



Surveillance, epidemiology and prevention of Hepatitis A in Israel

Results of the EUROHEP.NET feasibility survey

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COUNTRY CHARACTERISTICS¹

- Total population: 6,304,000
- GDP per capita (Intl \$, 2001): 21,223
- Life expectancy at birth m/f (years): 77.3/81.4
- Health expenditure/capita (Intl \$, 2001): 1,839
- Health expenditure as % of GDP (2001): 8.7

OBJECTIVES and METHODS

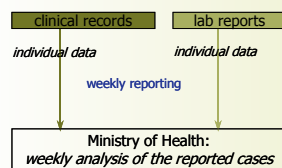
The EUROHEP.NET project is a EU concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The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

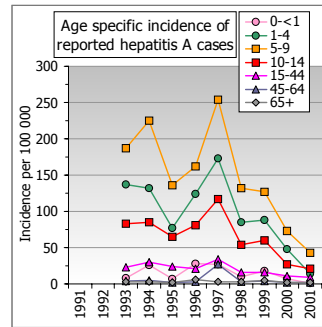
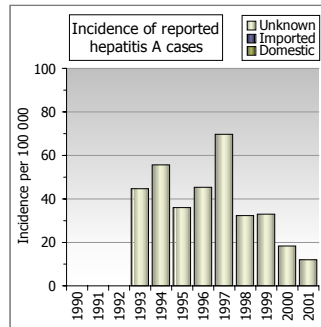
SURVEILLANCE

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

Flow chart of the surveillance system



EPIDEMIOLOGY



CASE DEFINITION

- A hepatitis A case is defined "as diagnosed by the reported clinician, or positive by IgM"
- Definition of an **outbreak**: At least 2 cases associated in time and place.

BURDEN OF DISEASE²

Acute hepatitis A	1997	1998	1999	2000	2001
Hospitalised cases/100 000 inhabitants	6.86	5.04	4.49	2.33	2.02
Hospitalisation days per case					
Deaths	0	1			
Mortality (total number of deaths per 100 000)	0.00	0.02			
Total number of liver transplants not hep A specific	28	51	38	54	53
Proportion of liver transplants due to hepatitis A					

COMMENTS

- Surveillance is passive, mandatory and clinical- and laboratory report based. As any passive surveillance, this is not a complete nor 100% reliable system. However, validation with active surveillance demonstrates that the passive one is appropriate for trends.
- An own case definition is used. There will be no change towards the EU case definition because there are very few reports after vaccination started. Also, the fact that there was a >95% reduction after initiation of vaccination shows that the definition was specific enough and did not include many non-hepatitis A cases.
- There is an unknown degree of underreporting. In a recent study conducted in 1993-1994, (Lerman Y, Chodik G, Aloni H, Ashkenazi S. How valid is the official data from the Health Department on reported morbidity in Israel? Hepatitis A as an example. Harefuah 136(6):441-5, 15, 514, 1999), passive reporting identified only 1769 cases in adults, while the real figure should have been around 8000 cases. Therefore the already high reported incidence is very likely to reflect an even higher true incidence.
- There is an ongoing seroepidemiological study on Bedouin and Jewish infants (2003-2004).
- Hepatitis A was a disease of intermediate endemicity in Israel before the universal vaccination started.
- There is universal vaccination against hepatitis A at the age of 18 and 24 months with coverage rates of 89% after the first dose, starting in 1999.

PREVENTION by active immunisation

Risk group programmes	Available since
injecting drug users	1995
men who have sex with men	1995
international travellers to endemic areas	1995
chronic liver disease patients	1995
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	1996
children of migrants visiting an endemic country of origin	no
other risk groups ³	yes

FOOTNOTES

- Country characteristics: www.who.int/country/en/
Figures are for 2002 unless indicated. Source: the World health report 2003 (derived April 2004).
- Sources for disease burden data is the Ministry of Health, Information Centre, reported by code ICD9. Total number for hospital admission cases from hepatitis A represents underreporting, we must add 30-50% non-specific jaundice to the number of hospitalised cases.
- Vaccination is recommended for other risk groups, but they are not specified.