

Weekly update on oseltamivir resistance to pandemic influenza A (H1N1) 2009 viruses

02 June 2010 -- For this reporting week (26 May -02 June 2010), two additional cases of oseltamivir resistant pandemic influenza A (H1N1) 2009 viruses have been reported.. It brings the cumulative total to 292¹ so far. All but one of these² have the H275Y substitution and are assumed to remain sensitive to zanamivir.

Information on one of these cases is included a recent scientific publication:

Cané A, *et al.* First Isolation of a Oseltamivir-Resistant Influenza A (H1N1) Strain in Argentina. The Pediatric Infectious Disease Journal, Vol. 29, No.4, April 2010.

Additionally, more detailed information on previously reported cases has been published:

Glikman D, *et al.* Development of oseltamivir resistance during oseltamivir therapy in a child with severe 2009 H1N1 Influenza. The Pediatric Infectious Disease Journal, Vol. 29, No.4, April 2010.

Table 1: Geographical distribution of oseltamivir resistance by the WHO regions (as of 2 June 2010)

	WHO Region					
	AFRO	EMRO	EURO	PAHO	SEARO	WPRO
Number of oseltamivir resistant isolates	0	1	98	82	0	111

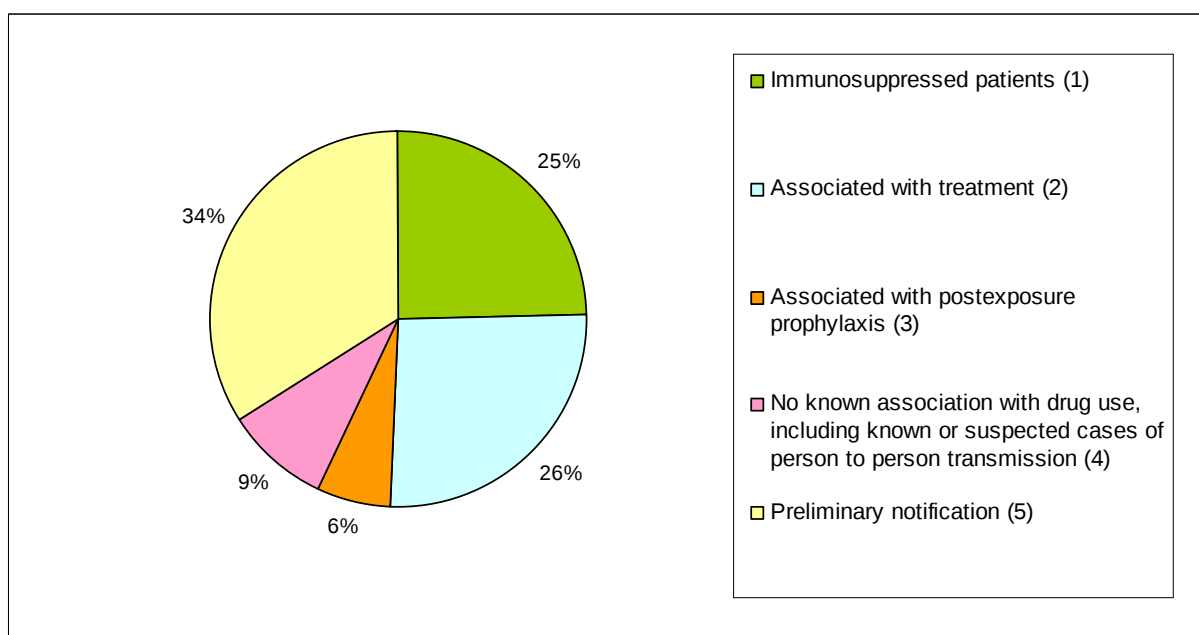


Figure 1: Proportion of the clinical background of reported cases of oseltamivir resistance (as of 02 June 2010). Cases are classified first by identifying those that occur in severely immunocompromised patients (1). The remaining cases are then classified as either occurring during or after oseltamivir treatment (2), associated with post-exposure prophylaxis (3), or occurring in patients who had not used antiviral drugs prior to occurrence of the resistant virus (4). The balance of cases (5) are those where insufficient clinical information is available.

¹ The totals reported here are based on confirmed reports from several sources, and include case reports published in medical journals, as well as reports from national ministries, health agencies and laboratories.

² WHO Euro region report a case of pandemic A(H1N1) 2009 virus that developed in an immunocompromised child with reduced susceptibility to zanamivir and oseltamivir due to an amino-acid mutation at position 223 in the neuraminidase. The clinical implications of this A(H1N1) 2009 variant are being assessed and a publication is expected. The report is available at http://www.euroflu.org/cgi-files/bulletin_v2.cgi