

Title: Outpatient insulin regimens and the effect on inpatient hypoglycemia

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Background: According to the 2020 National Diabetes Statistics Report, 13% of all adults in the United States have diabetes. Accordingly, a large number of the patients admitted to the hospital will have a diagnosis of Type 1 or Type 2 Diabetes. It has been studied that higher daily insulin doses are associated with a higher percentage of inpatient hypoglycemic events. These events result in higher cost, longer length of stay, and higher mortality for patients. This project was designed to determine the correlation between outpatient insulin regimens initiated upon admission and hypoglycemic events within the first 48 hours of admission.

Methods: This study has been submitted to the Institutional Review Board for approval. The electronic medical record system will be used to identify patients for a retrospective cohort study who were 18 and older with a diagnosis of Type 1 or Type 2 Diabetes and an established outpatient insulin regimen admitted to Mercy Hospital Joplin from August 2018 – August 2020. The following data will be collected: age, gender, diagnosis, date admitted, length of stay, unit of admission, change of unit while admitted, prior to admission medication list, medications administered during admission, lab/test results, vitals, and rehospitalization, amputation, or death within 90 days. All data will be recorded without patient identifiers and maintained confidentially. Insulin dose prior to admission will be compared with the insulin dose upon admission for each patient. The primary outcome will be hypoglycemia defined as blood glucose < 70 mg/dL within 48 hours of hospital admission, further categorized into severe hypoglycemic events, < 55 mg/dL and < 40 mg/dL. Those excluded are patients admitted with diabetic ketoacidosis, patients admitted with diabetic hyperglycemic hyperosmolar syndrome, patients admitted with myocardial infarction, patients receiving glucocorticoids, patients receiving dextrose containing fluids, patients on TPN, and patient that were NPO.

Results: TBD

Conclusion: TBD

References:

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