

Case-Based Online Medical Education improves Physicians' Knowledge and Competence in the Healthcare of Patients With Type 2 Diabetes and CKD

Joachim Trier, PharmD, PhD¹; Roberto Pecoits-Filho, MD, PhD²; Rita Moreira Da Silva, PhD, MA, PharmD³; Adriana Stan, PhD⁴

(1) Director of Educational Strategy, WebMD Global LLC; (2) Scientific Director, Arbor Research Collaborative for Health, Ann Arbor, Michigan; (3) Medical Education Director, WebMD Global, LLC; (4) Sr. Director, Clinical Strategy Global, WebMD Global LLC

INTRODUCTION

Kidney disease affects more than 850 million people globally. At least 40% of people with diabetes develop chronic kidney disease (CKD), and many progress to end-stage kidney disease (ESKD) and kidney failure. Globally, diabetes is the leading cause of kidney failure requiring transplantation or dialysis.

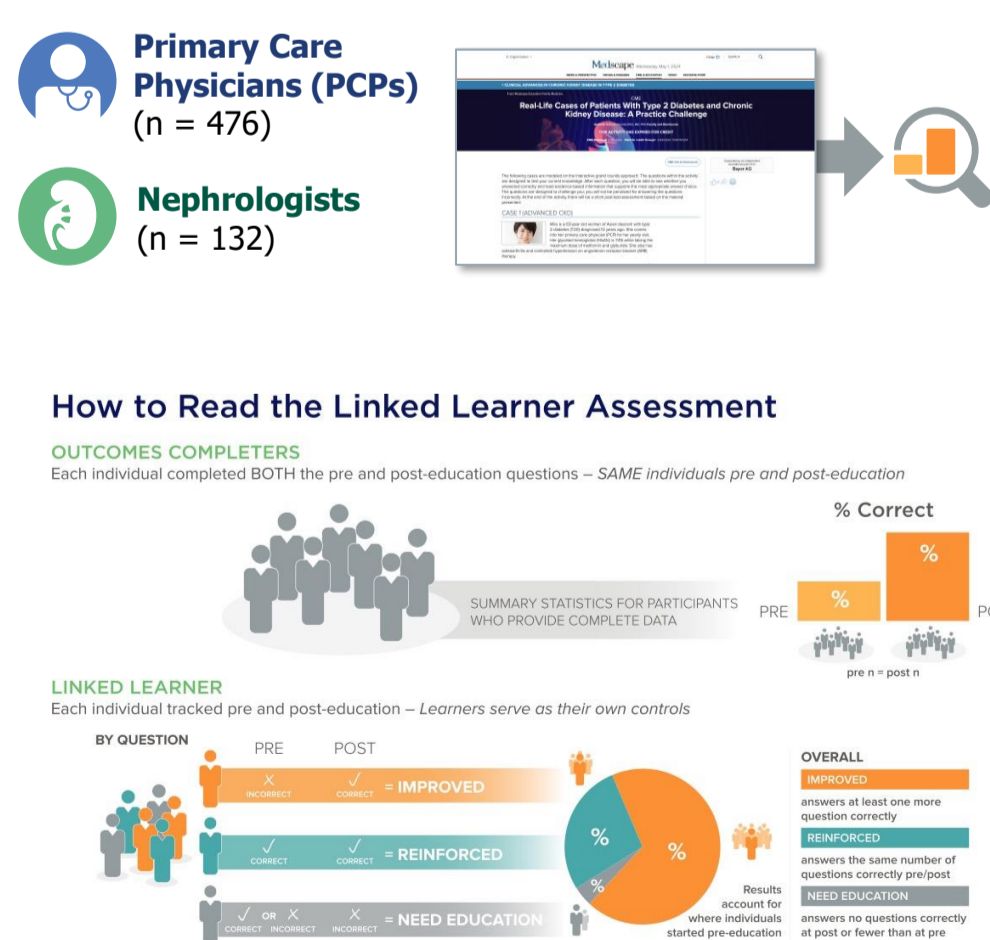
The risk of both progression to kidney failure and cardiovascular (CV) events is significantly elevated in patients with type 2 diabetes (T2D) and CKD. Both T2D and CKD are CV disease (CVD) risk multipliers. Patients at early stages of CKD are more likely to die of CVD than they are to progress to ESKD.

