

# Online CME-Certified Expert Panel Discussion Improves Awareness Among Neurologists Regarding Seizure Freedom in Patients With Epilepsy

**THOMAS FINNEGAN, PhD; CHRISTINA LOGUIDICE; JOVANA LUBARDA, PhD:**  
Medscape, LLC, New York, NY, USA;

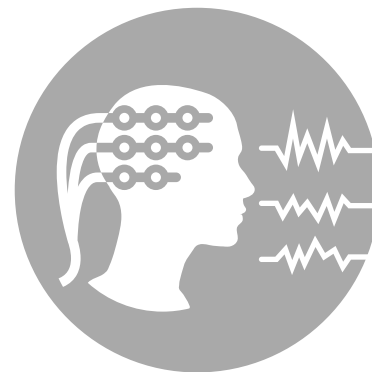
**STEVE CHUNG, MD:** University of Arizona School of Medicine, Phoenix, AZ, USA

Presented at  
AAN (American  
Academy of  
Neurology) 2023  
Annual Meeting

April 22-27, 2023  
Presentation #011

## BACKGROUND

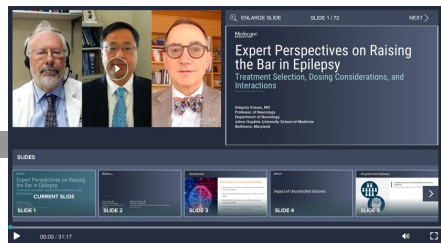
Epilepsy affects approximately 3.4 million people in the United States, with approximately a third of patients having focal epilepsy.<sup>1,2</sup> It is associated with significant impairments in cognitive, psychological, and social functioning, as well as increased risk of death.<sup>3-5</sup> Despite the wide array of antiseizure medications (ASMs), an estimated 20% to 40% of patients with epilepsy do not attain satisfactory seizure control.<sup>6,7</sup> Approximately half of patients with epilepsy experience adverse effects from their AED regimen, with negative effects on overall health and mental health status and quality of life.<sup>2,8</sup> When treatment is not effective or well tolerated, many neurologists are challenged to determine the optimal subsequent ASM.<sup>9,10</sup> An online CME-certified activity was developed to educate neurologists on the importance of achieving seizure freedom and clinical data on seizure freedom for ASMs, particularly among patients considered refractory to treatment.



# METHODS



Neurologists  
(n = 133)



This online educational activity was presented in a 30-minute video-based discussion format between 3 clinician experts on the topic of the selection of ASMs in people with poorly controlled focal epilepsy. Data were collected between April 6, 2022 and June 29, 2022.<sup>11</sup>



Neurologists  
(n = 133)

## How to Read the Linked Learner Assessment

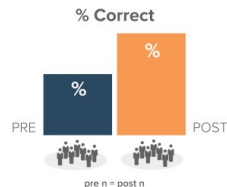
### OUTCOMES COMPLETERS

Each individual completed BOTH the pre and post-education questions

*SAME individuals pre and post-education*



SUMMARY STATISTICS FOR PARTICIPANTS WHO PROVIDE COMPLETE DATA

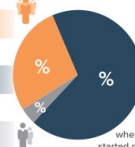
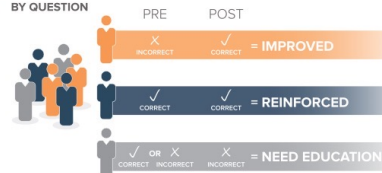


### LINKED LEARNER

Each individual tracked pre and post-education

*Learners serve as their own controls*

BY QUESTION



OVERALL

**IMPROVED**  
answers at least one more question correctly

**REINFORCED**  
answers the same number of questions correctly pre/post

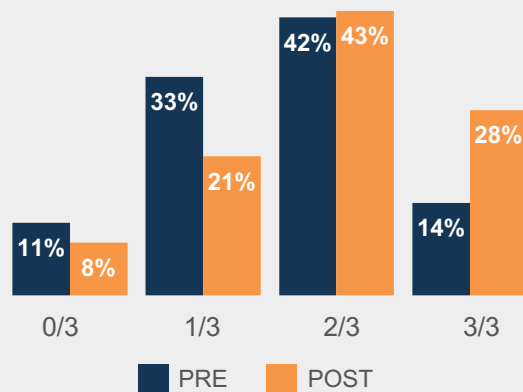
**NEED EDUCATION**  
answers no questions correctly at post or fewer than at pre

Results account for where individuals started pre-education

# RESULTS

Neurologists (n = 133)

