

Prevalence of hepatitis A, B, C and D infections among Bulgarian prison inmates

Georgi Popov, Radina Andonova and Magdalena Baymakova

Military Medical Academy, Bulgaria

Background: Prison inmates are among the high risk population for blood born infections such as HIV, HBV, HCV, HDV and other contagious diseases.

Aim: The aim of this study was to determine the prevalence of HAV, HBV, HCV and HDV and examine risk factors for those infections among inmates of Bulgarian prisons.

Methods: This study was carried out in 5 of the 11 Bulgarian prisons (for men and women) and a juvenile correctional facility. Anonymous cross-sectional data were collected for prisoners who agreed to participate in the study and who were interviewed using a standard questionnaire including demographic, imprisonment history and viral hepatitis and HIV related risk behaviors items. Thereafter, the blood drawn from the participants was tested for anti-HAV; anti-HBc, HBsAg and HBeAg; anti-HCV and anti-HDV by appropriate commercial ELISA kits.

Results: A total number of 788 inmates (mean age: 32.8 ± 12.6 years, range: 14-82 years) participated in our study. Five hundred and sixty two (71.3%) were men and two hundred and twenty six (28.7%) were women (M/F ratio: 3.5/1). The overall rate of antibody positivity for anti-HAV was 586(74.3%), anti-HBc-452 (57.4%), anti-HCV-204 (25.9%) and anti-HDV-84 (10.6%). Two hundred and fifty eight (32.7%) prisoners had co-infections of HBV, HCV and HDV. The presence of huge number of prisoners with viral hepatitis B and C are due to use of i.v. drugs, unprotected sexual contacts, tattoo and other manipulations with skin and mucosa lesions ($p < 0.01$).

Conclusions: This study show higher prevalence of blood borne infections among prison inmates in comparison with the general population in Bulgaria suggesting their probable transmission in prisons through intravenous drug use, unsafe sexual behaviour and tattooing. Implementation of appropriate screening tests and preventive programs is suggested during and following incarceration.

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