AIM

The goal of this online medical education activity was for learners to better acknowledge serious health risks associated with CKD in patients with T2D and have greater awareness of the availability of novel treatment options shown to reduce the risk of associated complications.

METHOD

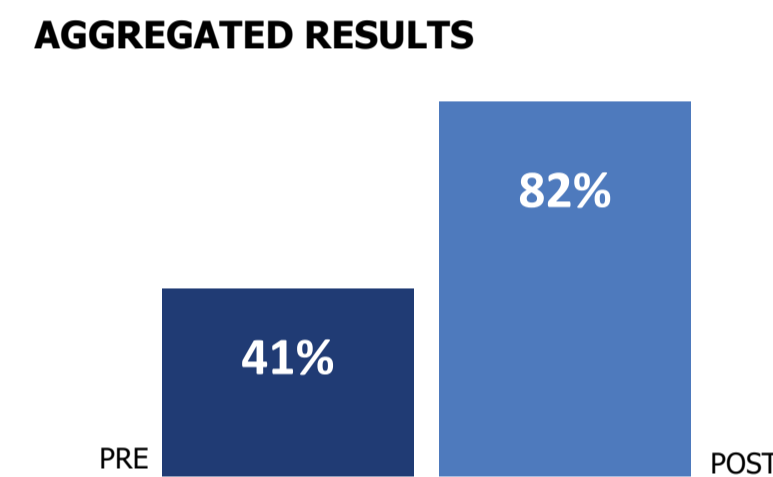
An interactive text-based educational program including two detailed patient cases challenges clinicians to apply most recent evidence-based guideline recommendations.



RESULTS

83% of PCPs and 83% of NEPHs improved their knowledge regarding the latest guideline recommendations for the management of patients with CKD and T2D, the safety aspects of novel ns MRAs for reducing the risk of CKD progression and CVD in patients with CKD.

Primary Care Physicians (PCPs) (n = 476)

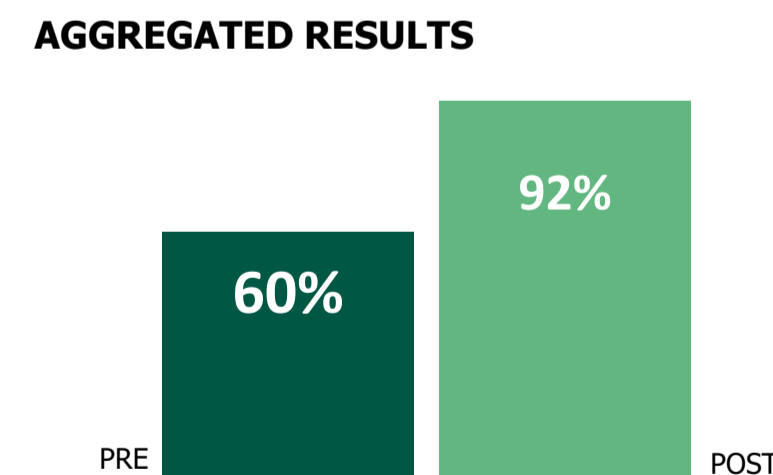


COHEN'S d
1.20

EFFECT SIZE	EDUCATIONAL IMPACT
< .20	MODEST
.20 - .49	SMALL
.5 - .79	MODERATE
≥ 0.80	LARGE

CHI-SQUARE TEST
P < .001

Nephrologists (n = 132)



