



Surveillance, epidemiology and prevention of Hepatitis B in Bulgaria

Results of the EUROHEP.NET feasibility survey

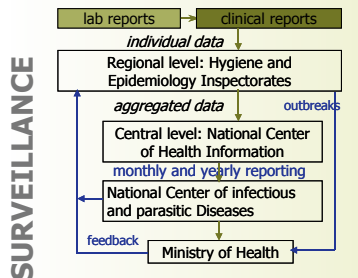
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Surveillance system	Since 1983	
mandatory reporting	yes	passive
voluntary reporting	no	
sentinel	no	
laboratory	yes	passive

Flow chart of the surveillance system¹



CASE DEFINITION

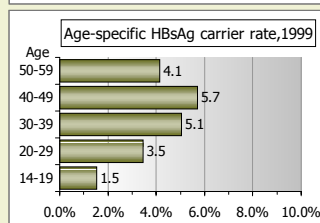
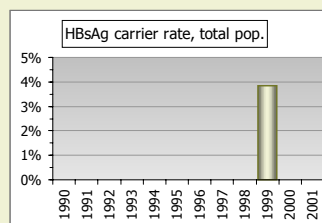
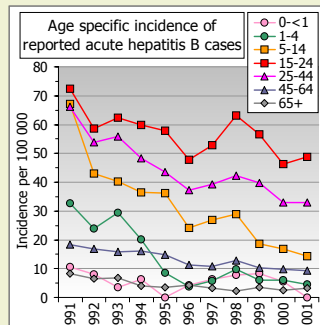
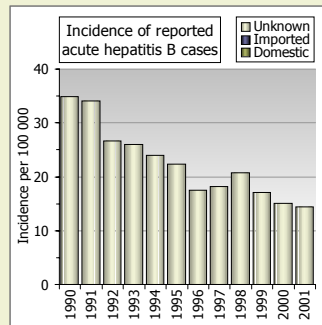
- EC Hepatitis B case definition is used:
- **Probable:** clinical picture compatible with hepatitis (e.g. discrete onset of symptoms and jaundice or elevated serum aminotransferase levels) and HBsAg positive.
- **Confirmed:** clinical case definition and laboratory confirmation (IgM antibody to antiHBc or HBV nucleic acid in serum).

OBJECTIVES and METHODS

The EUROHEP.NET project is a concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The overall goal is to study the feasibility of a future network on surveillance and prevention and to facilitate the progress of these countries towards enhanced control of hepatitis A and B.

Early 2003, EUROHEP.NET sent a feasibility survey to all participating countries to take stock of the country-specific surveillance and prevention activities for hepatitis A and B. The first achievement of this EU concerted action is to provide in a standardized/comparative way an overview of the different surveillance systems, epidemiology, burden of disease and prevention programmes for these infectious diseases.

EPIDEMIOLOGY



BURDEN OF DISEASE

Hepatitis B	1997	1998	1999	2000	2001
Acute hepatitis B: Hospitalised cases/100000 ²	18.19	20.69	17.14	15.09	14.37
Acute hepatitis B: Hospitalisation days per case					
Chronic hepatitis B: Hospitalised cases/100000					
Chronic hepatitis B: Hospitalisation days per case					
Total: Hospitalised cases/100000					
Total: Hospitalisation days per case					
Deaths	20	17	16	21	15
Mortality (total number of deaths per 100 000) ³	0.24	0.21	0.20	0.26	0.19
Cirrhosis cases					
Total number of patients with hepatocellular cancer		641	715		
Total number of liver transplants not hep B specific	0	0	0	0	0

PREVENTION by active immunisation⁴

Universal programme	starting in	starting at age	schedule	coverage rate 2001
universal screening policy for pregnant women	no			
vaccination of neonates*	1991	<24 hrs	0,1,6	93%
vaccination of adolescents	1996	12 years	0,1,6	

Risk group programmes	available (since)	booster	reimbursed
injecting drug users	1995		no
men who have sex with men	1995		no
attendees of STI clinics	1995		no
dialysis patients	1995	yes	no
groups with occupational risk*	1995		yes
household contacts of known hepatitis B carriers	1995		no
hospitalised patients	no		
neonates born to HBsAg positive mothers*	1988-1991		yes
other risk groups ⁵	2000		

* mandatory vaccination

COMMENTS

- Surveillance for hepatitis B is passive.
- All clinically manifested acute cases with jaundice are subject to compulsory hospitalisation in an infectious disease unit, subsequent laboratory confirmation and mandatory notification and registration.
- EC case definition is used for surveillance purposes.
- Hepatitis B is considered to be intermediate endemic in Bulgaria because of the HBsAg carrier rate ranging between 3-5%.
- Universal vaccination programme is in place for newborns. Newborn vaccination is included in the National Immunization calendar and it is mandatory. The coverage rates in newborns are satisfactory. There is no universal adolescence immunization programme and the adolescence vaccination is recommended, but not regulated by the Ministry of Health. It is recommended for all adolescents born before 1991, but parents have to take the decision and to buy the vaccine over the counter.
- Cost of hepatitis B vaccine: private pediatric dose: 8.2€ (Engerix B) and 10.25€ (EuvaxB); public pediatric use: 2.15€ (Engerix B)

FOOTNOTES

1. Clinical reports originate from General Practitioners, Outpatient Specialized Medical Assistance and Hospital Wards.
2. Data on hospitalized hepatitis B cases are related only to clinically manifested acute cases. The number of hospitalized cases coincides with the total number of acute cases because the hospitalization is compulsory in Bulgaria. Considering that there are specialized hospital wards for communicable diseases who work in close contact with regional epidemiologists, the National Surveillance system is informed timely and precisely about the number of cases and the outcome.
3. Data on mortality refer to acute cases only. The specialized communicable disease hospital wards have to fill in an official reporting form for cases with lethal outcome.
4. The main sources of information on coverage rates are the National surveillance system for immunization coverage and the National statistical information.
5. Risk groups are vaccinated. Other mentioned risk groups are HIV positive persons since 2000, military and police personnel since 2000 and persons born before 1992 since 2000. Vaccination in groups with occupational risk is only mandatory in health care personnel.