LOW HCV REINFECTION INCIDENCE FOLLOWING DAA TREATMENT SCALE-UP IN PEOPLE LIVING WITH HIV IN AUSTRALIA

Hosseini Hooshyar S[1], Martinello M[1,2,3], Yee J[1], Bartlett SR[1], Read P[4], Baker D[5], Post J[6], Finlayson R[7], Bloch M[8], Doyle J[9], Shaw D[10], Hellard M[9,11], Petoumenos K[1], Marks P[1], Applegate T[1], Dore GJ[1,2], Matthews GV[1,2]

[1] The Kirby Institute, UNSW Sydney, Sydney, NSW, Australia, [2] St Vincent's Hospital, Sydney, NSW, Australia, [3] Blacktown Mt Druitt Hospital, Blacktown, NSW, Australia, [4] Kirketon Road Clinic, Sydney, NSW, Australia, [5] East Sydney Doctors, Sydney, NSW, Australia, [6] The Albion Centre, Sydney, NSW, Australia, [7] Taylor Square Private Clinic, Sydney, NSW, Australia, [8] Holdsworth House Medical Practice, Sydney, NSW, Australia, [9] Burnet Institute, Melbourne, VIC, Australia, [10] Royal Adelaide Hospital, Adelaide, SA, Australia, [11] Alfred Hospital, Melbourne, VIC, Australia

Introduction: Rapid uptake of direct-acting antiviral (DAA) therapy from 2016 in Australia, particularly among people living with HIV (PLWH), provides the opportunity to achieve HCV elimination. HCV reinfection could compromise HCV elimination efforts, especially if risk behavior increases.

Methods: The Control and Elimination of HCV from HIV-infected individuals within Australia (CEASE-D) is an observational cohort study. HIV/HCV (ab positive) co-infected individuals (≥18 years) were enrolled from 14 primary and tertiary clinics in Australia. Among participants who completed questionnaires at enrolment (July2014-March2017) and follow up (June2017-May2018), we compared longitudinal injecting risk behaviors (n=272) and sexual risk behaviors (n=225; gay and bisexual men only [GBM]). HCV reinfection rate was also calculated.

Results: Of 402 participants (mean age 49 years, gay and bisexual male (GBM) 80%, cirrhosis 13%), 288 (72%) had detectable HCV RNA at enrolment. HCV treatment uptake among those with detectable RNA was 7% in 2014, 10% in 2015, 80% in 2016, and 35% in 2017. At baseline, injecting drug use (IDU) ever was reported by 80%, and current IDU (within six months) by 35%. During follow-up there was no change in injecting risk, with 38% reporting current IDU (p=0.476), and injecting frequency and sharing rates stable. Among GBM, 48% reported condom-less anal intercourse with ≥1 casual male partner (CLAI with CMP) and 29% reported group sex at enrolment, compared to 45% CLAI with CMP and 26% group sex at follow-up (p=0.508 and p=0.459). The proportion with current HCV infection fell from 73% at enrolment to 6% at follow-up. Reinfection was reported in five participants (all GBM [incidence 0.81 per 100 person years, 95% CI 0.34, 1.94]).

Conclusion: HCV reinfection following DAA therapy was very low despite ongoing risk behavior. HCV elimination should be achievable among PLWH in Australia providing high levels of treatment uptake are maintained, alongside treatment of re-infection cases.

Disclosure of Interest Statement: The Kirby Institute is funded by the Australian Government Department of Health and Ageing. The views expressed in this publication do not necessarily represent the position of the Australian Government.

The Burnet Institute receives funding from the Victorian Operational Infrastructure Support Program. Research reported in this publication was supported by Gilead Sciences Inc as an investigator-initiated study. The content is solely the responsibility of the authors. Gregory Dore, Margaret Hellard and Gail Matthews are supported by the National Health and Medical Research Council (GD: Practitioner Fellowship; MH: Principal Research Fellowship; GM: Career Development Fellowship).