

Descriptive Analysis of Botulinum Toxin Use for Migraine and Member Costs in an Employed Population

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Background

- Migraine is a highly prevalent neurological disease affecting patients in the United States
- Females experience migraine at rates around three times more than in males¹⁻³
- Botulinum toxin (BT) was approved in 2010 as treatment for chronic migraine, one of eight currently approved indications⁴
- While migraine is a condition with a wide range of preventative and reactionary therapies, there is an anecdotal stepwise approach when treating to save costs to the insurer with cost effective evidence-driven therapies⁵
- The cost of BT is high, leading to fears of misuse in an indication with a similar route of administration to cosmetic application
- Little is known about differences in demographics and costs between migraineurs using BT to those who do not

Objective

- To provide a descriptive comparison of the population that receives BT for indication of migraine prophylaxis and migraineurs that have not been treated with BT within a large employer-sponsored database

Methods

- Study Design

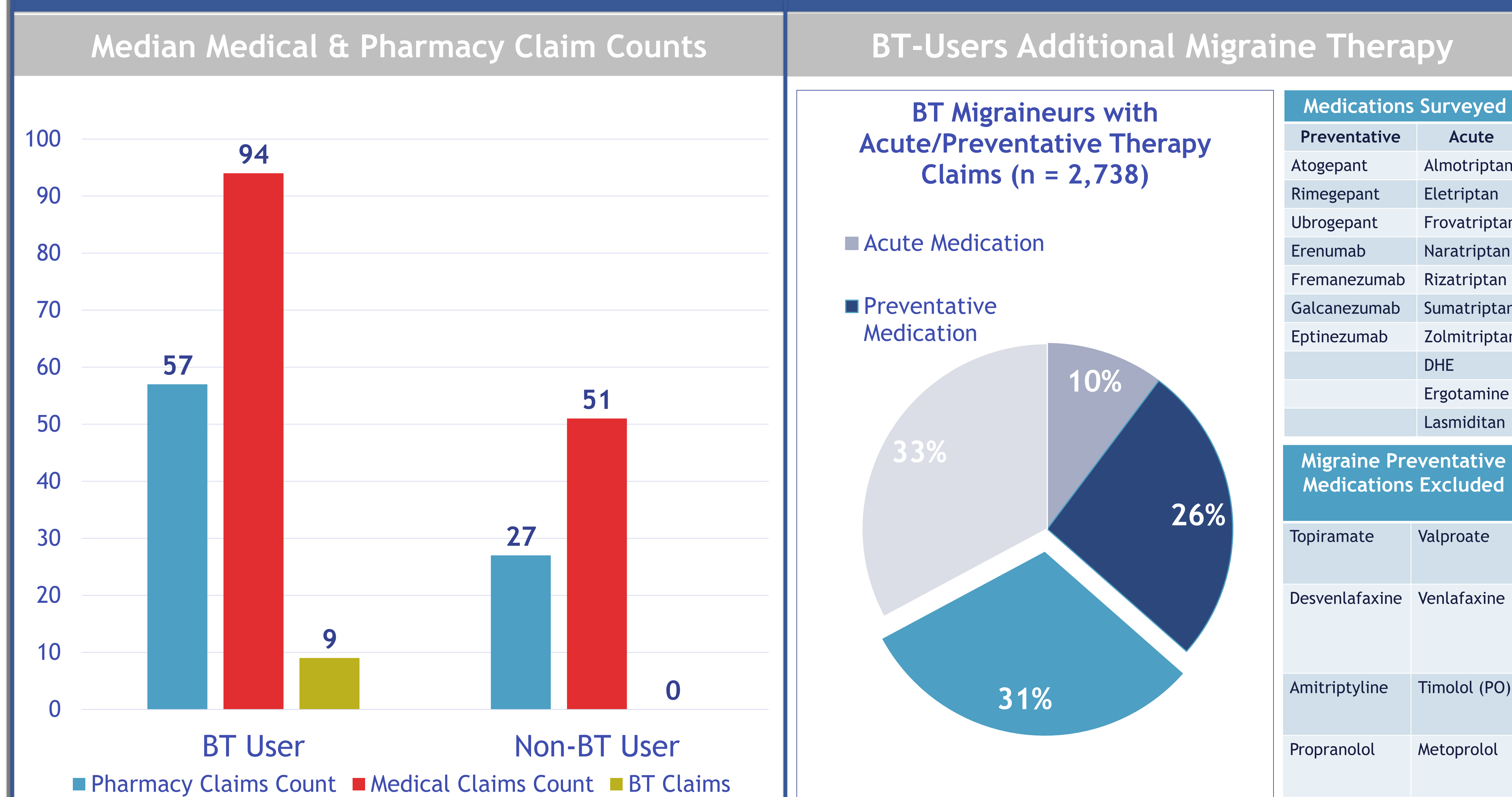
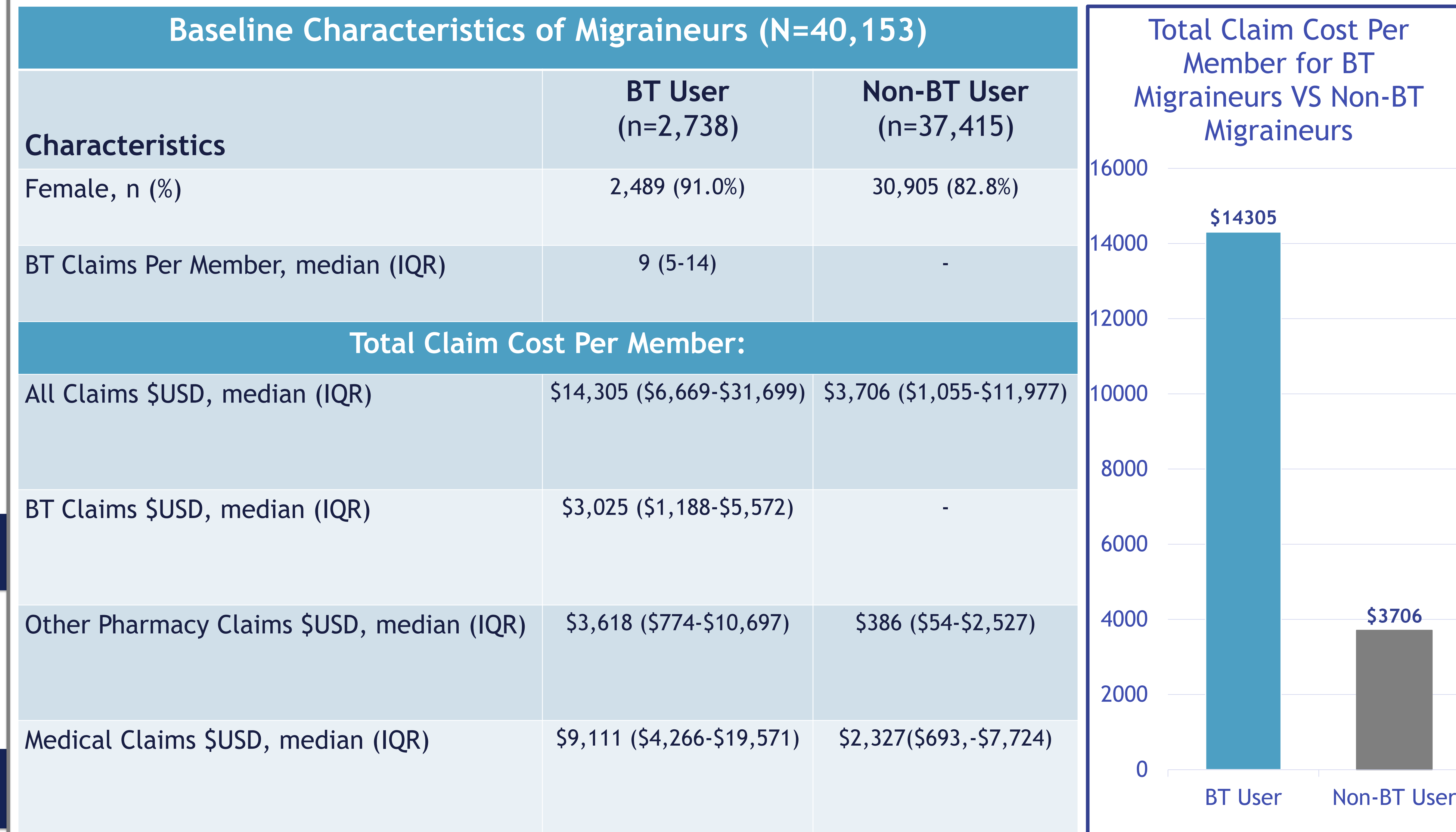
- Retrospective cohort analysis
- Data

