Report on Hepatitis B Notifications Q2 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 153 notifications of hepatitis B in Q2 2012. This represents a small increase of 5.5% than Q1 2012 (n=145). This corresponds to a crude notification rate of 3.6 per 100,000 population. Quarterly trends since Q1 2008 are shown are in figure 1.

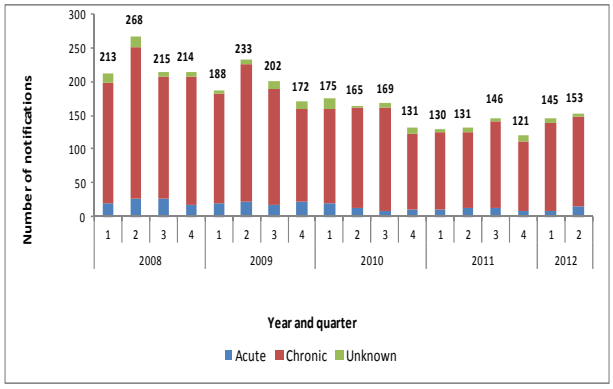

Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2008 to Q2 2012

Geographic distribution

The highest notification rates were in the HSE-East, which reported 67% of Q2 notifications (n=102, 6.8 per 100,000 population) (figure 2).

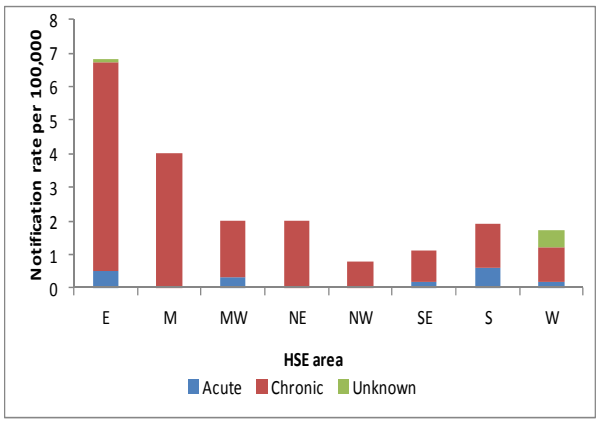

Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q2 2012

Acute/chronic status

Ninety seven percent (n=149) of hepatitis B notifications in Q2 contained information on the acute/chronic status of the case. Of these, 91% (n=135) of cases were chronically infected (long-term infection) and 9% (n=14) 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 2012 are shown in figure 3. All fourteen acute cases were male. The cases ranged in age from 23 to 51 years of age. The median age at notification was 34 years.

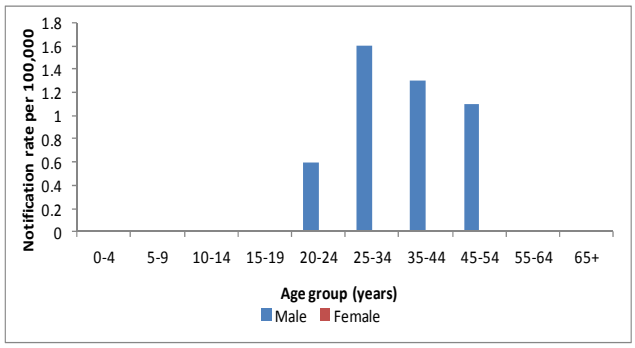

Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q2 2012

Risk factor and other enhanced data

Risk factor data were available for 86% (n=12) of acute cases notified in Q2 2012. Of these, 92% (n=11) were likely to have been sexually acquired. Of these 27% (n=3) were men who have sex with men (MSM).

Country of birth was specified for 12 acute cases (86%), nine (75%) of whom were born in Ireland. Reason for testing was known for thirteen cases (93%). The most common reasons for testing were symptomatic (69%, n=9) and STI screening (23%, n=3).

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q2 2012 are shown in figure 4. Of the 135 chronic cases, 39% (n=53) were female, 59% (n=80) were male and sex was not known for two cases. The median age at notification for males was 35 years compared to 30 years for females. Seventy

seven percent (n=104) of chronic cases notified in Q2 were aged between 20 and 44 years.

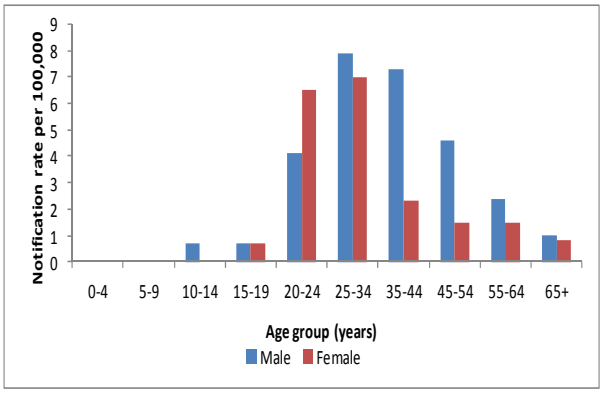

Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q2 2012

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 44% (n=60) of the chronic cases notified in Q2 2012. Of these, 62% (n=37) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence ≥ 2%) or were classified as asylum seekers. Additionally, 23% (n=14) were likely to have been acquired sexually.

Country of birth was known for 48 chronic cases. Where data were available, 35% (n=17) of chronic cases were born in Asia, 31% (n=15) were born in Sub-Saharan Africa and 27% (n=13) were born in Eastern or Central Europe.

The reason for testing was known for 64% of chronic cases (n=87). Of these, 28% (n=24) were identified through antenatal screening, 22% (n=19) through STI screening, 16% (n=14) through routine health screening and 13% (n=11) through asylum seeker screening.

Discussion

The number of hepatitis B notifications in Q2 2012 (n=153) shows a slight increase from Q1 2012 (n=145). 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 Q2 (n=14) remains low but is double that found during Q1 2012 (n=7). All of the acute cases were male. Sexual exposure was the most commonly reported risk factor, of which 27% (n=3) were MSM.

Enhanced data were very limited for chronic cases, but where data were available the majority (62%) 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 & Dr Lelia Thornton, 10th October 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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