

CME-Certified Microlearning Platform Successful in Improving Knowledge on the Use of Preventive Migraine Therapies Among Neurologists and PCPs

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BACKGROUND

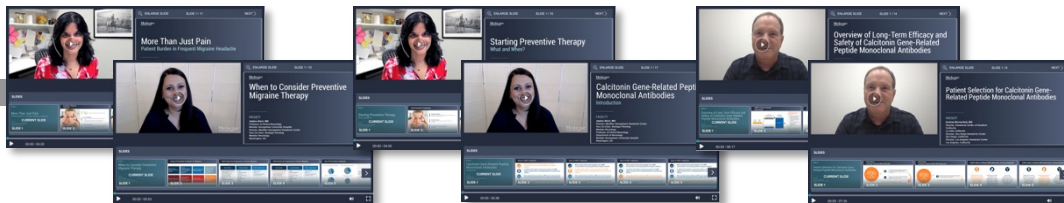
Migraine is a severe, disabling neurologic disorder that affects at least 39 million men, women, and children in the United States.¹ The more days per month a person experiences migraine, the higher the burden of disease (disability, healthcare utilization, and direct costs).² The role of preventive migraine therapies is to reduce the number of migraine days.³ Many clinicians may not be prepared to effectively utilize preventive migraine therapy. A recent Medscape migraine activity showed that 49% of neurologists and 65% of primary care physicians (PCPs) were unable to identify patients who are candidates for migraine prevention based on criteria from the American Headache Society (AHS) Position Statement on Integrating New Migraine Therapies into Clinical Practice.⁴ In order to help close this gap in care, a series of short CME-certified programs was developed to allow neurologists and primary care physicians (PCPs) to individualize their learning journey on the topic of preventive migraine therapies based on the selection of programs on migraine prevention of greatest interest to each learner.



METHODS

Neurologists
(n = 67-84)

Primary Care
Physicians (PCPs)
(n = 89-109)



Neurologists
(n = 67-84)

Primary Care
Physicians (PCPs)
(n = 89-109)



The educational initiative consisted of a collection of 6 online video-based micro CME chapters, presented by 3 headache specialists, allowing learners to choose the chapters for participation. The educational effects were assessed using a repeated pairs pre-assessment/post-assessment study design, where individual participants served as his/her own control. McNemar's tests ($P < .05$) determined statistical significance. Learners who improved (answered ≥ 1 questions correctly pre-education than post) or were reinforced (answered correctly before and after education) were identified. Data are reported from September 28, 2021 through November 18, 2021.⁵

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



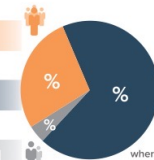
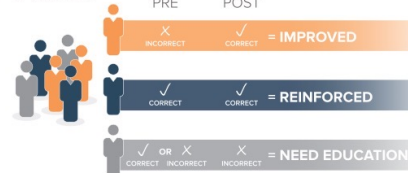
SUMMARY STATISTICS FOR PARTICIPANTS WHO PROVIDE COMPLETE DATA

LINKED LEARNER

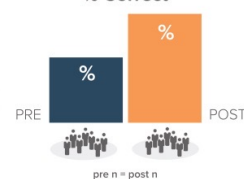
Each individual tracked pre and post-education

Learners serve as their own controls

BY QUESTION



% Correct



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

Data from 95 neurologists and 114 PCPs who completed the pre/post questions were included in the analysis.

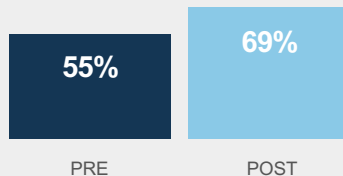
Overall, 64% of neurologists and 63% of PCPs improved their knowledge/competence.

Neurologists (n = 95)

AVERAGE % OF CORRECT DECISIONS

↑64%

IMPROVED KNOWLEDGE/
COMPETENCE



MCNEMAR'S CHI-SQUARE TEST

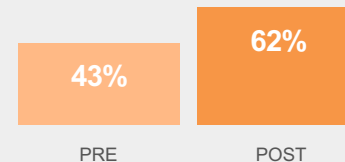
***P* < .001**

Primary Care Physicians (PCPs) (n = 114)