COHEN'S d
1.26

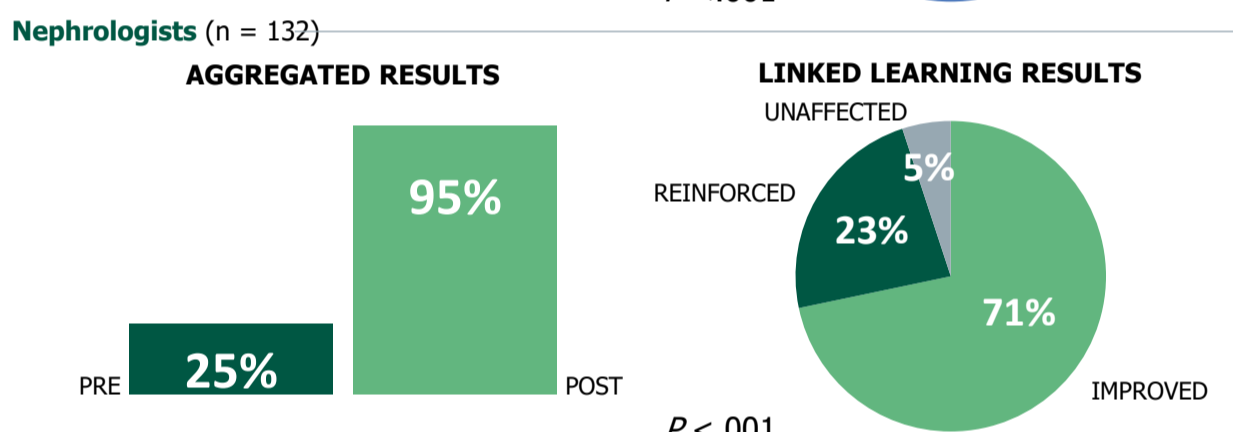
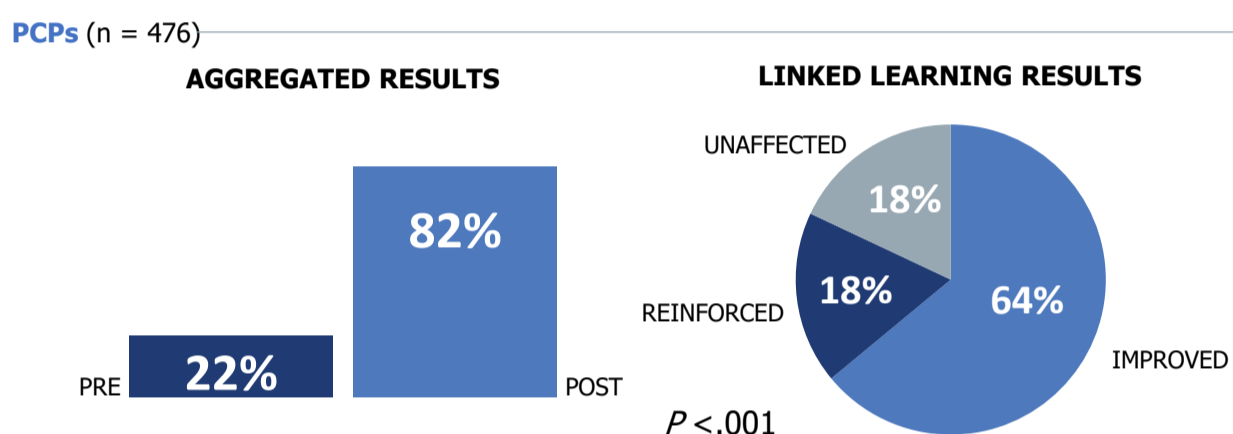
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P < .001

QUESTION 1 RESULTS

64% of PCPs and 71% of NEPHs had greater competence related to the regular assessment of kidney function in patients with T2D

