Use of antiseizure medications and safety of branded versus generic formulations: a comparative study on Tuscan administrative databases.

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ABSTRACT

Purpose: To assess patterns of use of antiseizure medications (ASMs) and to compare the safety of generic versus branded formulations in terms of admission to hospital or to emergency department (ED).

Methods: We conducted a drug utilization study with a propensity score-matched design using the administrative databases of the Italian Tuscany region. New users of ASMs during 2015 with no history of neoplasia were considered and their first prescription was classified as: available only as branded (only-B-ASM); branded with generic available (B-ASM); and generic (G-ASM). Patients with G-ASM first prescription were matched with four patients with B-ASM prescription. Participants were followed for one year or until the date of death or diagnosis of neoplasia. Cox regression models were fitted to estimate the risk of admission to hospital or ED.

Results: We identified 36,601 ASMs new-users, including 2,094 (6.4%) with only-B-ASM as first prescription, 24,588 (74.9%) with B-ASM, and 5,788 (17.6%) with G-ASM. We found no differences in the risk of admission to hospital or ED (Hazard Ratio, 0.92; 95% Confidence Interval, 0.85-1.02) among users of generic ASMs compared to those using branded ASMs.

Conclusions: In our study population, generic ASMs were used less than branded ones. The similarity in the safety of branded and generic formulations suggests that generic ASMs could be the preferred formulation in current clinical practice resulting in a substantial decrease in the cost of treatment.

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