

Abstract

Antiepileptic drug utilization

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Introduction: Antiepileptics (AEDs) are drugs that prevent the development of epileptic seizures.

Objective: The objective of this diploma thesis was to evaluate the utilization of AEDs in the Czech Republic in the period from 01. 01. 2004 to 31. 12. 2018 using data from the State Institute for Drug Control (SIDC).

Methods: Retrospective analysis of drug utilization data. Data on the utilization of antiepileptic drugs were received from the SIDC database and included all AEDs that were distributed to medical facilities during the reporting period. The relative comparative unit DID was calculated – the number of defined daily doses per 1000 inhabitants per day. The data on the number of residents were obtained from the Czech Statistical Office.

Results: Consumption of antiepileptics has increasing trend. During the period it increased from 7.43 DID to 15.87 DID. Especially in the group of new antiepileptics an increase was observed, where 1.15 DID raised to 10.59 DID, while in the classical antiepileptic group this value decreased from 6.28 DID to 5.28 DID. The most frequently used substances in the AEDs group are pregabalin (3.67 DID), valproic acid (2.22 DID), levetiracetam (2.10 DID), gabapentin (2.09 DID), lamotrigine (1.53 DID), clonazepam (1.10 DID) and carbamazepin (1.01 DID). In carbamazepine, there was a decreasing trend in utilization from its prior value 2.07 DID to 1.01 DID.

Conclusion: The increase in consumption of new antiepileptic drugs does not correlate with the increase in the incidence and prevalence of epilepsy, but undoubtedly reflects the expansion of the indicator spectrum of some new AEDs outside the field of epileptology. In therapy, newer drugs started to be preferred, compared to the classic ones. The most used drugs in the indication of epilepsy are currently valproic acid, levetiracetam, lamotrigine and carbamazepine.