The progressive expansion of the Novel A (H1N1) v epidemic in the EpiSouth region (Mediterranean and Balkans)

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Background: EpiSouth is a network covering 26 Mediterranean and Balkan countries. Since April 2009, all continents have been progressively affected by the A(H1N1)v influenza pandemic.

Methods: In the scope of the project, EpiSouth countries shared, on a voluntary basis, information regarding their confirmed cases, case definitions and cases management strategies. Data concerning confirmed cases were analysed on a weekly basis.

Results: The first confirmed case was reported on the 27th of April in Spain. As of 06 July 2009, 2,577 confirmed cases were reported by 24/26 countries. The most affected country was Spain (776 cases) followed by Israel (681) and France (330). The pandemic spread within the four EpiSouth sub-regions was slightly different: the number of cases started to increase markedly first among EpiSouth EU countries (week 19), followed by Middle-East (week 23), and finally North Africa and Balkans (Week 27).

These different dynamics can be partly explained by the historical or socio-economical links existing between countries. The more rapidly affected EpiSouth countries (e.g. Spain, Israel or France) are those with close links (e.g. numerous direct daily flights with the Americas) while countries with less direct or frequent connections could delay longer the implementation of a local cycle of transmission. Later, population movements within EpiSouth countries also contributed to a further pandemic spread (e.g. cases exported from France to Algeria, Slovenia and Tunisia and from Spain to Lebanon and Serbia). The third phase was linked to relations with neighbouring areas e.g. Saudi Arabia exported cases to several EpiSouth countries.

Conclusion: While all countries were faced with the same difficulties regarding implementation of control measures, the ongoing information exchange between countries has proven its importance.

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An outbreak of influenza A pandemic (H1N1) 2009 in a residential home for the disabled in Hong Kong and detection of the first local case of oseltamivir-resistant infection

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Background: In Hong Kong, outbreaks of pandemic influenza A (H1N1) virus infection occurred in institutions since June 2009. The Centre for Health Protection (CHP) of the Department of Health carried out epidemiological investigation and provided oseltamivir chemoprophylaxis for residents of residential home for the physically and mentally oseltamivir resistant infection detected.

Methods: We calculated the effectiveness of seasonal influenza vaccination 2008-2009 which comprised A/Brisbane/59/2007 (H1N1)-like virus, A/Brisbane/10/2007 (H3N2)-like virus and B/Florida/4/2006-like virus in protection against pandemic influenza A (H1N1) 2009, and the effectiveness of oseltamivir chemoprophylaxis. Thirty-four respiratory specimens (15 nasopharyngeal aspirates, 15 nasopharyngeal swabs and 4 throat swabs) were taken from 34 residents for realtime RT-PCR testing for pandemic influenza A (H1N1) 2009. All of the 21 positive samples were further tested for antiviral resistance.

Results: Seasonal influenza vaccination did not confer protection against pandemic influenza A (H1N1) virus (OR 2.23, 0.70 to 7.00; $p>0.05$), but oseltamivir prophylaxis was found to be effective in preventing disease (OR 0.31, 0.10 to 0.98; $p<0.05$). Overall compliance with oseltamivir chemoprophylaxis was satisfactory (94.5%). Two staff members who were offered oseltamivir reported early discontinuation due to side effects while two others did not start the medication at all. Oseltamivir resistance in influenza A (H1N1) virus infection was detected in one of the residents who had been given oseltamivir prophylaxis for 6 days. There was no evidence of spread of the resistant strain in the outbreak.

Conclusion: Oseltamivir chemoprophylaxis was effective in reducing the transmission of pandemic influenza A (H1N1) virus infection in long-term care facilities during outbreak. Clinicians, microbiologists and public health physicians should be alerted to the possibility of emergence of oseltamivir-resistant viruses in patients who have received chemoprophylaxis.

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Evaluation of direct immunofluorescent assay (DFA) and rapid antigen test (RAT) for diagnosis of new pandemic influenza A H1N1 2009 (FLU AH1N1) during first wave in Santiago, Chile

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Background: Since May 17th 2009 (epidemiological week 20th), the new strain of influenza A H1N1 was detected in respiratory samples of symptomatic patients in Santiago, Chile. The circulation of the virus lasted 11 weeks, with a peak between weeks 25-27th. The objective of our study was to evaluate the performance of influenza tests for diagnosis of FLU AH1N1.

Methods: Nasopharyngeal swabs were taken from in and outpatients with influenza like illness (ILI), between June 1st and July 19th of 2009 (weeks 23-29th) and the results of DFA and RAT were compared using RT-PCR FLU AH1N1 (Light mix Kit Influenza A virus M2 and Light Mix Kit FLU A swine