



PS3/05 **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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## Introduction

Vaccination is recognized as the best way to prevent hepatitis B infection and its consequences. Hepatitis B vaccination started in 1982 and since then has been proven safe and highly effective: completing the three-dose series induces protection in about 95% of recipients and protection lasts at least 20 years and is possibly lifelong. In those European countries that implemented universal vaccination programmes, not only an overall decline in the number of acute cases was demonstrated, but also a reduction in the carrier rate in immunized cohorts occurred.

## Objectives

By means of an online survey targeted at different groups of health professionals, the present study aimed to explore whether people who inject drugs (PWID), sex workers, HIV and/or HCV positive patients, household and/or sexual contacts of hepatitis B positive patients, health care workers (HCWs), asylum seekers and migrants from countries with high or intermediate endemicity, are vaccinated against hepatitis B if screened for hepatitis B and found negative in six European countries, namely Germany, Hungary, Italy, the Netherlands, Spain and the UK. The analysis was then extended to pregnant women, screened for HBV in all selected countries.

## Methods

Six semi-qualitative online surveys were developed, aimed at and sent to different groups of health professionals, experts and officials in policy roles and/or able to representing the views of professionals within their specialty in their respective countries, not necessarily involved in vaccination practices. The surveys included a general screening (GS) survey aimed at public health experts, one survey aimed at general practitioners (GPs), one aimed at sexual health service (SHS) and/or genitourinary medicine (GUM) specialists, an antenatal care (ANC) survey aimed at antenatal care providers, an asylum seeker care (ASC) survey aimed at professionals involved in the health care of asylum seekers and, finally, a specialist secondary care (SP) survey aimed at gastroenterologists, hepatologists and infectious diseases specialists. To explore the current vaccination practices following a negative screening/test result for hepatitis B for the aforementioned groups, professionals were asked the following questions: (a) If screened for hepatitis B, are individuals with negative screening results vaccinated? (b) If found to be positive for hepatitis B, are their negative household and/or sexual contacts vaccinated? The experts could choose from the following answer options: (i) Yes (ii) Sometimes (iii) No and (iv) Unsure. In Table 1 the populations subgroups considered in each survey are shown. The open source online software package Lime Survey was used to create the online versions of the six surveys, which were conducted between July and September 2012. The analysis of the responses was restricted to the answers of those experts who, in the previous part of the questionnaire exploring screening practices, had reported that screening of the subgroups considered for hepatitis B is very commonly or variably practiced.

Table 1. Population subgroups (in rows) mentioned per survey (in columns)

POPULATION SUBGROUPS	EXPERT SURVEYS					
	GS	ANC	ASC	GPs	SHS	SP
People who inject drugs	x			x	x	
Sex workers	x			x	x	
HIV + patients	x			x	x	
HCV + patients	x			x	x	x
Asylum seekers	x		x			
Migrants	x			x	x	
Contacts of hep B + patients	x	x	x	x	x	x
Health care workers	x					
Pregnant women	x	x				

GS=General Screening survey, ANC=Antenatal Care survey, ASC=Asylum Seekers Care survey, GP=General Practitioners survey, SHS=Sexual Health Services survey; SP=Specialist Secondary Care survey

## Results

The results show that not always vaccination is offered commonly to at-risk groups prioritized by national policies: some gaps between current practices and the policies in place were observed. In Table 2 the vaccination practices of population subgroups screened for hepatitis B by country are shown. In particular, less than half of the respondents in the Netherlands, only about 1/4 in Germany and none in Hungary reported that the vaccine is commonly offered to people who inject drugs. Less than half of the respondents in Germany reported vaccinating sex workers or HIV positive patients against hepatitis B as common practice. None in Hungary stated that vaccinating sex workers is common practice, and only a minority (17%) reported that HIV patients are commonly vaccinated. Between 1/4 to 1/3 of respondents in Germany, the Netherlands, Italy, Hungary and the UK, indicated that HCV positive patients are only sporadically immunized. Results from the survey suggest that migrants are vaccinated commonly only in Spain, but are not vaccinated in the Netherlands and are irregularly vaccinated in the other countries. Widespread uncertainty about vaccination practices for asylum seekers was reported. As for pregnant, hepatitis B vaccination is generally not offered to unvaccinated women post-birth. Hepatitis B vaccination is commonly offered to close contacts of individuals with chronic hepatitis B infection and to health care workers in most countries.

