Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Quarterly Report
Hepatitis B Notifications
Q2, 2006

hpsc

Health Protection Surveillance Centre

Introduction

Hepatitis B is a notifiable disease under the Infectious Diseases Regulations 1981. Both acute and chronic cases are notifiable. An amendment to the regulations implemented on 1st January 2004 (S.I. 707 of 2003) introduced case definitions, and differentiated between notifications of acute hepatitis B and chronic hepatitis B for the first time. In addition, this amendment required laboratory directors to report cases of notifiable diseases identified by their laboratory. These changes have had a positive impact on the quality of information available on hepatitis B in Ireland.

Departments of Public Health, in conjunction with the HPSC, introduced enhanced surveillance of acute cases of hepatitis B from January 2005. This has resulted in improved data, particularly in relation to risk factor information. Some risk factor information is also available for a minority of chronic cases. This is a summary of notifications of hepatitis B to HPSC by the HSE areas in the second quarter of 2006.

Results

There were 247 notifications of hepatitis B in Q2 2006. This was an increase compared to the updated number of cases for the previous quarter (n=186) and compared to the number of notifications for Q2 2005 (n=214) (figure 1).

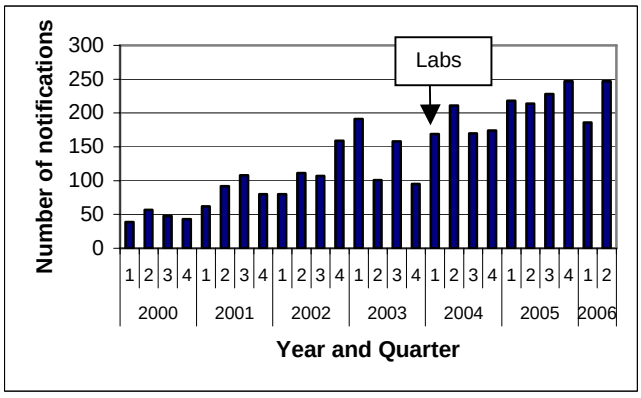

Figure 1. Number of notifications of hepatitis B per quarter, Q1 2000 – Q2 2006

Acute/chronic status

Eighty percent (n=198) of notifications of hepatitis B in Q2 contained information on the acute/chronic status of the case. Seventy-two percent (n=178) of cases were reported as chronic, 8% (n=20) were reported as acute and the status was unknown for 20% (n=49).

Geographic distribution

The rate of hepatitis B notifications per 100,000 population for Q2, by HSE area and acute/chronic status, is shown in figure 2. Fifty-eight percent (n=144) of cases in Q2 were notified by the HSE-E (10.3 per 100,000 population), 8.5% (n=21) were notified by the HSE-NE (6.1 per 100,000 population) and 8.1% (n=20) were notified by the HSE-W (5.3 per 100,000 population).

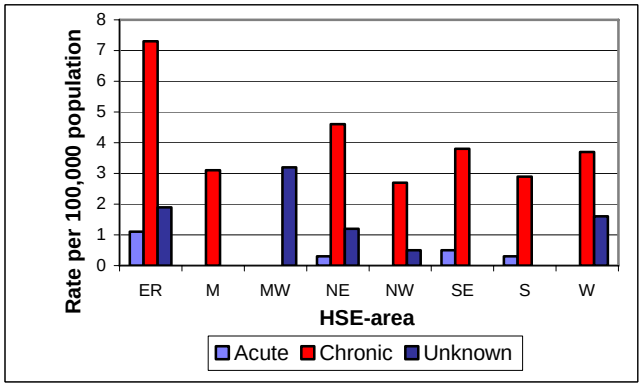

Figure 2. Rate per 100,000 population of hepatitis B cases notified in Q2 2006 by acute/chronic status and HSE area

Age and sex

The age and sex specific rates for acute and chronic notifications of hepatitis B in Q2 are shown in figures 3a and 3b, respectively. Seventy percent (n=14) of acute cases were male. The age profile was older than in Q1 and in 2005, with fifty percent (n=10) of all acute cases aged over 44 years and 30% (n=6) aged 60 years or older.

