

ESTIMATING THE IMPACT OF SCALING UP HEPATITIS C VIRUS TREATMENT AMONG PEOPLE WHO INJECT DRUGS IN TAYSIDE AND ALL OF SCOTLAND.

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Background:

Scotland has expanded HCV screening and treatment interventions among people who inject drugs (PWID) with the aim of reaching the World Health Organization's (WHO) elimination target of decreasing HCV incidence among PWID to <2 per 100 person years (/100pyrs) by 2025. This expansion initiated in Tayside in 2010 and has since expanded to the rest of Scotland. Data suggests chronic prevalence of HCV among PWID has decreased in both settings, but data on incidence is uncertain. We assess whether current levels of treatment in Tayside and Scotland as a whole are sufficient to meet the WHO incidence target.

Methods:

A dynamic HCV transmission model was developed incorporating HCV treatment through prison settings providing opioid agonist therapy (OAT) and other non-community settings. Using approximate Bayesian computation methods, we calibrated the model to demographic, behavioural and HCV prevalence data from Needle Exchange Survey Initiative (NESI 2008-2023) and HCV treatment data.

Results:

Assuming current rates of treatment continued to 2030, the model projects HCV chronic prevalence among PWID in Tayside has reduced from 28.8% (95% CrI: 26.5-30.8) to 1.7%(95% CrI:1-3.19) over 2015-2024, whereas in Scotland it has decreased from 34.50% (95% CrI: 31.78-36.65) to 13.82% (95% CrI:10.18-16.61). The model projects HCV incidence has decreased dramatically, from 8.8/100pyrs (6.7-11.8) to 0.8/100pyrs (0.4-1.4) over 2016-2024 in Tayside, and from 8.8/100pyrs (95% CrI: 7.22-10.65) to 3.74/100pyrs (2.84-4.75) in Scotland. In both settings, incidence is projected to be <2/100pyrs by 2030. The model is still under analysis for more precise projections.

Conclusion:

It is likely that the scale-up in testing and treatment in Tayside has already reduced incidence below the WHO incidence target for PWID. Although this is not the case for the all of Scotland, it is likely that HCV incidence will reach the WHO target in the next few years.

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