OXCARBAZEPINE REDUCES HOSPITALISATIONS FOR
EPILEPTIC SEIZURES AND RELATED SYMPTOMS IN THE
NETHERLANDS: A PHARMO STUDY
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OBJECTIVES: The purpose of this study is to investigate the
incidence of hospitalisations for epileptic seizures and related
events before and after the start of therapy with oxcarbazepine.
METHODS: All patients using oxcarbazepine or any other anti-
epileptic drug are selected (Jan 1991–Jan 2001) from the
PHARMO Record Linkage System, a patient-centric database
including complete histories of drug use and hospitalisations for
more than 1.6 million residents in The Netherlands. Information
collected included diagnosis, drug type and daily dosage, legend
duration of use, drug costs, reasons for hospital admission and
discharge, and resources used during hospital stay. Patients had
to have at least 1 year of data before and after their first oxcar-
bazepine prescription (index date), and had to have been on
oxcarbazepine therapy for at least one year. Poisson regression
analysis was applied to estimate the incidence density rates
as proxy for the relative risk of hospitalisation while on and
off therapy with oxcarbazepine. RESULTS: This study included
360 patients using oxcarbazepine and show that the incidence
rate of hospitalisations for epileptic seizures and related events
decreased significantly during the first year after the start of
oxcarbazepine compared to the 1-year period before the start of
treatment with oxcarbazepine. During the year prior to receiv-
ing oxcarbazepine therapy, 117 hospitalisations per 1000 person
years (n = 41) were observed in the study patients compared with
40 hospitalisations per 1000 person years (n = 11) after initiati-
ng oxcarbazepine therapy, yielding a relative risk of 0.3 (95% CI:
0.2–0.7). CONCLUSIONS: Treatment with oxcarba-
zepine significantly decreases the occurrence of epilepsy-related
hospitalizations.