

Health Protection Surveillance Centre

Introduction

Acute and chronic cases of hepatitis B are notifiable under the Infectious Diseases Regulations 1981. Departments of Public Health, in conjunction with the HPSC, introduced enhanced surveillance of acute cases of hepatitis B from January 2005. Some enhanced data are also available for a smaller proportion of chronic cases.

Results

There were 135 notifications of hepatitis B in Q2 2011. This corresponds to a crude notification rate of 3 per 100,000 population. Quarterly trends since Q1 2008 are shown in figure 1.

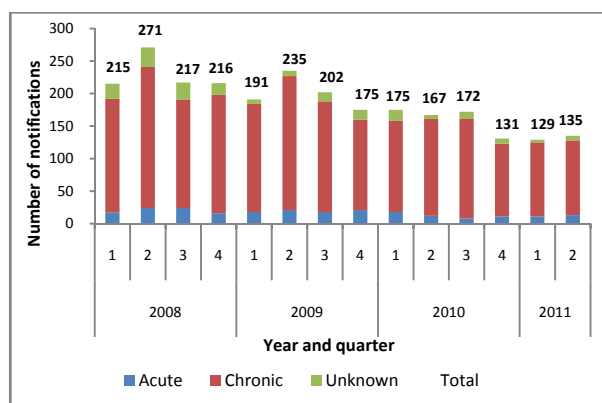


Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2008 to Q2 2011

Geographic distribution

The highest notification rates were in the HSE-East, which reported 64% of Q2 notifications (n=86, 6 per 100,000 population) (figure 2).

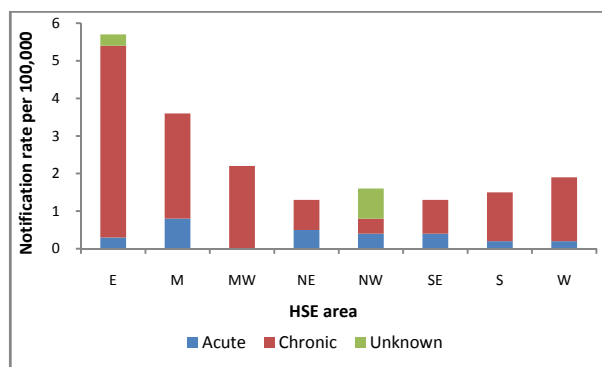


Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q2 2011

Acute/chronic status

Ninety five percent (n=128) of hepatitis B notifications in Q2 contained information on the acute/chronic status of the case. Of these, 90% (n=115) of cases were chronically infected (long-term infection) and 10% (n=13) were acutely infected (recent infection).

Acute cases

Age and sex

The age and sex specific notification rates for acute cases of hepatitis B in Q2 2011 are shown in figure 3. Of the 13 acute cases, 10 (77%) were male, and three (23%) were female. The highest notification rates were in the 45-54 and 55-64 age groups (61.5% of Q2 cases, n=8) and the median age at notification was 45 years. This is older than we usually see for acute cases of hepatitis B - the median age for all acute cases notified between Q1 2004 and Q2 2011 was 33 years.

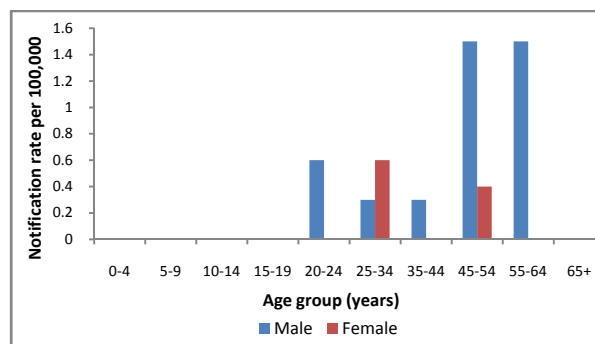


Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q2 2011

Risk factor and other enhanced data

Risk factor data were available for 85% (n=11) of acute cases notified in Q2 2011. Of these, 73% (n=8) were likely to have been sexually acquired. Six cases were heterosexual and two were men who have sex with men. No risk factors were identified for three cases (27%) despite follow up being carried out.

