2021

Vol.5 No.4

Management of diabetic ketoacidosis after the introduction of local hospital protocol in the secondary care hospital

Shiju Raman unni

Al Nahdha Hospital, Oman

Abstract:

Background: Diabetic ketoacidosis (DKA) is an acute, severe and life-threatening metabolic complication of diabetes. Objective: The objective of this study was to conduct a clinical audit of the management of DKA based on the hospital protocol in the selected secondary care Design: An observational hospital. retrospective longitudinal study design was used to review the data of the patients admitted with DKA. Settings: The study was conducted in a secondary care government hospital, which has 200 beds, including 48 beds in medical ward and 6 beds in the high dependency unit. Materials and Methods: A survey questionnaire was used based on local hospital protocol, and the data was collected from patient's admission notes between January 2010 and December 2014, using electronic patient's records. Outcome Measures: The study looked at outcomes such as how DKA protocol was followed, complications, adherence, causes, investigations carried out or not, severity, readmissions, and duration of the stay. Sample Size: The audit selected 49 patients from a total of 83 admission notes with DKA who fits the sampling criteria. Results: Of 49 patients, 38 patients were having type 1 diabetes mellitus and 11 patients having type 2 diabetes mellitus. The most common cause in both groups is omission of insulin. Intravenous 0.9% sodium chloride was initiated in the early first hour of diagnosis of DKA for most patients. Readmission rate was 25%. Insulin was commenced in less than 1h for twothirds of the total patients. Poor adherence to the protocol such as monitoring serum sodium bicarbonate, serum potassium levels and replacement of potassium levels in the early period of management were observed. Conclusion: Continued evidence-based practice and education for medical and paramedical staffs is needed to reduce the complications of DKA and efficiently resolve DKA, improve patient outcomes, and reduce the length of hospital stay. New DKA protocol has been introduced in the hospital as the result of this audit.

Keywords: Adults, audit, diabetes ketoacidosis, guidelines, management, outcomes, protocol

