

## ANTIBODY RESPONSE TO INFLUENZA VACCINATION IN PATIENTS SUFFERING FROM ASTHMA

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Seasonal influenza vaccinations are recommended for different groups of patients with chronic diseases, including asthma. Viral infections, also those caused by influenza, may be a reason of exacerbations observed in this group. Moreover, there are still existing opinions that also influenza vaccine may cause such negative effect despite the fact that many studies proved the safety of inactivated influenza vaccines in asthmatic patients. The aim of the study was to assess humoral response to influenza vaccination in 20 children with bronchial asthma aged 2-16 years (mean 8.5; median 8), who received split inactivated vaccine (Fluarix, GSK) in the epidemic season 2006/2007 and have never been vaccinated before. The response to influenza hemagglutinin was assessed before vaccination and after 1 month by hemagglutination inhibition test performed with influenza strains included into the vaccine recommended for the season 2006/2007 and turkeys red blood cells. Antihemagglutinin (anti-HA) antibody titers were significantly higher after vaccination than before it. The mean fold increase (MFI) of anti-HA antibody levels after vaccination amounted to 12.1 for antigen H1, 53.8 for antigen H3 and 18.7 for antigen HB. The post-vaccination percentage of patients with protective anti-HA antibody titers 40 (protection rate) amounted to 95% for antigen H1 and 100% for antigens H3 and HB. The percentage of patients with at least a 4-fold increase of anti-HA antibody titers (response rate) after vaccination amounted to 90% for H1, 100% for H3 and 95% for HB. The results confirmed the immunogenicity and safety of inactivated influenza vaccine in children with asthma. The registered values of all parameters of the immunological response (MFI, protection rate, response rate) fulfilled the requirements of the Committee for Proprietary Medicinal Products established for healthy people vaccinated against influenza.