

A MULTICENTRE INTERVENTIONAL STUDY TO ASSESS BLOOD-BORNE VIRAL INFECTIONS IN BELGIAN PRISONS

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Background:

The prevalence of hepatitis C virus (HCV), hepatitis B virus and HIV infection among prisoners is often higher than in the general population. To date, there is no targeted screening in Belgian prisons. The study aimed to determine the prevalence of these infections in Belgian prisons using opt-in screening.

Methods:

A multicenter, interventional cohort study to assess the prevalence of HCV antibodies (Ab), hepatitis B surface antigen (HBsAg), and HIV (Ab and antigen) using opt-in screening was conducted in 11 prisons in Belgium between April 2019 and March 2020. Prisoners were tested using a finger prick, and risk factors were assessed using a questionnaire. A generalized linear mixed model was used to investigate the association between the various risk factors and prisoners with HCV.

Results:

Study uptake ranged from 16.9% to 35.4% and 886 prisoners were screened. Forty-four (5.0%) tested positive for HCV Ab, seven (0.8%) for HBsAg and two (0.2%) for HIV Ab. The prevalence of HCV RNA in the total cohort was 2.1% (19/886), of whom 9 (47.4%) were unaware of their infectious status. Thirteen (68.4%) prisoners were redirected for assessment for HCV treatment. HCV Ab risk factors were intravenous drug use ($p = 0.004$; aOR 11.5 CI 95% (2.6 – 88.7)), ever used heroin ($p = 0.003$, aOR 6.4 CI 95% (1.9 – 24.7)) and more than 10 unsafe sexual contacts ($p = 0.020$; aOR 5.2 CI 95% (1.4 – 23.7)).

Conclusion:

Opt-in testing for viral hepatitis C, B, and HIV was relatively well-accepted. However, to avoid selection bias and get an overview of the total infected prison population in a country, we urge the need for systematic screening of all prisoners via opt-out. Mapping high-quality data is necessary to inform policymakers and the public health community.

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