

# ADDRESSING MANAGEMENT OF RESISTANT HYPERTENSION: EFFECT OF ONLINE CME

Jelena Spyropoulos, PhD, Medscape LLC, New York, NY; Charles Kearns, PhD, Medscape LLC; New York, NY

Cardiologists

156

0.545

0.981

<.05

**PCPs** 

539

2.503

0.042

0.972

0.946

0.659

**TABLE 1. Summary Statistics** 

Sample Size

Mean (Correct

Standard Error

Median (Correct

Sample Variance

Effect Size (d)

Answers)

Standard

Deviation

P Value

# INTRODUCTION

Clinicians are challenged to properly evaluate patients in order to diagnose treatment-resistant hypertension as well as how to use combination therapy and strategies for managing adherence to therapy to optimize outcomes<sup>1,2</sup>

### **OBJECTIVE**

To determine if an online, video-based, continuing medical education (CME) intervention could improve knowledge and competence of cardiologists and primary care physicians (PCPs) in managing patients with resistant hypertension

## METHODS

- An online CME activity was developed as a 25-minute roundtable discussion among 3 leading experts on strategies to manage patients with resistant hypertension<sup>3</sup>
- The activity included a transcript of the discussion and a downloadable slide deck to highlight and reinforce key data
- The effects of education were assessed using a linked preassessment/post-assessment study design in which questions assessed clinical knowledge
- For all questions combined, the McNemar's chi-square test was used to assess differences from pre- to post-assessment. *P* values are shown as a measure of significance; *P* values <.05 are statistically significant
- Cohen's *d* was used to calculate the effect size (> 0.8 is large, 0.8 to 0.4 is medium, and < 0.4 is small)
- The activity launched on March 26, 2015; data were collected through May 6, 2015

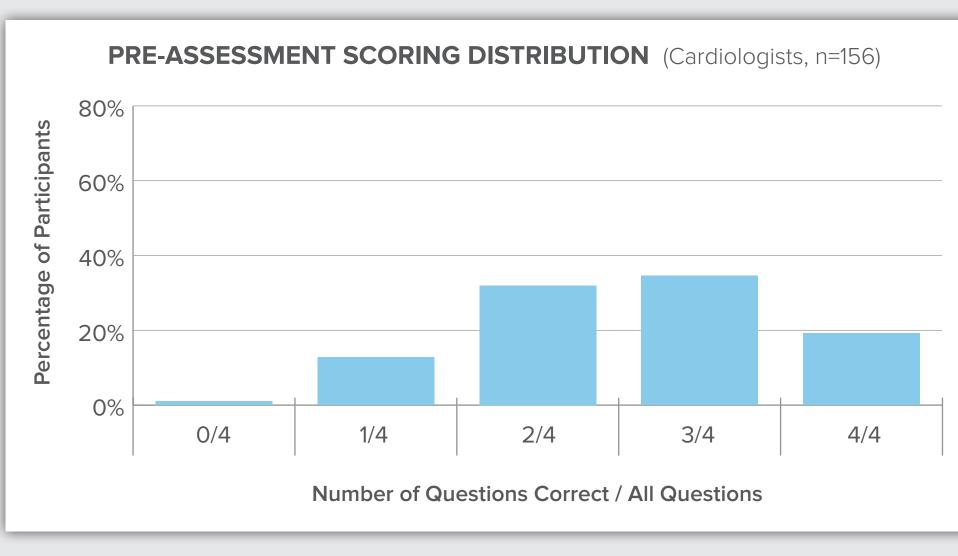
## RESULTS

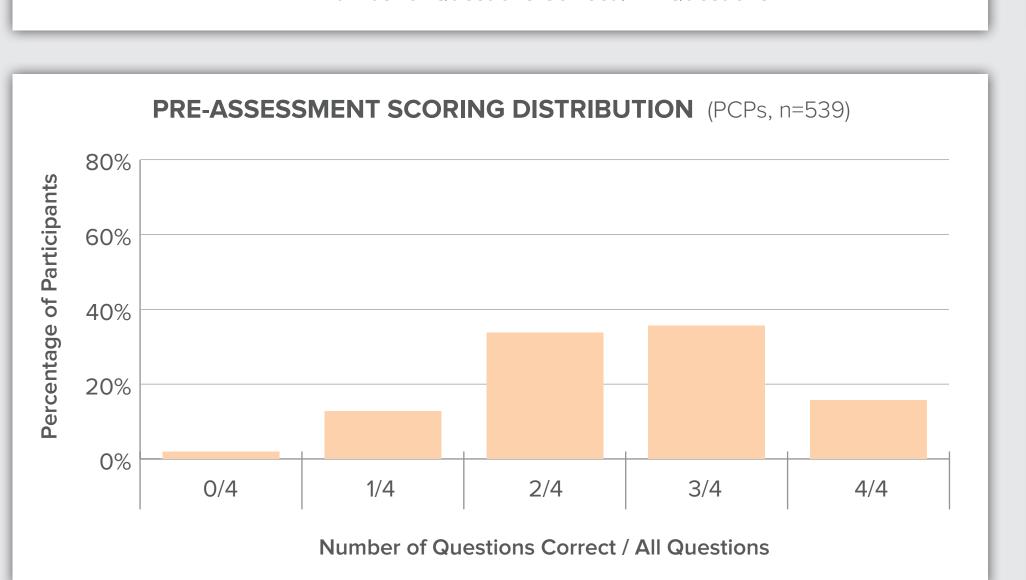
- The change in correct responses from pre- to post-assessment achieved statistical significance for all 4 questions for cardiologists (n=156; d=0.981; P <.001) and PCPs (n=539; d=0.978; P <.001), with a large effect size for both specialty groups (Table 1)
- The distribution of preassessment scores compared with that of post-assessment scores indicates improvement (Figure 1):
- While only 30 (19%)
   cardiologists answered all 4 pre-assessment questions correctly, 106 (68%) answered all questions
   correctly on the post-assessment