Country of infection was known for 8 acute cases (62%). Seven were infected in Ireland and one was infected in a high endemicity country. Country of birth was specified for eleven, nine (82%) of which were born in Ireland. Reason for testing was also known for eleven cases. Most (82%, n=9) were tested because they were symptomatic.

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q2 2011 are shown in figure 4. Of the 115 chronic cases, 57 (50%) were female, 54 (47%) were male and the sex was not known for four cases. The median age at notification for males (34 years) was slightly higher than that for females (30 years). Eighty five percent (n=98) of chronic cases notified in Q2 were aged between 20 and 44 years.

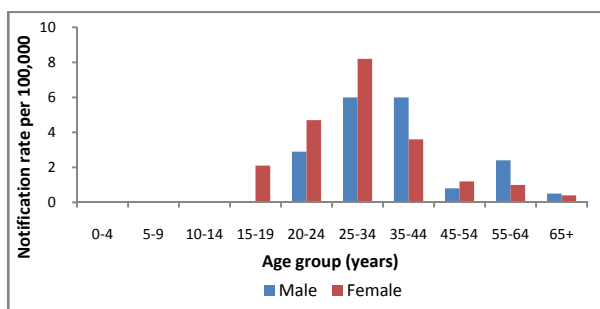


Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q2 2011

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 36% (n=41) of the chronic cases notified in Q2 2011. Of these, 59% (n=24) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence $\geq 2\%$) or were classified as asylum seekers. A further 22% (n=9) were likely to have been infected sexually. Region of birth was known for 34 chronic cases (30%). The most common regions were Eastern and Central Europe (n=13), South and East Asia (n=8), Sub-Saharan Africa (n=7). Four chronic cases were born in Ireland.

The reason for testing was known for 51% of chronic cases (n=59). Of these, 32% (n=19) were identified through antenatal screening, 19% (n=11) through routine health screening, 14% (n=8) through asylum seeker screening and 9% (n=5) through STI screening.

Discussion

The number of hepatitis B notifications decreased by 13% in 2009 compared to 2008, and by 20% in 2010 compared to 2009. This pattern looks set to continue in 2011.

The number of acute cases notified in Q2 was relatively low. Most acute cases of hepatitis B were male and sexual exposure was the most commonly reported risk factor.

Enhanced data were very limited for chronic cases, but where data were available, the majority were born in hepatitis B endemic countries and were likely to have been infected outside Ireland.

Hepatitis B notifications increased dramatically between 2000 and 2008 and have been decreasing since then. The increases were mostly attributable to large numbers of people immigrating to Ireland from hepatitis B endemic countries. Between 2000 and 2010, 95% of asylum applicants, and 73% of new work permit recipients, were from countries with intermediate or high hepatitis B endemicity.

Immigration to Ireland has decreased in recent years and this is likely to have contributed to the current decreasing trend in notifications. (Data on work permits and asylum applications received via personal communications from Department of Enterprise, Trade and Innovation and the Office of the Refugee Applications Commissioner).

Acknowledgements

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Report by Niamh Murphy & Dr Lelia Thornton, 3rd November 2011

Case definition for hepatitis B (acute and chronic)¹

Clinical description In symptomatic cases, clinical picture compatible with hepatitis, i.e. discrete onset of symptoms and/or jaundice or elevated serum aminotransferase levels. Asymptomatic cases are common.

Hepatitis B (acute)

Laboratory criteria for diagnosis

One of the following:

- IgM antibody to hepatitis B core antigen (anti-HBc) positive
- Detection of hepatitis B virus (HBV) nucleic acid in serum

Case classification

Possible: N/A

Probable: A symptomatic case that is HBsAg positive and has a clinical picture compatible with an acute hepatitis

Confirmed: A case that is laboratory confirmed

Hepatitis B (chronic)

Laboratory criteria for diagnosis

One of the following:

- Hepatitis B surface antigen (HBsAg) positive **and** antibody to hepatitis B core antigen (anti-HBc) positive **and** IgM antibody to hepatitis B core antigen negative
- Persistence for more than 6 months of either HBsAg or HBV nucleic acid in serum.

Case classification

Possible: N/A

Probable: N/A

Confirmed: A case that is laboratory confirmed

1. Case definitions for notifiable diseases. Infectious Diseases (Amendment) (No. 3) Regulations 2003 (SI No. 707 of 2003). National Disease Surveillance Centre, February 2004.