

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 145 notifications of hepatitis B in Q1 2012. This represents an increase of 20% from Q4 2011 (n=121). This corresponds to a crude notification rate of 3.4 per 100,000 population. Quarterly trends since Q1 2007 are shown in figure 1.

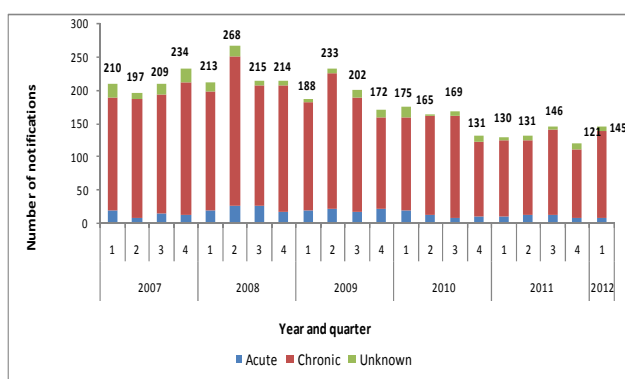


Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2007 to Q1 2012

Geographic distribution

The highest notification rates were in the HSE-East, which reported 59% of Q1 notifications (n=86, 5.7 per 100,000 population) (figure 2).

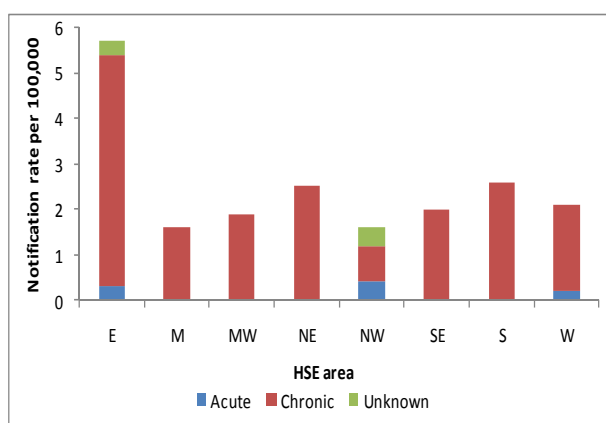


Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q1 2012

Acute/chronic status

Ninety six percent (n=139) of hepatitis B notifications in Q1 contained information on the acute/chronic status of the case. Of these, 95% (n=132) of cases were chronically infected (long-term infection) and 5% (n=7) were acutely infected (recent infection).

Acute cases

Age and sex

The age and sex specific notification rates for acute cases of hepatitis B in Q1 2012 are shown in figure 3. All seven acute cases were male. The cases ranged in age from 28 to 56 years of age. The median age at notification was 43 years.

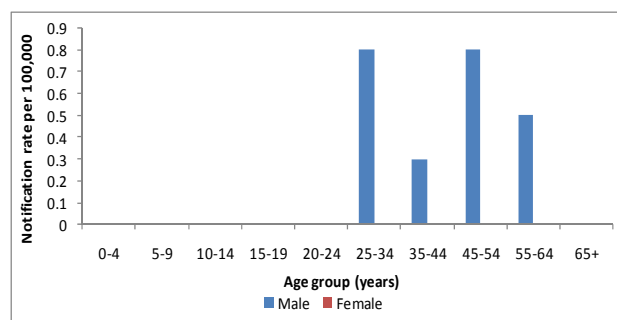


Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q1 2012

Risk factor and other enhanced data

Risk factor data were available for 57% (n=4) of acute cases notified in Q1 2012. Of these, all were likely to have been sexually acquired.

Country of birth was specified for five acute cases, four (80%) of whom were born in Ireland. Reason for testing was known for five cases. The most common reasons for testing were symptomatic (80%, n=4) and STI screening (20%, n=1).

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q1 2012 are shown in figure 4. Of the 132 chronic cases, 39% (n=52) were female, 58% (n=77) were male and sex was not known for three cases. The median age at notification for males was 36 years compared to 27 years for females. Seventy nine percent (n=104) of chronic cases notified in Q1 were aged between 20 and 44 years.

