

# LVHN Hypoglycemia Protocol Education in the Emergency Department

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# LVHN Hypoglycemia Protocol Education in the Emergency Department

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## Background

- When patients have episodes of hypoglycemia, there is often variability in treatment rendered in the emergency department (ED) at Lehigh Valley Cedar Crest Hospital when compared with the network's hypoglycemia protocol.
- Registered nurses surveyed indicate:
  - A lack of LVHN's hypoglycemia protocol knowledge.
  - Difficulty identifying appropriate treatments.
- Patients in the ED are new encounters and do not automatically have the hypoglycemic order set ordered as an inpatient would.

## PICO

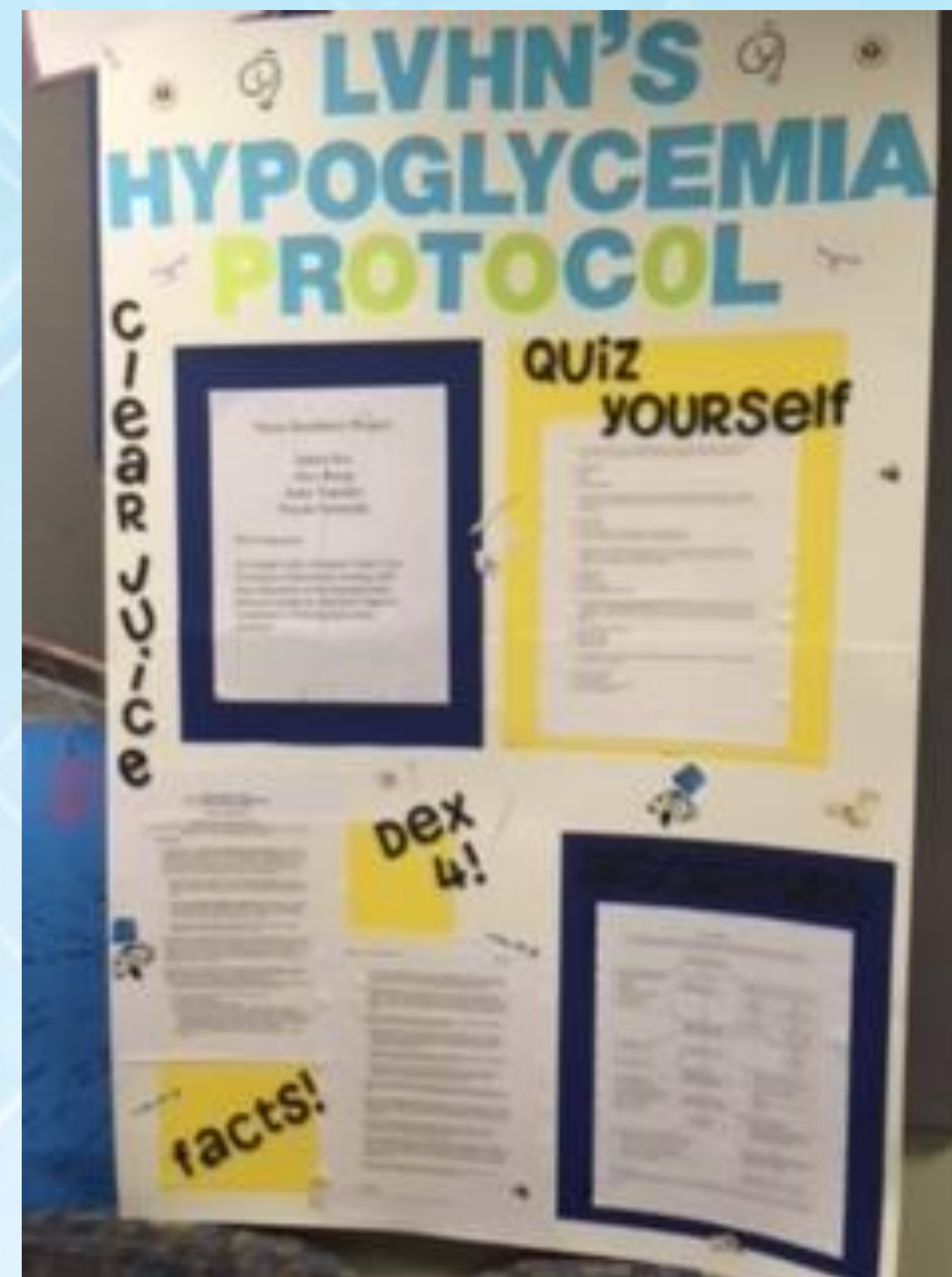
- In Lehigh Valley Hospital Cedar Crest emergency department nursing staff, does education on the hypoglycemia protocol versus no education improve knowledge of the hypoglycemia protocol?
- P: Lehigh Valley Hospital Cedar Crest emergency department nursing staff
- I: Education on the hypoglycemia protocol
- C: No education on the hypoglycemia protocol
- O: Improved knowledge of the hypoglycemia protocol

## Evidence

- The students who have been educated by inquiry-based instruction... have become more successful than the students who have been educated by the traditional teaching methods (Abdi, 2014).
- Length of stay increased by 2.5 days for each day with a hypoglycemic episode (Turchin et. al, 2009).
- Repeating blood glucose checks until blood glucose is consistently above 70mg/dl prevents recurrent hypoglycemic episodes (Mompoin-Williams, 2013).
- "A blood glucose value less than 70mg/dl, with or without symptoms, is considered hypoglycemia in a patient..." (Coleman et. al, 2018).

