

Title:

- An Online, Accredited Educational Activity Improves the Knowledge of Physicians in Hyperkalemia Treatment Using Novel Potassium Binding Agents

Authors:

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Introduction

- Conventional treatment options for hyperkalemia have provided limited benefit with serious adverse events. However, novel potassium binding agents have emerged which are able to significantly lower potassium and offer an improved tolerability profile.

Hypothesis

- The goal of this educational activity is to improve awareness of new and emerging agents for the treatment of hyperkalemia to enable clinicians to decrease the burden of hyperkalemia across the continuum of care.

Methods

- Learning and knowledge was objectively assessed by analyzing pre- and post-test results before and after the online educational activity.
- Statistical testing between pre- and post-tests were conducted via chi square analysis with a priori significance set at 0.05.

Results

- Responses were collected from N=848 participants.
- Improved learners, as determined by significant ($P < 0.05$) increases in correct responses, were observed in several specific topic areas. However, statistically significant improvement was not observed across all physician specialties:
 - Distinguishing the use of the newer potassium binding agents from sodium polystyrene sulfonate (SPS)
 - Cardiologists – 42% pre-test vs. 56% post-test ($P < .001$)
 - Nephrologists – 58% pre-test vs. 69% post-test (Not significant)
 - Diabetologists/Endocrinologists – 47% pre-test vs. 65% post-test ($P = .043$)
 - Determining key characteristics of newer agents for hyperkalemia (sodium zirconium cyclosilicate and patiromer) for hyperkalemia
 - Cardiologists – 59% pre-test vs. 87% post-test ($P < .001$)
 - Nephrologists – 80% pre-test vs. 84% post-test (Not significant)
 - Diabetologists/Endocrinologists – 62% pre-test vs. 85% post-test ($P = .004$)
 - Understanding the relationship between hyperkalemia and RAAS inhibition
 - Cardiologists – 53% pre-test vs. 81% post-test ($P < .001$)
 - Nephrologists – 67% pre-test vs. 82% post-test ($P = .026$)
 - Diabetologists/Endocrinologists – 53% pre-test vs. 66% post-test (Not significant)

Conclusions

- This analysis shows that online, accredited education can significantly improve knowledge of physicians in multiple areas surrounding hyperkalemia and the use of newer potassium binding agents. Results also suggest that ongoing education is needed specifically targeting nephrologists and diabetologists/endocrinologists.