

Health Protection Surveillance Centre

Summary

The number of hepatitis B notifications in Q2 2013 (n=133) shows a 17% increase from Q1 2013 (n=114). The overall number of hepatitis B notifications appears to have stabilised since 2011 and is considerably lower than the high notification rates observed in 2008 and 2009.

The number of acute cases notified in Q2 (n=6) remained very low. All of the acute cases were male.

Enhanced data were limited for chronic cases, but where data were available the majority (61%) 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 migrating to Ireland from hepatitis B endemic countries. Immigration to Ireland has decreased in more recent years, correlating with decreasing numbers of hepatitis B cases.

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 chronic cases.

Results

There were 133 notifications of hepatitis B in Q2 2013. This represents an increase of 17% compared to Q1 2013 (n=114).

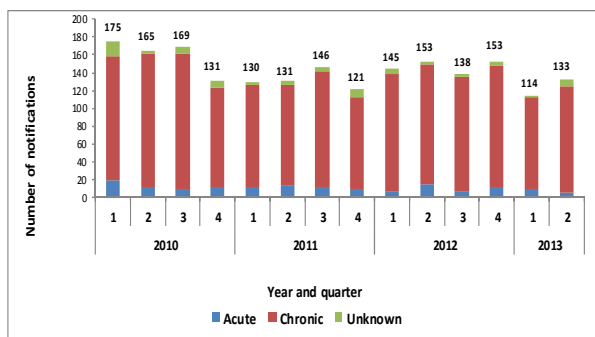


Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2010 to Q2 2013

This corresponds to a crude notification rate of 3.1 per 100,000 population. Quarterly trends since Q1 2010 are shown in figure 1.

Geographic distribution

The highest notification rate was in the HSE-East, which reported 53% of Q2 notifications (n=71, 4.7 per 100,000 population) (figure 2).

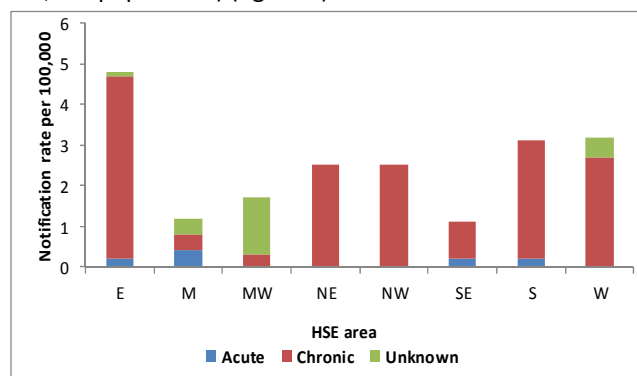


Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q2 2013

Acute/chronic status

Ninety three percent (n=124) of hepatitis B notifications in Q2 contained information on the acute/chronic status of the case. Of these, 95% (n=118) of cases were chronically infected (long-term infection) and 5% (n=6) 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 2013 are shown in figure 3. All six cases were male. The cases ranged in age from 28 to 55 years of age. The median age at notification was 42.5 years.

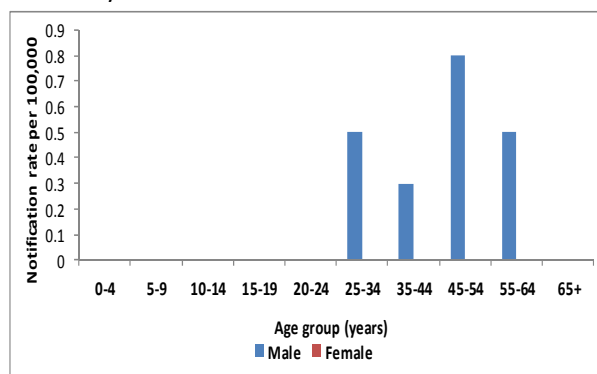


Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q2 2013

Risk factor and other enhanced data

Sexual contact remains the most common route of acquisition for most acute cases.

Country of birth was specified for all six acute cases, of whom five were born in Ireland and the remaining case in central Europe. Reason for testing was known for all acute cases. The reason for testing for all six cases was that they were symptomatic.

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q2 2013 are shown in figure 4. Of the 118 chronic cases, 58% (n=68) were male and 41% (n=48) were female. The median age at notification for males was 36.5 years compared to 31 years for females. Eighty one percent (n=95) of chronic cases notified in Q2 were aged between 20 and 44 years.

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 47% (n=56) of the chronic cases notified in Q2 2013. Of these, 61% (n=34) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence $\geq 2\%$) or were classified as asylum seekers (this information is used as a proxy for risk factor). Additionally, 21% (n=12) were reported to have been acquired sexually.

Country of birth was known for 41 (35%) of chronic cases. Where data were available, 32% (n=13) of chronic cases were born in Eastern or Central Europe, 27% (n=11) were born in Asia, 22% (n=9) were born in sub Saharan Africa, 12% (n=5) were born in Western Europe and 7% in the Middle East (n=3).

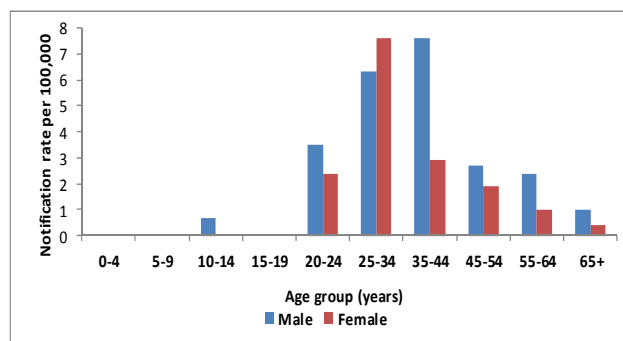


Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q2 2013

The reason for testing was known for 65% of chronic cases (n=77). The main reasons were: antenatal screening (32%, n=25), STI screening (19%, n=15), routine health screening (12%, n=9) and asylum seeker screening (7%, n=5).

Co-infections

Hepatitis B & hepatitis C co-infection can lead to more severe liver disease and an increased risk of liver cancer. There were no hepatitis B notifications co-infected with hepatitis C reported during Q2 2013. There was one case of hepatitis B notified during Q2 2013 that was also infected with HIV. This case was from a country endemic for both hepatitis B and HIV.

Acknowledgements

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Report by Joanne Moran & Dr Lelia Thornton, 14th August 2013.

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 16th July 2013)

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