

THE EFFECT OF SERUM VITAMIN D CONCENTRATION ON IMMUNOGENICITY OF INFLUENZA VACCINATION IN PATIENTS AGED 60-75

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Introduction: Vaccination is the most effective preventive measure which reduces the risk of influenza contraction and post-influenza complications. Its effectiveness in preventing hospitalization of patients aged over 65 is 50-60%, and reaches as much as 80% in preventing deaths due to influenza or influenza-related complications. Number of studies indicates a relation between vitamin D deficiency and influenza and influenza-like viral respiratory tract infections. Literature includes very few works which assess the effect of vitamin D on influenza vaccination response in humans. The aim of the study was to verify whether vitamin D concentration has any effect on immune response following seasonal influenza vaccination in a group of individuals aged between 60 and 75.

Material and methods The study covered 96 patients aged 60-75 during the 2016/2017 epidemiological season. The initial concentration of vitamin D and anti-hemagglutinin antibodies (H1, H3, HB) was determined for all patients. All subjects were vaccinated using a seasonal trivalent vaccine (Vaxigrip). Concentration of anti-hemagglutinin antibodies (H1, H3, HB) was checked once more in all patients 4-5 weeks after vaccination. The "R" software was used to perform statistical analyses.

Results: The immune response was evaluated based on the following parameters: GMT, MFI, protection index, seroconversion index.

Conclusions Basing on the conducted study, no effect of vitamin D concentration on immunogenicity of influenza vaccination in patients aged 60-75 was observed.