Assessment of the effect of the CME activity on

Opioid-induced constipation (OIC) is a common problem for patients with severe, persistent noncancer pain, and can significantly impact quality of life. A population-based survey demonstrated that 57% of individuals with chronic noncancer pain treated with opioids experienced OIC.1 In addition, OIC is prevalent in patients who are using laxatives, as was demonstrated in a survey of 322 patients who were taking daily, oral opioids and laxatives, of whom 81% reported constipation.1 This study assessed whether online continuing medical education (CME) could improve knowledge and competence of primary care physicians (PCPs) and neurologists managing OIC on the topics of patient assessment, OIC pathophysiology, and treatment options.

### Study Objectives

**STUDY OBJECTIVES**

- The CME consisted of an online activity presented in the form of multiple-choice questions and responses, and an online post-CME assessment of knowledge and competence of primary care physicians (PCPs) and neurologists managing OIC.
- The study assessed whether online continuing medical education (CME) could improve knowledge and competence of primary care physicians (PCPs) and neurologists managing OIC.
- The greatest improvements occurred in physicians’ ability to recognize that risk of OIC can be lowered by changing treatment regimen, understanding of mechanisms of emerging therapies for OIC, ability to recognize that risk of OIC can be lowered by changing treatment regimen, and understanding of mechanisms of emerging therapies for OIC.

### Instructional Method

The CME consisted of an online activity presented in the form of multiple-choice questions and responses, and an online post-CME assessment of knowledge and competence of primary care physicians (PCPs) and neurologists managing OIC.

### Assessment Method

- **Assessment of the effect of the CME activity on knowledge of participating physicians was performed as an online survey.**
- **Linked participants (ie, the learners) who served as their own controls, were assessed with a set of 4 identical pre- and post-CME assessment questions to determine the effectiveness of knowledge transfer/exchange as a result of participation in the online CME program (Figure 1).**

### Results

- Data were collected for the 906 PCPs and 59 neurologists who participated in the CME activity and answered all pre- and post-CME assessment questions during the study period (Figure 1).
- PCPs demonstrated statistically significant improvements in knowledge and competence (p=0.006; F=25.1; medium educational effect). While only 10% answered 3 or more questions correctly on pre-CME assessment, the percentage improved to 46% on post-CME assessment (Figures 2 and 3).

- Neurologists demonstrated statistically significant improvements in knowledge and competence (p=0.005; F=25.1; medium educational effect). While only 12% of neurologists answered 3 or more questions correctly on pre-CME assessment, the percentage improved to 46% on post-CME assessment (Figures 4 and 5).

### Conclusions

CME in the form of an interactive review article on OIC led to improvements in clinically relevant knowledge/competence of PCPs and neurologists managing OIC. This approach may provide a suitable venue for improving knowledge and competence in the detection and management of OIC.

### Acknowledgments

The educational activity and outcomes measurement were developed through an independent educational grant from AstraZeneca Pharmaceuticals, Inc. and Salix Pharmaceuticals LP. For more information, contact Jovana Lubarda, PhD, Associate Director, Educational Strategy, Medscape, LLC, Jovana.Lubarda@medscape.net.

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**Figure 1. Pre- and Post-Survey Questions and Answers**

**Figure 2. Percentage of PCPs (n=906) With Correct Response by Question**

**Figure 3. Percentage of PCPs (n=906) With Correct Response by Scoring Distribution**

**Figure 4. Percentage of Neurologists (n=59) With Correct Response by Question**

**Figure 5. Percentage of Neurologists (n=59) With Correct Response by Scoring Distribution**

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**OPIOID-INDUCED CONSTIPATION: CAN MEDICAL EDUCATION IMPROVE KNOWLEDGE AND COMPETENCE OF PHYSICIANS?**

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