

Are Different Clinical Practice Guidelines Associated with Regional Differences in Diabetes Care?

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Background and Aims: Treatment guidelines for diabetes and cardiovascular disease differ between Europe and North America. The 2nd Joint Task Force of European and Other Societies on Coronary Prevention recommended target blood pressure (BP) levels < 140/90 mmHg and LDL cholesterol (LDL) levels < 3.00 mmol/l (116 mg/dl). The American Diabetes Association recommends BP levels < 130/80 mmHg and LDL < 2.59 mmol/l (100 mg/dl). **Materials and Methods:** To evaluate behavioural risk factors, treatment, and intermediate health outcomes in Europe and North America, we analysed baseline data from ADOPT, a global, randomised, controlled clinical trial designed to compare the efficacy and safety of initial monotherapies in patients with type 2 diabetes (T2D).

Results:

	Europe (n = 2,074)	North America (n = 2,219)	P-value
Age (years)	58	55	< 0.0001
Male (%)	61	55	< 0.0001
White (%)	97	79	< 0.0001
Treated for hypertension (%)	48.3	48.7	0.0107*
Treated for dyslipidaemia (%)	3.1	3.7	0.0389*
BMI (kg/m ²)	30.8	33.0	< 0.0001*
Systolic BP (mmHg)	137	129	< 0.0001*
Diastolic BP (mmHg)	81	79	< 0.0001*
LDL (mmol/l)	3.16	2.90	< 0.0001*
Smokers (%)	16.4	13.9	0.0019*

*P-value adjusted for age, gender, and race

Conclusions: After adjusting for age, gender, and race, T2D subjects in Europe were leaner, more likely to smoke, and less likely to be treated for hypertension and dyslipidaemia than T2D subjects in North America. Systolic BP, diastolic BP, and LDL were significantly lower in North America. There are important differences in behavioural risk factors and cardiovascular risk factor treatment and control between Europe and North America that may reflect the influence of different clinical practice guidelines.