

Inclusion Criteria: patient of any age presenting with potential Diabetic Ketoacidosis (DKA)
 [Consider if history of: weight loss, vomiting, abdominal pain, polyuria, polydipsia, nocturia; Consider if exam findings of: tiredness, Kussmaul respirations, dehydration, mental status changes, abdominal pain (can be severe and present as acute abdomen)]
Exclusion Criteria: well- appearing, HCO₃ >18 mmol/L

INITIAL MANAGEMENT
 Establish DKA diagnosis (defined by pH <7.3, HCO₃ <15 mmol/L, blood sugar >200, ketones – blood or urine)
 *Note: Hyperglycemic Hyperosmolar Syndrome (HHS) is a spectrum with DKA, and may not have acidosis and ketones, but will have severe hyperglycemia and dehydration. Discuss care with PICU/Endocrine.

LABS:

- Chem 10, Blood gas, CBC w diff, HbA1C, STAT B-hydroxybuterate, UA
- Repeat Chem 7/VBG after initial NS bolus**

If newly diagnosed diabetes, add:

- Free T4, TSH, islet cell antibody, insulin antibody, glutamic acid decarboxylase antibody
- Consider C-peptide if BMI >95th percentile

FEN:

- Make NPO
- Give 0.9% NS bolus 10-20 mL/kg over 30-60 min
 - Additional fluid bolus only if signs of shock (hypotension, tachycardia, delayed cap refill, oliguria)
 - Caution needed when using depressed mental status as marker of shock, as it may represent cerebral edema
 - Large volume fluid resuscitation may be associated with increased risk of cerebral edema
- Post bolus: start NS at minimum of 1.5x maintenance until appropriate fluids (per PICU/Med Surg care) become available

NURSING CARE:

- Establish PIV x2
- If oliguria present, insert foley catheter
- Strict I&O
- Bed Rest

*** PICU admission considerations:**

- Persistent, severe metabolic acidosis with serum HCO₃ <12 mmol/L after initial NS bolus
- Persistent hypokalemia or hyperkalemia with serum K⁺ <3 mmol/L or >6 mmol/L
- Altered mental status with GCS <11 after initial therapy
- Persistent signs of poor cardiac output, unresponsive to initial rehydration

