



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Quarterly Report Hepatitis B Notifications Q4, 2005



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 regions in the fourth quarter of 2005.

Results

There were 236 notifications of hepatitis B in Q4 2005. This was similar to the updated number of cases for the previous quarter (n=243) (figure 1).

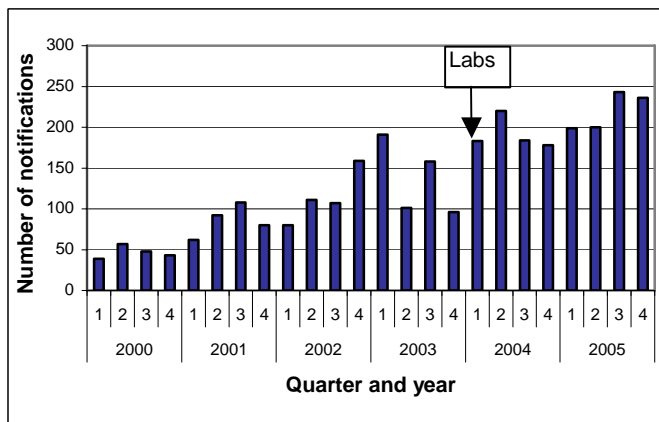


Figure 1. Number of notifications of hepatitis B per quarter, Q1 2000 – Q4 2005

Acute/chronic status

Fifty-four percent (n=127) of notifications of hepatitis B in Q4 contained information on the acute/chronic status of the case. Forty-six percent (n=109) of cases were reported as chronic, 8% (n=18) were reported as acute and the status was unknown for 46% (n=109).

Geographic distribution

The rate of hepatitis B cases notified per 100,000 population, by HSE area and acute and chronic status, is displayed in figure 2. Fifty-eight percent of cases in Q4 were notified by the HSE-ER.

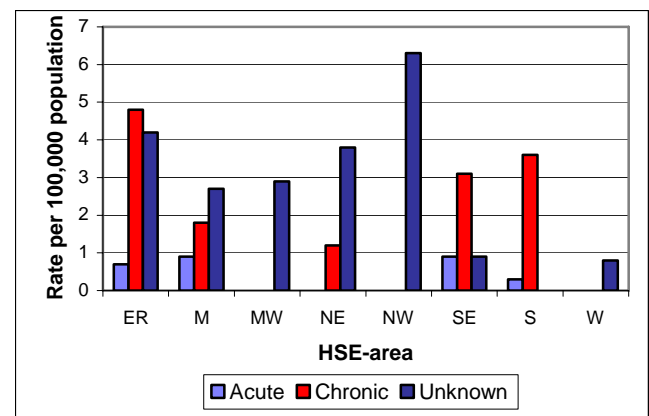


Figure 2. Rate per 100,000 population of hepatitis B cases notified in Q4 2005 by acute/chronic status and HSE area

Age and sex

The age and sex specific rates for chronic and acute notifications of hepatitis B in Q4 are shown in figures 3a and 3b, respectively. Eighty-eight percent (n=15) of acute cases were male. There was also a higher proportion of male (60%) chronic cases than female (34%), but the difference was not as marked. The age breakdown for chronic cases was similar for males and females. Eighty-seven percent (n=95) of all chronic cases notified in Q4 were aged between 20 and 44 years.

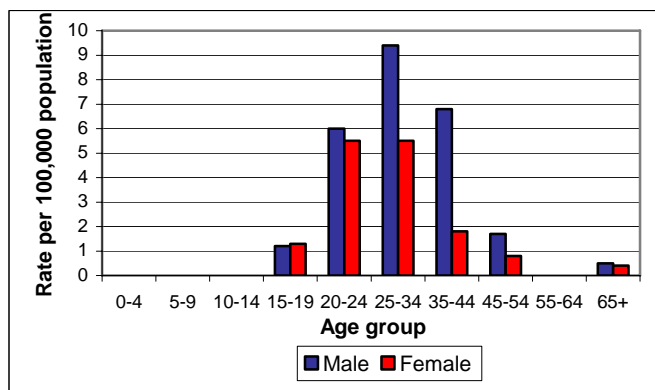


Figure 3a. Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q4, 2005

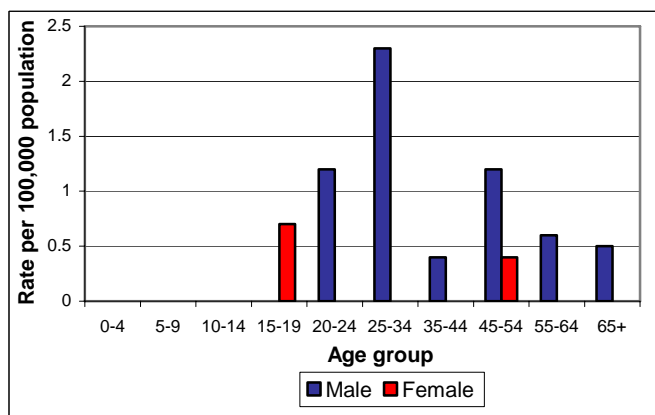


Figure 3b. Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q4, 2005

Risk factors

HPSC received enhanced surveillance forms for 44% of acute cases (n=8) and 11% of chronic cases (n=12) in Q4 2005. Some enhanced information was also available for a further fifteen chronic cases and one acute case.

The main risk factors for acute hepatitis B related to sexual exposure, with two cases reported in men who have sex with men and a further four cases possibly associated with sexual exposure. Almost 80% (n=7) of

the acute cases, for whom country of birth was specified, were born in Ireland. Two cases indicated that their infection was probably travel-related and acquired in South and South East Asia. Where the reason for testing was known, 89% (n=8) of acute cases were identified because they experienced symptoms.

Where information was available (n=27/109), 93% (n=25) of chronic cases were born in a country with high ($\geq 8\%$) or intermediate (2-7%) hepatitis B endemicity. Of these, 64% (n=16) were born in countries in Sub-Saharan Africa. The reason for testing was identified for 24 chronic cases, most of whom (71%, n=17) were identified through asylum seeker health screening programmes. The number of chronic cases for whom risk information was available was very limited.

Discussion

There have been substantial increases in the number of hepatitis B notifications over the past six years. Although enhanced information is only available for a proportion of cases, recent data do clearly illustrate the differences between the epidemiology of acute and chronic hepatitis B in Ireland.

The majority of notifications of hepatitis B in Ireland are chronic cases. The limited enhanced data we have for chronic cases indicate that most were born outside of Ireland and are likely to have acquired the infection outside of Ireland. Where information was available for acute cases, most were born in Ireland and were associated with sexual exposure.

Further improvements in the collection of enhanced data for hepatitis B notifications are necessary to more fully describe the epidemiology of hepatitis B in Ireland.

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 and Dr Lelia Thornton, 14th March 2005.

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.