



Current Medical Research and Opinion >

Volume 25, 2009 - Issue 7

244 | 11
Views | CrossRef citations to date | Altmetric

Original Article

Projected economic impact of clinical findings of generic entry of topiramate on G4 European countries

Pierre Emmanuel Paradis, Dominick Latrémouille-Viau, Yuliya Moore, Natalia Mishagina, Marie-Hélène Lafeuille, Patrick Lefebvre, ... [show all](#)

Pages 1793-1805 | Accepted 15 May 2009, Published online: 05 Jun 2009

Cite this article | <https://doi.org/10.1185/03007990903044374>



Full Article | Figures & data | References | Citations | Metrics
 Reprints & Permissions | Read this article | Share

ABSTRACT

Objectives: To explore the effects of generic substitution of the antiepileptic drug (AED) topiramate (Topamax in Canada; to convert observed Canadian costs into the settings of France, Germany, Italy, and the United Kingdom (UK); and to forecast the economic impact of generic topiramate entry in these four European countries.

† Topamax is a registered trade name of Ortho-McNeil Neurologics, Inc., Titusville, NJ, USA

Research design and methods: Health claims from Régie de l'assurance maladie du Québec (RAMQ) plan (1/2006–9/2008) and IMS Health data (1998–2008) were used.

Patients with epilepsy and ≥ 2 topiramate dispensings were selected. An open-cohort design was used to classify observation into mutually-exclusive periods of branded versus generic use of topiramate. Canadian healthcare utilization and costs (2007 CAN\$/person-year) were compared between periods using multivariate models. Annualized per-patient costs (2007€ or 2007£/person-year) were converted using Canadian utilization rates, European prices and service-use ratios. Non-parametric bootstrap served to assess statistical significance of cost differences. Topiramate market was forecasted following generic entry (09/2009–09/2010) using autoregressive models based on the European experience. The economic impact of generic topiramate entry was estimated for each country.

Results: A total of 1164 patients (mean age: 39.8 years, 61.7% female) were observed for 2.6 years on average. After covariates adjustment, generic-use periods were associated with increased pharmacy dispensings (other AEDs: +0.95/person-year, non-AEDs: +12.28/person-year, $p < 0.001$), hospitalizations (+ 0.08/person-year, $p = 0.015$), and lengths of hospital stays (+0.51 days/person-year, $p < 0.001$). Adjusted costs, excluding topiramate, were CAN\$1060/person-year higher during generic use ($p = 0.005$). Converted per-patient costs excluding topiramate were significantly higher for generic relative to brand periods in all European countries (adjusted cost differences per person-year: €706–815, $p < 0.001$ for all comparisons). System-wide costs would increase from 3.5 to 24.4% one year after generic entry.

Limitations: Study limitations include the absence of indirect costs, possible claim inaccuracies, and IMS data limitations.

Conclusions: Higher health costs were projected for G4 European countries from the Canadian experience following the generic entry of topiramate.

Key words: :

Antiepileptic drugs

Budget impact

Cost conversion

Generic substitution

Transparency

Declaration of funding

This analysis was sponsored by Janssen-Cilag EMEA, a division of Janssen Pharmaceutica NV.

Declaration of financial/other relationships

M.G. has disclosed that she is an employee of Janssen-Cilag EMEA. All other co-authors disclosed that they are employees of Analysis Group, Inc., which has received research grants to conduct this study from Janssen-Cilag EMEA.

All peer reviewers receive honoraria from CMRO for their review work. Peer reviewer 1 disclosed that he/she has received grant support from GlaxoSmithKline. Peer reviewer 2 disclosed that he/she has no relevant financial relationships.

Acknowledgment

Janssen-Cilag EMEA participated in the design, review, and approval of the manuscript.

The authors disclosed no further assistance in preparation of this manuscript.

Notes

† Topamax is a registered trade name of Ortho-McNeil Neurologics, Inc., Titusville, NJ, USA

*Topamax is a registered trade name of Ortho-McNeil Neurologics, Inc., Titusville, NJ, USA

Related Research Data

[Topiramate](#)

Source: Drugs

[Estimation of Epileptic Foci Using the Dipole Tracing Method in Epileptic Seizures with Structural Lesions of the Brain](#)

Source: Journal of Epilepsy

[Off-patent drugs in Italy](#)

Source: The European Journal of Health Economics

[Moving Towards more Sustainable Healthcare Financing in Germany](#)

Source: Unknown Repository

[Economic impact of generic substitution of lamotrigine: projected costs in the US using findings in a Canadian setting](#)

Source: Current Medical Research and Opinion

[Are there potential problems with generic substitution of antiepileptic drugs?](#)

Source: Seizure

[Compulsory Generic Switching of Antiepileptic Drugs: High Switchback Rates to](#)

Related research

People also read

Recommended articles

Cited by
11

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources
by email

 Sign me up

  

  

Copyright © 2026 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)

 Taylor and Francis Group

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG