

An Assessment of Internet-based (*Emerging Solutions in Pain*) CME Activities for Pain Physicians

Bronwyn Boyes, PharmD,* Joan Meyer, RN, MHA,* Benjamin Whitfield,† Gregory Salinas†
 MediCom Worldwide, Inc., 101 Washington Street, Morrisville, PA; †CE Outcomes, LLC, Birmingham, AL



Background

Physicians are increasingly utilizing the Internet, and in particular, trusted independent websites, as an essential component of obtaining professional information, as a source of continuing medical education (CME), and as a communication lifeline at the point of care.

Emerging Solutions in Pain (ESP) was launched in 2005 with a leading cadre of experts in pain management and addiction medicine. ESP is a robust and multi award-winning ongoing educational initiative which provides an array of information, resources, tools, and case studies to highlight and educate clinicians on the complexities surrounding the management of chronic pain. It aims to inform clinicians of methods of communication, ways in which risk of abuse may be measured, and how to integrate these strategies into an individualized treatment plan. Membership is free to all health care professionals.

Aim

The purpose of this study was to determine the effectiveness of two Internet-based CME activities, *Assessment Strategies and Practical Approaches to Successful Monitoring of Chronic Pain*, and *Minimizing Risk and Improving Outcomes in Chronic Pain*, included on the educational initiative, *Emerging Solutions in Pain* (ESP).

Both programs focused on the safe and effective treatment of chronic pain while minimizing the risks of misuse.

Method

A post-activity assessment study was conducted 3-5 months after completion to determine the effectiveness of two CME activities on the practice patterns and knowledge of physicians who manage chronic pain patients. Effectiveness was measured using a case-based survey^{1,2} designed to assess whether the diagnostic and therapeutic choices of program participants were consistent with evidence-based content of the CME activities.

The survey was also administered to a demographically similar control group of physicians who did not participate in the educational program in order to assess differences in practice choices. The participant group was selected from a list of physicians completing the course and also agreeing to participate in future self-study activities. The control group was selected at random from the AMA Master File. The participant and control groups were matched on the following characteristics: physician specialty, degree, years in practice, whether or not direct patient care was their primary responsibility, and the number of patients seen per week with chronic pain.

CE Outcomes independently reviewed the educational objectives and content of ESP to define a series of key measurement indicators to frame case vignette questions, which were presented to participants and nonparticipants.

Analysis

Data were analyzed using frequencies, followed by T-tests to analyze the differences between the mean evidence-based responses of the 50 participant and the 50 nonparticipant physicians. Differences between the two groups were considered significant if the P value was ≤ 0.15 .

An effect size was calculated using the Cohen's d formula³ to determine the amount of difference between the evidence-based responses of the participants vs. nonparticipants. The calculation is expressed as a non-overlap percentage, or the percentage achieved by participants that was not reflected in the evidence-based responses of nonparticipants.

Results

A total of 4,171 physicians (MDs/DOs) who practice in pain management seeing approximately 137,643 chronic pain patients participated in ESP CME activities over a 3-month period. Responses from 50 participant and 50 control nonparticipant primary care physicians (PCPs) and pain specialists were collected for analysis. Case vignettes were used to predict practice patterns and measure a physician's process of care in actual clinical practice.

The participants and nonparticipants were very similar in demographics:

Characteristics of Survey Responders	Participants	Nonparticipants
Years in Practice	23	23
Patients seen per week with Chronic Pain	33	26

A series of case-based questions were asked to assess the knowledge acquisition and clinical decision-making skills of participants vs. nonparticipants.

Strategic Precautionary Approach

Learning Objective: Indicate two reasons why risk assessment is necessary and demonstrate their clinical utilization in the effective management of chronic pain patients.

Key Point: Participants are more likely to recognize that a strategic precautionary approach to assessing a patient with moderate risk for aberrant behavior will reduce the likelihood of becoming a high-risk patient.

