INITIAL MANAGEMENT OF SUSPECTED DIABETIC KETOACIDOSIS IN THE EMERGENCY DEPARTMENT

**Patient Identification**

Weight: _____ kg  Height: _____ cm  Allergies: _____________________________

**REFER to PEDSPAC DKA ALGORITHM**

**Diet:**

_____ NPO  _____ Ice chips

**VITAL SIGNS/MONITORING:**

- Cardiorespiratory monitor, RR, HR, BP, Neuro VS including headache assessment q1h
- Administer oxygen 10-15 L/min by non-rebreather mask (if signs of shock)
- 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 q2-4h
- POCT urinalysis q4h

**INITIAL FLUID RATES (HOURS 0 – 12):**

**Initial Fluids** *(for patients with signs of cerebral edema, see Page 2)*

_____ NS bolus of _____ mL (10 mL/kg) IV over 30 minutes, THEN

_____ Repeat NS bolus of _____ mL (10 mL/kg) IV over 30 minutes if signs of hypoperfusion (tachycardia, cap refill >2 sec, cool extremities), THEN

_____ NS at _____ mL/hr IV *(SEE FLUID RATE TABLE BELOW)*

<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>

**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 decreases by more than 5 mmol/L per hour once the glucose is less than 25 mmol/L, change fluids to:
  
  D10NS with _____ mmol/L KCl at _____ mL/hr IV *(SEE FLUID RATE TABLE 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

*** Ensure nurse is aware of page 2 at the time of completion ***  Continued on Page 2 …
PHYSICIAN ORDERS
FOR
Initial Management of Suspected
DIABETIC KETOACIDOSIS in the
EMERGENCY DEPARTMENT

Page 2 of 2

Weight: ______ kg  Height: ______ cm  Allergies: _____________________________

... Continued from Page 1

Initial on all lines applicable

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)

FOR SUSPECTED CEREBRAL EDEMA
Glasgow Coma Scale less than 14, and/or irritability in younger children, and/or Cushing’s triad: ↑BP, ↓HR, ↓RR

- Move to 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 FLUID RATE TABLE BELOW):

<table>
<thead>
<tr>
<th>60% of Initial IV Fluid Rehydration Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight: 5 – &lt;10 kg  10 – &lt;20 kg  20 – &lt;40 kg  ≥40 kg</td>
</tr>
<tr>
<td>mL/kg/hr: 3.9  3.6  3  2.4 (MAX 150 mL/hr)</td>
</tr>
</tbody>
</table>

- 3% NaCl __________ mL (5 mL/kg/dose, MAX 250 mL) IV over 10 minutes OR
- Mannitol __________ g (0.5-1 g/kg/dose, MAX 100 g) IV over 15 minutes
- STAT CT head scan (Should be done at the Pediatric Referral Centre)

□ Original Copy – Chart  □ Copy to Pharmacy

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