HEPATITIS C REINFECTION BY TREATMENT PATHWAY AMONG PEOPLE WHO INJECT DRUGS IN TAYSIDE, SCOTLAND

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Background:
The efficacy of direct acting antivirals (DAA) provides an excellent opportunity to scale up Hepatitis C (HCV) diagnosis and treatment, achieving the WHO target of HCV elimination by 2030. However, HCV reinfection among people who inject drugs (PWID) remains a concern and may impede elimination efforts. We assessed reinfection rates among PWID across six specialised treatment pathways following DAA-based and interferon-based therapies in Tayside, Scotland.

Methods:
Data was collected retrospectively for every treatment episode that resulted in a sustained viral response (SVR). Reinfection rates were calculated for each treatment pathway: hospital outpatient clinic; community pharmacy; drug treatment outreach; prison clinic; nurse led outreach clinic; and injection equipment provision (IEP) site. Reinfection is defined as a positive RNA test result after SVR. Incidences of reinfection are expressed in 100 person-years (PYs).

Results:
In total, 916 treatment episodes met selection criteria. Of these, 100 reinfections were identified, generating an overall reinfection rate of 5.3/100 PYs (95%CI: 4.4- 6.4). Reinfection rates per treatment pathway are displayed in Figure 1. The hospital outpatient clinic had the lowest reinfection incidence of the six treatment pathways (1.8/100 PYs, 95%CI: 1.1- 2.9), with the IEP site treatment pathway having the highest reinfection incidence (19.9/100 PYs, 95%CI: 14.9- 26.5). The incidence of reinfection amongst those treated with interferon-based therapies and those treated with DAA-based therapies was 4.9/100 PYs (95%CI: 4.0- 6.1) and 7.2/100 PYs (95%CI: 4.6- 10.8), respectively.

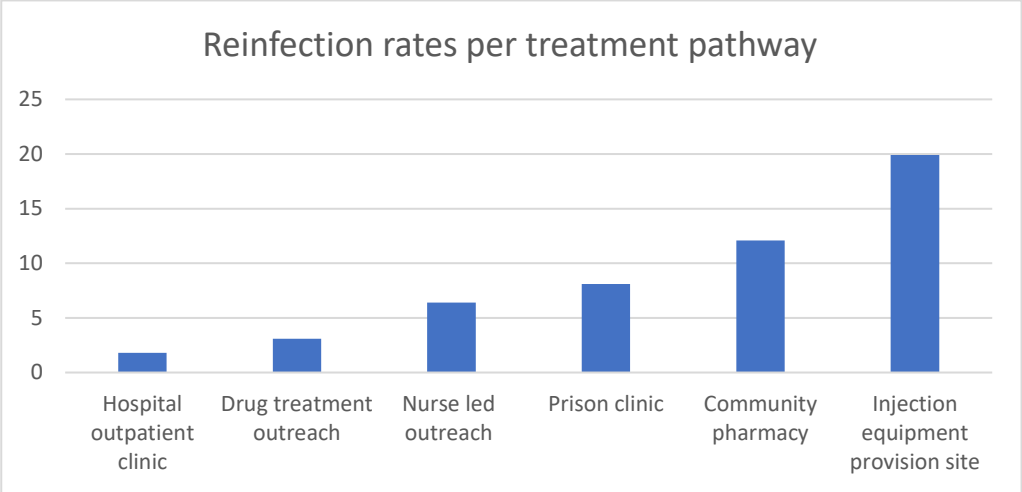

Figure 1. Reinfection rates per treatment pathway

Conclusion:

Specialised treatment pathways in Tayside yield varying reinfection incidence rates, with different subpopulations of patients at varying risk of reinfection post SVR. Results suggest that resources should be targeted at the IEP site pathway to reduce the incidence of reinfection and achieve elimination targets. The study found comparable rates of reinfection following interferon-based and DAA-based therapies, providing support for widening access to treatment services.

Disclosure of Interest Statement:

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