Hepatitis B: are at-risk individuals vaccinated if screened and found negative for HBV? Results of an online survey conducted in six EU countries

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HepHIV Conference
Barcelona, 6 October 2014

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Background

• The vaccination against hepatitis B was introduced in 1982: safe and highly effective
• 181 countries implemented routine hepatitis B vaccination compared with 31 countries in 1992, year of the resolution by the World Health Assembly recommending global vaccination against hepatitis B
• Currently, 95% of new infections are estimated to occur among unvaccinated adults
• Universal vaccination approach determined an overall decline in the number of acute cases and a reduction in the carrier rate
• Six European countries - DK, FIN, I, N, S and the UK- adopt a targeted risk-group based vaccination approach
Aims and objectives

- To understand current hepatitis B vaccination practices in relation to migrants from endemic areas and specific at-risk groups in DE, HU, IT, NL, ES and the UK while assessing the implementation of existing national or international recommendations
  - People who inject drugs (PWID)
  - Sex workers
  - HIV positive patients
  - HCV positive patients
  - Household and/or sexual contacts of hepatitis B positive patients
  - Health care workers (HCWs)
  - Asylum seekers
  - Pregnant women
Materials and methods (I)

Six semi-qualitative online surveys developed:

1. General screening (GS survey)
2. GP/Primary care pathway (GP survey)
3. Antenatal screening pathway (ANC survey)
4. Care for asylum seekers pathway (ASC survey)
5. Sexual health services/GUM pathway (SHS survey)
6. Specialist care pathway (SP survey)

- Some were contacted directly by the research team
- Membership lists of the EASL, ELPA and the World Hepatitis Alliance were also consulted, along with ECDC surveillance focal points and members of European/national public health associations
- A snowballing recruitment method was applied, contacting links and common members between associations to assist in identifying further recipients
Materials and methods (II)

• Professionals were asked:
  ➢ If screened for hepatitis B, are individuals with negative screening results vaccinated?
  ➢ If found to be positive for hepatitis B, are their negative household and/or sexual contacts vaccinated?

• Possible answer options: Yes / Sometimes / No / Unsure

• Lime Survey (July - September 2012)

• The analysis of the responses restricted to the answers of those who had previously reported in the survey that screening of the subgroups considered for hepatitis B is very commonly/sometimes practiced
### Population subgroups considered in each survey

<table>
<thead>
<tr>
<th>Population subgroups</th>
<th>Expert survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GS</td>
</tr>
<tr>
<td>People who inject drugs</td>
<td>x</td>
</tr>
<tr>
<td>Sex workers</td>
<td>x</td>
</tr>
<tr>
<td>HIV + patients</td>
<td>x</td>
</tr>
<tr>
<td>HCV + patients</td>
<td>x</td>
</tr>
<tr>
<td>Asylum seekers</td>
<td>x</td>
</tr>
<tr>
<td>Migrants</td>
<td>x</td>
</tr>
<tr>
<td>Contacts of hep B + patients</td>
<td>x</td>
</tr>
<tr>
<td>Health care workers</td>
<td>x</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>x</td>
</tr>
</tbody>
</table>
Results: invites sent and response by country

<table>
<thead>
<tr>
<th>Country</th>
<th>UK</th>
<th>DE</th>
<th>NL</th>
<th>HU</th>
<th>IT</th>
<th>ES</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invites sent</td>
<td>269</td>
<td>480</td>
<td>104</td>
<td>83</td>
<td>168</td>
<td>77</td>
<td>1181</td>
</tr>
<tr>
<td>Complete responses</td>
<td>51</td>
<td>71</td>
<td>56</td>
<td>23</td>
<td>60</td>
<td>25</td>
<td>286</td>
</tr>
<tr>
<td>Response rate</td>
<td>19%</td>
<td>15%</td>
<td>54%</td>
<td>28%</td>
<td>36%</td>
<td>32%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Since the analysis was restricted to the responses of those experts reporting that screening is offered, commonly or sometimes, to the aforementioned subgroups, the denominator was different for each group considered.
Results: People who inject drugs

In all countries hepatitis B vaccination is recommended for PWID

It is however remarkable that in DE, NL, HU and the IT, notable proportions of respondents reported that vaccination is offered intermittently or not offered at all.
Results: Sex workers

In all six countries hepatitis B vaccination is recommended for sex workers.

Notable proportions of respondents reported that vaccination is offered intermittently in DE, HU, IT and ES.
Results: HIV positive patients

According to the updated 2013 European AIDS Clinical Society (EACS) guidelines, HIV positive individuals lacking anti-HBs antibodies should be offered vaccination to prevent HBV infection.

Large proportions of respondents in DE and in NL reported that hepatitis B vaccination is not systematically offered to HIV positive patients who are screened and found negative for HBV and 50% HU and 28% in IT were unsure.
Results: HCV positive patients

Patients with chronic liver diseases should undergo hepatitis A and B vaccination early in the natural history of the disease

Results from the survey, however, show that HBV vaccine is offered commonly to HCV positive individuals according to more than half of respondents only in the UK and in Spain.
Asylum seekers are commonly vaccinated according to more than half of the respondents only in the Netherlands. Widespread uncertainty about vaccination practices for asylum seekers was reported.
Only in Spain the majority of respondents reported that, after screening, hepatitis B negative migrants from hepatitis B endemic areas are commonly vaccinated. A lack of awareness of the current practices of vaccination of migrants from endemic areas was identified among a high proportion of experts in all study countries.
Results: Contacts of chronic hepatitis B patients

All countries recommend hepatitis B vaccination for contacts

Vaccination commonly offered to contacts in most countries, but lack of awareness among segments of experts in DE and in IT
Results: Health care workers

Current hepatitis B vaccination practices are in line with current policies

<table>
<thead>
<tr>
<th>Country</th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>43%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>27%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NL</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HU</td>
<td></td>
<td></td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td></td>
<td></td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td></td>
<td></td>
<td>60%</td>
<td></td>
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</tbody>
</table>

(n=7) (n=11) (n=5) (n=2) (n=5) (n=6)
Results: Pregnant women

To prevent newborns from HBV infection, all pregnant women should be screened for HBsAg, this is the case in all six countries. European guidelines recommending the post-partum vaccination of women identified as at-risk for HBV infection during pregnancy have not been issued.

Our findings too confirm that hepatitis B vaccination is generally not offered to unvaccinated women post birth.
Conclusions (I)

- Not always vaccination is offered commonly to at-risk groups prioritized by national policies
- Subjective, non-uniform vaccination practices are likely to exacerbate health inequalities
- There is a need for clear and precise hepB vaccination policies developed specifically for different professional groups (specifying who is responsible for screening and vaccinating)
- Important to tackle the barriers
- Vaccination has to be free for the at-risk groups
- Adequate compensation
Conclusions (II)

• A better understanding and application of the recommendations could be ensured through the implementation of education and training of health care professionals.

• One method would be by strengthening the vaccinology content and introducing vaccination policy courses in the medical and paramedical curriculum of future cohorts of doctors and nurses.

• The only sure way to make the elimination of hepatitis B a foreseeable and realistic objective is through universal childhood immunization.

• Targeted programmes for hard to reach subgroups, including undocumented migrants.
Thank you for your attention

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