

## H1N1 influenza A infection: an update

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Dear Editor,

Pandemic H1N1 swine-origin influenza virus A (S-OIV) infection poses a significant threat to public health worldwide with unpredictable evolution. We recently reviewed its current status (1). Since April 2009, when the first case of S-OIV infection was reported, a total of more than 120 countries have reported 94,512 laboratory-confirmed cases of novel flu with a fatality rate of 0.45% (429 fatal cases), based on the last update of World Health Organization (WHO) on July 6, 2009 (2). However, counting of confirmed cases only underestimates the number of cases that have occurred and the real number is probably threefold to fourfold higher. In Greece, more than 520 cases have been officially reported, with over 30-40 new cases added every day; however, no fatal cases have occurred up to now.

Oseltamivir or zanamivir are recommended for the treatment of serious S-OIV infection, including all patients with confirmed, probable or suspected infection. Post-exposure chemoprophylaxis with the previous antiviral agents may be considered for the following: a) health-care workers who have had recognized, unprotected, close contact exposure to a patient with suspected, probable or confirmed S-OIV infection during that patient's infectious period and b) asymptomatic household or other close contact of patients with suspected, probable or confirmed S-OIV infection who are at higher risk for complications or are health-care workers themselves. Persons with mild, uncomplicated influenza-like illness are advised to stay at home for 7 days after symptom onset or 24-48 hours after symptom resolution, whichever is longer (3). While S-OIV infection is generally mild or moderate with most patients experiencing uncomplicated, self-limited illness, there are few cases with rapidly progressive lower respiratory tract disease resulting in respiratory failure, development of acute respiratory distress syndrome and prolonged intensive care unit hospitalization (4). In addition, it seems that younger people are more susceptible to S-OIV infection rather than older and that infected patients of any age should be very carefully observed for the development of complications.

On June 11, 2009, the WHO has raised its alert level to the Phase 6 of pandemic, which is the highest level de-

claring the first pandemic of the 21<sup>st</sup> century. This means that human-to-human spread of the virus has been developed in multiple countries. In countries where the pandemic is established, the main aims of surveillance are continuous monitoring of the epidemiological, virological and clinical picture of the pandemic and its impact on the health-care infrastructure (5). Since the spread of the pandemic S-OIV is considered unstoppable, immunization will be needed in all countries. WHO recommends immunization of health-care workers as a first priority to protect the essential health infrastructure. Then, as vaccine availability has not become sufficient yet, a step wise approach to immunize certain groups may be considered. Specifically, pregnant women and children above 6 months old with chronic medical conditions must be vaccinated. Healthy children and adults also should be immunized if possible. Although the only way to control this pandemic is through large-scale vaccination, unanswered questions remain about the number of doses that are needed to induce effective protection or what the optimal antigen content is in the new vaccine or whether it is possible to immunize people globally.

**Conflict of interest:** None declared

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