AVERAGE % OF CORRECT DECISIONS

↑63%

IMPROVED KNOWLEDGE/
COMPETENCE

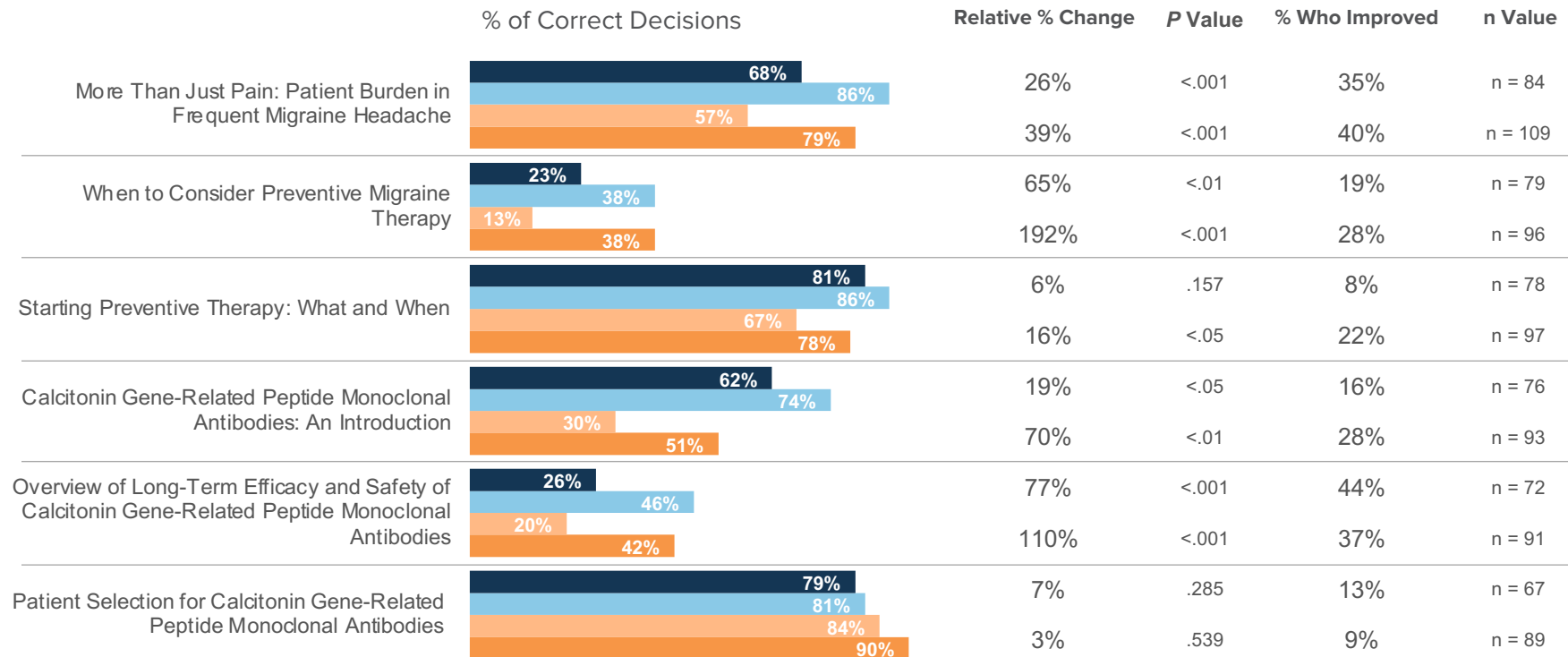


MCNEMAR'S CHI-SQUARE TEST

***P* < .001**

RESULTS

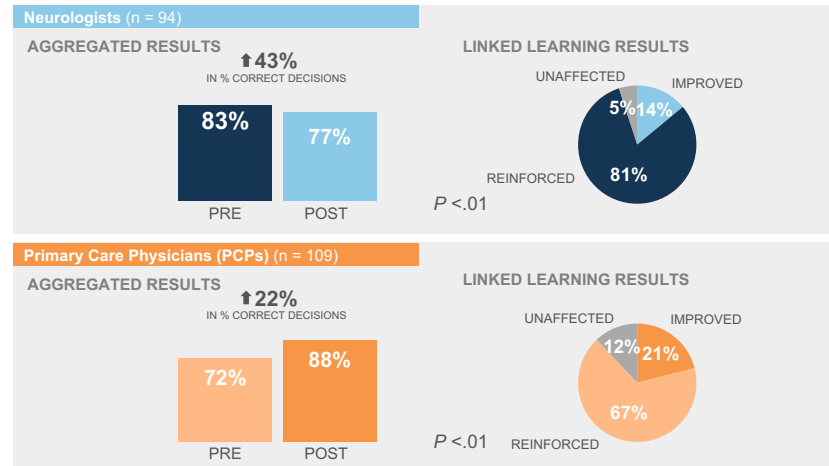
Neurologists: ■ PRE ■ POST PCPs: ■ PRE ■ POST



