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## Incidence and predictors of diabetic Ketoacidosis among diabetes children at east and west gojjam zone referral hospitals, north west ethiopia, 2019

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### Background

Recurrent diabetic ketoacidosis in patients with known diabetes mellitus remains a relevant problem in paediatrics with an incidence of 1–10% per patient. It has a significant mortality (24%) and morbidity (35%)

Death is majorly due to cerebral edema

### Objective

We assessed the incidence and predictors of diabetic ketoacidosis among diabetes children at East and West Gojam zone referral hospitals, North West Ethiopia, 2019.

### Methods

An institution-based retrospective follow up study was conducted on children who were registered from January 1, 2014, to January 1, 2019.

Epi data version 3.1 & Stata 14 were used for data entering and analysis respectively

### Result 01

Out of 354 children included in the study, 207 (58.5%) developed diabetic ketoacidosis.

The overall incidence rate of diabetic ketoacidosis was 2.27/100 children/month of observation.

### Result 02

Age < 5 years (AHR: 3.52, 95% CI (2.25, 5.49)

Non-adherence (AHR: 1.54, 95% CI (1.11, 2.14)

inappropriate insulin storage (AHR: 1.36, 95% CI (1.008, 1.85)

Presence of upper respiratory tract infections during diabetic ketoacidosis diagnose (AHR: 2.22, 95% CI (1.11, 4.45)

Preceding gastroenteritis (AHR: 2.18, 95% CI (1.07, 4.44) were significant predictors

### Conclusion 01

- High incidence of Diabetic ketoacidosis was observed
- The significant predictors were
- Age < 5 years old,
- non-adherence,
- inappropriate insulin placement at home,
- preceding gastroenteritis, and
- presence of upper respiratory tract infections at the time of diabetic ketoacidosis development.

### Conclusion 02

Hence, assessing and close monitoring as well as strengthened diabetic education should be given for patients with the above predictors.

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