

H1N1-pandemic: Watch out for the first wave in Switzerland

In this issue of Swiss Medical Weekly Nickel et al. [1] describe a Swiss emergency department's first experience of influenza A/H1N1/09 pandemic. The description of the first cases of H1N1 in Switzerland provide an important glimpse of the pandemic wave expected to hit Europe this winter.

In their article's title the authors describe their observation as the "first wave of the pandemic", and conclude that this first wave was a product of media "hype" rather than a real threat to the population. While I agree with them about media hype and the absence of a threat to public health during this observation period, it may be questioned whether the term "wave" in this article is the proper one.

The term "wave" describes a pattern of increase and decrease of case numbers resembling the behaviour of water in heavy seas. But similarly to the sailor, who would not call the product of a slight breeze a wave, we may need to be cautious with the use of the term "wave" for the very careful observation the authors provide in their prospective study. Previous pandemics have typically been described as occurring in two or three waves. But have we already passed the first wave in Switzerland? I would argue that we have not. The waves that have been observed in previous pandemics were characterised by the increase in the influenza mortality burden. During the relatively mild H2N2-1957 pandemic which was characterised by three waves occurring over a period of six years, influenza mortality during the peak of the three waves was in the range of 28–43% of all case mortality in the US [2]. Even during the first and smallest wave of the 1918 Spanish flu, mortality was 5% of all-case mortality in the City of Copenhagen.

Thus, what we have encountered during the summer and fall of 2009 in Switzerland really cannot be considered a pandemic wave. In fact, I would even argue that the individual cases that occurred in our region would never have been diagnosed in any of the influenza pandemics of the past century. The response and preparedness of the World Health Organization (WHO) and its global partners was unprecedented [3]. A worldwide network of WHO affiliated laboratories and a compulsory strategy of typing every newly detected influenza virus was well-established when the first cases of swine-origin influenza emerged in North America [4]. Thus, public health officials had the chance to prepare the public much earlier than in previous pandemics. On the other hand, early recognition of the new pandemic also resulted in a media hype that was sometimes counterproductive. One example was that in the early weeks of global awareness of the new pandemic protective masks and even disinfectants were sold out in retail stores, and the sale of oseltamivir had to be restricted due to fears of widespread non-indicated use.

As a result of this unwarranted hype, and concerned about unjustified panic reactions in the population, public health officials had to downplay the severity of the current pandemic. Even in October 2009 the Swiss Federal Office of Public Health announced that the symptoms of the pandemic flu were milder than those we are

used to from seasonal flu [5]. But as an unintended consequence of public reassurance that the disease was mild, uptake of pandemic vaccination has been very slow in Switzerland.

The report by Nickel et al., however, is a timely and important summary of our initial experience of H1N1. The authors have nicely documented an impressive "wave" of patients with flu-like illness during summer 2009. However, among 521 patients in the emergency department with flu-like illness, only 5% were found to be positive for influenza A/H1N1/09. In other words, the authors observed patients with other respiratory infections during a period when H1N1 influenza occurred only in sporadic instances. The authors' conclusion, that this "first wave" was mild, needs to be treated with caution. Since the authors observed a period of low incidence, hospitalisations and complicated courses were rare.

Influenza incidence is measured by the proportion of patients presenting with influenza-like illness (ILI) to a representative selection of general practitioners. When this percentage rises above a critical threshold, the epidemic usually starts to spread rapidly. In the US this was the case in early September 2009 for H1N1 and in early November for Switzerland. As a result, the likelihood of a positive H1N1 PCR rises rapidly during the epidemic wave. In our institution, health care workers presenting with a typical flu-like illness in the second half of November 2009, four weeks after the termination of the observation reported by Nickel et al., had a positive PCR result for H1N1 in more than 80% of cases. So the first wave has just reached Switzerland and the consequences of this epidemic will need to be observed in the upcoming weeks. The only thing that can be predicted with certainty is that: the consequences of this pandemic will depend heavily on the uptake of the vaccination campaign in children and young adults.

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References

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