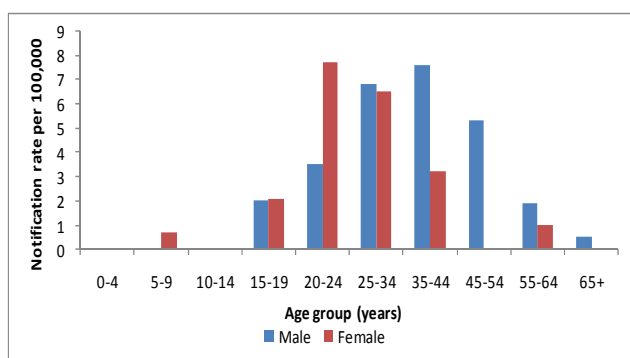


Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q1 2012

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 48% (n=63) of the chronic cases notified in Q1 2012. Of these, 52% (n=33) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence $\geq 2\%$) or were classified as asylum seekers. Country of birth was known for 33 chronic cases. Where data were available, 38% (n=19) of chronic cases were born in Eastern or Central Europe, 32% (n=16) were born in Asia and 20% (n=10) were born in Sub-Saharan Africa.

The reason for testing was known for 52% of chronic cases (n=69). Of these, 30% (n=21) were identified through antenatal screening, 16% (n=11) through routine health screening, 16% (n=11) through STI screening and 12% (n=8) through asylum seeker screening.

Discussion

The number of hepatitis B notifications in Q1 2012 (n=145) shows a slight increase from Q4 2011 (n=121).

However since the beginning of 2011, the overall number of hepatitis B notifications appears to have stabilised and is considerably lower than the high notification rates observed in 2008 and 2009.

The number of acute cases notified in Q1 (n=7) remained very low. All of the acute cases were male. Sexual exposure was the most commonly reported risk factor, of which 43% (n=3) were MSM.

Enhanced data were very limited for chronic cases, but where data were available the majority (52%) were born in hepatitis B endemic countries and were likely to have been infected outside Ireland. The higher notification rates seen in earlier years were mostly attributable to large numbers of people immigrating to Ireland from hepatitis B endemic countries. Immigration to Ireland has decreased in more recent years, correlating with decreasing numbers of hepatitis B cases.

Acknowledgements

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Report by Joanne Moran, Niamh Murphy & Dr Lelia Thornton, 26th June 2012

Case definition for hepatitis B (acute and chronic)

Clinical criteria Not relevant for surveillance purposes. *Epidemiological criteria* Not relevant for surveillance purposes.

Laboratory criteria for diagnosis

Hepatitis B (acute)

At least one of the following three:

- Detection of hepatitis B core IgM (anti-HBc IgM)
- Detection of hepatitis B surface antigen (HBsAg) AND previous negative HBV markers less than 6 months ago
- Detection of hepatitis B nucleic acid (HBV DNA) AND previous negative HBV markers less than 6 months ago

Hepatitis B (chronic)

At least one of the following two:

- Detection of HBsAg or HBV DNA AND no detection of anti-HBc IgM (negative result)
- Detection of HBsAg or HBV DNA on two occasions that are 6 months apart

Hepatitis B (unknown status)

Any case which cannot be classified according to the above description of acute or chronic infection and having positive results of at least one of the following tests:

- Hepatitis B surface antigen (HBsAg)
- Hepatitis B e antigen (HBeAg)
- Hepatitis B nucleic acid (HBV DNA)

Case classification

Possible: N/A
Probable: N/A
Confirmed: Any person meeting the laboratory criteria

Note: The following combination of lab tests shall not be included or notified

- Resolved hepatitis – hepatitis B total core antibody (anti-HBc) positive and hepatitis B surface antigen (HBsAg) negative
- Immunity following vaccination – Hepatitis B total core antibody (anti-HBc) negative and hepatitis B surface antibody (anti-HBs) positive

Note: elevated levels of IgM in some chronic cases may result in misclassification which could over-estimate the number of acute cases

All data contained in this report are provisional (CIDR accessed 13th June 2012)