Surveillance, epidemiology and prevention of Hepatitis A in Hungary

Results of the EUROHEP.NET feasibility survey

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COUNTRY CHARACTERISTICS[1]

- Total population: 9,923,000
- GDP per capita (Intl $, 2001): 13,473
- Life expectancy at birth m/f (years): 68.4/76.8
- Health expenditure/capita (Intl $, 2001): 914
- Health expenditure as % of GDP (2001): 6.8

OBJECTIVES and METHODS

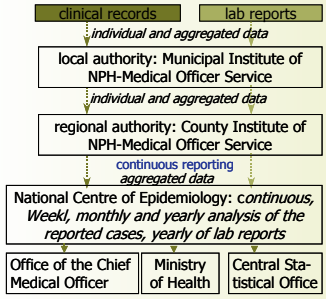
The EUROHEP.NET project is a EU concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The 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.

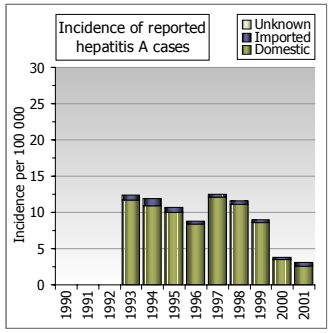
SURVEILLANCE

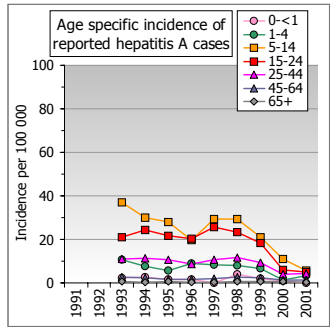
Surveillance system	Since 1950: viral hepatitis	
mandatory reporting	yes	passive
voluntary reporting	no	
sentinel	no	
laboratory	yes	passive

Flow chart of the surveillance system



EPIDEMIOLOGY





CASE DEFINITION

EC case definition is used:

- Probable: clinical picture compatible with hepatitis (e.g. discrete onset of symptoms and jaundice or elevated serum aminotransferase levels) and epidemiological link.
- Confirmed: clinical case definition and laboratory confirmation (IgM antibody to hepatitis A or nucleic acid in serum or antigen in stool)

- Definition of an **outbreak**: There is no specific definition for deciding when an outbreak occurs. For surveillance purposes: 2 cases with an epidemiological link in a community is defined as an outbreak.

BURDEN OF DISEASE

Acute hepatitis A	1997	1998	1999	2000	2001
Hospitalised cases/100 000 inhabitants[2]	11.44	11.28	8.69	3.77	3.02
Hospitalisation days per case	12.2	11.4	9.9	10.6	9.0
Deaths	0	1	0	1	0
Mortality (total number of deaths per 100 000)	0.00	0.01	0.00	0.01	0.00
Total number of liver transplants	16	19	22	23	19
Proportion of liver transplants due to hepatitis A					

Outbreaks of hepatitis A: 1997-2001:
90 outbreaks were counted

PREVENTION by active immunisation

Risk group programmes	Available since
injecting drug users	yes
men who have sex with men	no
international travellers to endemic areas*	1997
chronic liver disease patients*	1998
clotting factors disorder patients*	yes
medical and paramedical personnel in hospitals including kitchen staff and cleaners	no
people residing in areas of extended community outbreaks	1999
pre-school children attending day care centres	no
day care centre personnel	no
residents and staff of closed communities (Psychiatric Institutions and Institutions for mentally disabled)	1999
refugees residing in temporary camps	no
food-service establishment workers/food handlers	no
household contacts of infected persons	no
children of migrants visiting an endemic country of origin	no
other risk groups	no

* risk groups with mandatory vaccination

COMMENTS

- Surveillance is passive for hepatitis A.
- The municipal institutes regularly control the reporting accuracy of hospital infectious wards, including the comparison of the number of hepatitis A cases treated in the hospital and that of the reported cases. Underreporting is less than 5%.
- EC case definition is used for surveillance purposes.
- Hepatitis A is considered an endemic disease because of the regular occurrence.
- Recommendations for vaccination of risk groups are published by the national Centre of Epidemiology in an annual methodology circular.
- A special mass hepatitis A vaccination for children living in closed communities was performed in 1998/1999. This campaign had a high coverage rate of 90%.
- Immunoglobulins of national production are still available. Human immunoglobulins are used for international travellers in preexposure prophylaxis, primarily, for travellers with insufficient time for active immunization and/or with a stay abroad not surpassing 6 weeks. Also for passive immunization of contacts. IgG should be given as soon as possible after exposure, but within two weeks.

FOOTNOTES

1. Country characteristics: www.who.int/country/en/
   Figures are for 2002 unless indicated. Source: the World health report 2003 (derived April 2004).
2. Data sources on hospital admission and mortality are official notification and epidemiological investigation.
3. The number of outbreaks was derived from the 2002 hepatitis A survey, conducted by University of Antwerp.