

ANTI-HCV SEROPREVALENCE AND RISK FACTORS OF HEPATITIS C VIRUS INFECTION IN A PENITENTIARY IN PARANÁ, BRAZIL.



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Background: The penitentiary system in Brazil presents serious problems of overpopulation¹. According to data from the Ministry of Justice in 2016 there were 726,712 inmates. In that same year, in Paraná, the number was 51,700 inmates, of these around 19,700 in the closed system of imprisonment². The severity of these data is accentuated by the fact that the incarcerated population is considered a high-risk group for sexually transmitted diseases due to the favorable conditions found in prison for the spread of this disorders³. The aim of this study was to estimate the prevalence of HCV markers and their risk factors in the male prison population of correctional institutions in Paraná, Brazil.

Materials and methods: Cross-sectional epidemiologic survey for anti-HCV infection held in 11 male prisons in Paraná in the period of May 2015 to December 2016. The stages of the investigation included counseling, information about intervention, orientation about sexually transmitted infections, informed consent for the data gathering and blood sampling for the anti-HCV test performed in a certified laboratory. Reactive cases of anti-HCV were considered as hepatitis C. Odds ratio and logistic regression were used for data analysis and p-value.

Results: In a total of 1.192 men, 1.133 (95%) were subjected to a diagnosis for the anti-HCV test. The estimated predominance of the infection by HCV from this evaluation onwards was of 2.7% (interval of 95% [CI]: 1.9% - 3.8%), 30 men infected. The integrated analysis identified HIV infection and hepatitis C in two men (estimate predominance of 0.18% (95% CI: 0.0% - 0.42%)). The independent effects of the associated factors for HCV were age over 30 years (OR: 4.03 [1.61 - 10.07]), frequency in the prison system (OR: 2.58 [1.02 - 6.52]) and the use of injectable drugs (OR: 7.32 [3.36 - 15.92]).

Table 1. Factors associated with hepatitis C in prisoners of Paraná, Brazil.

Variables	OR _{BR} (IC 95%)	p	OR _{AI} (IC 95%)	p
Age				
18 and 30 years	1			
> 30 years	4,38 (1,77 - 10,80)	0,001	4,03 (1,61 - 10,07)	0,003
Number of times in the prison system				
1	1			
2	3,33 (1,35 - 8,22)	0,009	2,58 (1,02 - 6,52)	0,045
Piercings				
Yes	3,02 (1,15 - 7,95)	0,025	---	---
No	1			
Used illegal drugs				
Yes	9,27 (4,35 - 19,73)	<0,001	7,32 (3,36 - 15,92)	<0,001
No	1			
Sexual preference, homosexual				
Yes	3,41 (1,26 - 9,22)	0,016	---	---
No	1			

Note. Values de OR_{AI} (IC 95%) (95% CI) are presented only for the variables that composed the final model.

Conclusions: The prevalence of hepatitis C in the prison population is higher than in the free population; reducing the spread of HCV infection in prisons may occur through investments for anti-HCV screening, early diagnosis that contributes to a better prognosis of the disease and with reflections on the quality of life. Education and health are a practice that should receive investments, since targeting infected individuals reduces the risk of HCV transmission between prisoners and the community.

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References:

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