

Increased prevalence of hepatitis C in patients admitted in psychiatric centers

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INTRODUCTION

- World Health Organization set target to **eliminate viral hepatitis** as public health threat by **2030**.
- Effective vaccination and suppressive therapy is available for Hepatitis B Virus (HBV).
- Direct-acting antivirals make Hepatitis C Virus (HCV) infection a curable disease.
- Barrier to elimination = high proportion (>half) of undiagnosed HBV and HCV patients.
- People who inject drugs, men who have sex with men, migrants and incarcerated people remain at high risk for infection in Europe → Integrated testing for HBV, HCV and HIV is recommended.
- Recent data indicate that people with **serious mental illnesses** have an **increased risk** as well.

AIM

- Document **HBV, HCV and HIV prevalence** in patients residing in **psychiatric hospitals (PH)** and **forensic psychiatric centers (FPC)**. Explore **risk factors** for these blood-borne viral (BBV) infections.

METHODS

- Between 2017 – 2020: inclusion of adult patients residing in different Belgian PH or FPC.
- Data collection: demographics + psychiatric diagnoses + risk questionnaires + serology of BBV.
- Compare prevalence of BBV to general Belgian population (GBP) + detect risk factors.

RESULTS

Prevalence of HBV

- Increased prevalence of HBsAg+ compared to GBP (0.7%) in FPC (2.0%; p=0.009), but not in PH (0.2%, p=0.388) or total study population (1.0%; p=0.215).

HCV

- Increased prevalence of HCVAb+ compared to GBP (0.71%) in PH (2.8%; p<0.001), FPC (7.3%; p<0.001) and total (5.0%; p<0.001).

HIV

- No increased prevalence of HIVAb+ compared to GBP (0.17%) in PH (0.4%; p=0.18), FPC (0.5%; p=0.15) or total (0.5%; p=0.06), but trend towards higher prevalence without statistical significance.

	PH	FPC	Total
Number	458	421	879
Demographics			
Mean Age (y)	42.5	42,1	42.2
Male / Female (%)	57.1 / 42.9	93.8 / 6.2	74.7 / 25.3
Psychiatric diagnosis			
Psychotic disorder	71/422 (16.8%)	/	/
Dependency on IV/IN drugs	53/427 (12.4%)		
Personality disorder	89/427 (20.8%)		
Risk questionnaire			
IV/IN drug use	134/450 (29.8%)	/	/
Unsafe tattoo/piercing	47/450 (10.4%)		
Sexual risk behavior	168/450 (37.3%)		
Living with BBV+	13/450 (2.9%)		
HBV			
HBsAb+	169/451 (37.5%)	126/410 (30.7%)	295/861 (34.1%)
HBsAg+	1/452 (0.2%)	8/408 (2.0%)	9/860 (1.0%)
HBcAb+	16/452 (3.5%)	39/407 (9.6%)	55/859 (6.4%)
HCV			
HCVAb+	13/457 (2.8%)	30/410 (7.3%)	43/867 (5.0%)
HCVRNA+	4/12 (33.3%)	13/30 (43.3%)	17/42 (40.5%)
HIV			
HIVAb+	2/455 (0.4%)	2/403 (0.5%)	4/858 (0.5%)

Table 1: Patient characteristics and prevalence data.

IV=Intravenous. IN=Intranasal. Ab=Antibody. Ag=Antigen. s=Surface. c=Core.

Risk factors

- Not possible to detect risk factors for HBV or HIV (low number of positive cases).
- Increased prevalence of HCVAb+ in people with a history of unsafe tattoo or piercing (p=0.009) and in people living with BBV+ (p=0.025), not in people with IV/IN drug use (p=0.134) or sexual risk behavior (p=0.303).
- No increased prevalence of HCVAb+ in patients with a psychotic disorder (p=0.343), personality disorder (p=0.285) or dependency on intravenous or intranasal drugs (p=0.651).

CONCLUSIONS

- **Patients residing in psychiatric centers**, be it in a FPC or PH, show a significant **higher HCV prevalence infection**, unrelated to psychiatric diagnosis.
- A personal history of unsafe tattoo/piercing and living with someone with BBV+ was associated with increased prevalence of HCV, whereas a history of sexual risk behavior or IV/IN drug use was not.
- Based on these results, we recommend **general HCV screening in all admitted psychiatric patients**.

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