Initial Management of Suspected DIABETIC KETOACIDOSIS in the EMERGENCY DEPARTMENT

Patient Identification

Weight: ______ kg      Height: ______ cm             Allergies: ______________________________________________________________

Initial on all lines applicable

DIET:
_____ NPO        _____ Ice chips

VITAL SIGNS/MONITORING:
• Cardiorespiratory monitor, RR, HR, BP, Neuro VS including headache assessment q1h
• Strict Ins & Outs
_____ Other: ______________________________________________________________

INITIAL INVESTIGATIONS:
• Na, K, Cl, glucose, creatinine, urea, venous blood gas, serum osmolality
• POCT urinalysis
• If new onset diabetes: TSH, thyroid antibodies, HbA1c (If available)
_____ Other: ______________________________________________________________

ON-GOING INVESTIGATIONS:
• Bedside glucose q1h until dextrose added to IV then q2h (also at initiation of insulin and 1 hour after any change in insulin dose)
• Na, Cl, K, glucose, venous blood gas, serum osmolality q4h
• POCT urinalysis q4h

INITIAL FLUID RATES (HOURS 0 – 12):  

<table>
<thead>
<tr>
<th>Weight:</th>
<th>5 – &lt;10 kg</th>
<th>10 – &lt;20 kg</th>
<th>20 – &lt;40 kg</th>
<th>≥40 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>mL/kg/hr:</td>
<td>6.5</td>
<td>6</td>
<td>5</td>
<td>4 (MAX 250 mL/hr)</td>
</tr>
</tbody>
</table>

Initial Fluids
_____ IV 0.9% NS bolus of ______ mL (10 mL/kg) over 30 min, THEN
_____ IV 0.9% NS at ______ mL/hr (SEE FLUID RATES ABOVE)

On-going Fluids
• Add 40 mmol/L KCl to initial fluids once serum K+ is less than 5 mmol/L and patient has voided
• If blood glucose is less than 15 mmol/L or has dropped more than 5 mmol/L per hour, change fluids to: IV D10NS with _________ mmol KCl/L at _________ mL/hr (SEE FLUID RATES ABOVE)

Insulin
• Do not start insulin until 1 hour after IV fluids have been started (not longer than 2 hours)
_____ Insulin (regular) 1 unit/mL at 0.1 units/kg/hr IV

CONSULT:
• Pediatric Diabetes/Endocrinology or Pediatric Specialist
_____ PICU – Pediatric Referral Centre (if pH less than 7.1, age less than 5 years, hypotension, or suspected cerebral edema)

*** Ensure nurse is aware of page 2 at the time of completion ***  Continued on Page 2 ...
FOR SUSPECTED CEREBRAL EDEMA

- GSC <14, and/or irritability in younger children; and/or
- Cushing’s triad: ↑BP, ↓HR, ↓RR

  - Move to the Resuscitation area
  - Nurse in continuous attendance of patient
  - Raise head of the bed to 30°
  - Decrease IV fluids to 60% of initial IV Fluid Rehydration Rates (see table below):

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>mL/kg/hr</td>
<td>3.9</td>
<td>3.6</td>
<td>3</td>
<td>2.4 (MAX 250 mL/hr)</td>
</tr>
</tbody>
</table>

CONSIDER:

- 3% NS ________ mL (5 mL/kg, MAX 250 mL) IV over 15 minutes OR
- Mannitol 20% ________ g (0.5 – 1 g/kg), IV over 20 minutes
- STAT CT head scan (Should be done at the Pediatric Referral Centre)