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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Background

- Vaccination against hepatitis B was introduced in 1982
- 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 migrants from endemic areas and in 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
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
- Rather than to reach a large representative sample of practising clinicians, the aim in each professional group was to reach 5-10 experts
Materials and methods (II)

• Professionals in all surveys 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>
If at-risk individuals are vaccinated, is personal copayment/contribution required for the vaccination?

- GP and SHS surveys: PWID, sex workers, HCV and HIV positive patients, migrants
- GS and ASC surveys: Asylum seekers
- ANC survey: pregnant women
## 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><strong>Invites sent</strong></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><strong>Complete responses</strong></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><strong>Response rate</strong></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 and provided for PWID.

It is remarkable that in DE, NL, HU and IT, notable proportions of respondents reported that vaccination is offered intermittently or not offered at all.
Copayment for people who inject drugs

- UK (n=19)
- DE (n=9)
- NL (n=9)
- HU (n=1)
- IT (n=10)
- ES (n=3)

- Yes
- No
- Unsure

HEPscreen
Results: Sex workers

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

Notable proportions of respondents reported that vaccination is offered intermittently in DE, HU, IT and ES.
Copayment for sex workers

UK (n=16)  DE (n=8)  NL (n=10)  HU (n=2)  IT (n=7)  ES (n=4)

- Yes
- No
- Unsure
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.
Copayment for HIV positive patients

- UK (n=15)
- DE (n=8)
- NL (n=13)
- HU (n=1)
- IT (n=9)
- ES (n=4)

Yes | No | Unsure
--- | --- | ---

- UK: No
- DE: Yes
- NL: Yes
- HU: No
- IT: Yes
- ES: Yes
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.
Copayment for HCV positive patients

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>16</td>
<td>100</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>DE</td>
<td>7</td>
<td>0</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>NL</td>
<td>7</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>HU</td>
<td>1</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>0</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>ES</td>
<td>2</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>
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.
Copayment for asylum seekers

- UK (n=4)
  - Yes: 100%
  - Only free for some: 0%
  - No: 0%
  - Unsure: 0%

- DE (n=3)
  - Yes: 33.3%
  - Only free for some: 33.3%
  - No: 0%
  - Unsure: 33.3%

- NL (n=4)
  - Yes: 0%
  - Only free for some: 25%
  - No: 50%
  - Unsure: 25%

- HU (n=2)
  - Yes: 0%
  - Only free for some: 50%
  - No: 50%
  - Unsure: 0%

- IT (n=2)
  - Yes: 0%
  - Only free for some: 50%
  - No: 50%
  - Unsure: 0%

- ES (n=3)
  - Yes: 0%
  - Only free for some: 0%
  - No: 33.3%
  - Unsure: 66.7%
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.
Copayment for migrants

- UK (n=15)
- DE (n=7)
- NL (n=2)
- HU (n=1)
- IT (n=7)
- ES (n=3)

- Yes
- No
- Unsure
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.

- UK (n=38)
- DE (n=45)
- NL (n=51)
- HU (n=18)
- IT (n=49)
- ES (n=16)
Results: Health care workers

Current hepatitis B vaccination practices are in line with current policies

- UK (n=7): 43% Yes, 27% Sometimes, 20% Unsure
- DE (n=11): 27% Yes, 43% Sometimes, 20% Unsure
- NL (n=5): 20% Yes
- HU (n=2): 100% Yes
- IT (n=5): 40% Yes, 60% Unsure
- ES (n=6): 100% Yes
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.
Copayment for pregnant women

UK (n=1)

DE (n=4)

IT (n=2)

ES (n=1)

Yes

No

Unsure
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 hepatitis B 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.
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