

PREDICTORS AND INCIDENCE OF SEXUALLY TRANSMITTED HEPATITIS C VIRUS INFECTION IN HIV POSITIVE MEN WHO HAVE SEX WITH MEN.

Medland NA^{1,2}, Chow EPF^{1,2}, Bradshaw CS^{1,2}, Read THR^{1,2}, Sasadeusz JJ^{2,3}, Fairley CK^{1,2}

¹ Melbourne Sexual Health Centre, Alfred Health, Melbourne. Australia

² Central Clinical School, Monash University, Melbourne, Australia.

³ Royal Melbourne Hospital, Melbourne, Australia.

Background: We assessed the incidence and predictors of sexually transmitted HCV infection in HIV positive MSM.

Methods: The electronic medical record and laboratory results from HIV positive MSM in care at Melbourne Sexual Health Centre were collected. Patients with two or more HCV antibody tests between January 2008 and March 2016 and with no record of injecting drug use were included. The HCV exposure intervals were the periods between a negative HCV test and the next HCV test. We compared HCV exposure intervals temporally associated with and without newly acquired syphilis or anorectal chlamydia. HCV exposure intervals were also categorised as being before or after HIV virological suppression and by most recent and nadir CD4 cell count.

Results: 37 new HCV infections were diagnosed in 822 HIV positive MSM with no history of injecting drug use over 3114 person years (PY) of follow-up. Mean age was 43.1 years (± 12.5). The incidence of HCV infection in the study population was 1.19/100PY (0.99-1.38). The incidence in exposure periods temporally close to new syphilis infection was 4.72/100PY (3.35-6.08) and to new anorectal chlamydia infection was 1.37/100PY (0.81-1.93). The incidence in men without suppressed viral load was 3.19/100PY (1.89-4.49). In the multivariate Cox regression analysis only younger age (aHR 0.67 (0.48-0.92)), exposure periods temporally associated to new syphilis infection (aHR 4.96 (2.46-9.99)) and higher CD4 cell count nadir (aHR 1.26 per 100 cells/uL (1.01-1.58)) were associated with increased risk of HCV infection.

Conclusions: Incidence of HCV infection is associated with syphilis but not anorectal chlamydia which suggests a biological rather than behavioural risk modification. Rising syphilis incidence may offset declines in HCV transmission through HCV treatment as prevention.