

Diabetic Ketoacidosis Guidelines

Diabetic ketoacidosis (DKA) involves a combination of hyperglycemia, acidosis and ketones. It is diagnosed when (1) the blood glucose is >11 mmol/L; (2) capillary pH is <7.3 and/or capillary bicarbonate is <18 mmol/L; and ketones are present. It usually takes days to develop DKA but it can take hours in children with acute illness, insulin omission or insulin pump failure.

Causes of DKA

- Undiagnosed type 1 diabetes
- Insulin omission or manipulation
- Inadequate dosing and monitoring
- Insulin pump or infusion site malfunction

Signs and Symptoms of DKA

- polyuria
- polydipsia
- dehydration
- weight loss
- lethargy
- nausea, vomiting and abdominal pain
- fruity-smelling breath
- flushed face
- confusion
- increased heart rate and increased respirations

Acute dehydration must be treated with IV fluid replacement. Hydration should be cautious according to the DKA Management Guidelines provided by the ministry. Overhydration, correcting hyperglycemia too quickly, the use of insulin in the first 1-2 hours of fluid therapy and the use of bicarbonate have been implicated in causing cerebral edema in DKA.