

Report on Hepatitis B Notifications in Q1 2008

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 230 notifications of hepatitis B in Q1 2008. This was similar to the number of cases for the previous quarter (n=238) and an increase compared to Q1 2007 (n=207). Figure 1 shows the number of cases of hepatitis B notified by quarter since 2004.

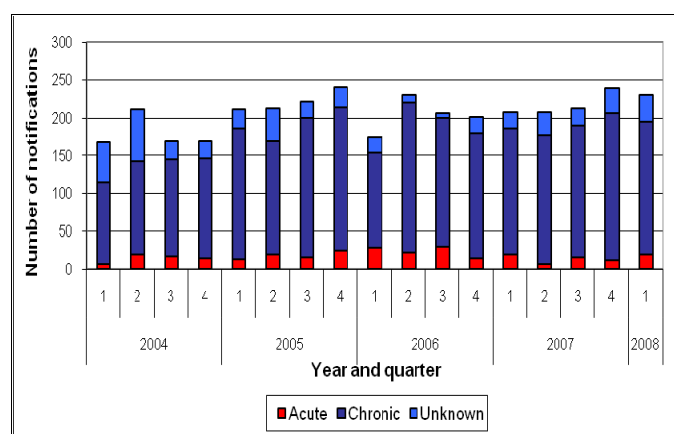


Figure 1. Number of cases of hepatitis B notified by acute/chronic status, Q1 2004- Q1 2008

Acute/chronic status

Eighty five percent (n=195) of notifications of hepatitis B in Q1 contained information on the acute/chronic status of the case. Of these, ninety percent (n=176) of cases were chronic and 10% (n=19) were acute.

Geographic distribution

The rates per 100,000 population for Q1, by HSE area and acute/chronic status, are shown in figure 2. The highest rates were in the HSE-E which reported 64% (9 per 100,000 population, n=135) of all Q1 cases.

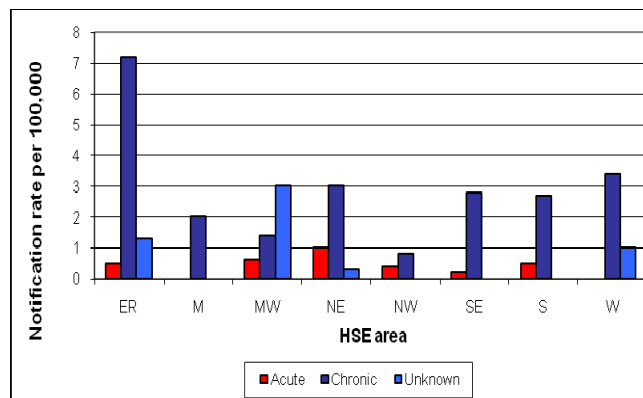


Figure 2. Crude notification rates per 100,000 population for hepatitis B cases notified in Q1 2008 by acute/chronic status and HSE area

Age and sex

Age and sex specific notification rates for acute and chronic cases of hepatitis B are shown in figures 3 and 4, respectively. Of the nineteen acute cases, seventeen (89.5%) were male and two (10.5%) were female. All except one were adults. The overall age range was 14 to 61 years and the median age at notification was 34 years.

The sex distribution of the chronic cases was more even. Fifty percent of cases were male (n=88), 46% were female (n=81) and sex was not specified for 7 cases. The age distribution for males was slightly older than that for females. Eighty five percent (n=149) of all chronic cases notified in Q1 were aged between 20 and 44 years and the median age at notification was 30.5 years.

