Surveillance, epidemiology and prevention of Hepatitis B in Estonia

Results of the EUROHEP.NET feasibility survey

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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. The project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries. An epidemiological and clinical data collection system was developed to allow the exchange of information 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 systems, epidemiology, burden of disease and prevention programmes for these infectious diseases.

OBJECTIVES and METHODS

Surveillance system

Since 1990

Mandatory reporting yes passive

Voluntary reporting nosentinel nolaboratory yes passive

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S U R V E I L L A N C E

CASE DEFINITION

• EC hepatitis B case definition is used: confirmed: clinical case definition and laboratory confirmation (IgM antibody to antiHBc or HBV nucleic acid in serum).

EPIDEMIOLOGY

Flows of the surveillance system

individual data

clinical records

local (county) authority: Health Protection Office

national authority: Health Protection Inspectorate. Analysis of reported cases: aggregated data, weekly and monthly reporting

Ministry of Social Affairs

SURVEILLANCE

Ministry of Social Affairs

Burden of disease

• 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.

PREVENTION

by active immunisation

Universal programme starting 2001

vaccination of neonates 2001

vaccination of adolescents 2003

Risk group programmes

Household contacts of known hepatitis B carriers no

Dialysis patients no

Healthcare workers no

Injecting drug users no

Men who have sex with men no

D e a t h s 00011

Mortality (total number of deaths per 100 000)² 0.00 0.00 0.00 0.07 0.07

Cirrhosis cases

Total number of patients with hepatocellular cancer

Total number of liver transplants not Hep B specific

• Cost of hepatitis B vaccine:

private pediatric dose: 4.0€ (Engerix B) and 2.5€ (Euvax);

public pediatric use: 3.43€ (Engerix B) and 2.12€ (Euvax).

SURVEILLANCE

Flow chart of the surveillance system

www.eurohep.net

Burden of disease


Acute hepatitis B: Hospitalised cases/100000 27.85 16.65 15.18 25.8 27.58

Acute hepatitis B: Hospitalisation days per case

Chronic hepatitis B: Hospitalised cases/100000

Chronic hepatitis B: Hospitalisation days per case

Specific HBsAg carrier rate, 2001

Specific HBsAg carrier rate, total pop.³

• Surveillance is passive for hepatitis B and based on clinical reports and laboratory records.

• EC case definition is used for surveillance purposes.

• Hepatitis B is considered endemic by the reporter because of the frequency of hospitalisation and the number of chronic cases.

• There is a recommended universal vaccination programme for all children until 10 years of age.

• There are recommendations for voluntary vaccination of risk groups.

• Cost of hepatitis B vaccine:

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FOOTNOTES

1. Source of hospitalization data are clinical records. The reported data are related to acute cases only.

2. Mortality data are reported by General Practitioners and hospitals.

3. Data of HBsAg carrier rate between 1993 and 1996 are based on investigated blood donors only, for 1997 and 1998 on blood donors and pregnant women together.