6.1 Viral Encephalitis

Summary

Number of cases 2012: 18
Number of cases 2011: 23
Number of cases 2010: 22
Crude incidence rate, 2012: 0.4/100,000

Encephalitis due to viruses not otherwise specified (NOS) in the Irish Infectious Disease (Amendment) (No. 3) Regulations 2011 (SI No. 452 of 2011) are notifiable under the disease viral encephalitis. Since 1st January 2012, a revised version of the case definition of viral encephalitis, NOS has come into effect and is detailed in the HPSC Case Definitions for Notifiable Diseases booklet on the HSPC website (www.hpsc.ie). (Details of viral encephalitis cases caused by other notifiable diseases, if any, are presented in other chapters in this report). Clinicians and laboratories (the latter since 2004) are legally obliged to notify all cases of viral encephalitis.

In 2012, 18 cases of viral encephalitis (NOS) were notified in Ireland (0.4/100.000 population). This was five cases less than that 23 reported in the previous year (figure 1).

There were twice as many viral encephalitis (NOS) cases among females (n=12), than males (n=6) giving a male to female ratio of 0.5:1.0. Cases ranged in age from seven months to 85 years with a median age of 55 years. The majority of the notifications occurred in those aged 45-64 years (50%; n=9; 0.9/100,000 population) followed by the 65+ years age group (27.8%; n=5; 0.9/100,000 population) (table 1).

In 2012, seven of the eight HSE areas notified cases of viral encephalitis (NOS) (range 1-3), with HSE-E accounting for 33.3% (n=6/18) of cases. There were no cases reported in HSE-NW in 2012. The national crude incidence rate in 2012 was 0.4 (95% CI 0.3–0.7) cases per 100,000 population with the rate in HSE-E being 0.4 (95%CI 0.1–0.7) cases/100,000 population.

Of the 18 cases reported in 2012, all were laboratory tested positive and case classified as confirmed.

In recent years herpes simplex virus (HSV) and varicella virus have been the two main causative agents of viral encephalitis, NOS notifications in Ireland (figure 2). Notifications due to HSV and varicella have fluctuated considerably between 2010 and 2012: in 2010 there

Table 1. Number, age-specific incidence rates and proportion of viral encephalitis (NOS) cases by age group, 2012

	Causative pathogen						
Age Group	Herpes simplex virus	Human Herpes virus type 6	Varicella virus	Enterovirus	Total	ASIR	% Proportion
<1	0	1	0	0	1	1.38	5.6
1-4	0	1	0	1	1	0.35	5.6
5-14	0	0	0	0	0	0.00	0.0
15-24	0	0	0	0	0	0.00	0.0
25-44	1	0	0	0	1	0.07	5.6
45-64	8	1	0	0	9	0.86	50.0
65+	3	0	2	0	5	0.93	27.8
All ages	**12**	**3**	**2**	**1**	**18**	**0.39**	**100**
% total cases	**66.7**	**16.7**	**11.1**	**5.6**	**100.0**		

ASIR, age specific incidence rate per 100,000 population of total cases

were 10 HSV cases, in 2011 there were 20 and in 2012 there were 12. Similarly with varicella, there were 11 cases reported in 2010, but only one and two cases reported in 2011 and 2012, respectively. Of the 12 HSV encephalitis cases notified in 2012, 10 were reported as HSV type 1, one as type 2 and the typing details of the remaining case were not reported.

There no reported deaths associated with viral encephalitis in 2012 nor were there any imported cases in the same year.

In summary the numbers of viral encephalitis notifications in Ireland between 2011 and 2012 fell by 21.7%. During the same period, there was a marked decline in viral encephalitis notifications associated with HSV from 20 to 12.

The figures presented in this report are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 29th July, 2012. These figures may differ from those published previously due to ongoing updating of notification data in CIDR.

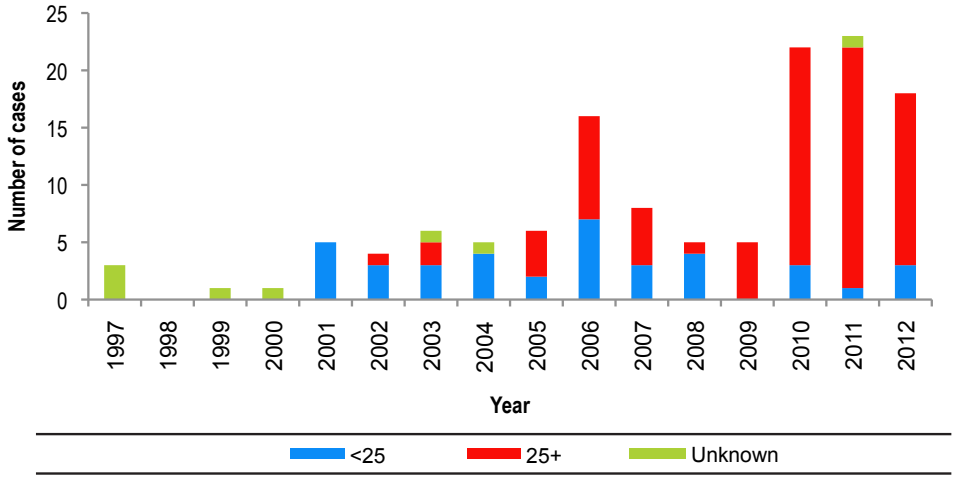

Figure 1. Annual number of viral encephalitis (NOS) cases by age group, 1997-2012

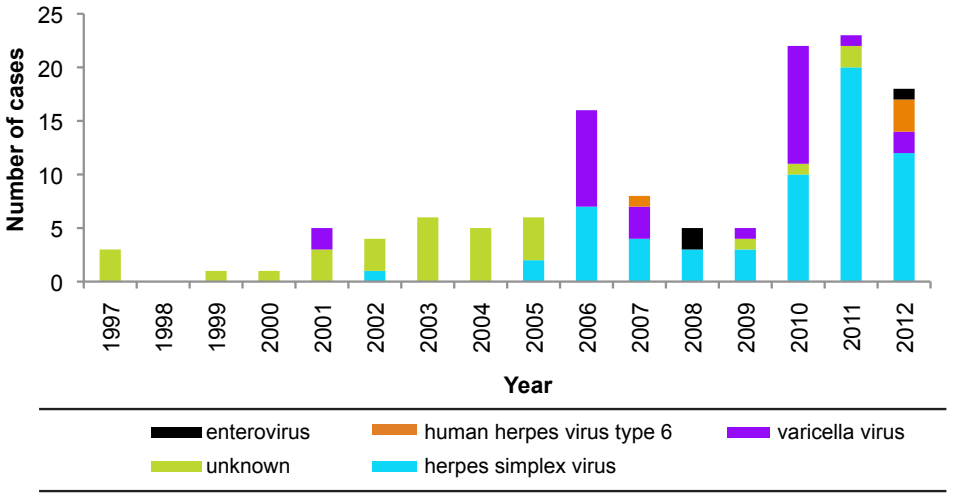

Figure 2. Annual number of viral encephalitis (NOS) cases by causative pathogen, 1997-2012