

Diabetic Ketoacidosis (DKA) vs Hyperglycemic Hyperosmolar Syndrome (HHS)

Associated Power Plans: EDP Diabetes: DKA Pathway;

PICU: PICU DKA;

Inpt: DKA - Diabetic Ketoacidosis Pathway



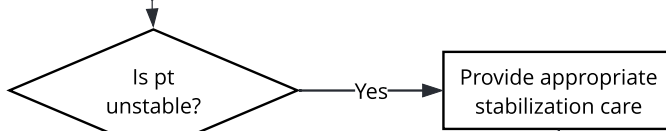
Children's Mercy
KANSAS CITY

Evidence Based Practice



QR code for mobile view

Pt presents with known Diabetes Mellitus, suspected new-onset Diabetes Mellitus, or documented glucose > 200
[Diabetes Mellitus epidemiology](#)



Nursing action items:

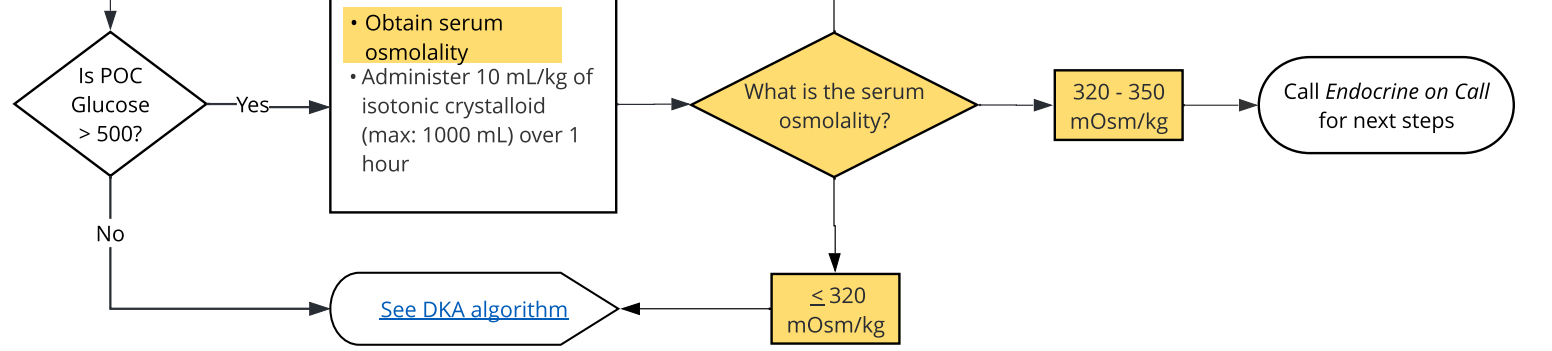
- Obtain weight (kg)
- Place on CR and pulse oximetry monitors
- Assess neurologic status at least every hour
- Place IV
- Obtain BMP, iSTAT (AH ED) or venous blood gas (CMK)
- Assess pt POC chemistries (Blood glucose & Beta-hydroxybutyrate (BOHB [ketones]) every hour
- Assess vital signs every 2 hours
- Obtain other labs for new onset diabetes if not previously obtained

PICU admission criteria for DKA/HHS (any of the following):

- Serum osmolality ≥ 350 mOsm/kg
- Persistent glucose > 500 mg/dL
- CO₂/Bicarb:
 - < 10 mmol/L for pts less than 5 years of age
 - < 5 mmol/L for any age
- Hemodynamic instability (such as hypotension, significant tachycardia, arrhythmia)
- Altered LOC
- Significantly elevated BUN
- Significant hyperkalemia

Obtain the following labs if not obtained previously for new onset diabetes:

- HgbA1c
- Insulin antibodies
- GAD antibodies
- IA-2 antibodies
- Zinc transporter 8 antibodies
- C-peptide
- Celiac diagnostic algorithm
- TSH diagnostic algorithm



Abbreviations excluding labs and radiology:

DKA = Diabetic ketoacidosis
 HHS = Hyperglycemic Hyperosmolar syndrome
 ED = Emergency Department
 LOC = Level of consciousness
 POC = Point of Care N/V = Nausea/Vomiting
 CR = Cardiorespiratory PICU = Pediatric Intensive Care Unit
 Pt = Patient CMK = Children's Mercy Kansas

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