed feasibility and acceptability of POCT for BBV surveillance in Australian prisons.

Methods: AusHep is a national cross-sectional bio-behavioural survey evaluating HCV, HBV, and HIV prevalence and engagement in the care cascade among people incarcerated. Data from NSW, SA, and Tasmania were included in this analysis. Randomly selected participants in each participating prison were offered POCT for HCV and HIV antibodies (saliva tests), as well as HCV RNA (if antibody positive) and HBs antigen (fingerprick blood tests). Participants completed a questionnaire regarding acceptability and perceived reliability of POCT. A register of barriers and facilitators to POCT was completed by study nurses.

Results: Among 798 participants (participation: 98.5%), recruited from 13 prisons (88% male; median age, 36 years), saliva and fingerprick POCT were considered 'definitely/somewhat acceptable' for 99.7% (n=797) and 99.4% (n=794), respectively, while 77.8% (n=621) and 94.6% (n=755) suggested saliva/fingerprick POCT results were reliable compared to standard-of-care venepuncture tests. In adjusted analysis, participants with tertiary education were less likely to designate saliva test as reliable (vs. primary, aOR: 0.37, 95% CI: 0.17-0.79), while Aboriginal and/or Torres Strait Islanders were more likely to report it reliable (vs. non-Indigenous, aOR: 1.64, 95% CI: 1.08-2.48). In terms of challenges/opportunities, available clinic space was a limitation, but POCT enabled testing in areas outside clinic (e.g., prison wings). A small percentage of POCT results were invalid (e.g., no control line visible, machine error), requiring repeated testing. POCT facilitated immediate provision of results to participants and tailored post-test counselling.

Conclusion: BBV POCT was very well accepted by people incarcerated and provided opportunities for efficient surveillance, as well as provision of results and linkage to care.

Disclosure of Interest Statement: The Kirby Institute and AusHep study are funded by the Australian Government's Department of Health and Ageing.