

6.1 Viral Encephalitis

Summary

Number of cases, 2016: 61
 Number of cases, 2015: 47
 Number of cases, 2014: 67
 Crude incidence rate, 2016: 1.3/100,000

Encephalitis due to viruses not otherwise specified (NOS) are notifiable under the disease category 'viral encephalitis'. Details of viral encephalitis cases caused by other notifiable diseases, if any, are presented in other chapters in this report.

In 2016, 61 cases of viral encephalitis (NOS) (VE) were notified in Ireland (1.28/100,000 population) compared to 47 (0.98/100,000) in the previous year (Figure 1). One contributing factor to the increase in numbers can be attributable to increase in the number of herpes simplex virus type 2 from three to nine cases and by the increase in human herpes virus type 6 cases from two to six cases.

The number of VE cases among males (n=23) was considerably less than in females (n=35), a M:F ratio of 0.66:1, with three cases remaining not attributed to either sex. The median age of cases was 34 years (range two weeks to 87 years); 15 (24.6%) cases occurred in those aged 65 or more years and 12 cases (19.7%) in children under five years

of age in 2016. There were six cases each of herpes simplex virus type 1 (HSV1) and varicella/herpes zoster virus (VZV) among the 15 VE cases in those aged > 65 years (Figure 1, Table 1).

All 61 VE cases were laboratory tested positive and case classified as confirmed. All but two had a causative pathogen identified: herpes simplex virus (HSV) (n=28; 45.9%), VZV (n=24; 39.3%), human herpes virus type 6 (HHV 6) (n=6; 9.8%), parechovirus (n=1; 1.6%) and not specified (n=2; 3.3%) (Figure 2).

Caution is advised regarding the detection of HHV 6 DNA in cerebral spinal fluid (CSF) specimens, especially in those cases aged less than three months as HHV 6 DNA can be chromosomally integrated as it may not be clinically relevant. Two of the six cases of HHV 6-related encephalitis in 2016 however, occurred in patients less than three months of age.

There were one reported death in a <6 months old with HHV6, but the actual cause of death was not known. There were no imported cases associated with VE in 2016.

The figures presented in this report are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 9th November, 2017. These figures may differ from those published previously due to on-going updating of notification data in CIDR.

Table 1. Number, age-specific incidence rates and proportion of viral encephalitis (NOS) cases by age group, Ireland, 2016

Age Group	Causative pathogen					Total	ASIR	% Proportion
	herpes simplex virus (HSV)	varicella/herpes zoster virus (VZV)	human herpes virus type 6 (HHV6)	enterovirus	not specified			
<1	1	0	6	1	0	8	12.85	13.1
1-4	2	0	0	0	2	4	1.49	6.6
5-14	2	0	0	0	0	2	0.30	3.3
15-24	2	5	0	0	0	7	1.21	11.5
25-44	6	10	0	0	0	16	1.14	26.2
45-64	7	2	0	0	0	9	0.79	14.8
65+	8	7	0	0	0	15	2.35	24.6
All ages	28	24	6	1	2	61	1.28	100
% total cases	45.9	39.3	9.8	1.6	3.3	100		

Note: ASIR, age specific incidence rate per 100,000 population of total cases, based on Census 2016 data

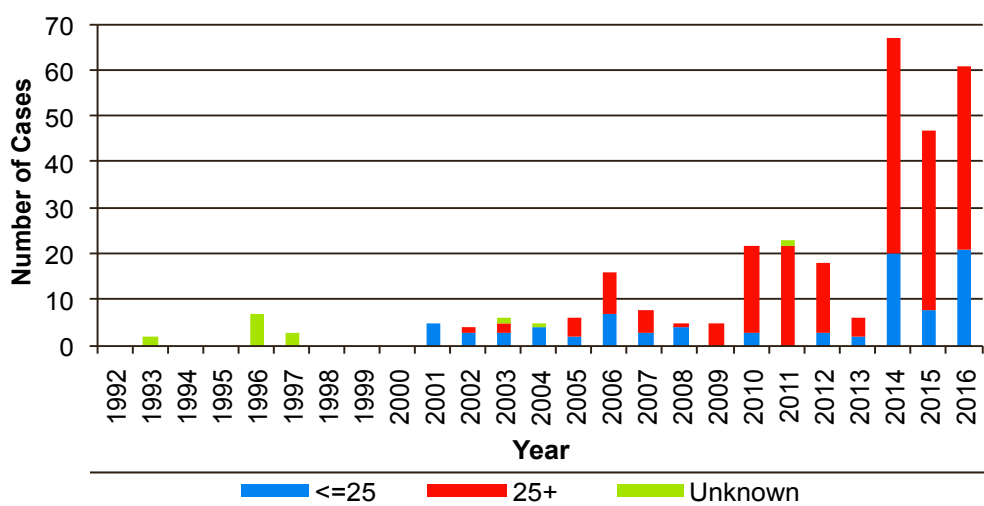


Figure 1. Number of viral encephalitis (NOS) cases by age group and year, Ireland, 1992-2016*
 * includes the late notification of 15 cases in 2013 reported in early 2014

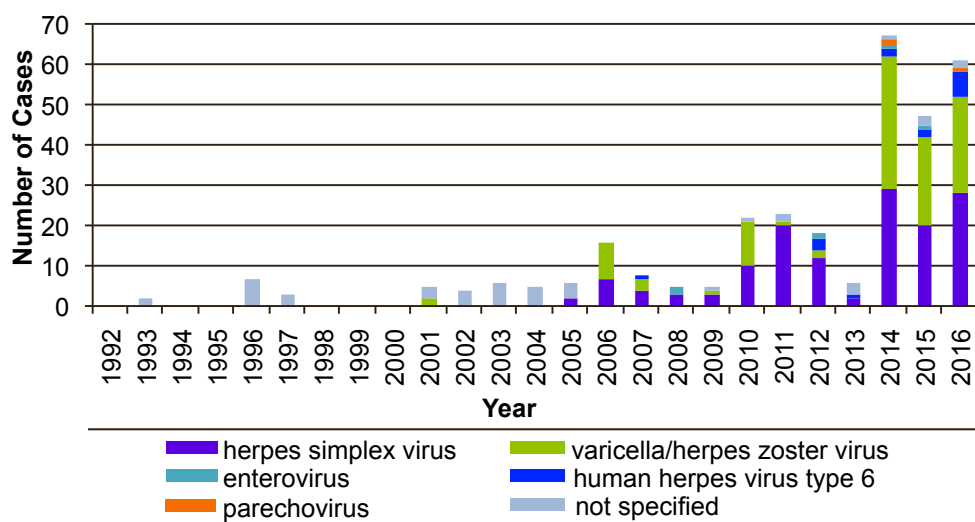


Figure 2. Number of viral encephalitis (NOS) cases by causative pathogen and year, Ireland, 1992-2016*
 * includes the late notification of 15 cases in 2013 reported in early 2014