



Surveillance, epidemiology and prevention of Hepatitis A in the Czech Republic

Results of the EUROHEP.NET feasibility survey

B. Kriz¹, EUROHEP.NET team²

¹ National Institute of Public Health, Prague

² University of Antwerp, Belgium

COUNTRY CHARACTERISTICS¹

- Total population: 10,246,000
- GDP per capita (Intl \$, 2001): 15,340
- Life expectancy at birth m/f (years): 72.4/79.0
- Health expenditure/capita (Intl \$, 2001): 1,129
- Health expenditure as % of GDP (2001): 7.4

OBJECTIVES and METHODS

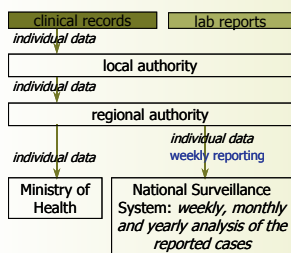
The EUROHEP.NET project is a EU concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The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

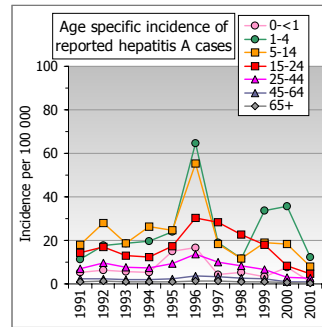
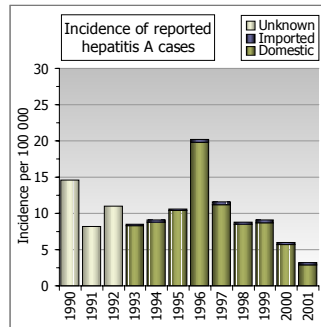
SURVEILLANCE

Surveillance system	Since 1979	
mandatory reporting	yes	active
voluntary reporting	no	
sentinel	no	
laboratory	no	

Flow chart of the surveillance system



EPIDEMIOLOGY²



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:** Any extreme incidence according to place, time.

BURDEN OF DISEASE

Acute hepatitis A	1997	1998	1999	2000	2001
Hospitalised cases/100 000 inhabitants	11.6	8.8	9.1	6.0	3.2
Hospitalisation days per case ³	14	14	14	14	14
Deaths	0	0	0	0	0
Mortality (total number of deaths per 100 000)	0	0	0	0	0
Total number of liver transplants					
Proportion of liver transplants due to hepatitis A					

Outbreaks of hepatitis A: 1997-2001: ⁴

Five outbreaks were counted.

COMMENTS

- Surveillance is active for hepatitis A in the Czech Republic and is based on laboratory confirmed epidemiological records.
- There is approximately 5% underreporting of cases.
- EC case definition is used for surveillance purposes.
- Hepatitis A is not considered endemic in the Czech Republic.
- In the Czech guidelines, all three possibilities for postexposure prophylaxis: immunoglobulins alone, immunoglobulins and vaccination or vaccination alone, are recommended, but the use of the vaccine is preferred.
- There are no universal or risk group vaccination programmes.

PREVENTION by active immunisation

Risk group programmes	Available since
injecting drug users	no
men who have sex with men	no
international travellers to endemic areas	1995
chronic liver disease patients	no
clotting factors disorder patients	no
medical and paramedical personnel in hospitals including kitchen staff and cleaners	no
people residing in areas of extended community outbreaks	no
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)	no
refugees residing in temporary camps	no
food-service establishment workers/food handlers	no
household contacts of infected persons	1995
children of migrants visiting an endemic country of origin	no
other risk groups	no

FOOTNOTES

- Country characteristics: www.who.int/country/en/
Figures are for 2002 unless indicated. Source: the World health report 2003 (derived April 2004).
- A multipurpose serological survey was performed in the Czech Republic 2001-2003, *Zpravy Centra epidemiologie a mikrobiologie*, 12, 2003, 7-8 Suppl.
Serological survey of the antibodies against selected infectious diseases in the Czech Republic, 2001. *European Journal of Public Health* Vol 11 (JHEM vol.47) Dec. 2003 supplement, ISSN 1210/7778
- The average duration of hospitalisation is approximately 14 days, no precise data are available. Data for disease burden are provided by mandatory official notification system. Source for mortality data is the Czech Statistical Office through MOH.
- The number of outbreaks was derived from the 2002 hepatitis A survey, conducted by University of Antwerp.