





Queensland Paediatric Flowchart and Medications

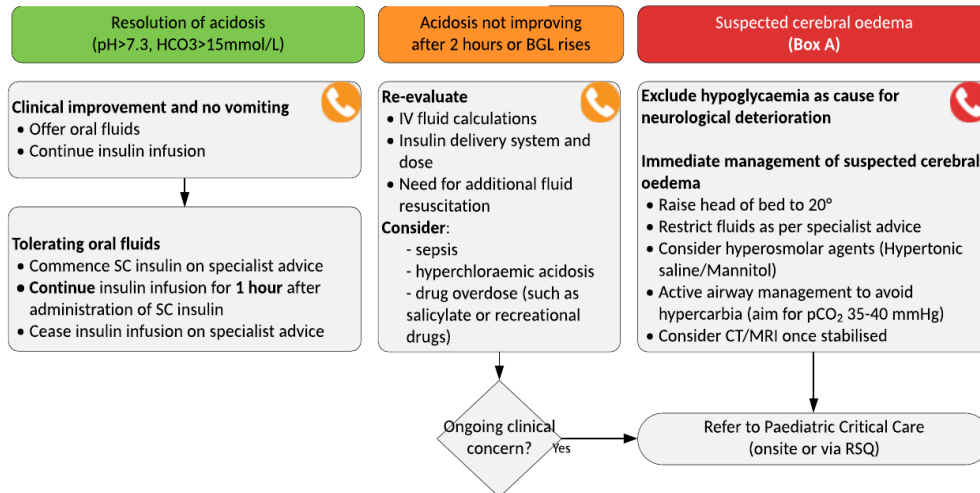
Emergency

Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS) – Ongoing Flowchart

 Seek Paediatric Endocrine/Critical Care advice (onsite or via Retrieval Services Queensland (RSQ) if electrolyte abnormalities are identified




Ongoing management of child with moderate to severe DKA		
BGL	Fluids IV	Insulin
Falls at rate of greater than 5 mmol/L/hr 	Only add Glucose if BGL is less than or equal to 15 mmol/L (see below)	DO NOT reduce rate
Falls to less than or equal to 15 mmol/L 	Prepare an IV fluid bag of Sodium Chloride 0.9% with Glucose 5% and Potassium Chloride 40mmol (See Appendix 2 of CHQ Intravenous Fluid Guidelines: Paediatric and Neonatal* QH only) to prevent hypoglycaemia.	DO NOT reduce rate
Issues maintaining 5-10 mmol/L despite running a solution containing Glucose 5% 	Prepare an IV fluid bag of Sodium Chloride 0.9% with Glucose 10% and Potassium Chloride 40mmol (See Appendix 2 of CHQ Intravenous Fluid Guidelines: Paediatric and Neonatal* QH only) to prevent hypoglycaemia. Seek specialist advice when mixing solution as some mixtures are significantly hyponatraemic and may contribute to cerebral oedema. Monitor site for local reactions as solution is hypertonic.	Only reduce the rate if BGL remains below the target range despite this glucose supplementation. Consider Insulin error (infusion may need to be made up again and recommenced).
Falls below 4 mmol/L 	Administer a bolus of 2 mL/kg of Glucose 10% over 3 minutes. Ensure fluid running has Glucose 5% and consider Glucose 10%	Temporarily reduce by 50% and seek urgent specialist advice. DO NOT stop infusion.

Management of possible clinical scenarios



BOX A: When to suspect cerebral oedema

<p>Signs and symptoms</p> <ul style="list-style-type: none"> headache inappropriate slowing of heart rate recurrence of vomiting change in neurological status (restlessness, irritability, increased drowsiness, incontinence) specific neurological signs rising BP decreased oxygen saturation 	<p>Biochemical red flags:</p> <ul style="list-style-type: none"> rapid fall in the calculated osmolarity with treatment (usually serum sodium rises as the glucose falls resulting in a relatively stable calculated osmolarity) development of hyponatraemia during therapy or rapidly falling sodium initial sodium in the hypernatraemic range
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-  Consider seeking senior paediatric/endocrine advice as per local practice.
-  Seek senior paediatric/endocrine advice as per local practice.
-  Seek urgent paediatric critical care / endocrine advice (onsite or via Retrieval Services Queensland (RSQ) on 1300 799 127)

