Epidemiology of different hepatides (B & C) in Lithuania

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Prevalence of HBV and HCV in target and risk groups:

• Blood donors
• PWID (IDUs)
• Prisoners
• MSM
• Pregnant
• HC providers
VH prevalence in first-time blood donors in EU countries, 2010

Ranged from 0.0% to 5.2% by country

Infectious markers prevalence in 1000 blood donations in Lithuania, 2009-2014

Source: ULAC

Prof. dr. Saulius Čaplinskas
Prevalence of HBV and HCV in target and risk groups:

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- PWID (IDUs)
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- Pregnant
- HC providers
Proportion of IDUs among diagnosed acute VH cases in Lithuania, 1995 - 2014

Source: www.ulac.lt
VHC infection status of persons who contacted the Lithuanian HC establishments due to mental and behavioural disorders using drugs and PA substances in 2013

Source: the State Mental Health Centre
Relation between CD prevalence and drug use history

Seroprevalence (%) vs Drug use history (years)

Vilnius injecting drug use characteristics, 2008

<table>
<thead>
<tr>
<th>Duration of injection career (years)</th>
<th>N</th>
<th>%</th>
<th>HCV+ (n/%)</th>
<th>Crude OR 95% CI</th>
<th>Fisher exact test p-value</th>
<th>Adjusted OR 95% CI**</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=2</td>
<td>14</td>
<td>4</td>
<td>12 (85.7)</td>
<td>1</td>
<td>0.0901</td>
<td>1</td>
</tr>
<tr>
<td>3-5</td>
<td>47</td>
<td>12</td>
<td>43 (91.5)</td>
<td>1.8 (0.1-14.2)</td>
<td>2.0 (0.3-12.3)</td>
<td></td>
</tr>
<tr>
<td>&gt;5</td>
<td>339</td>
<td>85</td>
<td>324 (95.6)</td>
<td>3.6 (0.4-18.5)</td>
<td>3.4 (0.7-16.7)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Irma Caplinskienė, RDS study 2008, supported by EU

Prof. Saulius Čaplinskas, MD, PhD
Infectious markers prevalence among IDUs in the capitals of Baltic countries, 2008

Source: Irma Caplinskiene, RDS study 2008, supported by EU

Prof. dr. Saulius Čaplinskas

<table>
<thead>
<tr>
<th></th>
<th>TALLINN (n=349)</th>
<th>RIGA (n=407)</th>
<th>VILNIUS (n=400)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>HIV neg, HBV neg, HCV neg</td>
<td>17</td>
<td>4.9</td>
<td>85</td>
</tr>
<tr>
<td>HIV pos, HBV pos, HCV pos</td>
<td>164</td>
<td>47.4</td>
<td>63</td>
</tr>
</tbody>
</table>

The main tasks:
- to assess prevalence of HIV, VHB and VHC among IDUs
- to evaluate risky behaviour among IDUs

Method:
- Cross-sectional study (bio-behavioural)
- Sampling method: LTC service based

Measurements:
- structured questionnaire (anonymous)
- voluntary testing and counselling
  - linked to questionnaire
  - rapid tests

Source:
Study: Prevalance of IDU related CD markers among LTSC attending IDUs in Lithuania, 2014
**Study:** Prevalance of IDU related CD markers among LTSC attending IDUs in Lithuania, 2014

- **TARGETED POPULATION:**
  - active IDUs (LTC clients)
- **STUDY PARTICIPANTS:**
  - N=200
  - Klaipėda n=100
  - Visaginas n=50
  - Alytus N=50
- **INSENTIVES**
  - Each participant received incentive
  - 5 EUR coupon

Source: ULAC, NTAKD

Prof. Saulius Čaplinskas, MD, PhD
HCV prevalence among PWID in European countries varies from 18% to 95%.

