HAV prevention and control

- Two incomplete strategies
- Sufficient effect

Thursday November 12, 16.30-16.50
HAV epidemiology in The Netherlands
three transmission patterns

1. Import through returning children (Turkey and Morocco)

2. Man having sex with man

3. Unknown/ food borne
1). Frequent import of HAV
- limited transmission to siblings/ school

• Case based source and contact tracing MHS
  no tertiary cases  
  (©Sonder et al. AJPH 2004; 94 (9): 1620-6)

• Pre travel vaccination program
  uptake <40%
  (©Dijkshoorn et al. NTvG 2003;147(14):658-62)
  effect in regions with active approach (©Suijkerbuijk ea. 2008;submitted)
Decrease  ⇒  vaccination?  
hygiene?

MHS Amsterdam HA reported cases
probable source: TRAVEL

<table>
<thead>
<tr>
<th>Year</th>
<th>Total travel (1)</th>
<th>Morocco (2)</th>
<th>Morocco* (3)</th>
<th>Turkey (4)</th>
<th>Turkey** (5)</th>
<th>Other destination (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IRR voor 98</td>
<td>IRR na 98</td>
<td>p-value</td>
<td></td>
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<tr>
<td>1992</td>
<td>1.00 (0.94-1.05)</td>
<td>0.87 (0.81-0.93)</td>
<td>0.014</td>
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<tr>
<td>1993</td>
<td>1.02 (0.94-1.09)</td>
<td>0.83 (0.75-0.91)</td>
<td>0.006</td>
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<tr>
<td>1994</td>
<td>1.00 (0.92-1.08)</td>
<td>0.86 (0.78-0.94)</td>
<td>0.052</td>
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<td>1995</td>
<td>0.95 (0.80-1.12)</td>
<td>0.56 (0.37-0.86)</td>
<td>0.046</td>
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<td>1996</td>
<td>0.91 (0.76-1.09)</td>
<td>0.44 (0.22-0.88)</td>
<td>0.065</td>
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<tr>
<td>1997</td>
<td>0.99 (0.89-1.09)</td>
<td>0.98 (0.88-1.09)</td>
<td>0.909</td>
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</tbody>
</table>

© Sonder et al. Vaccine 2006; 24(23):4962-8
Amsterdam immunisations 1992-2004

Number

0 5000 10000 15000 20000 25000 30000 35000

year


- Immune globulin (cc) $
- Hepatitis A vaccine*
- Hepatitis A vaccine child**
- First hepatitis A vaccine child#

“Circumstantial evidence”
Vaccination coverage travelling youth < 50% (Dijkshoorn NTvG 2003)

Epidemiological transition in source countries

© Sonder et al Vaccine. 2006 Jun 5;24(23):4962-8
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   - limited transmission to siblings/ school

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     no tertiary cases  
     (@Sonder et al. AJPH 2004; 94 (9): 1620-6)

   • Pre travel vaccination program
     uptake <40%  
     (@Dijkshoorn et al. NTvG 2003;147(14):658-62)
     effect in regions with active approach (@Suijkerbuijk ea. 2008;submitted)

   • Targeted HB vaccination program
     all new born children with one or both parents originating from HBV endemic countries HBvaccine

   • Combined HBV/ HAV vaccine
     Not cost saving, “may have favourable cost-effectiveness”  

   • Vaccinate children in Morocco/ Turkey!
2). HAV transmission among MSM

- Source and contact tracing ineffective anonymous contacts ©JvS ea, JID 2004;189:471-82


- Free HBV vaccination programme MSM

- Additional HAV in HBV programme at 2x € 15,- no data uptake

- No cost-effectiveness study available
3). Unknown source

- 2008 (Petrignani GGD Delft/Zoetermeer)
  Nation-wide collection of specimens, isolation, sequencing, phylogenetic analysis, clustering $\Rightarrow$ extensive food history

- Continue source and contact tracing
  - Gouda, Nov 2008: food handler with acute HA $\rightarrow$ vaccination all susceptible guests

- Await results national molecular epidemiological study
HEPATITIS A control

Thank you for your attention