

EDITORIAL

A year and two months of 2009 influenza pandemic

Um ano e dois meses de pandemia de gripe 2009

The pandemic influenza A (H1N1) 2009 lasted 425 days. In other words, 14 months elapsed since the announcement of its beginning on 11th June 2009 and its end on 10th August 2010. It was the first time that a pandemic was announced in this century and 40 years since the past 1968-1969 pandemic known as the “Hong Kong Flu”. Mrs. Margaret Chan, M.D., Director-General of the World Health Organization (WHO), will certainly never forget the words she stated on 11th June 2009: “The world is now at the start of 2009 influenza pandemic”.¹

Up until the beginning of August 2010, more than 214 countries had reported cases of pandemic influenza and at least 18 449 deaths, of which approximately 5000 in the European region.² Unlike past pandemics, only laboratory-confirmed deaths were counted, representing a default value of the real impact of the pandemic.

Influenza activity is still reported in some countries, but only at a local level and within the expected values for the season. That is, with no regional or global dimension and no activity outside the seasonal influenza season, which characterized phase 6 of the pandemic. Similarly, it appears that the pandemic strain is no longer dominant and that about 20 to 40% of the population in different continents show some level of immunity.³

These were the main reasons that led the WHO to justify their statement of 10th August 2010, whereby it was declared that we are now moving into the post-pandemic period and the new H1N1 virus has largely run its course.³ Other paragraphs in this statement are worth mentioning: “We expect the H1N1 virus to take on the behaviour of a seasonal influenza virus and continue to circulate for some years to come. (...) Based on available evidence and experience from past pandemics, it is likely that the virus will continue to cause serious disease in younger age groups, at least in the immediate post-pandemic period. Groups identified during the pandemic as at higher risk of severe or fatal illness will probably remain at heightened risk, though hopefully the number of such cases will diminish. (...) This

time around, we have been aided by pure good luck. The virus did not mutate during the pandemic to a more lethal form. Widespread resistance to oseltamivir did not develop. The vaccine proved to be a good match with circulating viruses and showed an excellent safety profile”.³

In more developed countries, this is a moment of balance. Of what went right and what went wrong, what was done well and what could have been done better. Portugal was no exception and the impact of the influenza A (H1N1) 2009 was also felt in the country. Moreover, there is a duty and a sense of responsibility in Portugal to assess and analyze what was done and their motives, in addition to transparency and “accountability”, include respect for bereaved families and the obligation to learn from our own mistakes so as to do better in future pandemics.

In Portugal, influenza A had a similar behaviour to that of other European countries and has been well described in the following words by Dunning and Openshaw: “A generally mild disease that sometimes killed”. The National Contingency Plan was activated on 24th April 2009 and the first case was diagnosed on the 29th of the same month. The estimated overall attack rate was 10 to 15%, representing a high underreporting, and the peak of activity occurred during the second half of November 2009 (weeks 47 and 48). Despite the benevolence of most situations, in some cases, there were serious disease types, having been reported 124 laboratory-confirmed deaths,⁵ the first of which occurred on 23th September 2009. The average age of deceased patients was 47.6 years with a slight male predominance (60%) compared to females (40%). Influenza was responsible for deaths in all age groups, with the highest incidence between age 15 and 64, being that 87% were under 65 years old. The minimum and maximum age of deceased patients corresponds to 5 months and 88 years accordingly.⁵ It is important to note that this age distribution differs significantly from that found in seasonal influenza, in which more than 80% of deaths occur in patients aged 75 years or over.⁶

Approximately 1/3 of deceased patients were healthy and, as concerns the 2/3 presenting risk factors for severe disease, chronic respiratory diseases were the most prevalent risk factor, having been diagnosed in 25% of the cases.⁵ Morbid obesity was present in 10% of deceased patients with risk factors⁵. The main cause of death in 80% of deceased patients and in all age groups was pneumonia caused by the influenza virus, the primary viral pneumonia.⁵ Moreover, the cause of death was another significant difference compared to seasonal influenza, in which the majority of deaths results from decompensation of comorbidities or bacterial pneumonia.

For the first time in the history of humanity, a vaccine was developed and made available during a pandemic. In Portugal, vaccination began on 26th October 2009, curiously 2 to 3 weeks before the peak of activity of the first pandemic wave. Unfortunately and worthy of reflection on the part of all healthcare professionals, none of the deceased patients with risk factors and indication for vaccination were vaccinated or completed the vaccine schedule. Meanwhile, the hundreds of millions of pandemic vaccines that were administered substantiate the results of safety and effectiveness of the initial clinical trials, conducted according to the usual methodology and required for the licensing of any medication. Moreover, they also confirm the imprudence, ignorance and lack of scientific evidence of the campaign against the pandemic vaccine, so widespread in the media, a factor which, in our opinion, contributed to the low rate of adherence to vaccination and, most likely, to excess mortality in our country.

