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Primary Care Treatment for Migraine: Experience From a Large Healthcare System

Authors: Alice Jacobson, Shruti Vaidya, Reeti Sharma, Victoria Chia, Dawn C. Buse, Richard B. Lipton, Walter Stewart, Alice Pressman

Background and Rationale

The majority of those diagnosed with migraine seek treatment only from primary care, but little is known about the approach by which primary care providers (PCPs) manage migraine. We sought to compare prescribing patterns for migraine patients in a large healthcare system, comparing those who seek care from neurology (N-M) with those treated exclusively by a PCP (PC-M).

Design and Methods

From electronic health records (EHR), we applied a previously-validated migraine probability algorithm (MPA) to identify 94,149 PC-M and N-M patients at Sutter Health, in Northern California from 1/1/2013-12/31/2017. We extracted medication orders for acute treatments (non-narcotic-analgesic, narcotic-analgesic, triptan, and other migraine-specific) and the most commonly-prescribed preventive treatments (beta-blocker, calcium-channel-blocker, antidepressant, anticonvulsant, and neurotoxin). Because higher scores on the MPA indicate more extensive utilization, we classified 45% of PC-M and 55% of N-M patients with a maximum score as “frequent-consulters”.

Results

During the 5-year period, PC-M patients, 72,624 (77%), were less likely to receive ≥1 acute (81% vs 89%) or ≥1 preventive (55% vs 81%) prescription orders than N-M patients. Among “frequent-consulters”, a larger proportion of PC-M patients received orders for ≥1 acute treatments (98% vs 93%) and the difference between PC-M and N-M in orders for ≥1 preventives was smaller (73% vs 86% PC-M vs N-M). The most commonly-prescribed preventive type for PC-M and N-M was antidepressant (41%PC-M, 62%N-M), among “frequent-consulters”, neurotoxin was the least prescribed (<1% vs. 9% for PC-M vs N-M).

Conclusion

Neurology patients at Sutter Health were more likely to receive both acute and preventive medication orders than PC-M patients, with triptans and antidepressants most commonly ordered preventive and acute, respectively. However, among “frequent-consulters”, this relationship was reversed for acute treatments and attenuated for preventive. A limitation of this study is that using EHR data alone, we cannot reliably differentiate between chronic and episodic migraine. It is likely that neurologists treat more patients with chronic migraine than PCPs do, and that may account for the prescribing differences. Further study is underway to assess the impact of migraine severity on prescribing patterns using a patient survey combined with EHR.