IMPROVING CLINICAL DECISIONS IN DYSLIPIDEMIA MANAGEMENT: SIMULATION-BASED MEDICAL EDUCATION IN ACTION

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INTRODUCTION

The CME intervention consisted of 2 patient cases presented in a VPS platform that allowed learners to make clinical decisions, not limited by multiple choice options, matching the scope of options available in actual practice (Figure 1)

The VPS cases incorporated the complexity and unpredictability experienced in actual clinical practice and required true-to-practice, open-ended diagnostic and treatment decisions.

Clinical decisions made by learners were analyzed using a sophisticated decision engine, and tailored clinical guidance (CG) based on current evidence was provided engine, and tailored clinical guidance (CG) based on current evidence was provided.

Clinical decisions were collected post-CG and compared with each user’s baseline (pre-CG) data using a 2-tailed paired t-test and compared with each user’s baseline (pre-CG) data using a 2-tailed paired t-test and compared with each user’s baseline (pre-CG) data using a 2-tailed paired t-test.

Clinical decisions were collected post-CG and compared with each user’s baseline (pre-CG) data using a 2-tailed paired t-test and compared with each user’s baseline (pre-CG) data using a 2-tailed paired t-test. "High levels of low-density lipoprotein (LDL-C) cholesterol are a risk factor for cardiovascular disease, yet many patients with dyslipidemias are not appropriately managed"

This study was conducted to determine if an online, virtual patient simulation (VPS)-based continuing medical education (CME) intervention could improve clinical decisions of cardiologists and primary care physicians (PCPs) related to management of dyslipidemia.

METHODS

The activity posted on August 26, 2016, and data were collected through October 15, 2016.

RESULTS

Two patient cases were presented via the VPS (Figure 1)

Significant absolute improvements were observed post-CG

(n=183 cardiologists; n=491 PCPs) (Figure 2): Improvement in correct diagnosis for familial hypercholesterolemia (cardiologists, 27%; P=.001; PCPs, 30%; P=.009)

Improvement in correct diagnosis for uncontrolled dyslipidemia (cardiologists, 47%; P=.001; PCPs, 50%; P=.003)

Improvement in order for tailored dyslipidemia therapy (cardiologists, 30%; P=.001; PCPs, 25%; P=.001)

Improvement in order for PCSK9 inhibitor therapy (cardiologists, 30%; P=.001; PCPs, 24%; P=.003)

Case 2 (n=116 cardiologists; n=278 PCPs) (Figure 2):

Improvement in correct diagnosis for dyslipidemia (cardiologists, 8%; P=.001; PCPs, 44%; P=.001)

Improvement in orders for lifestyle changes: diet (cardiologists, 24%; P=.001; PCPs, 15%; P=.001)

Improvement in orders for lifestyle changes: exercise (cardiologists, 15%; P=.002; PCPs, 16%; P=.001)

Improvement in patient follow-up to assess adherence to lifestyle and medications (cardiologists, 15%; P=.002; PCPs, 16%; P=.001)

ORDER TAILORED DYSLIPIDEMIA TREATMENT

46% (Cardiologists) 54% (PCPs)

ORDER PCSK9 THERAPY

46% (Cardiologists) 54% (PCPs)

ORDER LIFESTYLE CHANGES: EXERCISE

60% (Cardiologists) 40% (PCPs)

FOLLOW-UP TO ASSESS ADHERENCE

69% (Cardiologists) 61% (PCPs)

FIGURE 1. Patient simulation cases: Deetta D. (Case 1) and Jon Paul F. (Case 2)

FIGURE 2. Clinical decisions (Case 1)

CONCLUSION

This study demonstrates that CME utilizing VPS capabilities that utilize features simulating actual clinical practice and engages physicians with an authentic, practical, and consequence-free learning experience, can improve performance of cardiologists and PCPs related to management of dyslipidemia, with the potential to translate into improvements in clinical care.

Persistent educational gaps were uncovered related to:

- Diagnosis of dyslipidemia and related conditions, such as familial hypercholesterolemia
- Tailored treatment approaches for dyslipidemia
- Use of patient-centered care, including lifestyle modifications to help reach goals of dyslipidemia therapy

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Disclosures

The authors have nothing to disclose.

References

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