

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 140 notifications of hepatitis B in Q4 2010. This corresponds to a crude notification rate of 3.3 per 100,000 population. Quarterly trends since Q1 2006 are shown in figure 1.

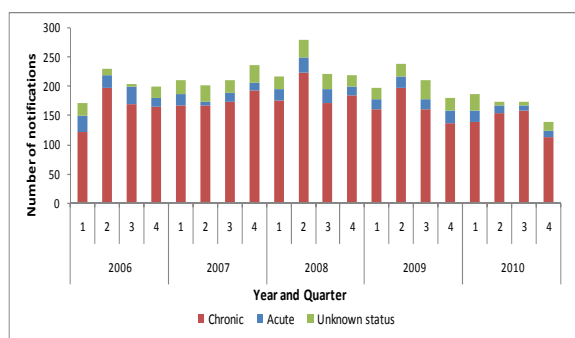


Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2006 to Q4 2010

Geographic distribution

The highest notification rates were in the HSE-East, which reported 66% of Q4 notifications (n=93, 6.2 per 100,000 population) (figure 2).

Acute/chronic status

Ninety five percent (n=133) of hepatitis B notifications in Q4 contained information on the acute/chronic status of the case. Of these, 92% (n=122) of cases were chronically infected (long-term infection) and 8% (n=11) were acutely infected (recent infection).

Acute cases

Age and sex

Of eleven acute cases, 10 (91%) were male, and one (9%) was female. Ninety one percent (n=10) of acute cases were aged between 20 and 44 years and the median age at notification was 33 years.

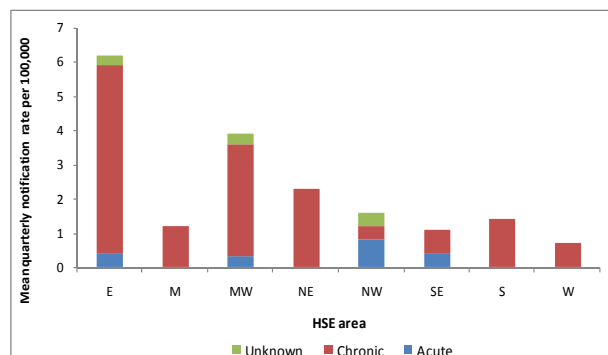


Figure 2. Notification rates of hepatitis B by HSE area and acute/chronic status, Q4 2010

Risk factor and other enhanced data

Risk factor data were available for 64% of acute cases in Q4 2010 (n=7). All of these cases reported that their most likely risk factor was sexual exposure.

Country of birth was specified for eight acute cases (73%) and they were all born in Ireland. Where reason for testing was known (n=9), 67% (n=6) of acute cases were tested because they were symptomatic and 33% (n=3) were tested as part of STI screening programmes.

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q4 2010 are shown in figure 3. Of the 122 chronic cases, 64 (52%) were female, 56 (46%) were male and the sex was not known for two cases. The median age at notification for males (30 years) was higher than that for females (27 years). Eighty seven percent (n=106) of chronic cases notified in Q4 were aged between 20 and 44 years.

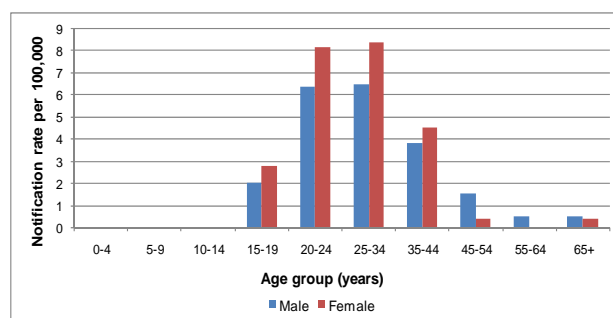


Figure 3. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q4 2010

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 34% (n=41) of the chronic cases notified in Q4 2010. 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. For a further 24% (n=10), risk factor for infection was recorded as possible sexual exposure. Region of birth was known for 23 chronic cases (19%). The most common regions were Sub-Saharan Africa (n=9), Eastern and Central Europe (n=7) and South and East Asia (n=5). Two chronic cases were born in Ireland.

The reason for testing was known for fifty six percent of chronic cases (n=68). Of these, forty one percent (n=28) were identified through antenatal screening programmes, 15% (n=10) were identified through asylum seeker screening programmes, 10% (n=7) were previously diagnosed and 6% (n=4) were found through blood donor screening.

Provisional summary of 2010 data

Hepatitis B data for 2010 have not yet been fully validated. However provisional data show a significant decrease (19%) in the annual number of hepatitis B notifications, with 670 cases notified compared with 828 cases in 2009. This is the lowest number of notifications received since 2004 (n=472). Where acute/chronic status was available, 92% of cases notified in 2010 were chronic. The notification rates for acute and chronic cases were 1.2 and 13.5 per 100,000 population, respectively. Sixty three percent (n=425) of all 2010 cases were notified by the HSE-E.

Acute cases

The number of acute cases of hepatitis B decreased in 2010 (n=51) compared with 2009 (n=75). Ninety percent of acute cases were male (n=46) and 10% were female (n=5). The median age at notification was 27 for females and 37 for males. Risk factor data were available for 65% of acute cases. Of these, 82% (n=27) were likely to have been sexually acquired. Where data on sexual orientation was provided, 44%

of sexually acquired cases were in men who have sex with men (n=12).

Chronic cases

The number of notifications of chronic cases of hepatitis B also decreased in 2010 (n=580) compared with 2009 (n=655). Fifty percent of chronic cases were male (n=289), 49% were female (n=284) and sex was not known for 7 cases. The median age at notification was 28 for females and 33 for males. Where data were available (n=264), 69% of chronic cases were born in a country of intermediate or high hepatitis B endemicity or were classified as asylum seekers.

Discussion

There was a 20% decrease in the number of cases of hepatitis B notified in the fourth quarter of 2010 (n=140) compared to the third quarter (n=174). Where enhanced data were available, 91% of acute cases were males. Sixty seven percent of acute cases were symptomatic and 33% were identified through STI screens. Sexual exposure was the most commonly reported risk factor. The majority (59%) of chronically infected cases were born in hepatitis B endemic countries.

The number of acute and chronic cases of hepatitis B decreased significantly in 2010 compared to 2009. One possible reason for this could be reduced immigration to Ireland. Figures published by the central statistics office indicate a 46% decline in immigration in the twelve months to April 2010. Where risk factor data were available for acute cases, sexually acquisition, particularly in MSM predominated. Most chronic cases were born in hepatitis B endemic countries and infection was acquired outside Ireland.

Acknowledgements

HPSC would like to thank all those who provided data for this report - Departments of Public Health, laboratories and clinicians.

Report by Joanne Moran & Dr Lelia Thornton, 30th March 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.