Expanding Network for Coordinated and Comprehensive Actions on HIV/AIDS Prevention among IDUs and Bridging Population

HCV prevalence and risk behaviors among injecting drug users in Estonia

Kristi Rüütel, MD[1,2], Ljudmilla Priimägi, PhD, Doct.Biol.Sci[1], Valentina Tefanova, MD, PhD[1], Tatjana Tallo, PhD[1], Ave Talu MS[1], Katri Abel-Ollo[1], MS, Anneli Uusküla, MD, MS, PhD[2]

[1] National Institute for Health Development, Tallinn, Estonia
[2] Department of Public Health, University of Tartu, Tartu, Estonia

Background

Hepatitis C virus (HCV) has been the subject of intense research and clinical investigation because of its major role in human disease. The estimated global prevalence of HCV infection is 3%, corresponding to over 170 million people worldwide. It is estimated that around 1% of the total population is infected with HCV in Estonia and HCV is the main etiological agent for chronic hepatitis. Dramatic increase in injecting drug use in the population aged 15-29 years in the early of 1990s led to an increased incidence for both hepatitis B and C in the middle of 1990s primarily in the North-Eastern and Northern parts of the country. From 1996 up today, injection drug use has been the most common risk factor identified among 15-29 years old people, accounting for more than half of all new hepatitis C cases.

Purpose

The purpose of the study was to estimate the prevalence and risk factors related to HCV among injecting drug users (IDU) in the two regions in Estonia most affected with IDU.

Methods

An anonymous cross-sectional study was conducted from May to June 2007. In Tallinn (capital city) and Kohtla-Järve (central city in North Eastern part of the country) current IDUs were recruited for an interviewer-administered risk behavior survey (covering demographics, drug use history, and HCV risk behavior), and venous blood sample collection for anti-HCV antibody testing.

Results

- A total of 350 IDUs were recruited in Tallinn and 350 in Kohtla-Järve.
- The prevalence of anti-HCV antibodies was 94.3% (95% CI 91.8–96.7) in Tallinn and 82.8% (95% CI 78.8–86.8) in Kohtla-Järve ($p<0.001$).
- There were significant differences in injecting risk behavior between sites. The IDUs from Tallinn reported shorter duration of injecting drugs, were more likely to report sharing syringes in last four weeks and were less likely to report sharing syringes with HCV infected people (table 1).

Conclusions

- A high scale HCV epidemic is occurring among IDUs and ongoing provision of harm reduction services is essential for primary prevention and targeting those already infected.
- Health care system must consider the increasing needs for hepatitis C treatment.

Table 1. The prevalence of selected socio-demographic and behavioral factors and HCV-prevalence

	Tallinn	Kohtla-Järve	p-value *
Age (mean, SD, years)	26.5 (SD 5.7)	26.8 (SD 4.6)	0.4
Gender (% of women)	16.0 (95% CI 12.1–19.9)	14.1 (95% CI 10.4–17.7)	0.5
Duration of injecting drugs (mean, SD, years)	**7.9** (SD 4.4)	**8.6** (SD 3.9)	**0.02**
Proportion of people who have injected drugs 3 or more years (%)	**89.1** (95% CI 85.9–92.4)	**94.6** (95% CI 92.2–97.0)	**0.01**
Sharing with known HCV infected person (%)	**72.8** (95% CI 67.8–77.7)	**87.7** (95% CI 84.2–91.3)	**<0.001**
Receptive sharing of syringes in last four weeks (%)	**25.1** (95% CI 20.6–29.7)	**7.4** (95% CI 4.7–10.2)	**<0.001**
Proportion of people ever tested for HCV (%)	64.6 (95% CI 59.5–69.6)	57.9 (95% CI 52.7–63.1)	0.07
anti-HCV antibody prevalence (%)	**94.3** (95% CI 91.8–96.7)	**82.8** (95% CI 78.8–86.8)	**<0.001**

* difference between sites