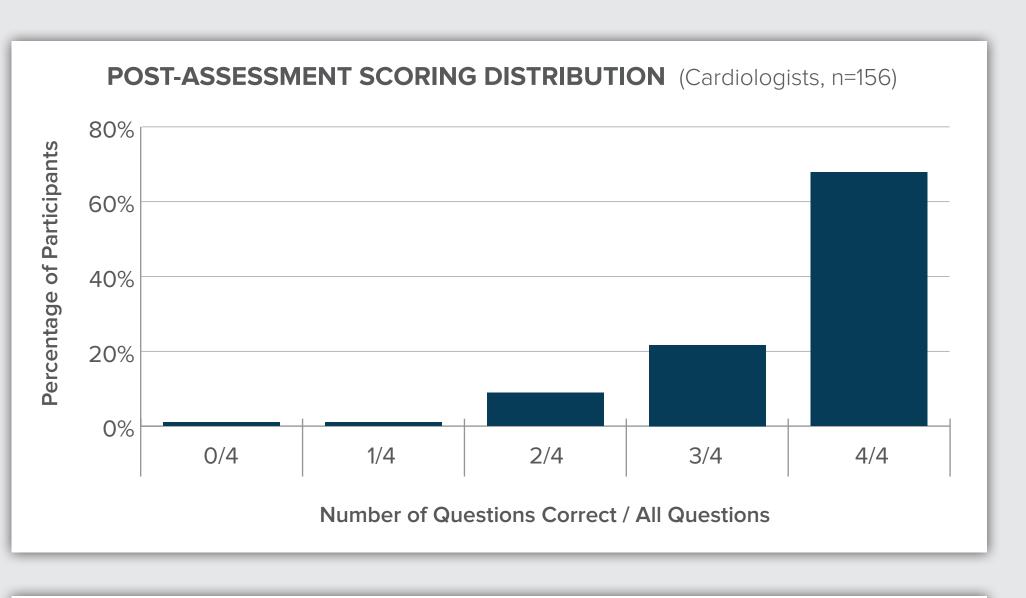
0.968

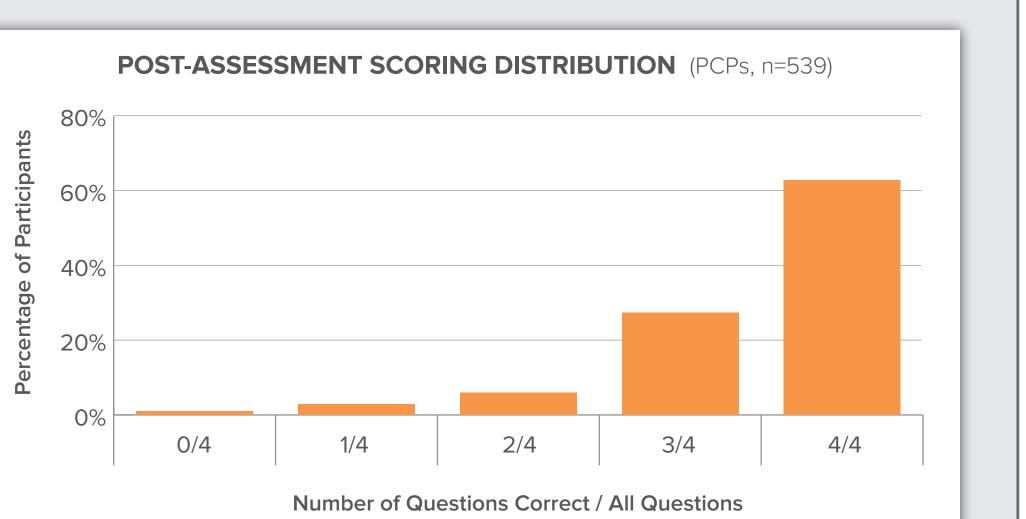
- While only 85 (16%) PCPs answered all 4 pre-assessment questions correctly, 338 (63%) answered all questions correctly on the post-assessment
- For cardiologists, correct responses on post-assessment questions were between 11% and 77% higher after CME completion compared with the pre-assessment question responses (Table 2)
- For PCPs, correct responses on post-assessment questions were between 12% and 75% higher after CME completion compared with the pre-assessment question responses (Table 2)

