

# Factors related to successful discontinuation of insulin after diabetic ketoacidosis (DKA) in patients with type 2 diabetes mellitus (T2DM)

Mohamed Nor Lisa, Bahari Rashidah, Ibrahim Nor Nadziroh, Zainal Abidin Nurul Huda, Mohd Noor Nurain

Clinical Research Centre, Hospital Putrajaya

## ABSTRACT

**Introduction:** Ketosis-prone Type 2 diabetes mellitus (KPDM) has been described as a population with features of Type 2 diabetes mellitus (T2DM) having a propensity to present with diabetic ketoacidosis (DKA). Some of these patients can safely discontinue insulin shortly after DKA. This study was aimed at determining the proportion of patients who can safely discontinue insulin after DKA and the characteristics of these patients. **Methods:** All adult patients admitted with DKA at Hospital Putrajaya from Jan 2020 to April 2022 and who were still under follow-up at one year post-discharge were included. Patients with Type 1 diabetes mellitus were excluded. Demographic and clinical data from admission and subsequent clinic visits up until one year after admission were retrieved from the clinical notes and analysed. **Results:** Twenty-seven patients with a mean age of 47 (SD: 15.1) were included in this analysis. Fifteen were men (55.6%) and five (18.5%) were not known to have diabetes at the time of admission. Only four patients (14.8) had their insulin successfully discontinued by one year. Median HbA1c in these patients compared to patients still on insulin at one year was 6.0 and 9.0, respectively ( $p=0.023$ ). **Conclusion:** A small proportion of patients can safely discontinue insulin after DKA. Patients still on insulin at one year post-DKA have a significantly higher HbA1c, reflecting relatively poor glycaemic control.