



Surveillance, epidemiology and prevention of Hepatitis A in Belgium

Results of the EUROHEP.NET feasibility survey

L. De Cock¹, S. Quoilin¹, R. Vranckx¹, EUROHEP.NET team²

¹ Scientific Institute of Public Health, Brussels

² University of Antwerp, Belgium

COUNTRY CHARACTERISTICS¹

- Total population 10,296,000
- GDP per capita (Intl \$, 2001): 27,932
- Life expectancy at birth m/f (years): 75.2/81.5
- Health expenditure/capita (Intl \$, 2001): 2.481
- Health expenditure as % of GDP (2001): 8.9

OBJECTIVES and METHODS

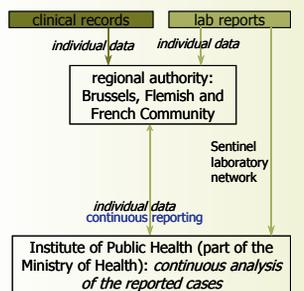
The EUROHEP.NET project is a EU concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The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

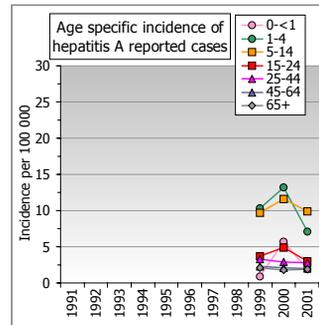
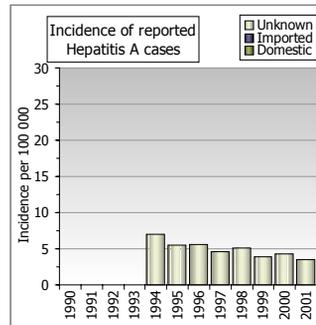
SURVEILLANCE

Surveillance system	Since 1971	
mandatory reporting	yes	passive
voluntary reporting	no	
sentinel	yes	passive
laboratory	yes	passive

Flow chart of the surveillance system



EPIDEMIOLOGY^{2,3}



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)

- There is no specific definition of an **outbreak**.

BURDEN OF DISEASE⁴

Acute hepatitis A	1997	1998	1999	2000	2001
Hospitalised cases/100 000 inhabitants	4.23	4.01	4.04	4.19	3.57
Hospitalisation days per case					
Deaths	2				
Mortality (total number of deaths per 100 000)	0.02				
Total number of liver transplants		97	168	161	167

Outbreaks of hepatitis A: 1997-2001:

Four outbreaks were investigated by Institute of Public Health.

COMMENTS

- Surveillance for hepatitis A in Belgium is passive. Besides mandatory reporting, a sentinel network of laboratories act also for surveillance purposes. The participation of laboratories to the surveillance is actually voluntary, so distinction between voluntary reporting and sentinel laboratory surveillance is not relevant.
- Hepatitis A is considered low endemic in Belgium.
- There is no complete information about the incidence of hepatitis A in Belgium due to the limits of the surveillance systems. It means the underreporting in the mandatory reporting system and the participation of only 50% of the laboratories to the Sentinel Surveillance Network. Nevertheless the Sentinel Surveillance Network gives a correct picture of the evolution of the incidence. This picture is completed by the seroprevalence study. The first one has been achieved in 1993 and is repeated at this moment.
- Vaccination is performed in certain risk groups, there is no universal vaccination.

PREVENTION by active immunisation

Risk group programmes	Available since
injecting drug users	yes
men who have sex with men	yes
international travellers to endemic areas	yes
chronic liver disease patients	yes
clotting factors disorder patients	yes
medical and paramedical personnel in hospitals including kitchen staff and cleaners	2001
people residing in areas of extended community outbreaks	no
pre-school children attending day care centres	no
day care centre personnel	2001
residents and staff of closed communities (Psychiatric Institutions and Institutions for mentally disabled)	2001
refugees residing in temporary camps	no
food-service establishment workers/food handlers	no
household contacts of infected persons	yes
children of migrants visiting an endemic country of origin	yes
other risk groups ⁵	yes

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. Laboratory confirmed cases are reported by the network of laboratories, i.e. reference laboratories and 127 sentinel laboratories. This covers 50-60% of the cases. Data are reported to the Sentinel Laboratory Network of the IPH (MOH).
3. The source of the data for epidemiology is the Sentinel Laboratory Network, with data for all Communities.
4. Hospitalisation data, liver transplantation data and mortality data are available at the level of the MOH.
5. Other risk groups for hepatitis A are candidates for liver transplantsations, professionals in contact with waste water and faeces.