

PAEDIATRIC NURSING PRACTICE MANUAL
SECTION 11

CARE OF THE CHILD WITH DIABETES

11.8 SICK DAY MANAGEMENT FOR AN INPATIENT WITH DIABETES

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Aims

To enable the child to:

1. Maintain a blood glucose level (BGL) between 4.0mmol/L and 8.0mmol/L while unwell.
2. Remain ketone free (less than 0.6 mmol/L for blood testing¹) and negative on urine testing.
3. Maintain optimum hydration.

Key Points

1. A child with diabetes is not more prone to illness than a child without diabetes, but special care is needed as blood glucose levels become unpredictable.
2. A child with diabetes who is unwell may be hyperglycaemic BGL > 15mmol/L and ketones are usually present.
3. Gastrointestinal illnesses often result in hypoglycaemia BGL < 4mmol/L.
4. Regular insulin must never be omitted but the doses may change. Consult with the doctor regarding the insulin dose.
5. Extra quick acting insulin may be required particularly when ketones are present. It may be decided to maintain the diabetes control during this time on quick or rapid acting insulin given at regular intervals (eg. 2 - 4 hourly).

PROCEDURE	ADDITIONAL INFORMATION
Weigh the child daily.	Dehydration and ketosis may cause weight loss
Test BGL: 2 hourly if NovoRapid or Humalog are being used, or 4 hourly if Actrapid or Humulin R is used	
Regardless of their BGLs, test children with Type I diabetes for blood ketones every 2 - 4 hours. Record results. Inform the doctor of the ketone level.	A ketone result > 0.6 mmol/L indicates that more insulin is required.

PROCEDURE	ADDITIONAL INFORMATION
Encourage all children to take frequent oral fluids, for example water.	Water is essential to maintain hydration.
If the child is not eating, encourage sips of a sweet drink, such as lemonade or apple juice. Offer one cup every hour.	Offer food which appeals to the child. A child who is unwell requires carbohydrate of some form to ensure that their BGL's do not rapidly decrease and cause starvation ketones.
If the child is vomiting infrequently, continue to offer sweet drinks and plenty of oral fluids and inform medical staff.	
Page the diabetes team medical officer if any of the following are present: <ul style="list-style-type: none"> ketones with BGL<10mmol/L vomiting/diarrhoea signs of dehydration loss of appetite/not wanting to eat or drink 	
A child with diabetes can become rapidly ketotic with increased BGL's. Symptoms include: <ul style="list-style-type: none"> Sweet smell of ketones on breath Flushed cheeks Stomach pains, nausea and vomiting Dehydration with dry lips and sunken eyes Slow and deep breathing Vomiting Weight loss 	Ketosis is also referred to as Diabetic Ketoacidosis (DKA). Refer to Endocrine DKA protocol . Children with a pH < 7.2 are usually transferred to Intensive Care.
Assist with insertion of an IV line as required.	

Reference:

- Abbott Diabetes Care Ltd. Optium Ketone Blood B - ketone test strips. [Manufacturer Instructions]. Witney, UK: Abbott Diabetes Care 2010

Bibliography:

Australian Diabetes Council. Sick Day Management. 2013 available from:
<http://www.australiandiabetescouncil.com/about-diabetes/type-1/sick-day-management> Australian Diabetes Educators Association Sick Day Guidelines Aug 2006

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