## Implementation Plan

- 51 pre-surveys were hand distributed to RNs in the emergency department in an effort to evaluate their knowledge of the network's hypoglycemia protocol .
- All surveyed RNs were educated one on one about the LVHN Hypoglycemia Protocol.
- An informative poster was created and placed on the Education and Quality Committee's bulletin board in the staff break room.
- An email with the LVHN Hypoglycemia Protocol was sent to all ED nurses after pre-surveys and individual education were completed.



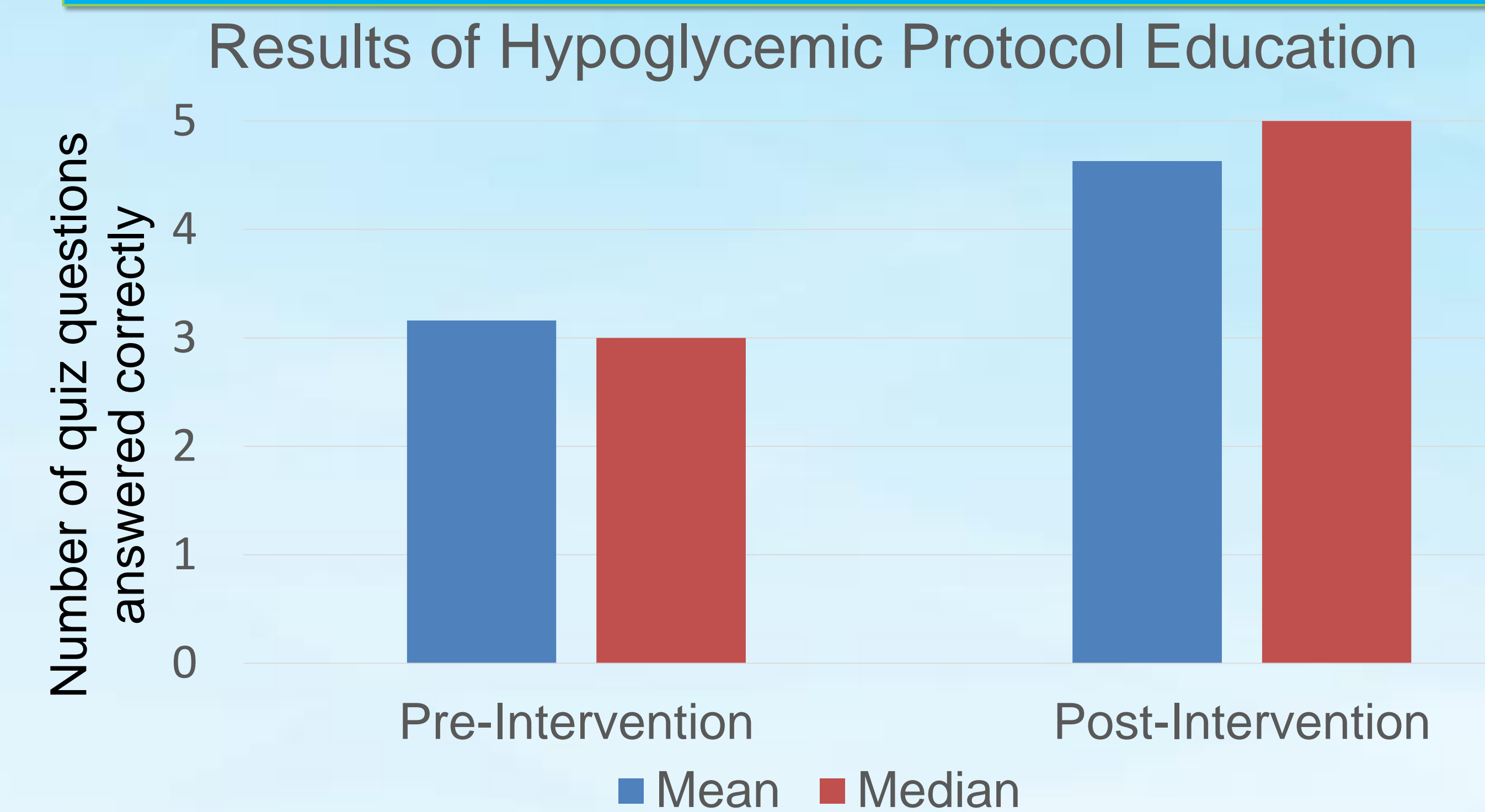
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## Results

- Quizzed 51 nurses on hypoglycemia protocol pre-intervention over the course of one month.
- Quizzed 51 nurses on hypoglycemia protocol post-intervention three weeks after completing pre-surveys, with post-intervention quizzes administered over the course of one month.
- Correct responses after education increased from 3.16 to 4.63 out of 5, an increase of 1.47/5 correct questions.
- The median test score improved from 3 to 5.

## Outcomes



## Next Steps

- Ensure the hypoglycemia protocol is being properly implemented (ED providers educated as of 06/12/2018).
- Contact Clinical Informatics to verify if hypoglycemia protocol order set is created (order set verified as of 11/08/2019).

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