

Overview of Hepatitis B prevention programmes

Results of the EUROHEP.NET feasibility survey

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Background

The introduction of immunisation programmes in Europe resulted in a major decrease in the incidence of several infectious diseases. To control infections at a European level, vaccines should be offered in a structured way to reach target age cohorts, also across borders.

Objectives

- To give an overall picture of the existing hepatitis B prevention programmes in the participating countries.
- To study the feasibility to formulate guidelines to enable adaptation or simplification of hepatitis B vaccination programmes.
- To elaborate recommendations for hepatitis B prevention programmes, especially in the countries with changing prevalence.

Methods

- 20 countries (AT, BE, BG, CZ, EE, DE, GR, HU, IL, IT, LV, LT, LU, MT, NL, PL, RO, SK, SL, UK) participated in the EUROHEP.NET survey (2003).
- Based on the results of this survey, an overview and comparison between different hepatitis B prevention programmes was generated.
- The second part of this poster gives an overview of existing prevention programmes in the 52 countries in WHO European region.

Universal prevention programmes

Universal programme	Number of countries (N=20)	Starting at age
universal screening policy for pregnant women ¹	14	
neonates	7	<24 h
infants	8	3 d-3 m
childhood	4	6-9 y
adolescents	8	10-14 y
combination newborn/infant and childhood/adolescent	9	

Reimbursement of vaccination programmes

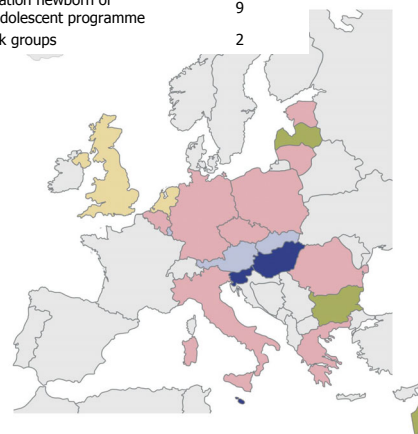
Universal programme (N=18)	Reimbursed?		
	yes	no	unknown
mandatory	11/18		1/18
not mandatory	5/18		1/18
Risk group programme (N=20)	16/20	2/20	2/20
all	9/20		
some	7/20		

Risk group vaccination programmes

Risk group programmes	Number of countries (N=20)	Mandatory	Booster	Reimbursement
injecting drug users	15	1/14	2/14	11/14
men who have sex with men	11	0/11	2/11	6/11
attendees of STI clinics	8	0/8	1/8	4/8
dialysis patients	17	7/17	8/17	12/17
groups with occupational risk	20	10/20	5/20	13/20
household contacts of known hepatitis B carriers	18	6/18	3/18	12/18
hospitalised patients	0	0	0	0
neonates born to HBsAg positive mothers	18	10/18	1/18	12/18
other ²	7	1/7	0/7	2/7

Hepatitis B vaccination policies

Starting at age	Number of countries
Only neonatal programme	3
Only infant programme	3
Only children/adolescents programme	3
Combination newborn or infant/adolescent programme	9
Only risk groups	2



Discussion

- Different strategies for control of hepatitis B are used. In areas of high endemicity, immunisation programmes must be large scale aimed at mass immunisation of infants. In areas of lower endemicity, vaccination of risk groups was generally recommended in the 1980's, but this strategy failed to control the disease.
- The wide variety in immunisation schedules across Europe reflects the different Member States. Vaccination programmes have evolved in different countries in function of the perceived disease burden inflicted in their populations by hepatitis B and the availability of an effective vaccine against it. Beside epidemiological factors, traditional organisational, emotional and socio-economic factors may have led to variations in immunisation schedules. As a result, no two countries in Europe have exactly the same time-scheme of vaccine inoculations.
- Nevertheless, European recommendations on vaccination strategies or schedules could be helpful in the elimination of hepatitis B in Europe.
- Each schedule should allow enough flexibility to rapidly and efficiently incorporate additional vaccines in the calendar. The increased use of multi-antigen combined vaccines will simplify the vaccination schedule and form a potential step towards harmonisation.
- No booster policy is mentioned in the universal vaccination programmes.

FOOTNOTES

- 70% has an antenatal screening policy; 2/20 countries have no neonatal vaccination program and do not perform antenatal screening of which one country starts infant vaccination at day 2-3.
- Other risk groups: clotting factor disorder patients, transplantation candidates, thalassemia, severe mental handicap, chronic liver diseases, prisoners for a longer period, travellers in some conditions, HIV+, multitransfusion patients, children with oncohaematology, (para)medical students, chronic kidney diseases, residents in institutions for learning difficulties, hepatitis C carriers.



