Pediatric Emergency Department (PED):
Suspected Diabetic Ketoacidosis (DKA) Order Set

Weight _______ kg

SECTION 1 - Labs / Bolus IV – Ordered by ED Physician at _________ (hh:mm)

Diet:
☐ NPO  ☐ Sips and ice chips  ☐ ________________________________

Activity:
☐ AAT   ☐ Bed rest   ☐ Head of bed at 30°  ☐ ________________________________

Vitals/Monitoring

☑ HR, RR, BP q15 minutes x 4, then q1h
☑ Temperature q4h and PRN
☐ ________________________________

Neurovitals
☑ Glasgow Coma Scale and pupil reaction q15 minutes x 4, then q1h
☐ ________________________________

Monitoring
☑ Continuous cardiac and SpO\textsubscript{2} monitoring
☑ Intake and Output q1h
☑ Calculate Fluid Balance q4h
☑ Capillary Blood Glucose STAT via Blood Glucose Meter, then q1h
☒ Inform MD immediately if any of the following occur:
  • Blood Glucose is less than 5 mmol/L
  • Blood Glucose falls greater than 5 mmol/L per hour
  • BP consistent with Vascular Decompensation – see algorithm
  • Change in neurological status including headache, irritability, decreased level of consciousness, seizure

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DKA/MD/03-17/V7
Pediatric Emergency Department (PED):
Suspected Diabetic Ketoacidosis (DKA) Order Set

Weight _______ kg

Lines/Tubes/Respiratory

- Peripheral IV line
- 2nd Peripheral IV line, saline lock with 3 mL 0.9% NaCl and flush q12h and PRN for bloodwork
- Interosseous (IO) access
- O₂ to maintain SpO₂ above ________ %
- Indwelling catheter

Lab Investigations

- CBC and HbA1C with initial blood work
- Na, K, Cl, HCO₃, Glucose, Creatinine, Urea, Venous Blood Gases STAT
  THEN
- Repeat Na, K, Cl, HCO₃, Glucose, Creatinine, Urea, Venous Blood Gas 1 hour after IV Bolus initiated, then q2h
- Urine Ketones STAT and with every void (q4h if patient has indwelling catheter in situ)

Bolus IV Fluids

Bolus IV:
- If Vascular Decompensation: give 0.9% NaCl ______ mL STAT (10 mL/kg)
- If NO Vascular Decompensation BUT clinically dehydrated, hyperventilating or vomiting:
  give 0.9% NaCl ______ mL over 1 hour (7 mL/kg)
- If NO Vascular Decompensation AND not dehydrated, tolerating po fluids then NO BOLUS required

Vascular Decompensation (Shock)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>SBP Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term neonate (0 to 28 days)</td>
<td>SBP less than 60 mmHg</td>
</tr>
<tr>
<td>Infant (1 to 12 months)</td>
<td>SBP less than 70 mmHg</td>
</tr>
<tr>
<td>Child (1 to 10 years)</td>
<td>SBP less than 70 + [ 2 x (age in years)] mmHg</td>
</tr>
<tr>
<td>Greater than 10 years</td>
<td>SBP less than 90 mmHg</td>
</tr>
</tbody>
</table>

No Vascular Decompensation: Normal BP

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Weight _______ kg

SECTION 2 – Fluid Rehydration – Ordered by ED Physician at ________ (hh:mm)

IV Fluid
☑ Initial TFI at __________________ mL/hr

Guidance for INITIAL TFI (mL/hr): (Approximating 7% dehydration and replacement over 48 hours)
- If < 30 kg TFI = 1.5 x usual hourly maintenance rate
- If ≥ 30 kg TFI = 2.0 x usual hourly maintenance rate

TFI should be modified based on clinical judgment, initial volume received, risk of cerebral edema

☑ TFI is inclusive of IV fluid rate and rate of insulin infusion
☑ RN to adjust IVF to maintain TFI

Guidance for TFI adjustment by RN:

TFI (mL/hr) = IV fluid rate (mL/hr) + IV insulin rate (mL/hr)

☐ 0.9% NaCl          OR          ☐ D5W + 0.9% NaCl
☐ Other ____________________________

☐ With 20 mmol KCl/L of IV fluid          OR          ☐ With 40 mmol KCl/L of IV fluid

IV Fluid Continued
☑ Maintain serum potassium between 4 – 5 mmol/L, Physician to reassess
☑ IV fluid changes or rate changes subsequent to initial IVF order to be hand-written on additional “Doctor’s Orders” sheets (HHS form 711106)

SECTION 3 – IV insulin - Ordered by ED Physician at ________ (hh:mm)

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Continuous IV Insulin Infusion

*** Refer to Pediatric IV Monograph for Insulin (regular) ***

☒ IV insulin infusion to be initiated only after IV fluid bolus complete and IV rehydration started to minimize risk of cerebral edema

☒ Do NOT give a bolus of IV insulin due to risk of cerebral edema

☒ TFI above is inclusive of IV fluid rate and rate of insulin infusion

☒ RN to adjust IVF rate to maintain TFI when insulin infusion initiated

☒ regular insulin (NovoLIN*ge Toronto) 25 units in 250 mL 0.9% NaCl
  (flush any new lines with 50mL of insulin infusion prior to connecting to patient):
  □ 0.05 units/kg/h   OR
  □ 0.1 units/kg/h   OR

☒ Insulin rate changes subsequent to initial IV insulin orders to be hand-written on additional “Doctor’s Orders” sheets (HHS form 711106)

Consults:
☐ PICU
☐ General Pediatrics
☐ Pediatric Endocrinology

Additional Orders: One per line please or use blank online order set

AVOID USE OF UNSAFE ABBREVIATIONS

Do NOT Use
Abbreviations for drug names
A trailing zero – X.0 or 10.0
A lack of a leading zero - .X

USE
- Write in full
  - U or IU
  - mg or 10 mg
  - cc
  - µg or mcg

Do NOT Use
- Unit
  - mL or milliliter
  - mg or microgram

QD or OD - daily
QOD - every other day
@ - at

Do NOT Use
- D/C
- Discharge or Discontinue
- >
- greater than
- <
- less than
- OS, OD, OU
- Left eye, right eye, both eyes
- AS, AD, AU
- Left ear, right ear, both ears
- SC, SQ, sub q
- Subcut or Subcutaneous

☐ _________________________________________________________

☐ _________________________________________________________

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