There was also a higher proportion of male (49%) chronic cases of hepatitis B than female (42%), but the difference was not as marked. (Sex was not specified for 9% of chronic cases.) The age distribution for male

chronic cases was slightly older than that for females. Eighty percent (n=142) of all chronic cases notified in Q2 were aged between 20 and 44 years.

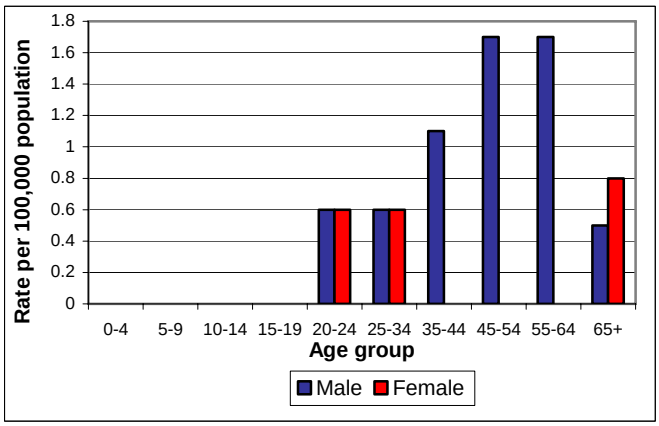

Figure 3a. Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q2, 2006

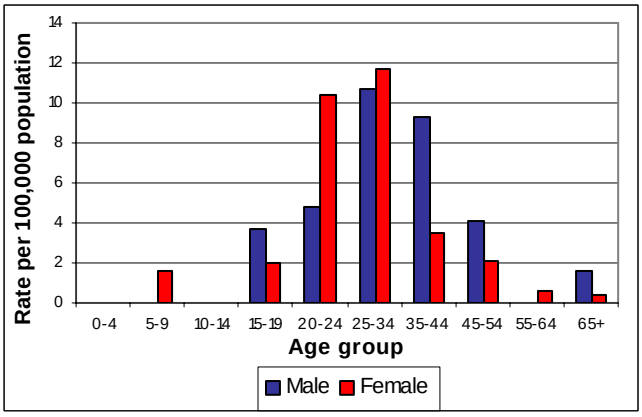

Figure 3b. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q2, 2006

Risk factors

HPSC received enhanced surveillance forms for 75% of acute cases (n=15) and 12% of chronic cases (n=22) in Q2 2006.

The main risk factors identified for acute hepatitis B related to sexual exposure, with three cases reported in men who have sex with men and further cases related to heterosexual contact with a known case of hepatitis B (n=1) and possible sexual exposure (n=2). No risk factor was identified for 36% (n=5) of acute cases for whom an enhanced form was completed.

Ninety-three percent (n=13) of the acute cases for whom country of birth was specified were born in Ireland. One of these cases indicated that their infection was probably travel-related and acquired in South/South East Asia. Where the reason for testing was known (n=13), all acute cases were identified because they experienced symptoms.

Where information was available (n=23/178), 96% (n=22) of chronic cases were born in a country with high (≥8%) or intermediate (2-7%) hepatitis B endemicity. Of these, 39% (n=9) were born in countries in Sub-Saharan Africa, 39% (n=9) were born in Central or Eastern Europe and 17.4% (n=4) were born in South/South East Asia. The reason for testing was identified for 21 chronic cases. Sixty-seven percent (n=14) of these were identified through asylum seeker health screening programmes and 14% (n=3) were identified through antenatal screening. The number of chronic cases for whom risk information was available was very limited.

Discussion

The majority of notifications of hepatitis B in Ireland are chronic cases. The limited enhanced data we have for these indicate that most were born outside of Ireland and acquired the infection in their country of birth.

By contrast, enhanced data for acute cases indicate that most are Irish and acquired hepatitis B in Ireland. Sexual exposure is the most commonly identified risk factor for infection. The number of acute cases in Q2 was low, but the age profile was unusual, with 30% of cases occurring in people aged 60 years or older.

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, 28th Aug 2006.

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.