Report on Hepatitis B Notifications Q3 2013

Health Protection Surveillance Centre

Summary

Hepatitis B notifications decreased by 29% in Q3 2013 (n=91) compared to Q2 2013 (n=128). Overall, there has been a significant decrease in hepatitis B in recent years (36% decrease between 2008 and 2012). The number of acute cases notified has been low and this continued in Q3 (n=9). Most acute cases are sexually acquired in Ireland.

Enhanced data were limited for chronic cases but, where data were available, most 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 91 notifications of hepatitis B in Q3 2013. This represents a decrease of 29% compared to Q2 2013 (n=128) and corresponds to a crude notification rate of 2 per 100,000 population. Quarterly trends since Q1 2010 are shown are in figure 1.

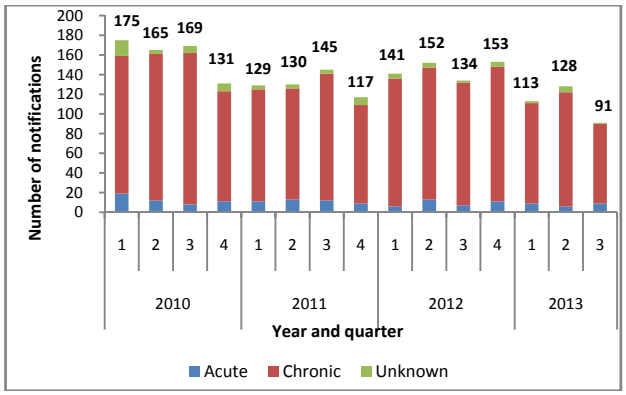

Figure 1. Number of cases of hepatitis B notified, by acute/chronic status, Q1 2010 to Q3 2013

Geographic distribution

The highest notification rate was in the HSE-East, which reported 60% of Q3 notifications (n=55, 3.4 per 100,000 population) (figure 2).

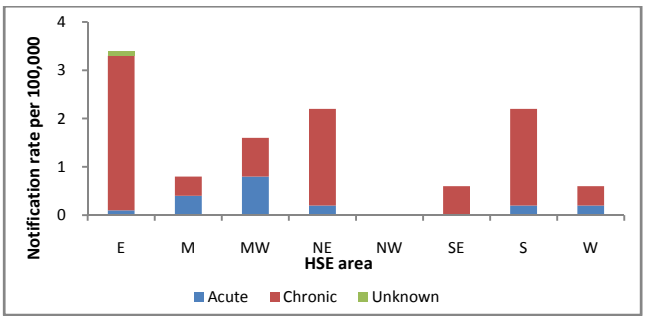

Figure 2. Hepatitis B notification rates, by HSE area and acute/chronic status, Q3 2013

Acute/chronic status

Ninety nine percent (n=90) of hepatitis B notifications in Q3 contained information on the acute/chronic status of the case. Of these, 90% (n=81) of cases were chronically infected (long-term infection) and 10% (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 Q3 2013 are shown in figure 3. There were six males and three females. The cases ranged in age from 20 to 63 years. The median age at notification was 39 years.

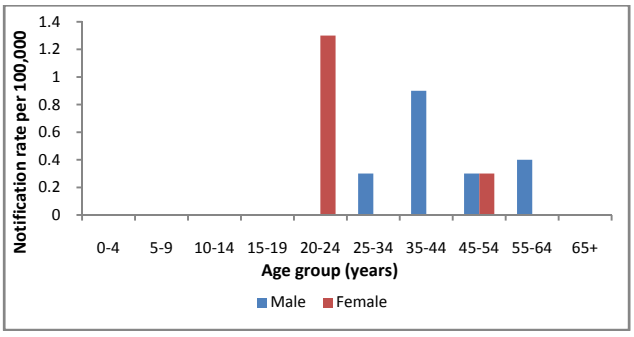

Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q3 2013

Risk factor and other enhanced data

Risk factor data were available for eight of the nine acute cases. Seventy five percent (n=6) were sexually acquired (half MSM and half heterosexual), one case was an

injecting drug user and no risk factor was identified for the remaining case despite follow up.

Country of birth was specified for all nine. Seven were born in Ireland and two were born in Eastern Europe. Reason for testing was also known for all acute cases. Eight were symptomatic and one was an injecting drug user.

Chronic cases

Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q3 2013 are shown in figure 4. Of the 81 chronic cases, 53% (n=43) were female, 43% (n=35) were male and sex was not known for three. Males were slightly older overall, with a median age at notification of 34 years compared to 30 for females. Seventy eight percent (n=63) of chronic cases notified in Q3 were aged between 20 and 44 years.

Risk factor and other enhanced data

Some risk factor or country of birth data were available for 59% (n=48) of the chronic cases notified in Q3 2013. Of these, 67% (n=32) were born in hepatitis B endemic countries (hepatitis B surface antigen prevalence ≥ 2%) or were classified as asylum seekers (this information is used as a proxy for risk factor when no other risk factor is reported). A further 25% (n=12) of cases were reported to have been acquired sexually. Three of these were also from endemic countries.

Country of birth was known for 47% (n=38) of chronic cases. Where data were available, 32% (n=12) of chronic cases were born in Asia, 29% (n=11) were born in Eastern or Central Europe and 26% (n=10) were born in sub Saharan Africa. Only two chronic cases were born in Ireland.

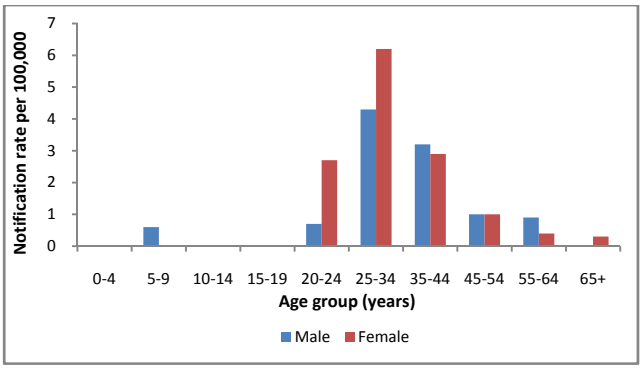

Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q3 2013

The reason for testing was known for 74% of chronic cases (n=60). The main reasons were: antenatal screening (35%, n=21), routine health screening (17%, n=10), STI screening or MSM (13%, n=8) and asylum seeker screening (7%, n=4).

Co-infections

Hepatitis B and hepatitis C co-infection can lead to more severe liver disease and an increased risk of liver cancer. One case of hepatitis B notified in Q3 was also infected with both hepatitis C and HIV. An additional case was infected with both syphilis and HIV, and there were three further cases coinfected with HIV.

Acknowledgements

HPSC would like to thank all those who provided data for this report - Departments of Public Health, laboratories and clinicians.

Report by Niamh Murphy & Dr Lelia Thornton, 20th February 2014.

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

HSE-Health Protection Surveillance Centre (HPSC), 25-27 Middle Gardiner St, Dublin 1, Ireland, Tel: +353 1 8765300, Fax: +353 1 8561299, www.hpsc.ie