## TOTAL CORRECT RESPONSES



MCNEMAR'S CHI-SQUARE TEST

**$P < .001$**

COHEN'S d

**0.34**

EFFECT SIZE

< .20

**.20 - .49**

.5 - .79

≥0.80

EDUCATIONAL IMPACT

MODEST

**SMALL**

MODERATE

LARGE

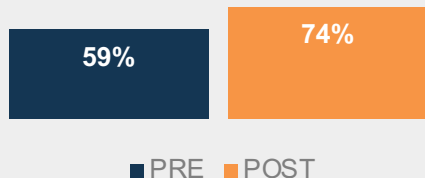
# RESULTS (continued)

## QUESTION 1 RESULTS

Greater knowledge of the consequences of not achieving seizure freedom in patients with epilepsy

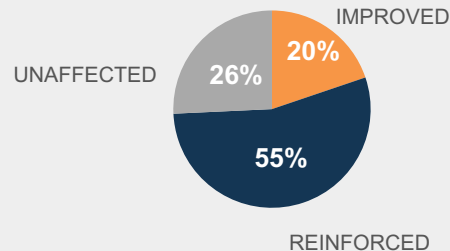
Neurologists (n = 133)

### AGGREGATED RESULTS



$P < .001$

### LINKED LEARNING RESULTS



Which of the following consequences has been observed in patients who do not achieve seizure freedom?

(Correct answer: High risk of sudden unexpected death in epilepsy (SUDEP), with risk highest in patients with tonic-clonic seizures)

# RESULTS (continued)

## QUESTION 2 RESULTS

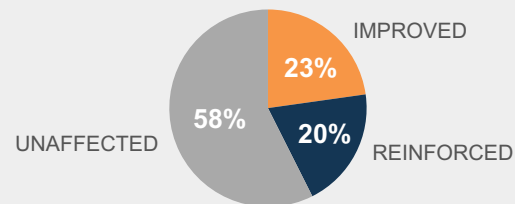
Greater knowledge of seizure freedom rates associated with an FDA-approved ASM

Neurologists (n = 133)

### AGGREGATED RESULTS



### LINKED LEARNING RESULTS



$P < .05$

In clinical trials of cenobamate that assessed patients with treatment refractory focal seizures, what seizure freedom rate was observed with this agent? (Correct answer: > 20%)

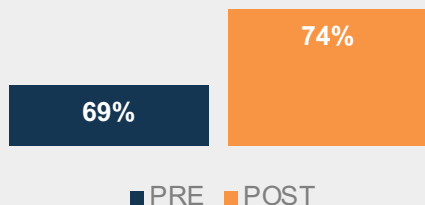
# RESULTS (continued)

## QUESTION 3 RESULTS

Numeric improvement in neurologist awareness of dosing changes when a new ASM is added to an ongoing ASM

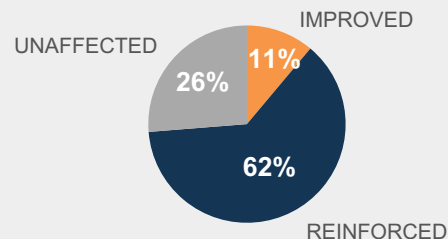
Neurologists (n = 133)

