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Multiple Cardiovascular Risk Factors Management According to Guidelines in Patients Initiating Second-Line Glucose-Lowering Treatment in Turkey: Results from the Global DISCOVER Study

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Abstract

Background and Aims: Numerous studies have shown the efficacy of controlling individual cardiovascular risk factors in preventing or slowing atherosclerotic cardiovascular disease in people with diabetes. Furthermore. large benefits are seen when multiple cardiovascular risk factors are addressed simultaneously. Here. we report glycated haemoglobin (HbA1c). low-density lipoprotein cholesterol (LDL-C). and systolic blood pressure (SBP) management at baseline (initiation of second-line treatment) among Turkish patients participating in the DISCOVER study together with the comparison versus the overall DISCOVER cohort.

Materials and Methods: DISCOVER is a 3-year. non-interventional. prospective study assessing treatment and clinical outcomes in patients with T2DM initiating second-line treatment across 37 countries. Consecutive patients with T2DM (aged ≥18 years) were invited to participate in the study if they were scheduled to initiate second-line glucose-lowering treatment (add-on or switch) following oral monotherapy. dual therapy or triple therapy in first-line setting.

Results: Mean HbA1c. LDL-C and SBP were 8.8%. 131.4 mg/dL and 131.6 mmHg among the Turkish cohort compared to 8.4%. 108.1 mg/dL and 132.3 mmHg in the overall study population. respectively (Table 1). In total. 11.7% of patients had HbA1c <7% compared to 17.6% of the overall cohort. SBP <140 mmHg was observed in 62.5% of the patients compared to 67.7% of the study population. While 21.2% of patients had LDL-C levels <100 mg/dL in the results from Turkey. this proportion was 43.5% in the overall cohort (Figure 1).

Conclusion: Although poor glyceamic control is an expected finding in patients initiating second-line treatment. fewer subjects were observed to achieve HbA1c and LDL-C targets in Turkey. Therefore. cardiovascular risk factors should be systematically assessed regularly in all patients with diabetes. Modifiable abnormal risk factors such as hypertension and dyslipidemia should be treated as recommended by guidelines.

Keywords: HbA1c; LDL-C; systolic blood pressure

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Table 1. Demographics and treatment characteristics of DISCOVER participants at the start of second-line treatment.

	All Countries N=14178	Europe N=3492	Turkey N=536
Gender, male, n, %	7541 (53.2)	1864 53.4)	269 (50.2)
Age, years, mean (SD)	56.6 (11.7)	61.9 (10.9)	55.1 (10.0)
BMI, kg/m^2, mean (SD)	29.6 (6.0)	31.9 (6.2)	31.7 (6.4)
Diabetes duration since diagnosis, years, median (IQR)	4.1 (2.0-7.8)	5.4 (2.7-9.1)	5.9 (2.9-9.2)
HbA1c, %, mean (SD)	8.4 (1.7)	8.1 (1.6)	8.8 (1.8)
LDL-C, mg/dL, mean (SD)	108.1 (39.6)	112.1 (42.4)	131.4 (44.5)
SBP, mmHg, mean (SD)	132.3 (16.9)	136.0 (17.9)	131.6 (15.9)

Percentages were calculated for all patients with available data; missing data were excluded, BMI, body mass index; HbA1c, glycated haemoglobin; LDL-C, low-density lipoprotein cholesterol; IQR, interquartile range; SBP, systolic blood pressure; SD, standard deviation.

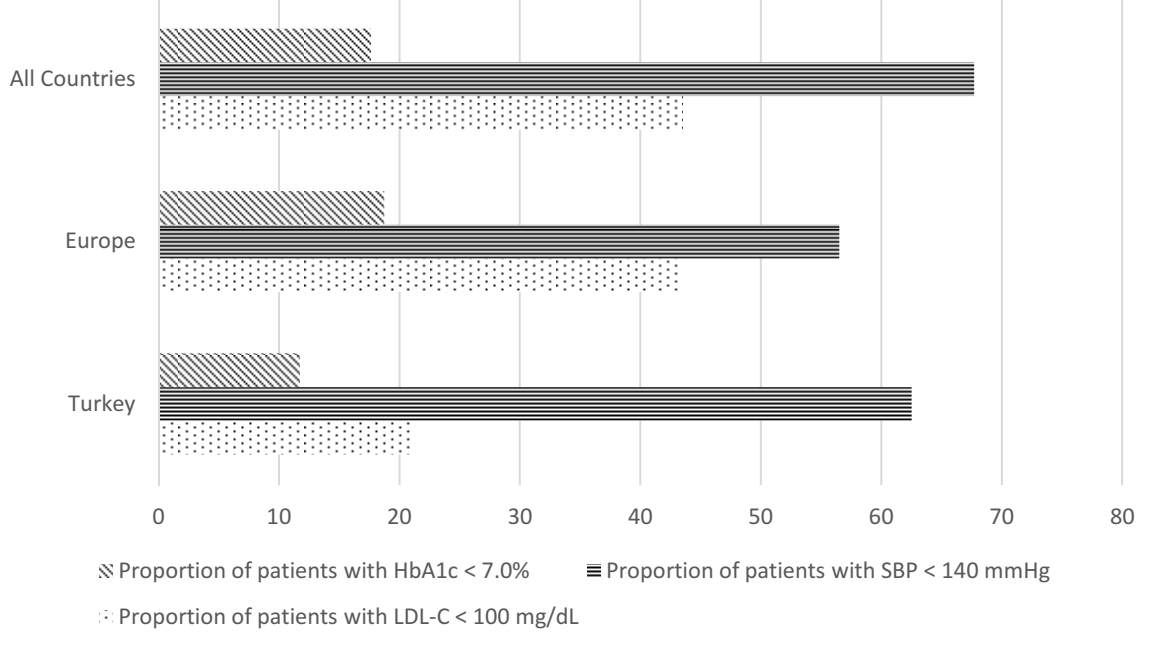

Figure 1: Proportions of DISCOVER patients meeting the HbA1c, LDL-C and SBP targets at the start of second-line treatment: overall, by region and by country.

Note: Patient numbers vary across the groups owing to differences in availability of data for individual variables among countries.