Neurologist adherence to clinical practice guidelines and costs in patients with newly diagnosed and chronic epilepsy in Germany.

The aim of this study was to evaluate physician adherence to the German Neurological Society guidelines of 2008 regarding initial monotherapy and to determine the cost-of-illness in epilepsy. This was an observational cohort study using health data routinely collected at 55 outpatient neurology practices throughout Germany (NeuroTransData network). Data on socioeconomic status, course of epilepsy, anticonvulsive treatment, and direct and indirect costs were recorded using practice software-based questionnaires. One thousand five hundred eighty-four patients with epilepsy (785 male (49.6%); mean age: 51.3±18.1 years) were enrolled, of whom 507 were newly diagnosed. Initial monotherapy was started according to authorization status in 85.9%, with nonenzyme-inducing drugs in 94.3% of all AEDs. Drugs of first choice by guideline recommendations were used in 66.5%. Total annual direct costs in the first year amounted to EUR2194 (SD: EUR4273; range: EUR55-43,896) per patient, with hospitalization (59% of total direct costs) and anticonvulsants (30%) as the main cost factors. Annual total direct costs decreased by 29% to EUR1572 in the second year, mainly because of a 59% decrease in hospitalization costs. The use of first
choice AEDs did not influence costs. Chronic epilepsy was present in 1077 patients, and total annual direct costs amounted to EUR1847 per patient, with anticonvulsants (51.0%) and hospitalization (41.0%) as the main cost factors. Potential cost-driving factors in these patients were active epilepsy and focal epilepsy syndrome. This study shows excellent physician adherence to guidelines regarding initial monotherapy in adults with epilepsy. Newly diagnosed patients show higher total direct and hospital costs in the first year upon diagnosis, but these are not influenced by adherence to treatment guidelines.