

# PREVALENCE AND CHARACTERISTICS OF HCV INFECTION IN PEOPLE WHO USE DRUGS MANAGED AT LOW THRESHOLD SETTINGS IN SLOVENIA: RESULTS FROM A NATIONAL STUDY

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## INTRODUCTION

Hepatitis C virus (HCV) infection represents a major health problem with an estimated 71 million chronic infections globally with approximately 90% of individuals remaining undiagnosed (1). HCV is one of the main causes of chronic hepatitis, cirrhosis and hepatocellular carcinoma (2). The current major risk factor for HCV transmission in high-income countries is sharing needles, syringes and other drug paraphernalia. Therefore, people who use drugs (PWUD) are at an especially high risk for acquiring and spreading HCV. In addition, excessive alcohol consumption and co-morbidities like HIV are more prevalent among PWUD, compounding the risk of liver disease progression (1).

Slovenia has a population of 2 million people with approximately 6-8,000 PWUD. Of these, 86% are managed in the national network of high-threshold drug treatment programmes, and have reported HCV seroprevalence of 23% to 27% (3).

On the other hand, in Slovenia there are a few regional centers of low-threshold programmes for PWUD focusing on harm reduction. Low-threshold programmes do field work offering syringes, needles and clean drug paraphernalia without expecting abstinence from drug use. In Slovenia, low-threshold programmes are carried out by non-governmental organizations (NGOs) providing some education and counselling on HCV infection; however, they do not have the ability of regularly testing for HCV, assessing liver fibrosis in HCV-positive cases or providing further linkage-to-care.

## AIM

In Slovenia HCV seroprevalence in low-threshold programmes, which focus solely on harm reduction, has not yet been determined. The aim of this study was to assess at the national level HCV seroprevalence among PWUD attending low-threshold services and to describe their characteristics.

## METHODS

We conducted a cross-sectional study in November and December 2017. PWUD were recruited from seven regional centres with low-threshold programmes including needle and syringe programmes and homeless shelters. Blood was screened for HCV antibodies (anti-HCV) using the Ortho HCV Version 3.0 ELISA Test system. All participants were asked to complete a 10-item questionnaire pertaining to demographic and epidemiological data. Results were stratified by anti-HCV status and tested for statistical significance ( $p < 0.05$ ).

## RESULTS

Of 129 PWUD tested, 49 (38%) were anti-HCV positive with a mean age of 42. We found that among those who were seropositive, 76% were male versus seronegatives with 56% male (Figure 1). Additionally, in the seropositive group 82% reported a low or medium level of education, compared to 63% in the seronegative group. We also identified that in the seropositives riskier behaviours were more common than among the seronegatives; behaviours such as injecting drug use (92% vs 33%), snorting (96% vs 48%), unprofessional tattooing/piercing (37% vs 23%), risky sexual behaviour (55% vs 30%), and previous treatment for sexually transmitted infections (14% vs 4%).

		HCV negative (80)	HCV positive (49)	P value
<b>Gender</b>	Male	45 (56%)	37 (75.5%)	<b>0.026</b>
	Female	31 (38.7%)	8 (16.3%)	
	Unknown	4 (5%)	4 (8%)	
<b>Level of education</b>	Low	16 (20%)	11 (23%)	<b>0.045</b>
	Medium	34 (42.5%)	29 (59%)	
	High	22 (27.5%)	3 (6%)	
	Unknown	8 (10%)	6 (12%)	
<b>Risk factors</b>	Blood transfusion before 1993	9 (11.3%)	7 (14.3%)	0.654
	Injecting drug use	26 (32.5%)	45 (91.8%)	<b>0.0</b>
	Snorting drug use	38 (47.5%)	47 (96%)	<b>0.0</b>
	Unprofessional tattooing/piercing	18 (22.5%)	18 (36.7%)	0.83
	Previous STD infection	3 (3.8%)	7 (14.3%)	<b>0.039</b>
	Partner with known HIV/HCV/HBV	5 (6.4%)	8 (16.3%)	0.096
	Risky sexual behaviour	24 (30%)	27 (55%)	<b>0.007</b>
	Sharing cosmetic accessories	18 (22.5%)	11 (22.5%)	0.439
	<b>Current health issues</b>	21 (26.3%)	14 (28.6%)	0.072

**FIGURE 1:** Comparison of different risk factors, level of education and gender in HCV-negative and HCV-positive groups.

## CONCLUSIONS

In Slovenia, HCV-seroprevalence is higher among PWUD attending low-threshold services than those in high-threshold programmes. Low-threshold services should introduce more prevention activities, counselling, routine HCV screening and on-site linkage to HCV care for all PWUD who test HCV-positive.

Further evaluation of HCV infection and its characteristics in this population is still needed in order to design an elimination strategy including the best model for diagnosing and treating HCV infection in the most vulnerable groups in Slovenia.

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