

HEPATITIS A VACCINATION BY HAVRIX IN THE CZECH U.N. TROOPS ACCORDING TO DATA OF SEROPREVALENCE IN 1991-1995

J. Beran¹, P. Douda², R. Prymula¹, P. Gál², R. Rychlý¹, M. Špliňo¹

¹Purkyně Military Medical Academy, Department of Epidemiology, Hradec Králové

²Military Institute of Health, České Budějovice, Czech Republic

SUMMARY

Viral hepatitis A is a common disease, particularly in developing countries. All staff and troops of the U.N. (United Nations) are vaccinated by the Havrix vaccine. Till 1995 we did not vaccinate Czech troops which have operated in the area of former Yugoslavia.

The main goal of this study was to obtain data about the seroprevalence of hepatitis A antibody among the Czech U.N. troops before their departure to the conflict area and to optimize the vaccination approach. The serum samples were examined by the MEIA (Microparticle Enzyme Immunoassay) method in the fully automated system for immunoassays IMx in the Military Institute of Health in České Budějovice. We used HAVAB kits of Abbott Company.

692 serum samples (military staff of the Czech U.N. troops in Yugoslavia) were examined in 1991-1995. In the laboratory 19 samples were eliminated due to small amounts (less than 50 µl) or haemolysis. 673 (1991 - 65, 1992 - 296, 1993 - 265, 1994 - 35, 1995 - 12) were investigated. The staff was divided into four age cohorts by decades (20-29, 30-39, 40-49, 50-59): 26.0 %, 47.4 %, 24.9 % and 1.7 %, respectively. There were 253 (37.4 %) positive samples and 420 (62.6 %) negative ones, ratio 1 : 1.7. The ratio of the positive and negative samples - immunity rate and seroprevalence - were 1 : 0.4 (26.2 %), 1 : 0.6 (37.9 %), 1 : 0.9 (46.4 %) and 1 : 2.7 (72.7 %), respectively in the age cohorts.

The results show a relatively low seroprevalence of the anti-HAV antibody in all the age cohorts and necessity to vaccinate the Czech U.N. troops by the special basic schedule - Havrix 2x720 E.U. at the same time. This regimen will be used in the new units that will be stationed in Bosnia. So far 200 persons have been vaccinated in this way.

Key words: seroprevalence, viral hepatitis A, immunity rate, Havrix, vaccination, Czech U.N. troop

Address for correspondence: J. Beran, Purkyně Military Medical Academy, Department of Epidemiology, PS 35/E, 502 60 Hradec Králové, Czech Republic