RESEARCH PRESENTED AT 68TH ANNUAL MEETING OF THE AMERICAN ACADEMY OF NEUROLOGY ESTIMATES THAT MORE THAN ONE MILLION U.S. EMERGENCY DEPARTMENT VISITS ANNUALLY ARE RELATED TO EPILEPSY

Findings Point to Unmet Needs in Seizure Emergency Management and Coordination of Care

Vancouver, B.C. – April 18, 2016 – A cohort study using 2008-2011 data from the National Hospital Ambulatory Medical Care Survey found that seizure emergencies accounted for more than 1.3 million U.S. emergency department visits annually, suggesting that there are substantial unmet needs related to seizure emergency management and coordination of care for patients with epilepsy. Additional data from a separate analysis of conversations that occurred in physician offices revealed communication inconsistencies between physicians and epilepsy patients and their caregivers regarding treatment goals and what constitutes a seizure emergency. Findings from these studies were presented at the 68th Annual Meeting of the American Academy of Neurology (AAN) in Vancouver, April 15-21, 2016. Both studies were supported by Upsher-Smith Laboratories, Inc. (Upsher-Smith).

“Patients with epilepsy are visiting emergency departments at a high annual rate, which suggests that there are unmet needs in emergency seizure management and coordination of care,” said Greg Gilmet, MD, MPH, Vice President, Medical and Scientific Affairs, Upsher-Smith. “Enhancing communication between patients and physicians and implementing seizure rescue plans with clear expectations related to the use of rescue medications may help reduce costly emergency department visits.”

About the Studies

Characteristics and Resource Utilization of U.S. Emergency Department Visits (2008-2011) for Patients with Epilepsy and Convulsions

Authors: Allison A. Petrilla, Xiaoping Ning, Erin Sullivan, Jane T. Osterhaus, Andrew Mosso, Gregory P. Gilmet

- Descriptive cohort analysis using 2008-2011 data from the National Hospital Ambulatory Medical Care Survey (NHAMCS-ED component). Emergency department visits with a clinician diagnosis of epilepsy or non-febrile convolution were selected and the NHAMCS sample weights were used to calculate national estimates.
More than 4.8 million qualified emergency department visits over four years were identified; 60 percent had visited the same emergency department in the prior 12 months (mean: 2.3 prior visits).

- Mean patient age: 36 years; 51.2 percent male.
- Of all visits:
  - 60.3 percent arrived by ambulance
  - 78.8 percent received blood testing
  - 62.1 percent received diagnostic or screening services (e.g. cardiac monitoring, urinalysis)
  - 54.7 percent received diagnostic imaging services (e.g., CT-scan, X-ray, <2 percent received MRI)
- Anticonvulsant medications were used/prescribed in just over half of visits (52.5 percent).
- Approximately one in five (22.6 percent) of emergency department visits resulted in a hospital admission; of those admitted to the hospital, the average length of stay was 4.7 days.

**Attitudes toward Rescue Medications and Discussion of Seizure Emergencies among Physicians, Patients, and Caregivers**

**Authors:** Charles Akos Szabo, Ronald Davis, Wendy Mitchell, Patricia Penovich, Raman Sankar, Julia Weisman, James Wheless

- Multi-modal, mixed-method study design, including: ethnographic analysis of in-office recorded conversations between physicians and patients/caregivers; survey responses from patient/caregivers using the Epilepsy Self-Efficacy Scale (ESES); and follow-up phone interviews.
- The study included 98 recorded patient/caregiver conversations with 10 neurologists and seven epileptologists, 98 patient/caregiver ESES surveys and 34 follow-up interviews.
- Physician-initiated conversations were framed quantitatively on issues such as seizure reduction, seizure freedom, and medication reduction, while patient-initiated discussions focused on factors impacting quality of life.
- Physicians defined seizure emergencies using terms such as “requires intervention” and “prolonged,” while patients and caregivers regarded seizure emergencies as “bad ones” or “ones they can’t come out of,” thus demonstrating the vagueness of existing definitions of seizure emergency.
- While most discussions of seizure rescue plans between physicians and patients/caregivers referenced rescue medications (94 percent), such discussions took place, on average, in less than one minute. In some cases, rescue medications were described as “nice to have” rather than as an essential component of a seizure rescue plan.

Abstracts of the poster presentations can be found online at [www.aan.com](http://www.aan.com). To schedule an interview with an author, please contact Andrea Preston at [apreston@klcpr.com](mailto:apreston@klcpr.com).
About Epilepsy

Epilepsy is a medical condition that is characterized by recurrent seizures. More than two million people in the U.S. are estimated to be affected by epilepsy, with about 150,000 new cases of epilepsy diagnosed each year.1 Epilepsy can be associated with profound physical, psychological and social consequences that negatively impact people’s lives.

About Upsher-Smith

Upsher-Smith Laboratories, Inc., founded in 1919, is a growing, fully integrated pharmaceutical company dedicated to its mission of delivering high-value, high-quality therapies and solutions which measurably improve individuals’ lives. As a family-owned pharmaceutical company, we are able to adapt and thrive in a dynamic healthcare environment. Our world is constantly evolving, and we are continually adapting to the ever-changing needs of patients, physicians, pharmacists, and healthcare organizations. Where there is a need, we will work to deliver solutions that simplify access to treatment, deliver better health outcomes, and enhance life. Upsher-Smith has a particular focus on developing therapies for people living with central nervous system (CNS) conditions, such as seizure disorders. For more information, visit www.upsher-smith.com.

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References