CLINICAL PATHWAY:

Diabetic Ketoacidosis (DKA) Med/Surg Management

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL JUDGMENT.

Med/Surg (MS) admission considerations:

- Serum HCO3 is 12-18 mmol/L after NS bolus
- Serum K+ 3-6 mmol/L
- Normal mental status
- No concern regarding cardiac output

Admit to **MS** and follow MS management below

Monitoring*

- Vitals (HR, RR, BP) q4hr
- Neuro assessment q4hr
- Continuous CV and respiratory monitoring
- Strict I&O

[1]POCT Blood Ketone Interpretation:

- <0.6 mmol/L: Low
- 0.6-1.5 mmol/L: Moderate
- >1.5 mmol/L: Large

Labs*

- Check POCT glucose q1hr for the first 2 hours, then every 2 hours after
- Check POCT blood ketones[1] q1hr x2 then q2hr after

If K+ >5.5 mmol/L, no void, or urine rate <1 mL/kg/hr:

- Serum K+ q2hr

During treatment:

- iSTAT lytes, VBG at 2 hours, 4 hours, and every 4 hours until resolution of DKA

HCO3 ≥15 X2?

- No → Ongoing MS care
- Yes → Proceed to **DKA resolution and ongoing management**

Insulin

- Start **insulin lispro** (Humalog); given subQ
  - Initial dose subQ: 0.2-0.4 units/kg for first 2-3 hours, followed by
  - Insulin lispro at 0.1-0.3 units/kg q2-3hr
- Give **long-acting insulin:** insulin glargine (Lantus) or insulin decludec (Tresiba)
  - Discuss the dose with endocrine

When HCO3 is >18 mmol/L:

- Transition to **insulin lispro** (Humalog) for meals/snacks using insulin dose calculator AND continue with insulin glargine (Lantus) or insulin decludec (Tresiba) for **long-acting basal insulin**
  - Call endocrine for diabetes management via insulin calculator

Fluids

Consider 2nd bolus of 0.9% NS at 10 mL/kg in 30-60 minutes

Fluid Type:

If blood glucose:

- >300 mg/dL: Use D5 0.9% NS
- <300 mg/dL: Use D10 0.45% NS

Rate:

- Run at 1.5 -2x maintenance

Amount of total K+ added to fluid
(using only KCl)

- If K <3 mmol/L: 60 mEq [call Endo]
- If K+ 3-5 mmol/L: 40 mEq
- If K+ 5-5.5 mmol/L: 20 mEq
- If K+ >5.5 mmol/L, no void, or urine rate <1 mL/kg/hr: no K added

***Call Endocrinology anytime during assessment or treatment if patient develops:**

- Headache
- Altered mental status
- Poor circulation despite adequate hydration
- HCO3 level <12 mmol/L
- Hyperkalemia (K+ >6 mmol/L) or hypokalemia (K+ <3 mmol/L)

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