An Evidence Based Approach to World Class Inpatient Diabetes Management
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Problem: Findings of glycemic control conclude that the average blood glucose level for a teaching hospital were below benchmarks but there was marked variability for individual units and patients over time. There was particular concern about the occurrences of very low or very high blood glucose level house-wide with the implementation of room service. In addition, there was a wide range of insulin management utilized by providers that were not congruent with evidence based practice.

Evidence: The Endocrinology Society recommends that the inpatient target blood sugar should be between 70 to180 and that all patients should be on a basal, bolus, and correctional insulin to optimize blood glucose control (Guillermo et al., 2011). The use of sliding scale only is discouraged (Browning & Dumo, 2004). Two randomized control studies in 2007 and 2011 indicated that basal bolus glucose readings <140 mg/dl were recorded in almost twice the patients on basal-bolus versus sliding scale only (Umpierrez et al. & Umpierrez et.a1)

Strategy: A multidisciplinary team was developed to include the development of targeted education for all staff, informatics change to facilitate inpatient glycemic management including documentation changes and ordering of insulin therapy, and the use of “meal pager” to help facilitate better coordination on the nursing unit.

Practice Change: All patients will be on basal bolus unless contraindicated, oral hypoglycemic agents will be discontinued, hemoglobin A1C will be ordered if not current, pharmacy will titrate insulin daily, and patients will receive targeted education by nursing staff.

Evaluation Change: The change will be evaluated based on the increased % of quality hyperglycemic scores (QHS) at 90 or above, increase % blood glucose in range, decreased number of hypoglycemic events, and increase in appropriate referrals for diabetes education and glycemic control team intervention.

Results: After target education in February, the QHS score for the medical unit was 100% compared to previous months. Results are pending.

Recommendations: Pending
Lessons Learned: Pending

Bibliography: