Management of hyperglycemia in hospitalized patients in non-critical care setting of university hospital

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Abstract:
Because of the relationship between inpatient hyperglycemia and adverse patient outcomes, current guidelines recommend glucose levels less than 180 mg/dL in the non-ICU inpatient setting and the use of effective insulin protocols for appropriate patients. To describe the state of glycemic control in non-critically ill diabetic patients admitted to the Alzahra University Hospital in Isfahan, and the adherence to current standard of care guidelines for the treatment of diabetes. This study is a prospective study of patients admitted to a General Medicine and clinical data relating to the first 24 hours of hospitalization, 5 days of hospital admission and the last 24 hours were analyzed. One hundred and seventy-two (172) non-critically ill hyperglycemic patients were evaluated. The rate of hyperglycemia (blood glucose ≥180 mg/dL) and hypoglycemia (blood glucose < 70 mg/dL) was 57% and 1%, respectively. Nearly 68% of patients were hyperglycemic during the first 24 hours of hospitalization (mean random blood glucose 202.3 mg/dL) and hypoglycemia (blood glucose < 70 mg/dL) was 57% and 1%, respectively. Nearly 48% of patients were hyperglycemic during the first 24 hours of hospitalization (mean random blood glucose 202.3 mg/dL) and 33.6% during the last 24 hours of hospitalization (mean 178.21 mg/dL). For a large number of patients admitted within 5 days of bolus insulin alone (43.2%) and basal - bolus (51%) were prescribed. For a significant percentage of patients classified as uncontrolled, insulin dose increase (33%) and varied (23/3%). The management of hospitalized hyperglycemic patients is suboptimal, probably due to clinical inertia, manifested by absence of appropriate modification of insulin regimen and intensification of dose in uncontrolled diabetic patients. A comprehensive educational diabetes management program, along with standardized insulin orders, should be implemented to improve the care of these patients.

Keyword: Diabetes Mellitus, Hospital, Hyperglycemia, Inpatient