

A ONE-STEP DIAGNOSIS ALGORITHM REVEALS HIGH BURDEN OF HEPATITIS C AMONG PWID IN SPAIN AND THE URGENCY FOR IMPROVED LINKAGE-TO-CARE

V. Saludes^{1,2}, C. Folch^{2,3}, A. Antuori¹, N. González⁴, N. Ibáñez⁵, J. Colom⁵, J. Casabona^{2,3}, and E. Martró^{1,2*}; HepCdetect II Study Group.

1. Microbiology Service, Germans Trias i Pujol University Hospital and Research Institute (IGTP), Badalona, Spain.

2. Biomedical Research Networking Centre in Epidemiology and Public Health (CIBERESP), Instituto de Salud Carlos III, Madrid, Spain.

3. Centre for Epidemiological Studies on Sexually Transmitted Infections and HIV/AIDS of Catalonia (CEEISCAT), Catalonia Public Health Agency (ASPCAT), Badalona, Spain.

4. Harm-reduction center “El Local”, IPSS Foundation, Barcelona, Spain.

5. Program on Substance Abuse, ASPCAT, Barcelona, Spain.

HepCdetect II Study Group: J. Majó⁵, L. Gasulla⁵, R. Muñoz³, L. Fernández^{2,3}, G. Fernández¹, J. Hernández¹, L. Matas^{1,2}.

*Corresponding author: Elisa Martró

Microbiology Service, Germans Trias i Pujol University Hospital and Research Institute (IGTP).

Background:

Using the conventional algorithm (serology followed by molecular confirmation in a follow-up visit) hampers diagnosis, and thus linkage-to-care, among HCV-infected people who inject drugs (PWID). We aimed to (i) validate the real-life performance of an alternative one-step screening and confirmatory assay based on HCV-RNA detection from dried blood spots (DBS) for the first time in Spain, and (ii) assess the level of hepatitis C awareness and linkage-to-care for PWID.

Methods:

A cross-sectional study of 232 current injectors in the harm-reduction center (HRC) with the largest number of PWID in Spain was performed. Each participant underwent rapid HCV antibody testing, and fingerprick DBS and paired plasma were collected. Laboratory results for HCV-RNA from DBS, using a previously developed RT-PCR assay, were obtained from each specimen and compared to the reference method (e.g., viral load in plasma). HIV and HBV serological markers were also determined. Behavioral and linkage-to-care data were collected.

Results:

The sensitivity and specificity of the HCV-RNA assay from DBS in this setting were 96.6% and 100%, respectively. Participants reported a median of 16.0 years of injection, and 55.2% of them shared drug injection equipment. Overall, 86.5% had ever been infected with HCV (of which, 66.1% were recent [≤ 5 years] injectors), and 23.4% had ever started hepatitis C therapy. The overall prevalence of viremic HCV infection was 68.1%, with 14.3% unaware of their infection. Of those with a known HCV infection, 25.0% were under specialist care. The HCV/HIV coinfection rate was 28.5%. Overall, 40.1% had been exposed to HBV, and 43.1% were not protected (29.0% of whom were migrants).

Conclusion:

This one-step diagnosis strategy presents an easy, feasible way of substantially increasing the identification and awareness of viremic HCV infections and is currently being scaled-up to other HRCs. However, more effort is needed to improve linkage-to-care for hepatitis C.

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