Identification and management of persons with chronic viral hepatitis in Europe

Country sessions

The Netherlands

Dr. Irene Veldhuijzen

Municipal Public Health Service Rotterdam-Rijnmond

VHPB meeting "identification and management of chronic viral hepatitis in Europe" 18-19 march 2010, Budapest, Hungary.
Burden of disease

• HBV and HCV notifiable in Public Health Law
  – HBV: acute and chronic (since 1976)
    • $\approx 250$ acute and $\approx 1500$ chronic cases per year
  – HCV: since 1999 acute+chronic, since 2003 acute only
    • acute cases per year 34 in 2004 to 52 in 2009

• Prevalence data
  – HBV: 0.2% (Nationwide seroprevalence study 1995)
  – HBV: 0.3-0.4% (Pregnancy screening)
  – HBV: 0.4% (Amsterdam N=1300)
  – HCV: 0.01% (Nationwide seroprevalence study 1995)
  – HCV: 0.2% (Regional study N=2200)
Screening strategy

Hepatitis B

- Pregnancy screening (since 1989)
  - Primary prevention to newborns
- Risk groups: drug users, MSM, sex workers, heterosexuals with multiple contacts (up to 2007)
  - Screening prior to vaccination, identify susceptibles
- Contact screening
  - Vaccination of susceptible contacts
  - Identification of new HBsAg infections
- Screening of migrants (Chinese and Turks, 3 cities)
  - Identify and treat eligible patients (secondary prevention)
Screening strategy

GOALS

Hepatitis C

• Risk groups: drug users (≈since 2004)
• General public: pilot projects 2007/2008
• National Hepatitis C Campaign (Sept 2009-Feb 2010)
  – General public:
    • Blood transfusion before 1992
    • Use of ever used hard drugs
    • Born in endemic country

→ Goal: Secondary prevention
### Target population

<table>
<thead>
<tr>
<th>Pregnant women</th>
<th>MSM / sex workers</th>
<th>Drug users</th>
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</thead>
<tbody>
<tr>
<td>Pregnant women</td>
<td>MSM / sex workers</td>
<td>Drug users</td>
</tr>
<tr>
<td>Heterosexuals &gt;partners</td>
<td>STI clinic</td>
<td>Public Health Service</td>
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<tr>
<td>Contacts of cases</td>
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<tr>
<td>General public</td>
<td></td>
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<tr>
<td>Chinese</td>
<td></td>
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<td>Turks</td>
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### Identification process

<table>
<thead>
<tr>
<th>Antenatal care</th>
<th>Outreach / STI clinic</th>
<th>Drug users services</th>
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<tbody>
<tr>
<td>STI clinic</td>
<td>Public Health Service</td>
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<tr>
<td>Information campaign</td>
<td>Campaign</td>
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<td>Campaign</td>
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Screening programme

Implementation

• Nationwide
  – Pregnancy screening (HBV)
  – Contact screening (HBV)
  – Risk groups as part of vaccination campaign (HBV)
  – HCV Campaign

• Regional pilots
  – Turks (Arnhem 2009, Rotterdam 2010)
Screening programme

Results

- Pregnancy screening
  \( \approx 950 \) HBsAg positive women per year

- Risk groups; 5 year period (2002-2007)

<table>
<thead>
<tr>
<th>Group</th>
<th>Vacinations</th>
<th>HBsAg+ (%)</th>
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<tbody>
<tr>
<td>MSM</td>
<td>18,510</td>
<td>( \approx 148 ) (0.8)</td>
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<tr>
<td>DU</td>
<td>13,482</td>
<td>( \approx 94 ) (0.7)</td>
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<tr>
<td>CSW</td>
<td>9,391</td>
<td>( \approx 94 ) (1.0)</td>
</tr>
<tr>
<td>Heterosex</td>
<td>39,297</td>
<td>( \approx 236 ) (0.6)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80,680</strong></td>
<td><strong>( \approx 565 ) (0.7)</strong></td>
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</table>
Screening programme

Results

- Follow up of identified HBsAg positives in pregnancy screening and risk group campaign unknown
- Contact tracing HBV: results not reported and follow up unknown
- National HCV Campaign: no results yet
- HCV drug users, results project Rotterdam:
  - 293 screened in 2 years
  - 81 HCV RNA+
  - 64 referred for treatment, 35 started treatment
Screening programme

Results

- Pilot Chinese population in Rotterdam
  - 1,100 tested
  - 94 HBsAg+ (8.5%)
  - 32 HBeAg+ or elevated ALT (34% of HBsAg+)
  - 18 eligible for antiviral treatment (19% of HBsAg+)
- Pilot Turkish population in Arnhem
  - 709 tested
  - 18 HBsAg+ (2.8%), 2 HCV 0.3%
  - Clinical follow up ongoing
Costs of screening programme and the follow up

Payment of the screening programme

National programmes:
- Government

Pilots:
- Different sources
  - Pharmaceutical companies, own contribution PHS and hospital, health insurance

Payment of follow-up

Patient invited for intake at Public Health Service
- Government

Further health care
- Medical insurance
Treatment strategies

Hepatitis B

• Guideline for referral from primary to secondary care
  – HBeAg+ and/or elevated ALT → to specialist
  – Follow up by GP when HBeAg- and normal ALT

• Treatment according to clinical guidelines (2008)
  – Initial evaluation: viral load, biochemistry, imaging
  – Consider PEG-INF
  – Low resistance nucleos(t)ide analogue

• Treatment covered by health insurance
Treatment strategies

Hepatitis C

• Guideline for referral from primary to secondary care
  – All patients to specialist

• Treatment according to clinical guidelines (2008)
  – Consider treatment for all patients
  – Take genotype into account
  – PEG-INF and ribavirine

• Treatment covered by health insurance
Impact of the screening strategy on the health care system

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Limited impact on health system as number of patients detected is low

Impact on health difficult to assess due to limited follow up
## Evaluation of screening, follow-up and treatment strategy

<table>
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<tr>
<th>Strengths</th>
<th>Challenges</th>
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<tr>
<td>Pregnancy screening</td>
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<tr>
<td>→ good coverage</td>
<td>→ follow up not good</td>
</tr>
<tr>
<td>Risk groups</td>
<td>Risk groups</td>
</tr>
<tr>
<td>→ high prevalence</td>
<td>→ low coverage</td>
</tr>
<tr>
<td>Migrants</td>
<td>Migrants</td>
</tr>
<tr>
<td>→ high prevalence</td>
<td>→ only local initiatives</td>
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Evaluation of screening, follow-up and treatment strategy

Lesson learnt/ opportunities

- Improve referral from primary to secondary care
- Pregnant women
  - Refer to specialist before third trimester
- Migrants can be reached through outreach campaign
  → study systematic approach
Evaluation of screening, follow-up and treatment strategy

Future plans

• Combine hepatitis B and C screening
• Target migrants!
• Implement nationwide screening targeted at migrants