Effectiveness of direct-acting antiviral therapy among Aboriginal and Torres Strait Islander people with HCV infection: analysis of a national real-world cohort (REACH-C)

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Background: Ensuring Aboriginal and Torres Strait Islander peoples (hereafter referred to as Aboriginal) have access to effective, culturally safe hepatitis C virus (HCV) care is essential in striving for health equity and elimination. This analysis assessed the effectiveness of direct-acting antiviral (DAA) therapy among Aboriginal and non-Aboriginal people with HCV in the three years following universal access in Australia.

Methods: REACH-C was a multicentre prospective cohort study, evaluating outcomes among people with HCV who commenced DAAs at 33 sites in Australia. DAA effectiveness (sustained virological response, SVR) was assessed in intention-to-treat (ITT) and per-protocol (PP) populations. Factors associated with return for follow-up and SVR were assessed using logistic regression analysis, stratified by Aboriginal identification.

Results: Between March 2016-June 2019, 915 (10%) Aboriginal and 8095 (90%) non-Aboriginal participants were enrolled. SVR in the ITT and PP populations was 74% and 94% among Aboriginal people, and 82% and 94% among non-Aboriginal people, with loss to follow-up contributing to lower SVR in ITT analysis (22% Aboriginal, 13% non-Aboriginal). Among Aboriginal participants, follow-up was positively associated with older age (aOR 1.26; 95%CI 1.06,1.50) and treatment in community (aOR 1.63; 95%CI 1.05, 2.54) and prison settings (aOR 2.73; 95%CI 1.55, 4.80), and negatively associated with injecting drug use (aOR 0.65; 95%CI 0.46, 0.92) and later year of treatment (aOR 0.67; 95%CI 0.56, 0.80). Among Aboriginal participants, SVR was negatively associated only with prior DAA treatment experience (aOR 0.14; 95%CI 0.04, 0.51), but not associated with factors reflecting higher levels of vulnerability (current injecting drug use, opioid substitution therapy, incarceration).
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Conclusion: DAA therapy was highly effective among Aboriginal people with HCV. However, tailored community-led interventions may be required to optimise follow-up and healthcare engagement, particularly among people who inject drugs. Sustained DAA uptake and equitable access to HCV care, treatment and prevention are required for HCV elimination.

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