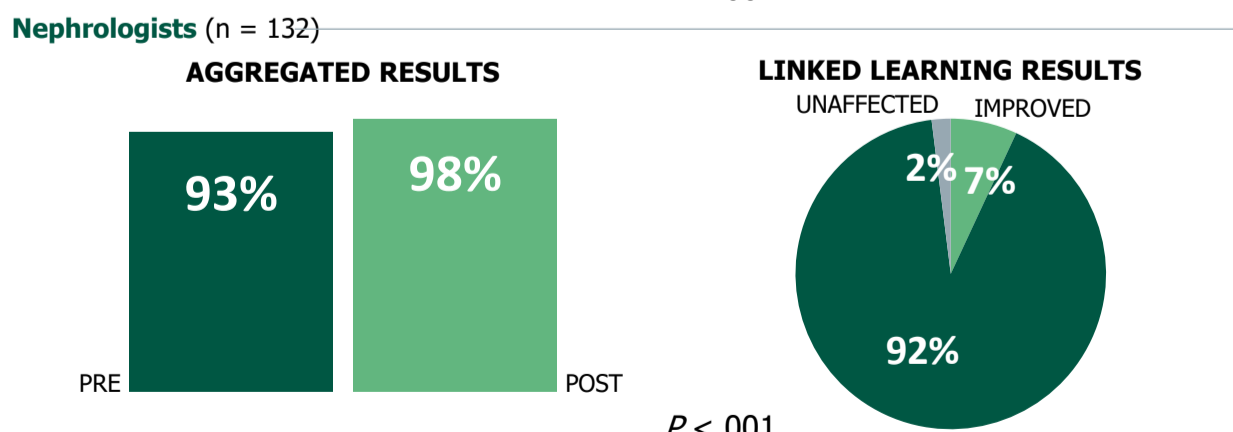
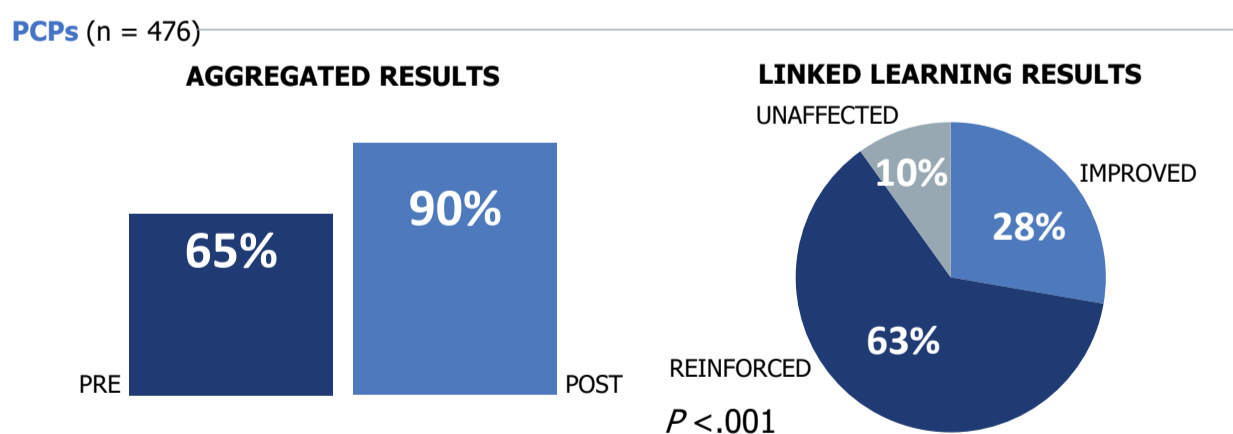
QUESTION: Mira is a 63-year-old woman with T2D and CKD, with an eGFR of 35 mL/min/1.73 m² and a uACR of 290 mg/g. According to 2022 KDIGO guidelines and the ADA/KDIGO consensus recommendations, how many times annually should kidney function be assessed in this patient? (CORRECT ANSWER: Three times)



QUESTION 3 RESULTS

90% of PCPs and 98% of NEPHs increased or reinforced their knowledge regarding the safety aspects of novel, selective non-steroidal mineralocorticoid receptor antagonists (nsMRAs)

