MEDINFO 2007
HISA Ltd Australia
© 2007 The authors. All rights reserved.

Alternative Approach to Compliance of Antiepileptics and Its Clinical Meanings

Hsiu-Li Lin, Yu-Chuan(Jack) Li

Graduate Institute of Medical Informatics, Taipei Medical University, Taiwan

***Abstract**:*
Though compliance of antiepileptic drugs (AED) is key issue treatment of epilepsy, the only two ways to determine that are (i) interviewing patient (ii) monitoring serum level. We propose another approach by analyses the medication records of National Health Insurance Research Database (NHIRD) because it contain complete medication records of every insured person.

Keywords:

compliance, anticonvulsants, epilepsy

Method

The epileptic group are identified as diagnosed epilepsy (ICD-9CM code 345, 780.3, A-code A225, A469 in NHIRD) and receiving AED treatments.The disease duration is calculated as the period from first time diagnosis of epilepsy to the day when patient was not insured. If the patient was insured up to the final day of 2003, it is the end of duration. The drug days is calculated as total days of AED patient having during the disease duration. The times of hospitalization is also recorded. We examine the correlation between the outcome index, including hospitalization frequency, total medical payment, emergency service (ES) visiting and independent variables including age, gender, ratio respectively.

Result

The rate of epilepsy in this diseased group is 0.993%. The epileptic group is significantly older and more hospitalization than non-epileptic group. There is no difference if gender distribution between these two group. The all admission frequency increases significantly with the growing age and increasing ratio of AED days to the disease duration but oppositely with less AED days. There is the similar correlation between the total medical payment and age and ratio, but not to AED days. The ES visiting frequency is positively related to the AED days only.

Conclusion

This study suggests that NHIRD is a adequate resource in surveying compliance of specific drug in Taiwan. The result reveals that good AED compliance does not lessen frequency of hospitalization and ES visiting as expect. But the more AED taking, the less admission is noted in this study.