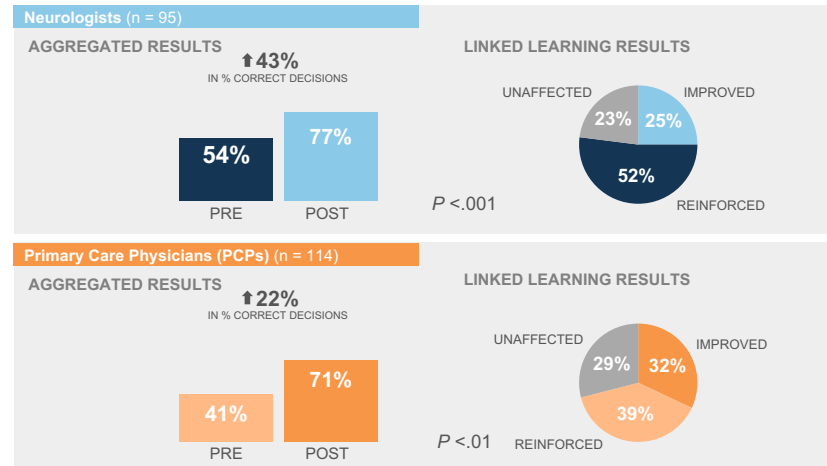
RESULTS (continued)

CHAPTER 1 - More Than Just Pain: Patient Burden in Frequent Migraine Headache

Both clinician groups demonstrated an improvement in knowledge regarding potential comorbidities and quality of life impairments associated with migraine.



Are patients who experience migraines with increasing frequency at increased risk for comorbid gastric ulcers?
(Correct answer: Yes)

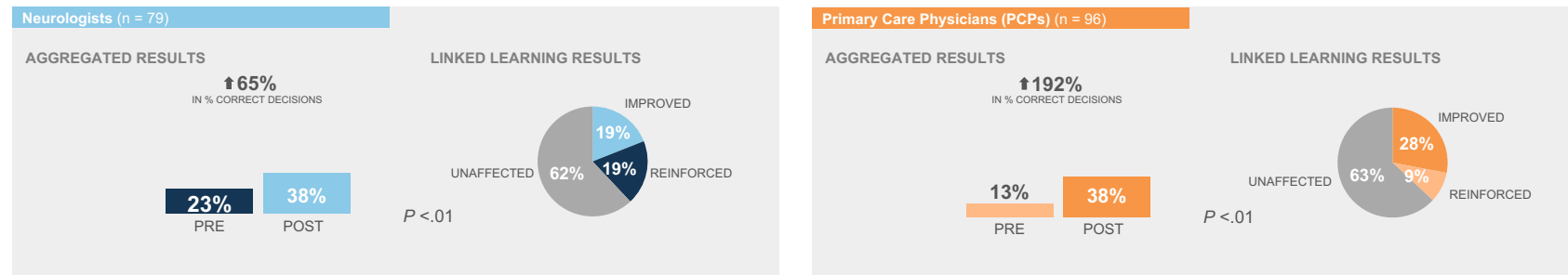


Have your patients with migraine opted to have fewer children because of the effects of their headaches?
(Correct answer: Yes)

RESULTS (continued)

CHAPTER 2 - When to Consider Preventive Migraine Therapy

Both clinician groups improved that ability to identify patients who are candidates for preventive migraine therapy.



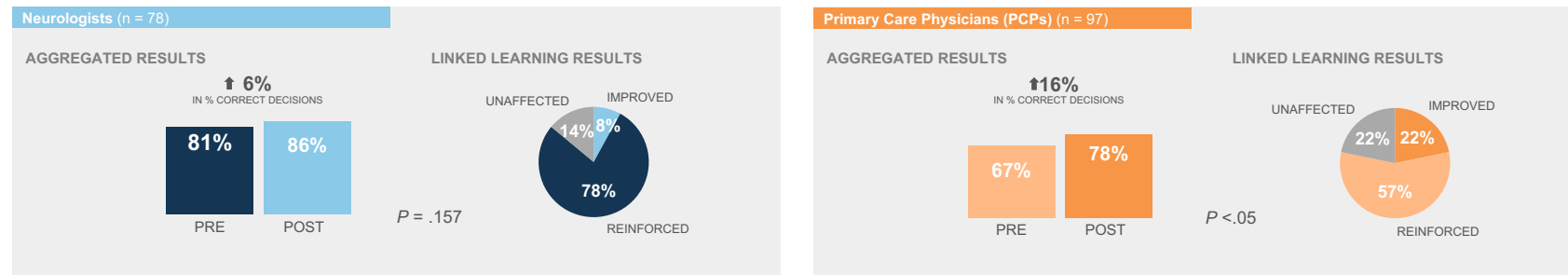
Should patients with 4 or more headache days per month who have no disability be offered preventive therapy?

