



Report on Hepatitis B Notifications Q1 2013



Health Protection Surveillance Centre

Summary

The number of hepatitis B notifications in Q1 2013 (n=114) shows a 25% decrease from Q4 2012 (n=153). This is the lowest number of hepatitis B quarterly notifications since 2004. However, from 2011, the overall number of hepatitis B notifications appears to have stabilised or to be decreasing, and is considerably lower than the high notification rates observed in 2008 and 2009.

The number of acute cases notified in Q1 (n=9) remained very low. The majority of acute cases were male (n=7). 33% of acute cases attributed sexual exposure as the main risk factor, and 33% were born in countries endemic for hepatitis B.

Enhanced data were limited for chronic cases, but where data were available the majority (73%) 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.

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 114 notifications of hepatitis B in Q1 2013. This represents a decrease of 34% compared to Q4 2012 (n=153).

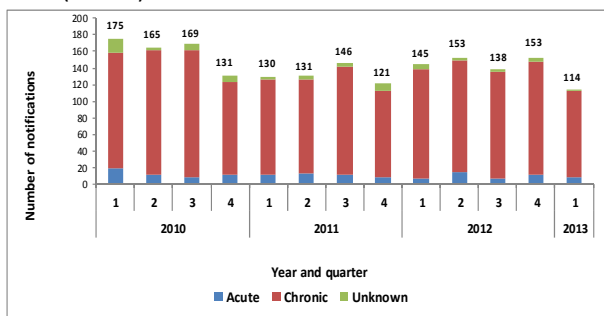


Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2010 to Q1 2013

This corresponds to a crude notification rate of 2.7 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 66% of Q1 notifications (n=75, 5 per 100,000 population) (figure 2).

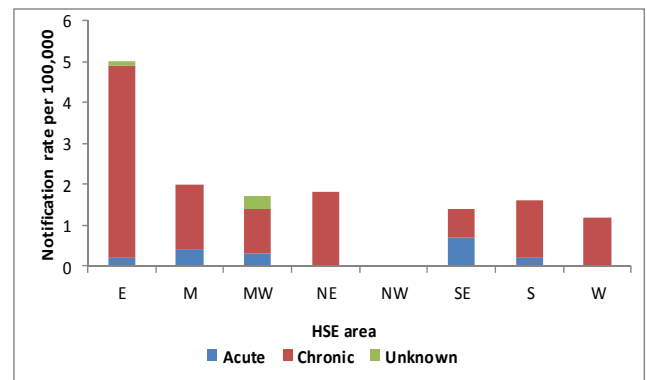


Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q1 2013

Acute/chronic status

Ninety eight percent (n=112) of hepatitis B notifications in Q1 contained information on the acute/chronic status of the case. Of these, 92% (n=103) of cases were chronically infected (long-term infection) and 8% (n=9) 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 2013 are shown in figure 3. Seven cases (78%) were male and two were female (22%). The cases ranged in age from 24 to 53 years of age. The median age at notification was 37 years.

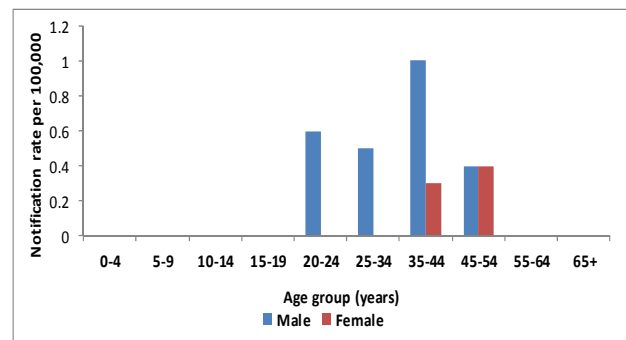


Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q1 2013

All data contained in this report are provisional (CIDR accessed 15th May 2013)

Risk factor and other enhanced data

Risk factor data were available for 78% (n=7) of acute cases notified in Q1 2013. Of these, 43% (n=3) were likely to have been sexually acquired, 43% (n=3) were born in countries where hepatitis B is endemic, and the remaining one was likely to have been acquired abroad.

Country of birth was specified for eight acute cases (89%), of whom five were born in Ireland, two in central Europe and one in Asia. Reason for testing was known for eight (89%) acute cases. The reason for testing for all eight cases was they were symptomatic.

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q1 2013 are shown in figure 4. Of the 103 chronic cases, 58% (n=60) were male and 42% (n=43) were female. The median age at notification for males was 33 years compared to 29 years for females. Eighty one percent (n=83) of chronic cases notified in Q1 were aged between 20 and 44 years.

Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 53% (n=55) of the chronic cases notified in Q1 2013. Of these, 73% (n=40) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence \geq 2%) or were classified as asylum seekers. Additionally, 15% (n=8) were reported to have been acquired sexually.

Country of birth was known for 47 (46%) chronic cases. Where data were available, 38% (n=18) of chronic cases were born in Eastern or Central Europe,

28% (n=13) were born in Sub-Saharan Africa, 21% (n=10) were born in Asia and 13% (n=6) were born in Western Europe.

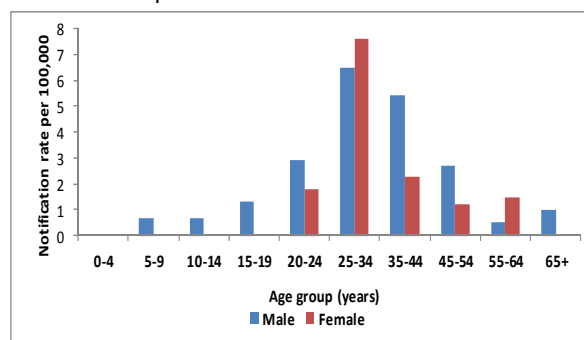


Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q1 2013

The reason for testing was known for 65% of chronic cases (n=67). The reasons were: routine health screening (25%, n=17), asylum seeker screening (22%, n=15), antenatal screening (12%, n=8), STI screening (10%, n=7) and asymptomatic contact (9%, n=6). Six per cent (n=4) were previously known cases and 3% (n=2) were symptomatic.

Co-infections

Hepatitis B & hepatitis C co-infection can lead to more severe liver disease and an increased risk of liver cancer. There was only one co-infection of hepatitis B and hepatitis C notified during Q1 2013. This case is from a country where prevalence of both hepatitis B and C is high. There were no co-infections of hepatitis B and HIV reported for Q1 2013.

Acknowledgements

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Report by Joanne Moran & Dr Lelia Thornton, 22nd May 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

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