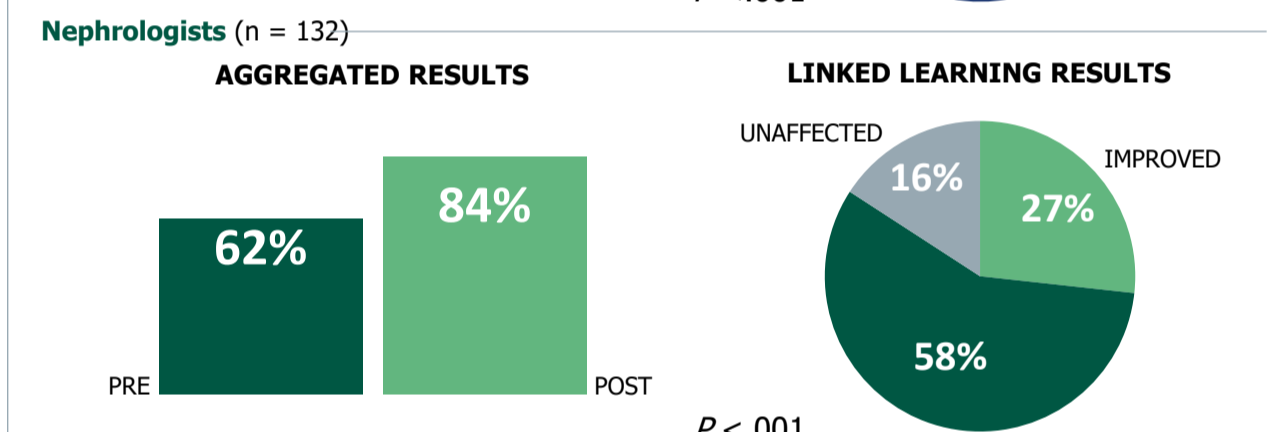
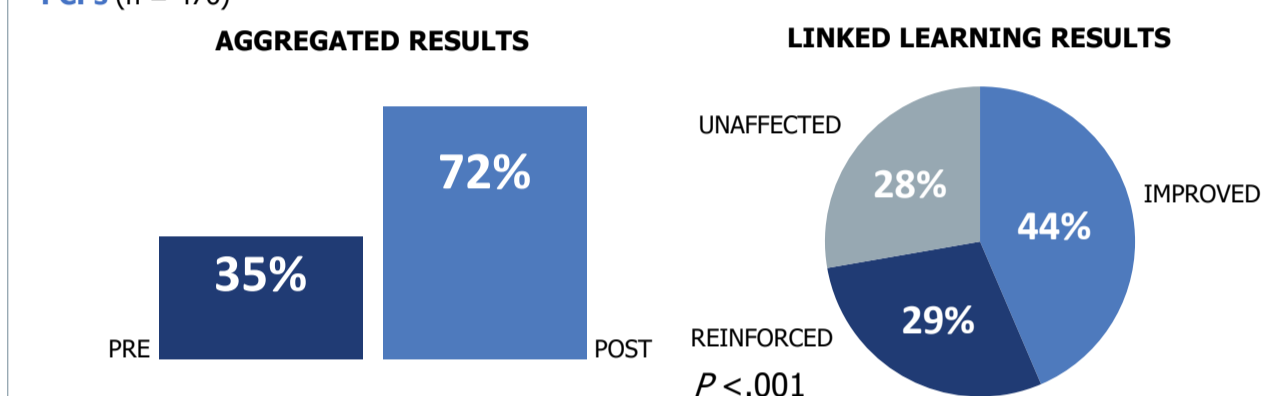
QUESTION: ns-MRA are a novel class of agents under recent investigation in people with T2D and CKD. Finerenone has recently gained regulatory approval in the United States and some European countries. What is the main safety issue to be considered when initiating therapy with an ns-MRA? (CORRECT ANSWER: Hyperkalemia)



QUESTION 2 RESULTS

72% of PCPs and 84% of NEPHs increased or reinforced their knowledge regarding the latest international society guideline recommendations for patients with CKD and T2D