(Correct answer: No)

RESULTS (continued)

CHAPTER 3 - Starting Preventive Therapy: What and When

Both clinician groups are better able to identify factors that inform the selection of preventive migraine therapies.

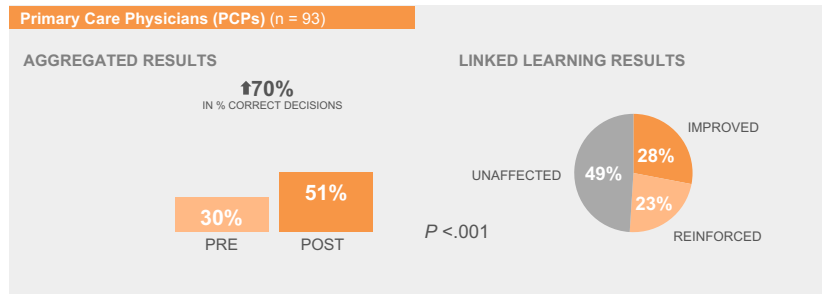
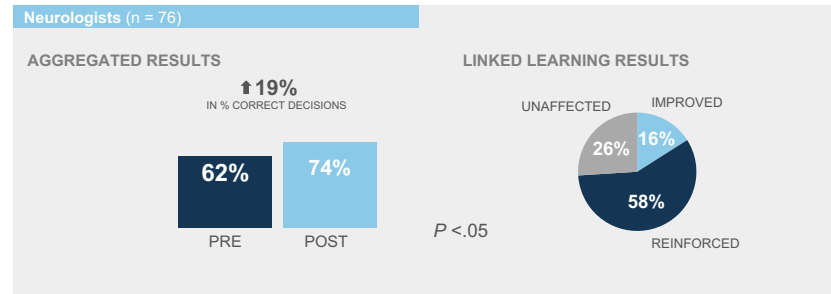


A 35-year-old man with newly diagnosed migraine and a history of comorbid hypertension wants to start preventive therapy but is concerned about taking multiple medications each day. Is a single antihypertensive medication an appropriate treatment of this patient's migraine headache and hypertension? (Correct answer: Yes)

RESULTS (continued)

CHAPTER 4 - Calcitonin Gene-Related Peptide Monoclonal Antibodies: An Introduction

Both clinician groups improved in their ability to differentiate between approved anti-calcitonin gene-related peptide (CGRP) monoclonal antibody therapies.

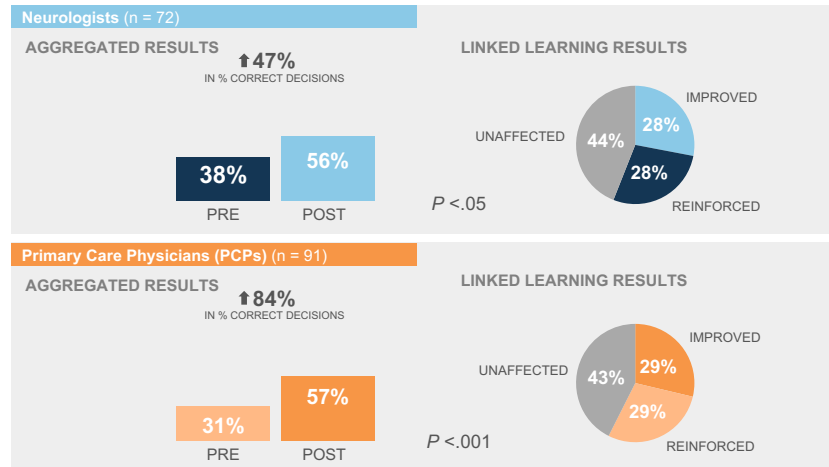


In the prevention of migraine, do all anti-calcitonin gene-related peptide (CGRP) monoclonal antibody therapies bind to the CGRP receptor?
(Correct answer: No)