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OBJECTIVES and METHODS:

See previous poster

Variety in vaccination programmes in Europe, 52 countries

Country	Prenatal screening	Newborn/Infant Universal Vaccination Programme			Adolescent/Childhood Universal Vaccination Programme		
		Starting at age	Year of introduction	Schedule in months	Starting at age	Year of introduction	Schedule in months
Eurohep.net participants							
Austria	universal	infant (3m)	1998	0,1,2,12			
Belgium	universal	infant (2m)	1999	0,1,2,12	adolescent (12y)	1999	0,1,6
Bulgaria	no	newborn	1991	0,1,6			
Czech Republic	universal	infant (9-12w)	2001	0,1,6	adolescent (12y)	2001	0,1,6
England and Wales	universal	no universal programme					
Estonia	universal	newborn	2003	0,1,6	adolescent (12-13y)	1999	0,1,6
Germany	universal	infant (2m)	1995	0,1,6	adolescent (10y)	1995	0,1,6
Greece	universal	infant (2m)	1998	0,1,6	child (6y)	1998	0,1,6
Hungary	universal				adolescent (14y)	1999	0,1,6
Israel	no	newborn	1992	0,1,6			
Italy	universal	infant (3m)	1991	0,2,8	adolescent (12y)	1991	0,1,6
Latvia	universal	newborn	1997	0,1,6			
Lithuania	no	newborn	1998	0,1,6	adolescent	2002	0,1,6
Luxembourg	no	infant (1-2m)	1997	0,2,10			
Malta	yes				child (9y)	1997	0,1,6
Netherlands	universal	no universal programme					
Norway		no universal programme					
Poland	no	newborn	1993-1996	0,1,6	adolescent (14y)	2000	0,1,6
Romania	no	newborn	1995	0,2,6	child (9y)	1999	0,1,6
Slovak Republic	universal	infant (9w)	1998	0,1,6			
Slovenia	universal				child (7y)	1998	0,1,12
Other European countries							
Albania	no	newborn	1994	0,2,6			
Andorra	no	newborn		0,2,6	adolescent*	2000	
Armenia	selective	newborn	2000	0,1,5,6	adolescent*	2000	
Azerbaijan	no	newborn		0,2,4			
Bosnia and Herzegovina	selective	newborn	2001 (Srpska)-2004	0,1,6	child (7y) (Fed.B&H)	1999	0,1,6
BY	no	newborn	1999	0,1,5	adolescent (13y)	1998-1999	
Croatia	universal				adolescent (12y)	1999	0,1,6
Cyprus		infant (2m)		0,2,10			
Denmark	selective	no universal programme					
Finland	selective	no universal programme					
F.Y.R. of Macedonia	selective	newborn*	2002-2003 planned	0,1,6			
France	universal	infant (2m)	1994-1995	0,1,6	adolescent (11-13y)	1994-1995	0,1,6
Georgia	no	newborn	2000	0,2,4			
Iceland	yes	no universal programme					
Ireland	yes	no universal programme					
Kazakhstan	no	newborn	1997-1998	0,2,4			
Kyrgyzstan	no	newborn	1999(regional)-2001	0,2,5			
Moldavia	no	newborn	1995	0,1,6			
Monaco	yes	infant (6m)					
Portugal	yes	newborn	2000	0,2,6	adolescent (11-13y)	1994-1995	0,1,6
Russian Republic	yes	newborn	2002	0,1,8	adolescents (13y)	2002	0,1,6
San Marino	yes	newborn	1991		adolescents	1991	
Spain	universal	newborn/infant	1998	0,2,6	adolescents (12y)	1993	
Sweden	yes	no universal programme					
Switzerland	universal				adolescent (11y)	1998	0,1,6
Tajikistan	no	newborn	2002	0,2,4			
Turkey	selective	infant (3m)	1998	0,1,6			
Turkmenistan	no	newborn	2002	0,2,4			
Ukraine	universal	newborn	1996	0,1,6			
Uzbekistan	yes	newborn	1998	0,2,9			
Yugoslavia	yes	infant		0,1,10			

bold text: mandatory

* not confirmed by WHO

SOURCES

- Van Damme P, Vorsters A. Hepatitis B control in Europe by universal vaccination programmes: the situation in 2001. J Med Virol 2002; 67: 433-439.
- <http://www.who.int/vaccines/GlobalSummary/Immunization/ScheduleSelect.cfm>.
- Hepatitis B vaccination survey, conducted at the St. Petersburg meeting: 'Strengthening immunization systems and introduction of hepatitis B vaccine in central and eastern Europe and the Newly Independent States', Russian federation, June 24-27 organized by CDC, WHO, UNICEF, GAVI, VHPB and Bill and Melinda Gates children's vaccine program.
- WHO report under construction.
- Eurohep.net survey, conducted in 2003.