- Multi-employer pharmacy and medical claims database with over 1 million lives for the year 2021 from Gallagher benefits consulting
- Study Population

- Identification of those who had a claim for BT using NDC codes for all formulations or by CPT codes related to BT treatment
 - Migraine diagnosis using ICD-10 codes for migraine including the root base G43 (excluding abdominal migraine)
- Data Analysis

- Descriptive statistics were computed for age, sex, BT claim costs, total medical costs, total pharmacy costs, and other migraine therapy claims as numbers and proportions

Results



Conclusions

Member costs were significant for BT Migraineurs

- Both pharmacy and medical claims were much higher for BT-migraineurs
- Total claims for non-BT migraineurs was ¼ of total costs of BT-users
- Median claim counts reflected elevated costs for BT-migraineurs, with about 50% increases in both categories

31% of BT Migraineurs didn't have another anti-migraine medication claim

- While about ½ of non-BT migraineurs didn't have another migraine medication claim, this could be attributable to OTC treatment success
- BT is often considered a last line agent for migraine given its route of administration, invasive nature, and high relative costs
- Further, about 1/4th of BT migraineurs did not have any claims for migraine medications that have other indications

20% of total paid claims for migraineurs were attributable to BT

- The proportion of claims attributable to BT were a considerable proportion of member claims (IQR: 7%-43%)
- BT claim costs reflected similar impact of total costs for non-BT migraineurs

Future Directions

- Further analyses are warranted to evaluate the appropriateness of BT use in migraine sufferers and compare cost of care among migraineurs according to preventative and acute therapy used

Disclosures

- Authors have no financial relationships to disclose

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