NOVEL HCV SCREENING STRATEGIES FOR HARD TO REACH POPULATIONS: ARE THEY COST-EFFECTIVE?

Authors:
Manca F[1], Robinson E[2], Dillon JF[2], Boyd K[1]

[1] Institute for Health and Wellbeing, University of Glasgow, [2] School of Medicine, University of Dundee

Background:
The World Health Organization target for HCV elimination by 2030 has broadened the boundaries of the debate around HCV to strategic and economic considerations. Understanding how to prioritize screening to reach infected undiagnosed populations is crucial. This is imperative in the UK, where nearly half of the people infected are undiagnosed. This study evaluated the cost-effectiveness of a range of strategies for diagnosing HCV across different populations using Scotland (UK) as case study.

Methods:
Three key populations were identified: People who inject Drugs (PWID), high-risk patients among general population (previous PWID, high prevalence ethnic minorities etc.) and prisoners. A cost-effectiveness analysis was undertaken for each population comparing relevant alternative screening strategies (e.g. testing at needle exchange services, pharmacies; prison opt out policies). Each strategy, differing for point of care and targeted subpopulation, was compared against the standard care diagnostic pathways from the Scottish NHS perspective. Data came from novel and standard care pathways in Tayside (Scotland) or published pilot studies in Scotland. A decision tree explored the incremental cost per additional positive patient detected, and a Markov model was employed to present incremental cost per Quality Adjusted Life Years (QALYs) gained and Net Monetary Benefit (NMB).

Results:
For the PWID, offering tests at Needle Exchange Services was the most effective strategy with a 6.3-fold increase in detecting positive patients and the optimal strategy with a NMB of £188,837 over a patient's lifetime. Conversely, testing at GP services was the least cost-effective strategy, with a NMB of £150,044 per patient. Similarly, for the other high risk populations, the most cost-effective strategies consist of moving the point of care closer to the high risk individuals.

Conclusion:
Access to testing is a significant obstacle for early diagnosis. Strategies that actively target high risk subpopulations at early age of disease are highly cost-effective.

Disclosure of Interest Statement:
This work was supported by an Investigator Sponsored Research (ISR) project grant from Gilead Sciences Inc. The design, conduct, and reporting of this study were undertaken by the academic authors and do not reflect the opinions of the funder.