The 124 deaths in Portugal accounted for a mortality rate of 1.17 per 100 000 inhabitants. Albeit below the maximum values observed in EU countries, this figure ranks Portugal above the average mortality recorded in those countries (Figure 1) and the same is true when compared

with the estimated mortality rate in the United States (0.97/100 000 inhabitants).⁷

One of the major problems identified in most countries was the difficulty in conveying the message that although in the majority of cases the clinical picture was benign, a small percentage of patients, even the previously healthy ones, could develop into extremely severe forms of illness. The countries with the best results were those who were more efficient in the prevention of the disease in individuals with risk factors (e.g.: through vaccination) and/or early diagnosis of severe patients or aggravation of the disease, in order to start antiviral therapy as soon as possible.

In conclusion, we consider it reasonable to conclude that the action of national health authorities was, in essence, proper and adequate, although with a few unexpected difficulties in communicating risk and uncertainty, both among the population and health professionals. There is a collective duty to do even better in the future without necessarily spending more resources. And we hope the relative benignity of the current pandemic strain does not promote a false sense of security with negative consequences for planning and preparing similar cases in the future.⁴

In this issue of the *Revista Portuguesa de Pneumologia* are published two articles on the impact of pandemic influenza in Portugal. The article "Pandemic influenza A (H1N1) in the North of Portugal: how did the Autumn-Winter wave behave?" by Ana Correia and colleagues⁸ present an overview of the characteristics of the pandemic wave in the North of Portugal and emphasize the importance of pursuing and reinforcing influenza surveillance. Vitor Duque and colleagues publish an article on "The Early Days of Pandemic (H1N1) 2009 Virus Infection in the Central Region of Portugal",⁹ in which they present the clinical and

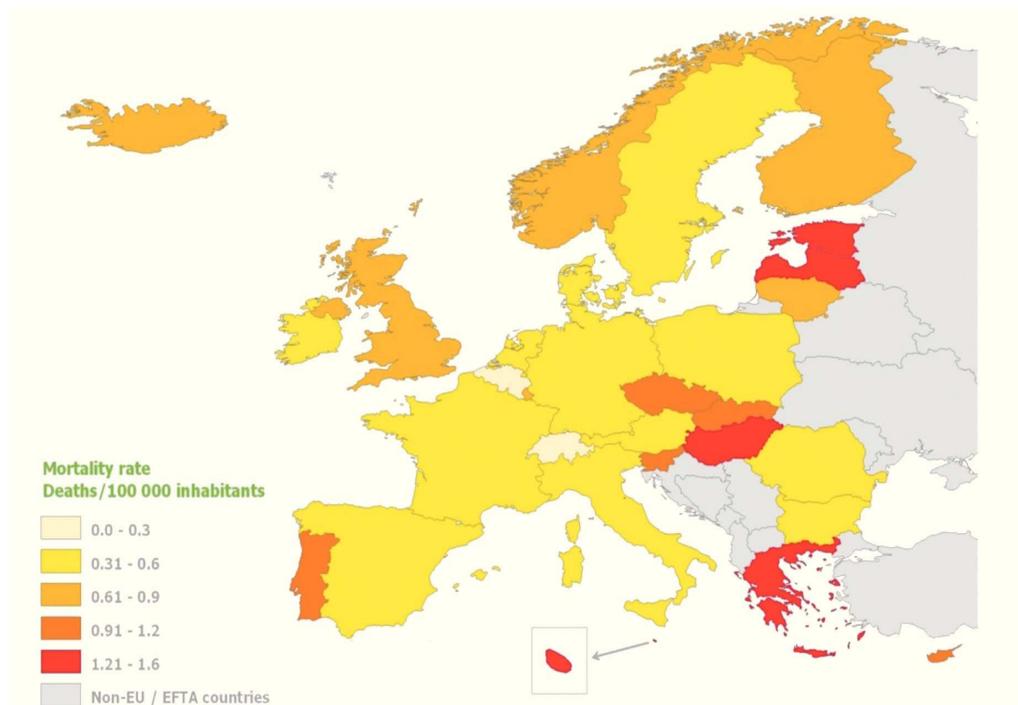


Figure 1 Mortality rates per 100 000 inhabitants by the influenza A (H1N1) 2009 in EU and EFTA countries from 28th April 2009 to 28th April 2010 (European Centre for Disease Prevention and Control, 2010)

epidemiological characterization of the first 255 confirmed cases diagnosed in the Central Region of the country during the period from June to August 2009. In an initial phase of the pandemic with more questions than answers, namely on the characteristics of this new microorganism, the authors stress the importance of early diagnosis and isolation measures in infection control, as well as the impact of the main roads and highways in the spread of the disease. In addition to the scientific value, these two articles have major historical interest, in the future.

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