

## THE PREVALENCE OF NEISSERIA MENINGITIDIS CARRIAGE WITH IDENTIFICATION OF SEROGROUPS AND GENOGROUPS IN PROFESSIONAL SOLDIERS

K. Korzeniewski<sup>1</sup>, M. Konior<sup>1</sup>, M. Kiedrowska<sup>2</sup>, E. Wódka<sup>3</sup>, E. Zwolińska<sup>4</sup>, A. Skoczyńska<sup>2</sup>

<sup>1</sup> Department of Epidemiology and Tropical Medicine, Military Institute of Medicine, Warsaw, Poland

<sup>2</sup> National Reference Centre for Bacterial Meningitis, National Medicines Institute, Warsaw, Poland

<sup>3</sup> Department of Medical Diagnostics, Military Institute of Medicine, Warsaw, Poland

<sup>4</sup> Department of Gynecology, Holy Family Maternity Hospital, Warsaw, Poland

**Background.** The article presents the prevalence of *Neisseria meningitidis* carriage with identification of sero- and genogroups in professional soldiers serving in the Polish Armed Forces.

**Material and methods.** A total of 1,246 soldiers from the 10th Armoured Cavalry Brigade in Świętoszów, Poland were examined in the period January-February 2016. Microbiological tests were performed using standard methods (culture, incubation, microscopy, biochemical and automated identification with VITEK cards). *Neisseria meningitidis* isolates from carriers were subjected to slide agglutination test (identification of serogroups), next bacterial DNA was isolated and genogroups were identified based on the results of PCR.

**Results.** Of 1,246 soldiers tested, 65 were found to be carriers of *N. meningitidis*. Serogroups of 36 isolates and genogroups of 56 isolates were determined. Genogrouping was performed and the isolates were identified as belonging to group B (n=34; 52.3%), E29 (n=8; 12.3%), C (n=6; 9.2%), Y (n=6; 9.2%), and W (n=2; 3.1%). The primers which were used did not make it possible to determine the genogroup of 9 isolates.

**Conclusions.** The overall carrier rate of *N. meningitidis* in the study group was 5.2%, serogroup B being predominant, which is similar to the carrier rates reported in the general population in Poland and Central Europe.