#### FIGURE 1. Scoring Distribution

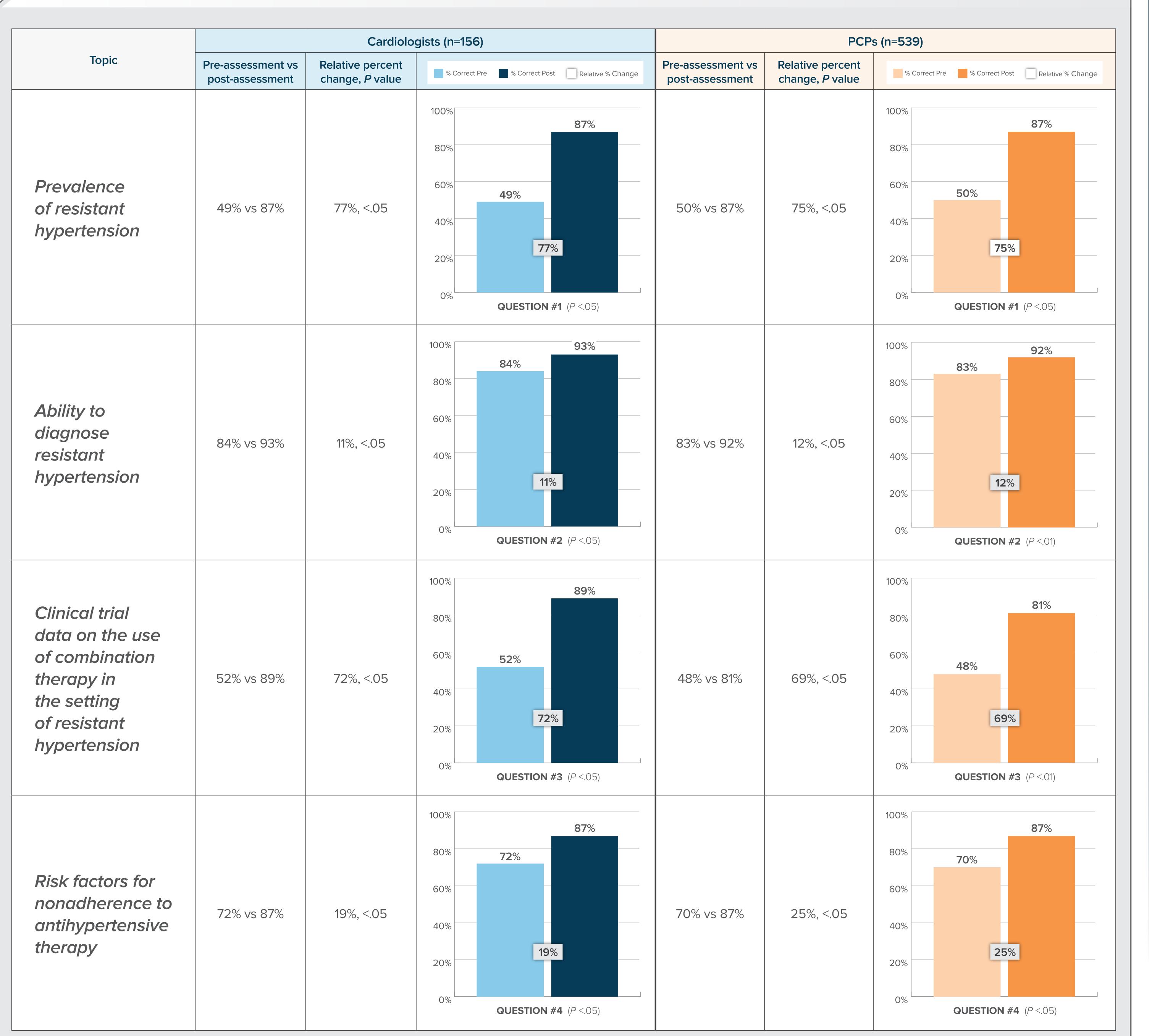








## TABLE 2. Percent of Participants With Correct Response by Question (Pre- and Post-Assessment Questions)



# CONCLUSIONS

- The significant improvements observed as a result of participation in this online CME intervention demonstrate that Internet-based education can increase knowledge and competence of physicians related to management of hypertension
- Both cardiologists and PCPs would benefit from further education on:
- The prevalence of resistant hypertension
- Clinical data on strategies to manage resistant hypertension
- Strategies to address nonadherence to antihypertensive therapy

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For more information contact
Jelena Spyropoulos, PhD,
Director of Clinical Strategy,
Medscape, LLC,
at jspyropoulos@medscape.net.

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