effect could thus be explained by the predominance of H1N1pdm09 in younger age groups. Our results are limited because of the small numbers. This clearly upholds the convenience of networking and data pooling between sites applying similar protocols. This study was funded by a grant from Sanofi Pasteur. Valencia Hospital Network for the study of Influenza & RVD is a member of the Global Influenza Hospital-based Surveillance Network.

P2-529

Variability in the immunogenicity of inactivated seasonal influenza vaccine in children due to age and recent previous influenza vaccination

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Background: Annual receipt of trivalent inactivated influenza (TIV) vaccination is recommended for school-age children in some countries. However, there is little data on the variability of the immunogenicity of influenza vaccination in children and how this is affected by their age and recent influenza vaccination history. Materials and Methods: We used data on children in a Hong Kong community-based study who were randomized to receive TIV before the 2009-2010 influenza season. Antibody titers against seasonal and pandemic A(H1N1), seasonal A(H3N2), and two B influenza viruses (B/Brisbane and B/Florida) were measured by hemagglutination inhibition immediately before and 1 month after vaccination (Cowling et al. *Clin Infect Dis*. 2012). Multivariate regression models were fitted in a Bayesian framework to characterize the distribution of changes in antibody titers following vaccination and update previous findings by considering the correlation between virus strains (Ng et al. *Pediatr Infect Dis J*. 2013). Results: In 452 subjects, statistically significant rises in the geometric means of all antibody titers were observed, with those against the virus strains included in the TIV rising by geometric means of 7.95 to 13.36; those against pandemic A(H1N1) and B/Florida rose by 1.47 and 4.21, respectively. Geometric standard deviations were between 3.76 and 8.41 around the geometric means, with pandemic A(H1N1) showing the least variability in rises. The most closely correlated titer increases were those for the two influenza B viruses, while increases in pandemic A(H1N1) titers were unrelated to any other titer. Being vaccinated in either of the two previous years significantly reduced the increase in seasonal A(H1N1) and A(H3N2) antibody titers, while among children not vaccinated in the previous 2 years, those aged > 9 years experienced significantly higher increases in the influenza B titers than those aged 6-8 years. Conclusions: Increases in antibody titers following vaccination can vary depending on age and vaccination history. Results from our study suggest that humoral antibody response to TIV may be lower in children receiving repeated vaccination, but receipt of TIV induced seroprotection in most subjects.

P2-530

Supplementation of oil-based inactivated H9N2 vaccine with M2e antigen enhances resistance against heterologous H9N2 avian influenza virus infection

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Background: Avian influenza virus (AIV) subtype H9N2 has become established in multiple avian species across large geographical areas, including Asia, the Middle East, and Africa, causing serious economic losses in the poultry industry. To control H9N2 infections in poultry, an oil-based inactivated H9N2 vaccine was used in the chicken industry to prevent H9N2 infection in several Asian countries.

Return to Table of Contents