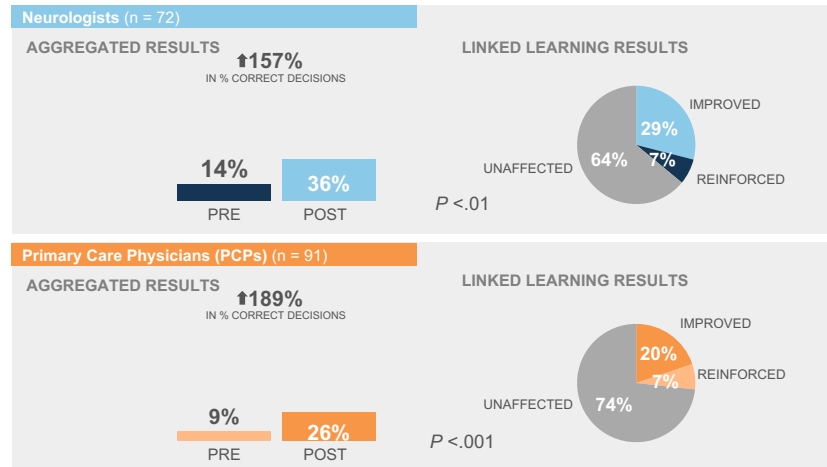
RESULTS (continued)

CHAPTER 5 - Overview of Long-Term Efficacy and Safety of Calcitonin Gene-Related Peptide Monoclonal Antibodies

Both clinician groups demonstrated greater knowledge of clinical trial data pertaining to anti-CGRP monoclonal antibodies studied for migraine prevention.



In the LIBERTY study, did patients who received placebo in the double-blind treatment phase and erenumab (140 mg) in the open-label treatment phase show similar efficacy in terms of change in monthly migraine days from baseline as those who received erenumab (140 mg) in both phases? (Correct answer: Yes)



In the PREVAIL study, were injection site reactions the most commonly observed treatment-emergent adverse event in patients receiving eptinezumab (300 mg) over 104 weeks? (Correct answer: Yes)

RESULTS (continued)

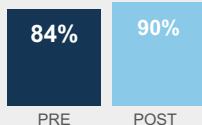
CHAPTER 6 - Patient Selection for Calcitonin Gene-Related Peptide Monoclonal Antibodies

Both clinician groups demonstrated substantial pre-education awareness of patients with migraine who are candidates for anti-CGRP monoclonal antibody therapy.

Neurologists (n = 67)

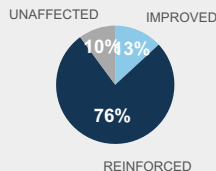
AGGREGATED RESULTS

↑ 7%
IN % CORRECT DECISIONS



$P = .285$

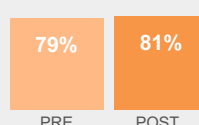
LINKED LEARNING RESULTS



Primary Care Physicians (PCPs) (n = 89)

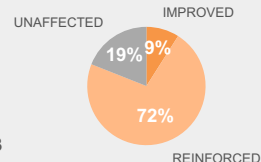
AGGREGATED RESULTS

↑ 3%
IN % CORRECT DECISIONS



$P = .593$

LINKED LEARNING RESULTS



A 27-year-old woman with a 4-year history of migraine presents to your office. She has been experiencing 2 to 3 headaches per week of moderate to severe intensity on most days. Previous therapies include amitriptyline, which was discontinued after 8 weeks due to poor tolerability; and propranolol, which the patient has been taking for the past 9 weeks with minimal efficacy. Should you initiate therapy with anti-CGRP monoclonal antibody therapy that is dosed once a month? (Correct answer: Yes)

CONCLUSIONS

This study demonstrates the success of an online CME activity with micro video chapters on improving physician knowledge and competence related to the care of patients with migraine who are candidates for preventive migraine therapy. This format provided both opportunities for reinforcement and improvement on physicians' clinical decisions. Given the low pre-education data, future education should specifically focus on:

- **Impact of migraine on quality of life and life decisions**
- **Criteria for when a patient is a candidate for preventive migraine therapy**
- **Interpretation of clinical trial outcomes for preventive migraine therapies**

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3. American Headache Society (AHS). The American Headache Society position statement on integrating new migraine treatments into clinical practice. *Headache*. 2019;59:1-18.
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