Report on Hepatitis B Notifications in Q3 2007

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 minority of chronic cases.

Results

There were 233 notifications of hepatitis B in Q3 2007. This was an increase compared to the updated number of cases for the previous quarter (n=220) and for Q3 2006 (n=206). Figure 1 shows crude notification rates by quarter since 2004.

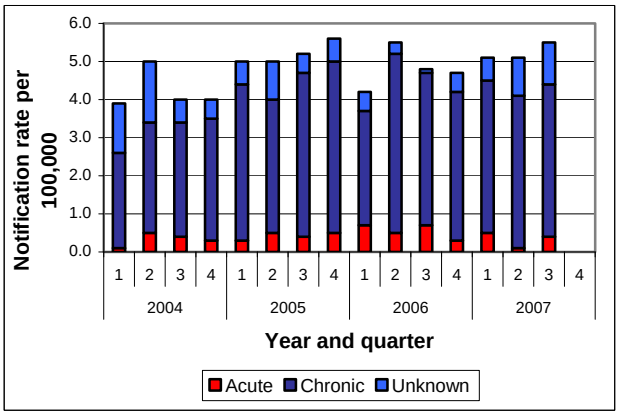

Figure 1. Crude notification rates per 100,000 population for hepatitis B by quarter, Q1 2004-Q3 2007

Acute/chronic status

Eighty percent (n=186) of notifications of hepatitis B in Q3 contained information on the acute/chronic status of the case. Seventy three percent (n=171) of cases were chronic, 6% (n=15) were acute and the status was unknown for 20% (n=47).

Geographic distribution

The rates per 100,000 population for Q3, by HSE area and acute/chronic status, are shown in figure 2. The highest rates were in the HSE-E, which reported 69% (n=161) of Q3 cases (10.7 per 100,000 population).

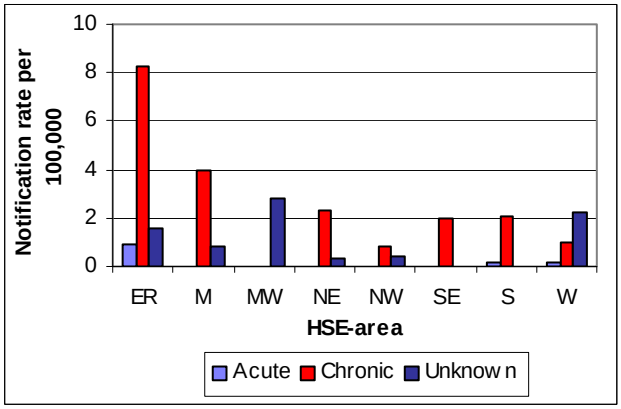

Figure 2. Crude notification rates per 100,000 population for hepatitis B cases notified in Q3 2007 by acute/chronic status and HSE area

Age and sex

Age and sex specific notification rates for acute and chronic cases of hepatitis B are shown in figures 3a and 3b, respectively. All of the acute cases were male and almost half were aged between 20 and 24 years. The ages of the remaining acute cases ranged from 25 to 65 years.

The sex distribution of the chronic cases was almost even. Forty eight percent of cases were male (n=84), 46% were female (n=81) and sex was not specified for 10 cases. The age distribution for males was slightly older than that for females. Eighty seven percent (n=153) of all chronic cases notified in Q3 were aged between 20 and 54 years.

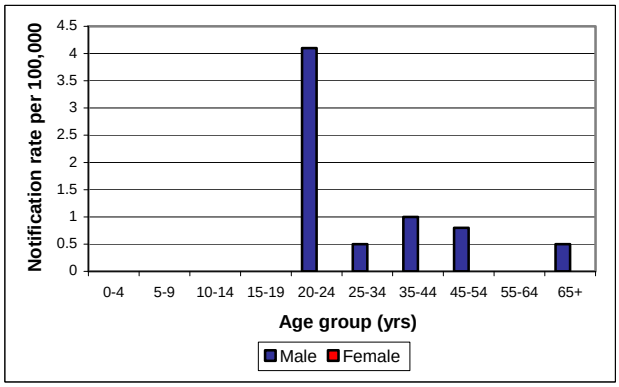

Figure 3a. Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q3 2007

All data contained in this report are provisional (CIDR accessed 30th Nov 2007)

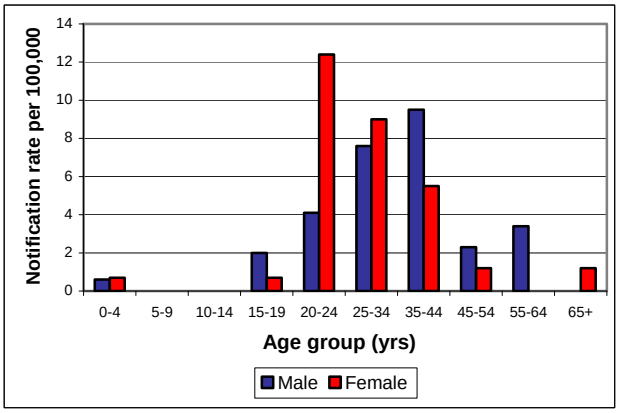

Figure 3b. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q3 2007

Risk factors

Some enhanced surveillance data were entered on CIDR for 73% of acute cases (n=11) and 26% of chronic cases (n=44) in Q3.

Six acute cases were likely to have been associated with sexual exposure. Four of these were men who have sex with men and two were heterosexual. No risk factor was identified for two of the acute cases for whom data were completed.

County of birth was specified for eleven acute cases, ten of whom were were born in Ireland. Where reason for testing was known (n=11), 82% of acute cases (n=9) were tested because they experienced symptoms.

The number of chronic cases for whom risk information was available was very limited. Data on asylum seeker status or country of birth were available for 44 cases, 86% of whom were asylum seekers or were known to have been born in a country with high (≥8%) or intermediate (2-7%) hepatitis B endemicity. Country of birth was identified for 40 cases. The most common regions were Sub-Saharan Africa (38%, n=15) and Eastern, South and South-Eastern Asia (30%, n=12). Five chronic cases were born in Ireland.

The reason for testing was known for 31 chronic cases. Nineteen percent (n=6) were identified through antenatal screening, 16% (n=5) were identified as a result of asylum seeker screening and 16% (n=5) were diagnosed through STI screening.

Discussion

Where acute/chronic status was known, 92% of hepatitis B notifications in Q3 were chronic. The limited data that were available indicate that most chronic cases were born in countries of intermediate or high hepatitis B endemicity. However, the proportion of chronic patients for whom this information was available was low and data may not be representative.

The number of acute cases was relatively low and sexual acquisition remained the predominant mode of transmission. However, the acute/chronic status was not available for 47 cases, so the actual number of acute cases may have been higher. Where data were available, the vast majority of acute cases were born in Ireland.

Fields for entry of enhanced hepatitis B data such as risk factors, reason for testing and country of birth, were put on CIDR in December 2006. Due to the large numbers of hepatitis B notifications, entering enhanced data is resource-intensive. However, it is hoped that data completeness will continue to improve.

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, 5th December 2007

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.

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