Improving Safety of Insulin Administration

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Background

Inpatient glycemic control is challenging. As of the CDC’s 2014 Statistics report, there are over 29 million people in the United States diagnosed with diabetes. An insulin regime is vital to management of Type 1 diabetes and often useful for management of Type 2. With this knowledge, there is a rising importance for health care professionals to understand and have competency in treatment for this chronic disease. Inpatient use of insulin can be more difficult to manage due to acute illness while in the hospital. Insulin is the preferred glucose management while people with Type 2 diabetes are in the hospital. Because of the acuity of patient in the hospital, dosage and timing of insulin as well as oral intake matter more. All members of the healthcare team can make a difference in treatment with the proper knowledge and practice. Continuity of care is a main concern for patients post-discharge. Some programs are in place to provide guidance, but there is a need to address the special population of patients who have gone home with the addition of insulin to their medication regimen.

Purpose

The overall purpose of this project is to assist in improving the safety of insulin administration. There are three sub-projects that aim at more specific goals.

1. To provide insight from RNs as to the barriers they face when insulin cannot be administered in an appropriate time frame.
2. To provide updated and vital information on each type of insulin to healthcare providers via pocket cards.
3. To assist in the transition from hospitalization to home for patients who need insulin added to their home medication regimen after being discharged.

Methodology

- Evaluation of the survey results through quantitative analysis provided the top barriers overall to RNs in the Lehigh Valley Health Network. Additional breakdown aimed to determine a correlation between location, experience, or perceived ability to deliver insulin on time did not reveal any significant relationships. Themed analysis occurred of the written-in responses for additional barriers as well as suggestions to reduce barriers.
- An assessment was given to a total of 10 medical students and 30 residents to determine their baseline knowledge of diabetes and insulin. The results indicate a knowledge deficit and a need for additional education. Creation of a reference card included interviews, review of resources and package inserts for each insulin product.
- Utilizing previous teams that have conducted post-discharge follow up phone calls, as well as literature reviews, the creation of the follow up phone call questionnaire for patients discharged new to insulin transpired. The questions are tailored to safe diabetes management for the patient who is transitioning from inpatient to outpatient care. During the phone call, the algorithm delineates actions for the caller based on the patient’s current situation. Collected information was reported and documented following the phone call.

Future Implications

- A comprehensive report with additional analysis of perceived barriers to timely delivery of insulin have been distributed with intention to implement strategies to alleviate barriers.
- The Insulin Reference pocket card will be distributed among Residents and RNs as a educational tool for clinical use. Case-based educational meetings will continue and knowledge level will be re-assessed.
- The post-discharge phone survey continues to develop based on needs of patients during the sensitive transition home while adding insulin to their diabetes management. The intent remains to assist the patient with any diabetes related concerns post discharge.

REFERENCES


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