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WEEKLY VARIATION OF ACUTE CORONARY SYNDROME
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Introduction. Cardiovascular diseases are leading cause of death all over the world, therefore, it is important to know and understand dependencies of their occurrence.

Aim: the aim of this study was to assess the pattern of weekly changes on hospital admissions due to acute coronary syndromes (ACS).

Materials and methods. The medical records of 10,529 patients hospitalized for ACS in the Department of Invasive Cardiology, Medical University of Białystok, in 2008–2017 were examined. Patients with acute coronary syndromes were divided into three groups: patients hospitalized due to ST-elevation myocardial infarction (STEMI), non-ST-elevation myocardial infarction (NSTEMI) and unstable angina (UA). Statistical analysis was performed using Kolomogorow-Smirnow and ANOVA tests. P value ≤ 0.05 was considered as significant.

Results. The mean age of population was 66.62 years (SD=12.2). Among the patients, 3537 (33.6%) were hospitalized for STEMI, 3947 (37.5%) for NSTEMI and 3045 (37.5%) for UA. Patients with NSTEMI were the oldest in the study population (66.9 years, SD=12.2) and patients with STEMI were the youngest (62.8 years, SD= 12.2). The most common risk factor in all ACS's was arterial hypertension 7897 (75%). The analysis of weekly changes showed that the highest mean frequency of ACS occurred on Thursday (N= 1703, mean=2.72, P<0.001) and the lowest on Sunday (N=1098, mean=1.75, P<0.001).

Conclusions. The study showed a considerable weekly variation in occurrence of acute coronary syndromes. There are statistically significant differences in the weekly occurrence of ACS with a dominant peak on Thursday. Most of the non-ST-elevation acute coronary syndromes took place on Thursday, but in the case of the STEMI subgroup it was Monday. Our study also confirms the decreased number of admissions on weekends compared to weekdays.