BACKGROUND AND PURPOSE: Diabetes mellitus is a chronic progressive disease with multiple complications and due to its high prevalence represents a true economic challenge to the health care system. However, the specific cost structure is not known. It was the aim of this study to analyze the costs of antihyperglycemic treatment in relation to age, treatment regimen and presence of complications. MATERIAL AND METHODS: This study is part of the CoDiM study. The analysis was based on the data of a random sample (n = 306,736) of all members of the "Allgemeine Ortskrankenkasse Hessen" (AOK Hessen, Local Statutory Health Insurance of Hessen) and data provided by the "Kassenärztliche Vereinigung Hessen" (KV Hessen, Association of Statutory Health Insurance Physicians in Hessen). Patients with diabetes were identified by the ICD-10 classification and prescriptions of blood glucose-lowering drugs. Costs of antihyperglycemic therapy were calculated per patient and year computing procedures and antidiabetic drugs in outpatient care as well as hospital costs. RESULTS: The mean costs of treatment of hyperglycemia were 542 Euros per patient in 2001 and represented 10% of total costs. The major parts in this segment were expenses for hypoglycemic drugs (46%) and for blood glucose self-monitoring (21%). The costs were highest in the groups
treated by either insulin alone or a combination of insulin and oral hypoglycemic agents (1,366 Euros and 1,479 Euros, respectively) as compared to patients on oral hypoglycemic agents alone or on diet (296 Euros and 59 Euros, respectively). Stripes for blood glucose self-monitoring were almost exclusively prescribed to insulintreated patients and caused average costs in this group of 446 Euros. By contrast, costs for self-monitoring were almost negligible in the two other groups. A subdivision of costs according to complications revealed that patients with microangiopathy (retinopathy, nephropathy) and foot complications caused twice as much expenses as patients with macroangiopathy (vascular diseases) or without complications (779 Euros vs. 370 Euros and 401 Euros, respectively). CONCLUSION: The expenses for the antihyperglycemic treatment of patients with diabetes represent only a minority of total per capita costs and these were slightly more than half due to insulin treatment and blood glucose self-monitoring.