### AGGREGATED RESULTS



$P = .221$

### LINKED LEARNING RESULTS

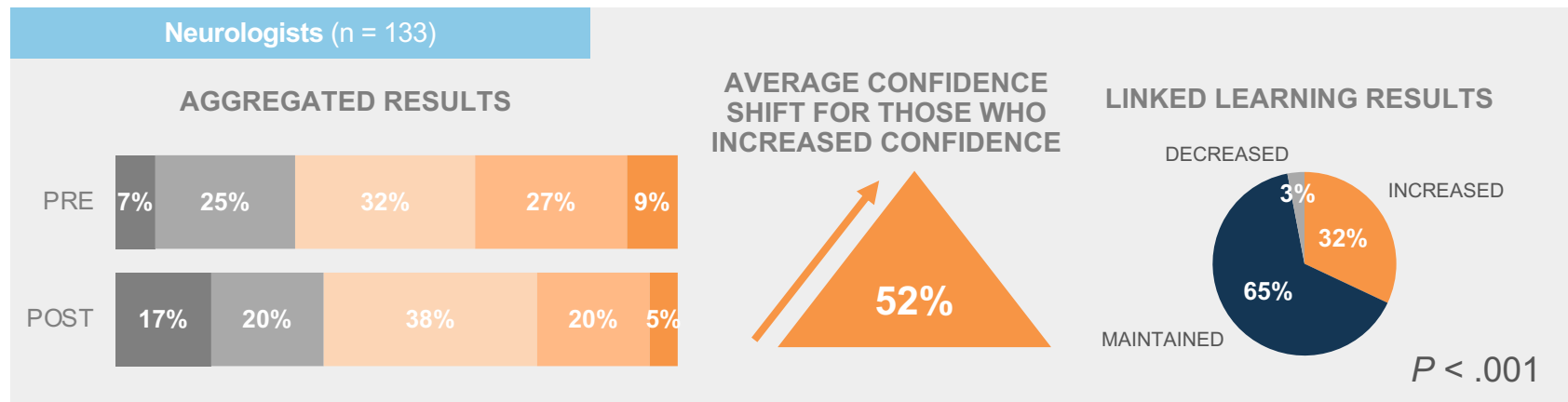


When adding on a new approved antiseizure medication (ASM), which of the following strategies can be used to reduce the occurrence of adverse events (AEs)? (Correct answer: Start new ASM at a low dose and dose reduce concomitant ASMs as new ASM is titrated to target dose)

# RESULTS (continued)

## SELF EFFICACY RESULTS

Improved confidence in the ability to perform dose adjustments to ASMs with the goal of achieving seizure freedom



How confident are you right now in your ability to manage nAMD and diabetic eye disease over the long-term?  
(Select ranking from 1 [Not confident] to 5 [Very confident])

# CONCLUSIONS

**Neurologist participation in this, 3-faculty CME-certified on program maximizing seizure freedom demonstrated improvement in knowledge and confidence in several areas. The program was successful in achieving the following:**

- **Awareness of consequences of uncontrolled seizures**
- **Awareness of seizure freedom data pertaining to cenobamate**
- **Greater confidence in the selection of appropriate doses of ASMs to improve the probability of achieving seizure freedom**

**The outcomes data showed a numeric but not statistically significant improvement in the knowledge of how to approach dosage adjustments when a new ASM is added onto a current treatment regimen. Future education should continue to address strategies for dosing changes in the setting of combination ASM treatment for patients with epilepsy.**

# REFERENCES

1. Centers for Disease Control and Prevention (CDC). Epilepsy data and statistics. Last reviewed September 30, 2020. Accessed March 10, 2022. <https://www.cdc.gov/epilepsy/data/index.html>
2. Gupta S, Ryvlin P, Faught E, et al. Understanding the burden of focal epilepsy as a function of seizure frequency in the United States, Europe, and Brazil. *Epilepsia Open*. 2017;2:199-213.
3. Holmes GL. Cognitive impairment in epilepsy: the role of network abnormalities. *Epileptic Disord*. 2015;17:101-116.
4. Laxer KD, Trinka E, Hirsch LJ, et al. The consequences of refractory epilepsy and its treatment. *Epilepsy Behav*. 2014;37:59-70.
5. Łukawski K, Czuczwar SJ. Understanding mechanisms of drug resistance in epilepsy and strategies for overcoming it. *Expert Opin Drug Metab Toxicol*. 2021;17:1075-1090.
6. Guery D, Rheims S. Clinical management of drug resistant epilepsy: a review on current strategies. *Neuropsychiatr Dis Treat*. 2021;17:2229-2242.
7. Sirven JI. Evaluation and management of drug-resistant epilepsy. Updated June 7, 2021. Accessed March 10, 2022. <https://www.uptodate.com/contents/evaluation-and-management-of-drug-resistant-epilepsy>
8. Schmidt D, Schachter SC. Drug treatment of epilepsy in adults. *BMJ*. 2014;348:g254.
9. Sheth R. Diagnosis and management of difficult-to-control partial-onset seizures. Medscape Education Professional Education Performance Report. Data on file. April 2015.
10. Sperling MR. Highlights in focal seizures: a review of what's new. Medscape Education Outcomes Report. Data on file July 2021.
11. Krauss G, Chung S, and Privitera MD. Expert perspectives on raising the bar in epilepsy: Treatment selection, dosing considerations, and interactions. April 6, 2022. Accessed February 16, 2023. <https://www.medscape.org/viewarticle/971604>.

# ACKNOWLEDGEMENTS

The educational activity and outcomes analysis were funded through an independent educational grant from SK Life Science, Inc.

For more information, contact  
Thomas Finnegan, PhD, Senior Director, Clinical Strategy,  
[tfinnegan@medscape.net](mailto:tfinnegan@medscape.net)