HCV prevalence in PWID in Lithuania:

- **95%** in 2007/2008 (N=400, n=376) *
- **77%** in 2015 (N=200, n=154) * * p>0.05


* * Study „Prevalance of infections related with the use of narcotic and psychotropic substances among intravenous drug users“. NTAKD, ULAC, VŠĮ “Saugok save”. 2015;
VHC (anti-HCV) testing results

- **Conclusion:**
  - **Injecting behaviour became safer:**
    - Reduction of sharing injection paraphernalia,
    - Better availability of services, i.e.:
      - NSP; HCV infection treatment; participation in OSTP; etc.,
HBsAg prevalence among PWID in European countries varies from 0% to 12%

HBV prevalence in PWID in Lithuania

10.5% HBsAg(+) in 2015 (N=200, n=21)

Source: Study „Prevalance of infections related with the use of narcotic and psychotropic substances among intravenous drug users“.
NTAKD, ULAC, VŠĮ “Saugok save”. 2015;

82% anti-HBV in 2007/2008 (N=400, n=328)

Proportion (%) of IDUs reported being vaccinated for hepatitis B in Tallin, Riga and Vilnius, 2008

Source: Irma Caplinskiene, RDS study 2008, supported by EU

* Study „Prevalance of infections related with the use of narcotic and psychotropic substances among intravenous drug users“. NTAKD, ULAC, VŠĮ “Saugok save”. 2015;

Prof. dr. Saulius Čaplinskas
SEXUAL RISK BEHAVIOUR among PWID in Lithuania, 2015

Regular sex partners in last 12 month
- 48% - had no regular sexual partner,
- 32% – had

Condoms use with their regular partners during the last sex
- 69.2% - did not
- 20.4% - did

Casual sex partners
- 31% - had
- 55.6% - did not use condoms in last sex with casual partners

Commercial sex – 96% no sex for money, drugs, food, etc.

Source: Study „Prevalance of infections related with the use of narcotic and psychotropic substances among intravenous drug users“. NTAKD, ULAC, VŠĮ “Saugok save”. 2015
Prevalence of HBV and HCV in target and risk groups:

- Blood donors
- PWID (IDUs)
- **Prisoners**
- MSM
- Pregnant
- HC providers
Order of the Minister of Justice No 1R-233, 20/08/2015

“On approval of extent of correctional officials’ health care budgeted additionally through programmes from state budget”.

• Immunoprophylaxis is specified in the List of Professions and Positions of the Staff Vaccinated at Employer’s Expense by the Order of the Minister of Health of the Republic of Lithuania No V-716, 14/10/2004, “On approval of the list of professions and positions of staff vaccinated at employer’s expense”.

• Correctional officials, who supervise and convoy inmates, are vaccinated against viral hepatitis B.
Incidence of viral hepatitis per 10 000 inmates

Prevalence of HBV and HCV in target and risk groups:

- Blood donors
- PWID (IDUs)
- Prisoners
- MSM
- Pregnant
- HC providers
European MSM Internet Survey (EMIS, 2009-2010)

• The largest transnational survey among MSM ever conducted — in terms of the number of participants
  – 180,000 MSM from all over Europe were enrolled into this study;
  – 35 European countries (EU-supported joint project)
  – 25 different language versions of the survey.

• 595 MSM from Lithuania
  – The average age of respondents in LT - 29 years (min – 13, max- 68).
  – Younger than 25 years. - 39.6%

• Objective: to assess features of sexual behaviour and needs for STI prevention among MSM

Capacity building in combining targeted prevention with meaningful HIV surveillance among MSM (SIALON II), 2014

- The programmes were implemented in 13 European countries, supported by EC
- **Objective** - to develop capacity building on [HIV/STI surveillance](#) among MSM and [bio-behavioural survey](#) using different sampling methodologies.

- **322** MSM from Lithuania
- average age of the respondents was **30.95 year**, — including **25.8%** of those **younger than 25**
Lithuanian MSM

Self reported hepatitis prevalence, 2009-2010

- 0.8% - VHC
- 5.6% - VHB
  - I am naturally immune to hepatitis B
    (I had it in the past)

VH markers prevalence, 2014

- 1.07% VHC prevalence
- 4.89% - VHB
  - HBs+HBc+HBsAg-
    (Imune due to natural infection)

MSM Prevalence of Hepatitis B

**HBs-HBc+HBsAg+**
- **Cronically infected**
- Verona: 1.38
- Bratislava: 0.42
- Vilnius: 2.04

**HBs-HBc-HBsAg+**
- **New infection or a chronic infection. Can spread virus to others**
- Bratislava: 1.24
- Vilnius: 0.96
### Have you been vaccinated against hepatitis B?

