Prescribing Patterns and Risk of Adverse Effects of Lamotrigine in the Clinical Setting: A Survey-Based Study

Abstract

Background: Lamotrigine is a second generation anticonvulsant drug that can be used for seizures or as a mood stabilizer in bipolar disorder. While the drug has multiple uses in treatment settings, it may not be the preferred drug for some patients due to a noted side effect of a potentially life-threatening rash known as Stevens-Johnson Syndrome (SJS). Due to the potential severity of this reaction, the package insert for lamotrigine contains a black box warning for SJS, recommending the drug to be titrated to a therapeutic dose over 6 to 10 weeks to lower the risk. During the titration period, patients are initiated on subtherapeutic doses and may not receive the full benefit at the start of therapy. This could lead to the need for medication bridging or lack of initial clinically-desired disorder stability. Recently, Jang et al. (2021) explored the use of a novel, accelerated titration over 11 days to reach therapeutic doses among a sample of low-risk patients with newly diagnosed epilepsy. In their sample, only 2 patients (6.9% of the sample) experienced rash during the study period. This incidence is the same as in samples where the standard multi-week titration was used.

Objective: This study is aimed to describe current practices of lamotrigine use and management among healthcare providers. The created survey focused on learning about frequency of lamotrigine use, frequency of drug-related rashes, type of clinically-used titration schedules, and comfort level of an accelerated titration.

Methods: Data for this cross-sectional, mixed-methods, survey-based study were obtained through survey responses gathered from healthcare providers located across the United States and Canada. These healthcare providers included physicians, pharmacists, nurse practitioners,

and physician assistants. The survey instrument was emailed to healthcare providers who were members of clinically relevant organizations.

Results: The study included data obtained from 61 healthcare providers from a variety of backgrounds including community pharmacy, neurology, psychology, and psychiatry. Most providers had relatively few patients on lamotrigine, indicated by having seen between 0 and 20 patients on the drug each month. The majority of these patients were being treated for bipolar disorder or a related condition. Relatively few incidences of lamotrigine-related rash were noted by respondents, with 55.7% seeing no cases in the past year and 42.6% seeing one to three cases. All but one respondent indicated use of the FDA-approved package insert titration schedule. Many felt lamotrigine use was at least somewhat limited by the necessity of this dose titration. However, over half of respondents (59%) would be comfortable prescribing an accelerated lamotrigine titration if there were more data available supporting the practice.

Conclusion: Lamotrigine is an important medication consideration in therapy for multiple diagnoses, but is limited by treatment-emergent side effects and slow initial titration. A group of researchers had recently offered a significantly faster titration without increasing the risk of adverse effects. While this may expand the use of lamotrigine, a high majority of providers currently follow the FDA-approved titration and feel it limits lamotrigine use. In spite of this, many respondents would be agreeable to trying the faster titration were more data available. Given the small sample size, more information regarding the utilization of lamotrigine and its risks in clinical practice should be collected.