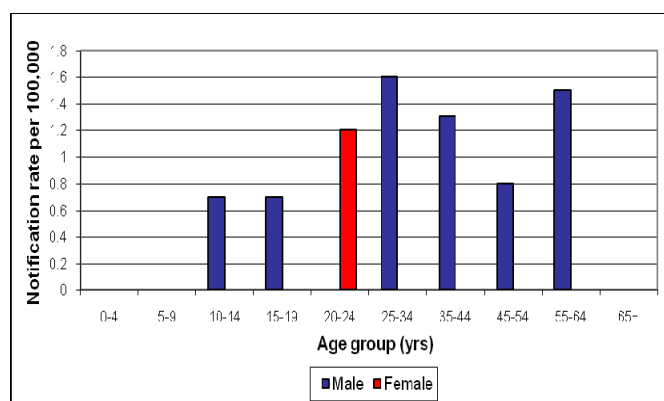


Figure 3. Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q1 2008

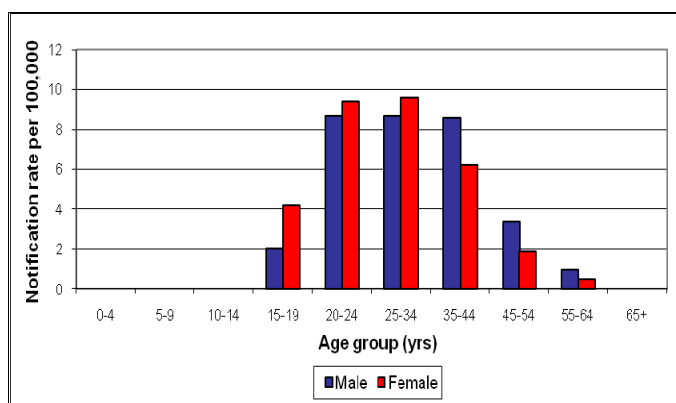


Figure 4. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q1 2008

Risk factors

Some surveillance data were entered on CIDR for 79% of acute cases (n=15) and 43% of chronic cases (n=75) in Q1.

Where risk factor data were available, 87% (n=13) of acute cases were likely to be associated with sexual exposure. Seven were men who have sex with men (MSM), four were heterosexual and sexual orientation was not identified for the remaining two.

County of birth was specified for fourteen acute cases, eleven of whom were born in Ireland. Reason for testing was known for fifteen. Eight of these were tested because they experienced symptoms and a further three were tested as part of STI screening.

The number of chronic cases for whom risk information was available was limited. Data on country of birth were available for 52 cases, 85% of whom were born in a country with high ($\geq 8\%$) or intermediate (2-7%) hepatitis B endemicity. A further 15 cases were asylum seekers. Although their country of birth was not specified, it is likely that most were from endemic areas. The most common regions of birth for chronic cases were Sub-Saharan Africa (36.5%, n=19) and Eastern and Central Europe (32.7%, n=17). Six chronic cases were born in Ireland.

The reason for testing was known for 75 chronic cases. Thirty five percent (n=26) were identified through antenatal screening and 27% (n=20) were identified as a result of asylum seeker screening. Other common reasons for testing included routine hospital/health screening, STI screening and testing as part of applications for life assurance, insurance or mortgages.

Discussion

Approximately 90% of cases of hepatitis B notified in Ireland since Q1 2004 have been cases of chronic infection. The limited data that are available indicate that the vast majority of these were born in countries of intermediate or high hepatitis B endemicity and were infected prior to immigrating to Ireland. However, the proportion of patients for whom this information was available was low and data may not be representative.

The numbers of acute cases notified in Q1 2008 was low. Most were males and where risk factor data were available, sexual acquisition was by far the most likely means of transmission for most. Almost all acute cases were born in Ireland and most were tested because they experienced symptoms or availed of STI screening.

Hepatitis B is a vaccine preventable disease and immunisation is recommended for individuals who change sexual partner frequently and for MSM. Although the number of acute cases notified in Ireland is generally low, it is likely that many of these cases would have been prevented if the current immunisation guidelines were fully implemented. However, it can be difficult to identify those at risk prior to exposure and not all of those offered the vaccine will choose to accept it.

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, 24th June 2008

Case definition for hepatitis B (acute and chronic)¹

Clinical description In symptomatic cases, clinical picture compatible with hepatitis, i.e. discrete onset of symptoms and/or jaundice or elevated serum aminotransferase levels. Asymptomatic cases are common.

Hepatitis B (acute)

Laboratory criteria for diagnosis

One of the following:

- IgM antibody to hepatitis B core antigen (anti-HBc) positive
- Detection of hepatitis B virus (HBV) nucleic acid in serum

Case classification

Possible: N/A

Probable: A symptomatic case that is HBsAg positive and has a clinical picture compatible with an acute hepatitis

Confirmed: A case that is laboratory confirmed

Hepatitis B (chronic)

Laboratory criteria for diagnosis

One of the following:

- Hepatitis B surface antigen (HBsAg) positive **and** antibody to hepatitis B core antigen (anti-HBc) positive **and** IgM antibody to hepatitis B core antigen negative
- Persistence for more than 6 months of either HBsAg or HBV nucleic acid in serum.

Case classification

Possible: N/A

Probable: N/A

Confirmed: A case that is laboratory confirmed

1. Case definitions for notifiable diseases. Infectious Diseases (Amendment) (No. 3) Regulations 2003 (SI No. 707 of 2003). National Disease Surveillance Centre, February 2004.