Incidence and treatment of patients with status epilepticus: an analysis of German claims data

Background
- Status epilepticus (SE) is a life-threatening medical and neurological emergency requiring prompt recognition and treatment.1, 2
- SE is associated with significant mortality and morbidity.3, 4
- Representative data addressing epidemiologic trends, pharmaceutical treatment (treatment with antiepileptic drugs [AEDs]), and characteristics of patients after hospital admission and discharge due to SE and after SE, as well as information about treatment and characteristics before SE, are missing.

Objective
- To describe incidence of SE, patient characteristics, and outpatient AED treatment following hospital discharge after a SE event among patients insured by a regional German statutory health insurance provider (AOK PLUS, Saxony-Thuringia).

Methods
- This analysis was based on a German statutory claims data set (2010-2016, AOK PLUS, Saxony-Thuringia), which covers about 50% of the regional population.
- The study population consisted of all patients with a hospitalization with SE diagnosis (ICD-10 G41.1) between 01/01/2011 and 12/31/2015.
- Patient observation started at date of first observed hospitalization due to SE (index date) and lasted 12 months or until the patient died.
- The baseline period was 12 months before the patient's individual index date.
- Descriptive statistical analyses were conducted. Incidence of SE and patient characteristics, as well as anticonvulsive treatment before and after SE, were analyzed.
- Etiological factors were measured as the independent main diagnosis at index hospitalization with SE diagnosis and at baseline (up to 1 year baseline period before index SE).

Results
PATIENT DEMOGRAPHICS AND INCIDENCE OF STATUS EPILEPTICUS
- We identified 4,128 patients with SE (mean age 66.5 years, 53.8% female).
- Age-standardized incidence (German standard) was 25.5 cases per 100,000 person-years in 2015 (27.0 in male patients, 24.1 in female patients).
- Main etiologic factors were remote (with hospitalization 7 days to 1 year before SE)/acute epilepsy (16.4/9.6%), remote/acute trauma (10.4/8.1%), and remote/acute stroke (10.4/8.1%).
- 2,632 (61.3%) of all SE patients had at least one epilepsy diagnosis at baseline; 3,342 (81.0%) in the follow-up period.
- 1,641 (39.8%) of all SE patients died within 12 months; 680 (16.5%) died during index hospitalization.

Patient characteristics
- N=4,128; a4,128 patients; b2,532 patients; cpatients who did not die during the SE index hospitalization, 548 patients.
- Most commonly prescribed AEDs during follow-up period
  - Levetiracetam (45.2%)
  - Valproic acid (24.3%)
  - Lamotrigine (11.4%)

Conclusions
- A substantial proportion of SE patients do not receive any outpatient AED treatment after hospital discharge.

References

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