

TRENDS IN CHRONIC HEPATITIS C INFECTION AMONG PEOPLE WHO INJECT DRUGS IN ENGLAND: REAL WORLD DATA, 2011-2018.

Authors: Bardsley M¹, Heinsbroek E¹, Harris R¹, Edmundson C¹, Hope V^{1,2}, Hassan N¹, Ijaz S¹, Mandal S¹, Shute J¹, Hutchinson S³, Hickman M⁴, Sinka K¹, Phipps E¹

National Infection Service, Public Health England, London, UK¹

Public Health Institute, Liverpool John Moores University, Liverpool, UK²

Glasgow Caledonian University, Glasgow, UK³

Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, UK⁴

Background: England is striving to meet global elimination goals for hepatitis C virus (HCV) and have scaled-up treatment using direct-acting antivirals (DAAs) since 2015. To monitor progress toward elimination, we used 8 years of national surveillance data to examine trends in chronic HCV infection among the key affected population of people who inject drugs (PWID).

Methods: Questionnaire and virological data from the Unlinked-Anonymous Monitoring Survey of PWID in England from 2011 to 2018 were analysed (2019 data awaited). Temporal changes in the proportion chronically infected (HCV RNA positive) among those ever infected (anti-HCV positive) were examined in a multivariable model. HIV-positive samples or those insufficient for anti-HCV/RNA testing were excluded. Region, gender, age and injecting status in the past year were *a priori* confounders.

Results: A total of 8,916 PWID were included. Between 2011 and 2018, the proportion anti-HCV positive increased from 40.9% (942/2,302) to 53.8% (1,148/2,135). The proportion chronically infected among those anti-HCV positive was similar pre-DAA scale-up (2011, 58.4%; 2012, 58.0%; 2013, 55.7%; 2014, 57.0%; 2015, 55.5%; 2016, 56.6%) but decreased post-DAA scale-up (2017, 49.5%; 2018, 50.3%). After adjustment, year remained associated with chronic infection ($p < 0.001$), with a significant change compared to 2016 (baseline) only observed in 2017 (odds ratio (OR) 0.69, 95% CI 0.56-0.85) and 2018 (OR 0.71, CI 0.58-0.86). Other factors independently associated with chronic infection were male gender (OR 1.72, CI 1.54-1.93), history of imprisonment (OR 1.16, CI 1.03-1.31) or homelessness (OR 1.16, CI 1.03-1.31) and injecting in the past year (OR 1.27, CI 1.14-1.42).

Conclusion: There has been a small reduction in chronic HCV among anti-HCV positive PWID in England, concurrent with DAA treatment roll-out. Monitoring at the population level is critical to evaluating HCV treatment. There needs to be considerable treatment scale-up and investment in harm reduction for England to meet elimination targets.

Disclosure statement:

This study is funded by the National Institute for Health Research (NIHR) Programme Grants for Applied Research programme (Grant Reference Number RP-PG-0616-20008). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

Proportion chronic HCV among anti-HCV positive PWID in England, 2011-2018

