

Insurance Research Database (NHIRD). Low dose aspirin was administered for 11 years to patients who had experienced a first IS between 1998 and 2006. Primary outcomes, including death and readmission to hospital for stroke, and secondary outcomes, including death, stroke, and myocardial infarction or bleeding, were examined. A Cox proportional hazards model was used to assess the association of outcomes with aspirin exposure (time-dependent covariate) during follow-up.

Results: In total, 1245 liver cirrhosis and 1936 patients experienced a first IS during the follow-up. According to time-dependent analysis, the hazard ratio (HR) for primary outcomes in patients treated with aspirin was 0.854 (95%CI: 0.784-0.960) in liver cirrhosis and 0.671 (95% CI: 0.452-0.836). At secondary outcomes, hazard ratio for readmission for stroke was 0.857 (95%CI: 0.737-0.879) and that for bleeding was 0.901 (95%CI: 0.846-1.157) in cirrhosis patients treated with aspirin. Otherwise, ESRD patients treated with aspirin, HR for readmission for stroke was 0.783 (95%CI: 0.648-0.876) and that for bleeding was 0.812 (95%CI: 0.695-1.567). Moreover, independent risk factors for decreasing the efficacy of aspirin included DM, and administration of proton pump inhibitors or statins.

Conclusions: In summary, from a large national population database, using time-dependent analysis, and defining aspirin use as filling of prescriptions, we found that aspirin was still safe and effective for use in patients with ESRD or liver cirrhosis for preventing recurrent IS.

714. Analysis of Adverse Drug Reactions of Antiepileptic Drugs by Using Spontaneous Reporting System in Medical Center in Taiwan

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Background: Adverse effects of antiepileptic drugs (AEDs) are common, can have a considerable impact on quality of life and contribute to treatment failure. The adverse effect profiles of AEDs differ greatly and are often a determining factor in drug selection because of the similar efficacy rates shown by most AEDs. By using spontaneous reporting system, we can find out the real world condition.

Objectives: To analyze AEDs adverse reactions from hospital-based spontaneous reporting systems to identify type and severity of reactions reported.

Methods: A retrospective analysis of hospital-based spontaneous reporting systems databases in Changhua Christian Hospital over a period of up to four years during 2010 to 2013. We extracted AEDs reporting cases, which included phenytoin, valproate, levetiracetam, phenobarbital, carbamazepine, oxcarbazepine, gabapentin, lamotrigine, topiramate, pregabalin, vigabatrin, acetazolamide clonazepam and diazepam. Type and severity of reactions was analyzed. Serious reaction defined as death or life-threatening, moderate reaction defined as permanent disability/incapacity, results in hospitalization or prolongation of an existing hospitalization and needs further management.

Results: A total of 167 cases were reported with mean age 56.3 ± 21.7 years; 51% were female and 49% were male (F:M; 1:0.9). Most common AEDs reported was gabapentin, phenytoin and valproate with the case number of 36.5% (61), 21.6% (36) and 18.6% (31) respectively. The most frequent reaction reported was dermatologic effects 71.3% (119), central nervous system (CNS) 12.3% (21) and gastrointestinal effects 5.4% (9). AEDs which reported CNS effects included phenytoin(6), gabapentin (6) topiramate(4) and vigabatrin(3). GI effects included valproate(3), phenytoin(2), and gabapentin(2). No serious cases was reported, 13 cases (7.5%) reported as moderate, in which phenytoin accounted for 6 (46%) and 154 cases (92.5%) reported as mild.

Conclusions: Our study revealed that gabapentin, the new generation AEDs, was the most common reporting agents, but all of the reactions were mild. Phenytoin remains the common reporting agent and lead to moderate reaction.

715. Risk of Hip Fractures Associated with Benzodiazepines: Common Methodology But Different Results in a Multi-Site Cohort Study. The PROTECT Project

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Background: The association between benzodiazepines (BZD) and hip fractures has been estimated in several observational studies in different countries or regions, using diverse methodologies and definitions limiting comparability.

Objectives: To estimate the risk of hip/femur fractures associated with BZD prescribing in 3 European primary care databases, using a common protocol, and minimizing inter-database variation through harmonization of definitions and coding.

Methods: A new user cohort study examining BZD and related drug prescribing, and the risk of hip/femur fracture between 2001 and 2009, was performed within 3 primary care databases from the Netherlands (Mondriaan), Spain (BIFAP) and the UK (CPRD). Age, comorbidity and comedication were considered as covariates. Incidence Rates (IRs) were calculated. Hazard ratios (HRs) and 95% confidence intervals (CI) were also estimated for current use versus past use using time-dependent multivariable Cox proportional hazard models.

Results: We observed an increase in IRs by age, across all exposure categories and among all databases. The increase by age was much higher in females than in males in BIFAP and CPRD. Crude HRs for current use of BZD were similar for all databases and ranged from 2.83 (CI: 2.60-3.09) in BIFAP to 3.32 (CI: 3.10-3.56) and 3.32 (CI: 2.31-4.75) in CPRD and Mondriaan, respectively. Adjusted HRs were however disparate: namely, 1.19 (CI: 1.08-1.30) in BIFAP; 1.52 (CI: 1.41-1.63) in CPRD, and 2.03 (CI: 1.40-2.94) in Mondriaan.

Conclusions: Applying the same protocol to estimated risk of hip/femur fractures associated to BZD resulted in different estimates in the 3 databases. The most important confounder was age in all 3 databases, while the effect of other factors was minimal. This study allowed a comparison across countries following a common methodology.

Our findings might be explained by intrinsic differences between populations and pattern of use of BZD.

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716. No Impact of Adjusting for Lifestyle Factors or General Practice on Risk Estimates for the Association between Antidepressants and Hip/Femur Fracture

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Background: Routinely collected data from electronic health record databases often lack information on relevant risk factors, like lifestyle-factors (LSF, smoking, alcohol use, body mass index) or socioeconomic factors that may be needed for confounder adjustment in epidemiological studies.

Objectives: In the context of the Pharmacoepidemiological Research on Outcomes of Therapeutics by a European Consortium (PROTECT) project, the impact of confounder adjustment on the risk of antidepressant (AD) use on hip/femur fracture (HF) and compared results across three primary care databases was assessed.

Methods: We conducted a case-control study nested within 3 new AD user cohorts of adult patients (2001-2009) in three databases (Spanish BIFAP, Dutch Mondriaan and UK THIN). Cases were defined as a first HF during the study period. Up to 4 controls were matched by sex, age (+/- 2 years) and time since cohort entry (+/- 6 months). Exposure to AD was classified into current, recent and past use. We adjusted for comedication and comorbidities, using same models for all data sources. The impact of matching on practice (marker for socioeconomic factors) and additional adjustment for LSF was done in THIN. Odds ratios