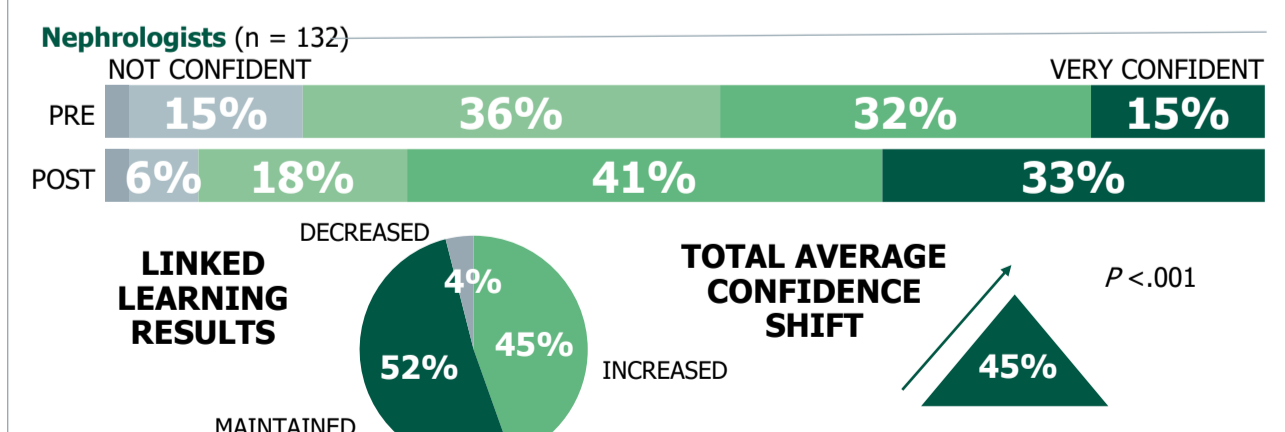
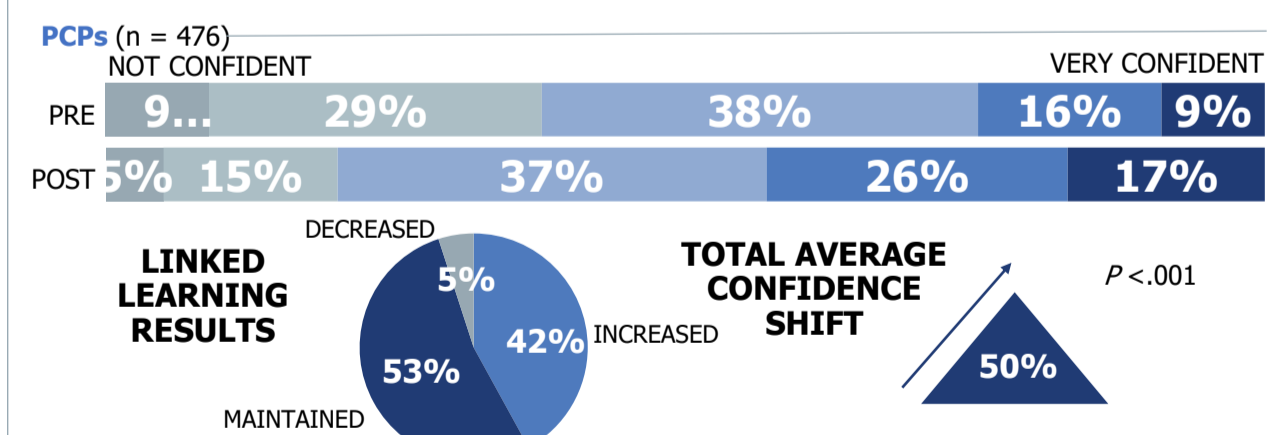
QUESTION: Roger is a patient with T2D and CKD. His HbA1c remains elevated (7.8%) while taking metformin (1000 mg twice daily) and a sodium/glucose cotransporter 2 (SGLT2) inhibitor (dapagliflozin 10 mg/d). You note that he has class 1 obesity (BMI 34 kg/m²). According to 2022 KDIGO guidelines, what management strategy should be implemented to improve Roger's glycemic control? (CORRECT ANSWER: Add GLP-1 RA)



CONFIDENCE ANALYSIS

42% of PCPs and 45% of NEPHs increased their confidence in applying current guideline therapy for a patient with T2D and CKD

QUESTION: How confident are you right now in applying current guidelines to select the appropriate treatment for a patient with T2D and CKD? (Select ranking from 1 [Not confident] to 5 [Very confident])



CONCLUSIONS

Participation of PCPs and NEPHs in an interactive case-based online medical educational program improved their knowledge, competence and confidence in the management of patients with T2D and CKD.

ACKNOWLEDGEMENTS

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CONTACT INFORMATION

Joachim Trier, PharmD, PhD
 Director of Educational Strategy,
 Medscape Education, WebMD Global LLC
 joachim.trier@btinternet.com