

6.2 Viral Meningitis

Summary

Number of cases, 2007: 46
 Number of cases, 2006: 148
 Number of cases, 2005: 35
 Crude incidence rate, 2007: 1.1/100,000

In 2007, 46 cases (1.1/100,000 total population) of viral meningitis were notified in Ireland. Most of the cases were classified as confirmed (76%, n=35), 10 (22%) as probable and for one (2%) the case classification was possible. More cases occurred in males (n=28) than in females (n=18) giving a ratio of 1.6:1.0. One death due to viral meningitis was notified in a 33 year old man.

Cases ranged in age from 1 month to 59 years with a median age of 7 years. Eighty percent (n=37) of all cases were <35 years of age. Children <1 year of age had the highest incidence rate: 27.8 per 100,000, followed by the 1-4 year olds, 1.7/100,000 (table 1). Of the 46 cases reported in 2007 the causative agent was identified as enterovirus (n=27;59%), herpes simplex virus (n=4;9%), varicella zoster virus (n=2;4%), echovirus (n=1;2%), parechovirus (n=1;2%) and unknown (n=11; 24%) (table 1).

In Ireland, viral meningitis activity tends to be highest from June to October. In 2007 the numbers of cases peaked in July (n=9) and again in October (n=7) with an average of five cases per month (n=22) between June and October. In contrast, viral meningitis was low during the rest of the year with a monthly average of three cases (n=21).

The number of cases notified in 2007 represents a substantial return to the yearly average since 1997 during which the annual number of notifications ranged from 23-161 (figure 1). In 2006, there were 148 cases reported, but in 2005 and 2004, the numbers were 35 and 23, respectively.

High numbers of cases occurred in 2000 (n=98), 2001 (n=161) and 2006 (n=148). These upsurges in notifications coincided with an increase in reports by the National Virus Reference Laboratory (NVRL) of laboratory confirmed non-polio enterovirus isolates. The predominant strains were echovirus type 13 in 2000 and echovirus type 30 in 2001.

Towards the end of 2005 NVRL introduced PCR testing of CSF samples for enteroviral nucleic acid. This was in addition to the routine method of viral isolation from

Table 1. Number and age specific incidence rates of viral meningitis notifications, 2007

	Enterovirus	Herpes simplex virus	Varicella zoster virus	Echovirus	Parechovirus	Unknown	Total	ASIR
<1	12	0	0	1	1	3	17	27.8
1-4	2	0	0	0	0	2	4	1.7
5-9	1	0	0	0	0	2	3	1.0
10-14	1	0	0	0	0	1	2	0.7
15-19	3	0	0	0	0	0	3	1.0
20-24	2	0	0	0	0	1	3	0.9
25-34	2	1	0	0	0	2	5	0.7
35-44	4	1	1	0	0	0	6	1.0
45+	0	1	1	0	0	0	2	0.1
All ages	27	4	2	1	1	11	46	1.1

ASIR, age specific incidence rate per 100,000

stool samples. The number of viral meningitis cases attributable to enterovirus isolates in 2006 was 117, compared to 27 cases reported in 2007. No single strain predominated in 2007, as was also the case in 2006. However, in 2007 Coxsachie B4 and Echovirus type 11 were the strains most commonly isolated.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 21st August 2008.

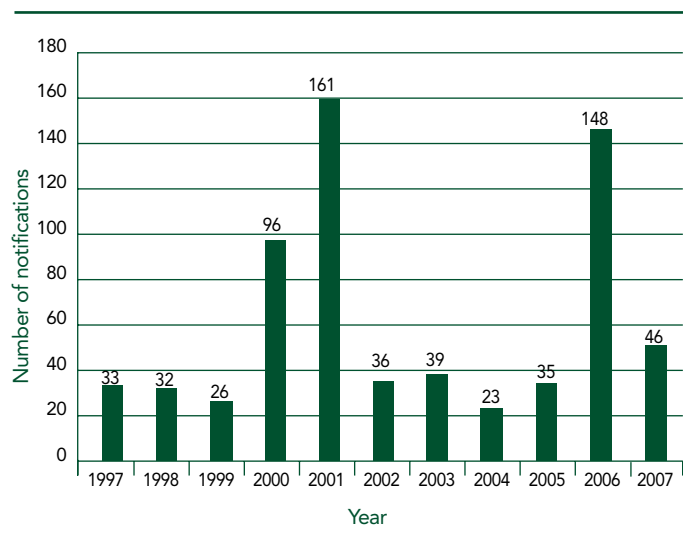


Figure 1. Annual number of viral meningitis notifications in Ireland, 1997-2007