Materials and methods. This cross-sectional (clinical) study included 224 patients aged 40–65 years with T2DM according to WHO criteria (1999–2013). Inclusion criteria: presence of risk factors for chronic non-communicable diseases and somatic diseases. Exclusion criteria: cardiovascular diseases, pulmonary, renal or hepatic insufficiency, and oncological diseases. Patients underwent medical examination, questionnaire survey, instrumental and biochemical tests. Cardiovascular risk was assessed using the SCORE2-Diabetes scale based on the following parameters: age, sex, smoking, systolic blood pressure (SBP), total cholesterol, high-density lipoprotein cholesterol, age at T2DM diagnosis, glycated haemoglobin level, and glomerular filtration rate. Patients were divided into two groups: the first group included individuals with 1–2 additional somatic diseases, and the second group included those with three or more somatic diseases.

Results. The mean cardiovascular risk (CVR) according to the SCORE2-Diabetes scale in the first group was 23.16±8.62%, and in the second group – 29.94±13.31% ($p<0.001$). Gender analysis of CVR showed that in the first group, CVR was comparable between men and women (23.1±9.29% and 23.44±8.14%, respectively). In the second group, CVR among women was 31.43±12.52%, among men – 27.72±14.28%. Analysis of CVR categories showed that in the first group, about 60% of patients had very high CVR. High CVR was found in every third patient in this group. In the second group, ¾ of patients had very high CVR, and every fifth patient had high CVR. Moderate CVR was observed in up to 4% of cases in both groups; low risk was not detected. Correlation analysis revealed a significant positive association between the triglyceride-glucose (TyG) index and CVR ($Sp=0.21$, $p=0.023$ for the first group and $S\rho=0.2541772$, $p=0.007$ for the second group). A similar positive correlation was found for high-sensitivity C-reactive protein (hs-CRP) levels ($S\rho=0.50$, $p<0.001$ for the first group and $S\rho=0.43$, $p<0.001$ for the second group).

Conclusion. Comorbidity of T2DM with a larger number of somatic diseases is associated with more pronounced glycaemic impairment, lipid metabolism disorders, and higher blood pressure levels, which is reflected in the overall risk of cardiovascular complications. High CVR correlates with the TyG index. Thus, the SCORE2-Diabetes scale can be recommended for clinical practice when developing personalized prevention programmes for cardiovascular events, taking into account the presence of additional somatic diseases.