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## **Diabetes knowledge among selected children with type 1 diabetes in Kenya**

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### Introduction

Diabetes knowledge is a prerequisite for optimal diabetes self-management. An attempt was made to assess diabetes knowledge among children with type 1 diabetes in Kenya.

### Methods

Diabetes knowledge among children with type 1 diabetes attending two, three-day, residential diabetes camps was assessed using a 16-question diabetes knowledge quiz. The quiz was administered in plenary at the beginning and at the end of the camp to gauge pre-camp and post-camp knowledge levels. Children were guided through the questions to clarify terminology but answered questions individually. Quiz scores were collated and used to categorise knowledge as excellent, good, average or poor. The number of correct responses per question was used to identify areas of poor knowledge. Children with poor knowledge and areas of poor knowledge were identified for follow up. The relationship between knowledge scores and age, duration of diabetes and blood sugar was investigated.

### Results

A total of 91 children (60% primary school students), from different regions of the country, attended one of two camps in 2012. Fifty-one children (69% female; aged 8 to 20 years; median duration of diabetes 3 years) attended Camp 1 and attained mean scores 69% and 72% pre- and post-camp, respectively. The mean scores for 40 children (63% female; aged 8 to 18 years; median duration of diabetes 3 years) attending Camp 2 was 72% and 76% pre- and post-camp, respectively. The majority of children attending both camps had good knowledge on symptoms of low blood sugar; causes of high blood sugar, influence of infection on blood sugar; foot care; complications of diabetes; and what to do if insulin dose missed; but poor knowledge of nutritional value of foods and management of hypoglycaemia. Eight children with poor overall knowledge were identified for follow up. Children's pre-camp diabetes knowledge scores were positively correlated with age for both camps; duration of diabetes for Camp 1 but negatively correlated with duration of diabetes for Camp 2.

## Conclusion

Concerted efforts to continue educating children on diabetes and risk factor management are required to optimise diabetes self-management. Nutritional value of foods, prevention and management of hypoglycaemia are areas requiring attention. Children with poor diabetes knowledge should be identified and followed up.