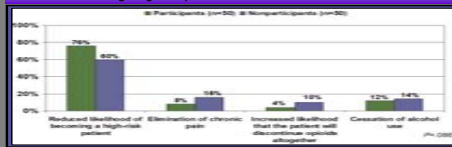


Figure 1: Benefit of using a strategic precautionary approach to assessment and management of a patient with chronic pain

Results (continued)

Key Point: Participants are more likely to start a patient with severe pain that is not controlled with acetaminophen and NSAIDs who demonstrates moderate risk for aberrant behavior on an opioid and initiate an exercise program.

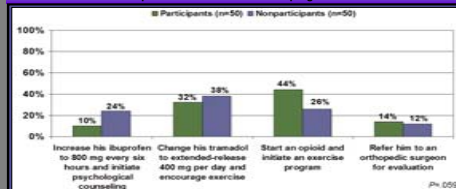


Figure 2: Initial treatment for a patient with severe pain that is not controlled with acetaminophen and NSAIDs who demonstrates moderate risk for aberrant behavior

Key Point: Participants are more likely to recognize that some over-the-counter medications cause a false-positive urine test for methamphetamines and would assess a patient's OTC medications prior to stopping the patient's opioid therapy.

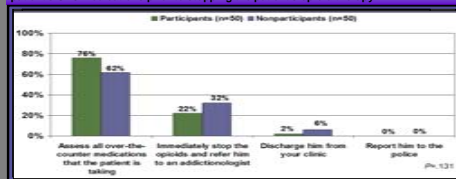


Figure 3: Management step for a patient receiving opioid therapy who has a urine drug screen positive for methamphetamines

Key Point: Program participants recognize the need to utilize a standard risk assessment tool (such as the ORT or SOAPP) as the best approach to stratifying risk in a patient in the primary care setting.

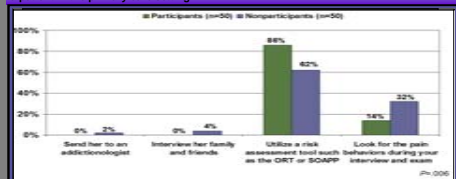


Figure 4: Best risk stratification approach for a patient in the primary care setting

Conclusion

Physicians who participated in ESP CME activities are more likely to practice evidence-based care of chronic pain patients than those who did not participate in these activities, specifically:

- Participants were more likely to recognize that a strategic precautionary approach to assessing a patient with moderate risk for aberrant behavior will reduce the likelihood of becoming a high-risk patient ($P=0.86$).
- Participants were more likely to start a patient with severe pain that is not controlled with acetaminophen and NSAIDs who demonstrates moderate risk for aberrant behavior on multimodal therapy ($P=0.59$).
- Participants were more likely to recognize that some over-the-counter medications cause a false-positive urine test and would assess a patient's OTC medications prior to stopping the patient's opioid therapy ($P=0.131$).
- Participants were more likely to recognize the need to utilize a standard risk assessment tool (such as the ORT or SOAPP) as the best approach to stratifying risk in a patient in the primary care setting ($P=0.06$).

The large effect size (30%) suggests that the ESP Internet-based CME programs offer effective, credible and high-impact education. These programs are available on-demand and in multiple formats to suit the learning preferences of physicians.

Literature Cited

- Peabody JW, et al. Comparison of vignettes, standardized patients, and chart abstraction: A prospective validation study of 3 methods for measuring quality. *JAMA*. 2000;283:1715-1722.
- Peabody JW, et al. Measuring the quality of physician practice by using clinical vignettes: A prospective validation study. *Ann Intern Med*. 2004;141(10):771-780.
- Cohen J. *Statistical Power Analysis for the Behavioral Sciences*. 2nd edition. Hillsdale, NJ: Lawrence Erlbaum Associates; 1988.

Acknowledgements and Contact Information

This study was supported by an independent educational grant from Cephalon, Inc., Endo Pharmaceuticals, PriCara®, a Division of Ortho-McNeil-Janssen Pharmaceuticals, Inc., and Purdue Pharma L.P.

For additional information about this study, please contact: Ben Whitfield, CE Outcomes, LLC, ben.whitfield@ceoutcomes.com, 205-259-1500.

For additional information about ESP or MediCom Worldwide, Inc., please contact: Joan Meyer, MediCom Worldwide, Inc., info@medicated.com, 215-337-9991, ext 129.