<table>
<thead>
<tr>
<th>Hepatitis B Vaccine (self reported) (LT n=595, missing 6)</th>
<th>Percentage, n</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, I am naturally immune to hepatitis B (because I had it in the past)</td>
<td>5.6%, n=33</td>
</tr>
<tr>
<td>No, and I don’t know if I’m immune</td>
<td>45.7%, n=269</td>
</tr>
<tr>
<td>Yes, and I <strong>completed</strong> the course of 3 shots of vaccine</td>
<td><strong>14.8%</strong>, n=87</td>
</tr>
<tr>
<td>Yes, but I did not complete the course of 3 shots of vaccine</td>
<td>4.9%, n=29</td>
</tr>
<tr>
<td>Yes, but I did not respond to the vaccinations</td>
<td>0.3%, n=2</td>
</tr>
<tr>
<td>I don’t know</td>
<td>28.7%, n=169</td>
</tr>
</tbody>
</table>

**Less than 30% of respondents in Lithuania had completed a full course of HBV vaccination.**

Proportion of respondents in need of hepatitis B vaccination

50% of respondents (country median) were in need of hepatitis B vaccination

MSM Sexual Risk Behaviour
Lithuania

60.6% - had any **unprotected anal intercourse** (UAI), with a man in previous 12 months.
  • **16.4%** of them had UAI **solely** because there were no condoms available.

71.7% had sex with steady partner in previous 12 months.
  • **70.3%** of them did not use condoms while having sex with steady partner.

42.4% reported any UAI with a non-steady partner in last year.
  • **27.1%** had UAI with non-steady partner of unknown or discordant HIV status in the last year.

39.8% reported UAI with any male partner in the previous 12 months.

18.1% admitted to have had sex abroad in previous 12 months.

7.3% reported paying for sex
   40% of those had paid a man for sex more than 10 times in previous 12 months.

5.3% having been paid for sex in previous 12 months
   of them 19.2% have been paid for sex more than 10 times.

Frequency of *condom use* in the past 12 months among men who had *anal intercourse* with a *non-steady* male partner, Lithuania

MSM sex with women

- **16.4%** had female partners in the last 12 months.
- **7.4%** had constant female partners.

Condom use by anal or vaginal sex with women

Source: EMIS
Prevalence of HBV and HCV in target and risk groups:

- Blood donors
- PWID (IDUs)
- Prisoners
- MSM
- Pregnant
- HC providers
The prevalence of HBV (HBsAg) and HCV (anti-HCV) among pregnant women, 2010

Ranged from 0.1% to 4.4% by country

ECDC data show that 4 countries do not have screening programme for hepatitis B in pregnancy: Bulgaria, Luxembourg, Romania and Lithuania.

Prevalence of HBV and HCV in target and risk groups:

- Blood donors
- PWID (IDUs)
- Prisoners
- MSM
- Pregnant
- HC providers
The prevalence of hepatitis B and C among healthcare providers

A study of hepatitis B, C and HIV prevalence in healthcare workers in Vilnius University Hospital Santariskiu Klinikos in 2009

MEASUREMENTS:
– structured questionnaire (anonymous)
– voluntary testing and counselling

STUDY PARTICIPANTS:
N=174 (intensive care, anaesthesiology and resuscitation, surgical unit, cardiac surgery department employees)

RESULTS:
Anti-HCV (+) - 4.0 % (n=7)
Anti-HBc (+) and Anti-HBs (+) - 16.1 % (n=28) - after HBV infection
Anti-HBs (+) and Anti-HBc (-) - 28.2 % (n=49) - vaccine acquired immunity
3 communicable disease groups could be derived by maintained knowledge

1. Considerable knowledge of diseases
   - influenza, tick-borne diseases, food-, water-born diseases

2. Moderate knowledge of diseases - sexually transmitted infections (STI), TB

3. Insufficient knowledge of
   - hepatitis, measles