EVALUATION OF THE XPERT HCV VIRAL LOAD FINGERSTICK ASSAY IN THE HARM REDUCTION SETTING IN CATALONIA, SPAIN

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Background: In Catalonia, approximately 6,000 people who inject drugs (PWID) attend the network of harm reduction services, where a hepatitis C virus (HCV) antibody point-of-care test (Ab-PoCT) is offered and seropositive individuals are referred to care. The HepC*detect*II study showed a 79.8% seroprevalence and 58.5% prevalence of viremic infection in this setting, and that linkage to care and antiviral therapy was suboptimal (33.1%).

Description of model of care/intervention: A one-step, HCV-RNA point-of-care (RNA-PoCT) testing strategy (RUO version of the Xpert® HCV Viral Load Fingerstick, Cepheid) was evaluated in comparison to plasma (Xpert® HCV Viral Load, Cepheid) in a sample of current PWID (N=100) recruited at a drug consumption room (DCR) in Barcelona. HCV was genotyped by Sanger sequencing, and HIV infection was assessed by serology. Preferences on delivery of RNA-PoCT results, results delivery and referral to care were recorded.

Effectiveness: The fingerstick RNA-PoCT detected HCV viremia in 62 out of 63 participants positive in plasma (98.4% sensitivity and 100% specificity), including HCV genotypes 1a, 1b, 3a, 4a and 4d, Ab-PoCT negative cases (3.2%), and HIV co-infection cases (25.8%). RNA-PoCT results were delivered in all cases; 34 viremic participants (54.8%) became aware of their status, and 96.8% of them were referred to care. Same-day delivery of results was achieved in 80.0% of cases and preferred by 50.0% of participants (76% of those unaware and 24% of those aware of their status, p=0.041).

Conclusion and next steps: This RNA-PoCT diagnosis strategy increased PWID awareness on HCV status and allowed for the timely and reliable identification of treatment candidates. Local cost-effectiveness studies are required to establish whether this RNA-PoCT could either substitute the Ab-PoCT (one-step strategy) or complement it (reflex two-step strategy) in this setting. This study has contributed to a decentralized "test and treat" pilot intervention in this DCR.

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