Report on Hepatitis B Notifications Q3 2012

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 138 notifications of hepatitis B in Q3 2012. This represents a decrease of 10% compared to Q2 2012 (n=153). This corresponds to a crude notification rate of 3.3 per 100,000 population. Quarterly trends since Q1 2009 are shown are in figure 1.

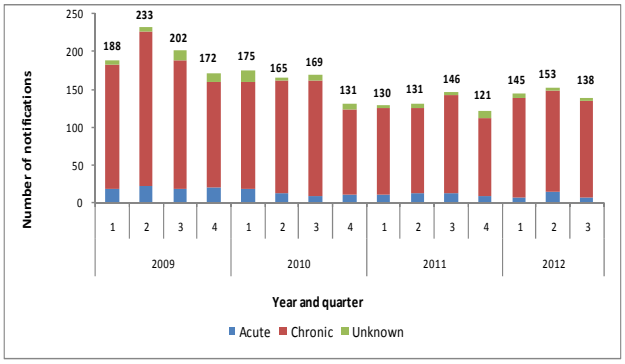

Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2009 to Q3 2012

Geographic distribution

The highest notification rate was in the HSE-East, which reported 59% of Q3 notifications (n=81, 5.4 per 100,000 population) (figure 2).

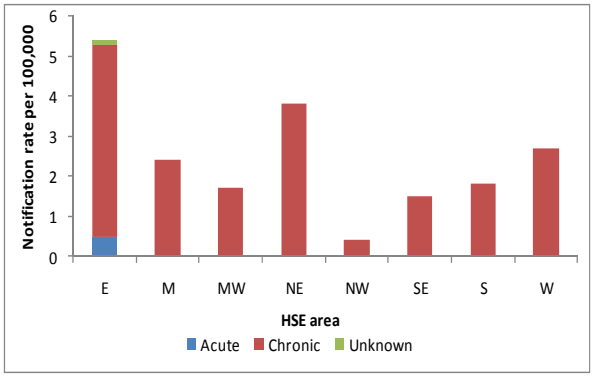

Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q3 2012

Acute/chronic status

Ninety eight percent (n=135) of hepatitis B notifications in Q3 contained information on the acute/chronic status of the case. Of these, 95% (n=128) 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 Q3 2012 are shown in figure 3. Five cases (71%) were male and two were female (29%). The cases ranged in age from 23 to 59 years of age. The median age at notification was 31 years.

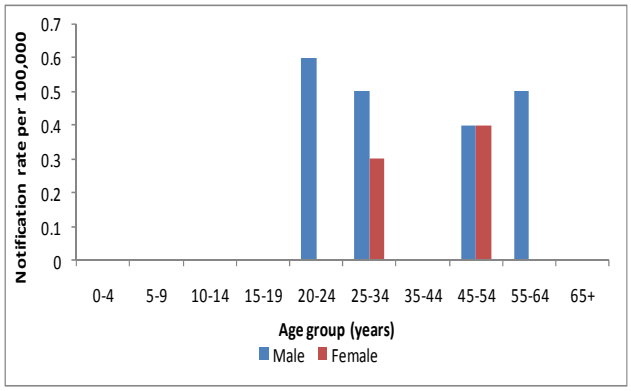

Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q3 2012

Risk factor and other enhanced data

Risk factor data were available for 86% (n=6) of acute cases notified in Q3 2012. Of these, 83% (n=5) were likely to have been sexually acquired.

Country of birth was specified for 6 acute cases (86%), of whom two were born in Ireland, three in eastern and central Europe and one in sub Saharan Africa. Reason for testing was known for all acute cases. The most common reason for testing was that the case was symptomatic (86%, n=6).

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q3 2012 are shown in figure 4. Of the 128 chronic cases, 44% (n=56) were female, 54% (n=69) were male and sex was not known for three cases. The median age at notification for males was 37 years compared to 30 years for females. Eighty two percent (n=105) of chronic cases notified in Q3 were aged between 20 and 44 years.

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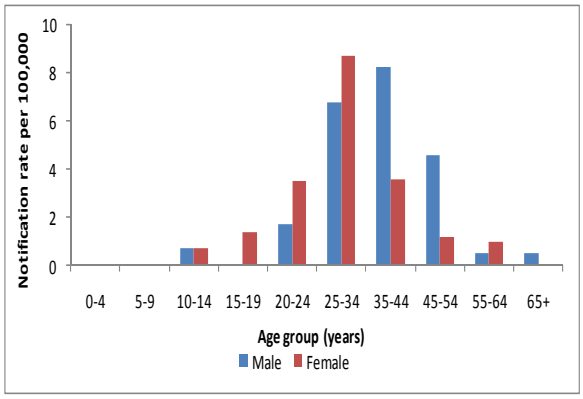

Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q3 2012

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 46% (n=59) of the chronic cases notified in Q3 2012. Of these, 78% (n=46) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence ≥ 2%) or were classified as asylum seekers. Additionally, 14% (n=8) were likely to have been acquired sexually.

Country of birth was known for 49 chronic cases. Where data were available, 29% (n=14) of chronic cases were born in Eastern or Central Europe, 27% (n=13) were born in Sub-Saharan Africa, 25% (n=12) were born in Asia, 14% (n=7) were born in Western Europe and 6% (n=3) were born in South America.

The reason for testing was known for 66% of chronic cases (n=84). Of these, 31% (n=26) were identified through antenatal screening, 14% (n=12) through routine health screening, 11% (n=9) through STI screening, and 4% (n=3) through asylum seeker screening. Eleven per cent (n=9) of chronic cases were known cases and 4% (n=3) were symptomatic.

Discussion

The number of hepatitis B notifications in Q3 2012 (n=138) shows a slight decrease from Q2 2012 (n=152). 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 Q3 (n=7) remains low and is half that found during Q2 2012 (n=14). Five of the acute cases were male and two were female. Sexual exposure was the most commonly reported risk factor (n=5).

Enhanced data were very limited for chronic cases, but where data were available the majority (78%) 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

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, 12th December 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

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