Table 2. Vaccination practices of population subgroups screened for hepatitis B in the six countries

Vaccination practices in the UK	Yes	Sometimes	No	Unsure
PWID (n=26)	81%	19%	0%	0%
Sex workers (n=24)	71%	17%	4%	8%
HIV + patients (n=25)	72%	16%	0%	12%
Hepatitis C + patients (n=36)	61%	28%	3%	8%
Asylum seekers (n=13)	0%	62%	15%	23%
Migrants (n=25)	36%	36%	12%	16%
Contacts of hep B + patients (n=38)	74%	18%	3%	5%
Health care workers (n=7)	57%	43%	0%	0%
Pregnant women (n=17)	12%	0%	83%	6%
Vaccination practices in Germany	Yes	Sometimes	No	Unsure
PWID (n=19)	26%	53%	5%	16%
Sex workers (n=15)	40%	40%	7%	13%
HIV + patients (n=17)	47%	35%	6%	12%
Hepatitis C + patients (n=28)	46%	36%	7%	11%
Asylum seekers (n=9)	44%	22%	11%	22%
Migrants (n=16)	25%	44%	13%	19%
Contacts of hep B + patients (n=45)	47%	24%	9%	20%
Health care workers (n=11)	64%	27%	0%	9%
Pregnant women (n=48)	17%	21%	44%	19%

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Vaccination practices in the Netherlands	Yes	Sometimes	No	Unsure
	45%	30%	10%	15%
Sex workers (n=20)	65%	15%	0%	20%
HIV + patients (n=22)	59%	27%	5%	9%
Hepatitis C + patients (n=43)	47%	26%	14%	14%
Asylum seekers (n=10)	60%	20%	0%	20%
Migrants (n=18)	6%	17%	50%	28%
Contacts of hep B + patients (n=51)	73%	20%	6%	2%
Health care workers (n=5)	80%	20%	0%	0%
Pregnant women (n=13)	8%	23%	69%	0
Vaccination practices in Hungary	Yes	Sometimes	No	Unsure
PWID (n=6)	0%	33%	17%	50%
Sex workers (n=6)	0%	50%	17%	33%
HIV + patients (n=6)	17%	17%	17%	50%
Hepatitis C + patients (n=13)	46%	23%	15%	15%
Asylum seekers (n=5)	40%	40%	20%	0%
Migrants (n=6)	0%	50%	17%	33%
Contacts of hep B + patients (n=18)	72%	11%	11%	5%
Health care workers (n=2)	100%	0%	0%	0%
Pregnant women (n=6)	0%	33%	67%	0%
Vaccination practices in Italy	Yes	Sometimes	No	Unsure
PWID (n=18)	56%	22%	11%	11%
Sex workers (n=14)	47%	33%	13%	7%
HIV + patients (n=18)	61%	11%	0%	28%
Hepatitis C + patients (n=2)	39%	25%	18%	18%
Asylum seekers (n=11)	9%	9%	18%	64%
Migrants (n=18)	17%	56%	11%	17%
Contacts of hep B + patients (n=49)	61%	16%	4%	18%
Health care workers (n=5)	80%	0%	20%	0%
Pregnant women (n=32)	13%	19%	66%	3%
Vaccination practices in Spain	Yes	Sometimes	No	Unsure
PWID (n=11)	73%	9%	9%	9%
Sex workers (n=11)	55%	36%	0%	9%
HIV + patients (n=11)	82%	9%	0%	9%
Hepatitis C + patients (n=15)	80%	13%	0%	7%
Asylum seekers (n=10)	40%	0%	0%	60%
Migrants (n=13)	46%	15%	8%	31%
Contacts of hep B + patients (n=16)	81%	13%	0%	6%
Health care workers (n=6)	100%	0%	0%	0%
Pregnant women (n=15)	13%	13%	47%	27%

## Conclusions

The findings from our survey highlighted that there are substantial gaps between the desired and actual hepatitis B vaccination practices for vulnerable and at-risk groups and therefore show clearly that countries that only adopt targeted vaccination strategies are likely to miss sizeable proportions of those for whom vaccination would be indeed justified. The only sure way to make the elimination of hepatitis B a foreseeable and realistic objective is through universal childhood immunization, coupled with targeted programmes for hard to reach subgroups. Strategies aimed at reaching migrant populations should take into account all possible barriers (administrative, socio-cultural, health belief, linguistic barriers) that may prevent susceptible individuals to get immunized. Special efforts should be made to ensure that also irregular (undocumented) migrants, generally entitled to receive only emergency or essential health care in the EU, are reached.

For more information visit [www.hepscreen.eu](http://www.hepscreen.eu) or contact Irene Veldhuijen ([ik.veldhuijen@Rotterdam.nl](mailto:ik.veldhuijen@Rotterdam.nl))