

Respiratory infections

Antigenic Drift of A/H3N2/ Virus and Circulation of Influenza-Like Viruses During the 2014/2015 Influenza Season in Poland

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Morbidity rates of influenza could be greatly reduced due to vaccination. However, this virus is able to evolve through genetic mutations that is why vaccines with updated composition are necessary every season. Their effectiveness depends on whether there is a good antigenic match between circulating viruses and vaccine strains.

In Poland, the 2014/2015 influenza epidemic started in week 5 (January/ February) of 2015 and continued until week 17 (April) of 2015. The influenza activity was moderate with the highest ILI incidence at week 10/2015 (March). During that season, antigenic drift of influenza virus A/H3N2/ occurred causing higher rates of A/H3N2/ infections. Among 2 416 tested specimens 22,6 % of influenza cases were positive for A/H3N2/, while A/H1N1/pdm09 consisted 14,6 %. Influenza A viruses were detected in co-circulation with influenza B viruses, the latter amounted 34,1 % of all influenza detections.

Among ILI cases other respiratory viruses were detected, particularly RSV, and sporadically at lower level: human Coronavirus, Parainfluenza 1-3, Rhinovirus and Adenovirus.

Despite low vaccine effectiveness of solely one component - A/H3N2/, the vaccine could mitigate or shorten the length of influenza infection and reduce the number of severe outcomes and mortality. Thus, vaccination against influenza remains the most effective way to prevent illness and possibly fatal outcomes.

Key words: *flu, antigenic drift, mismatch, vaccine*