## **Insulin Drip Guidelines**

Obtain the following labs if not obtained

previously for new onset diabetes:

• HgbA1c

Associated Power Plans: EDP Diabetes: DKA Pathway; PICU: PICU DKA; Inpt: DKA - Diabetic Ketoacidosis Pathway

Children's Mercy **KANSAS CITY** 

Nursing action items:

• Obtain weight (kg)

## **Evidence Based Practice**





mobile view

## Place on CR and pulse oximetry monitors Insulin antibodies • Assess neurologic status at least every 1 hour GAD antibodies • Assess patient POC chemistries every hour: IA-2 antibodies --Blood glucose Abbreviations excluding labs and Zinc transporter 8 antibodies --Beta-hydroxybutyrate (BOHB) [ketones] radiology: C-peptide Assess vital signs every 2 hours DKA = Diabetic ketoacidosis Celiac diagnostic algorithm Measure I&O LOC = Level of consciousness TSH diagnostic algorithm Obtain BMP every 4 hours NS = Normal saline Obtain other labs for new onset diabetes if I&O = Input & Output not previously obtained Pt = Patient PICU = Pediatric intensive care unit Initiate insulin drip (100 Units of Regular insulin in 100 mL normal saline) at 0.1 Units/kg/hr Administer IV fluids • IV fluid rate is 1.5x maintenance • Dextrose concentration is determined by patient's glucose level using the DKA Titration Schedule • Potassium additives in IV fluids as below\* D<sub>10</sub>NS with 20 mEq/L K Acetate and 20 mEq/L K Phosphate Normal saline with 20 mEq/L K Acetate and 20 mEq/L K Phosphate \*Use caution in replacing potassium in pts with hyperkalemia or renal failure by ensuring pts are able to void prior to initiation of therapy Is the pt's LOC Transfer to Initiate Cerebral deteriorating? Edema Therapy PICU **DKA Titration Schedule** No BAG 2 BAG 1 V Is the Final Plasma Initiate Hypoglycemic NS w/ **D**<sub>10</sub>NS w/ pt's glucose level dextrose glucose **Therapy** additives additives < 100? concentration (mg/dL) 100% 0% 0% No <u>></u>250 Decrease insulin to 50% 200-249 50% 5% Is the 0.05 Units/kg/hr and pt's glucose dropping 150-199 25% 75% 7.5% call Supervising > 100 mg/dL/hour? Physician < 150 0% 100% 10%

**Insulin Drip Discontinuation Criteria:** 

Bicarbonate level is > 20 mmol/L AND

Anion gap is normalized and / or blood ketones are < 0.6 mmol/L

Discontinue insulin drip and  $D_{10}NS$  with additives, call Endocrine for further management questions

No

Does the pt have a non-anion gap

hyperchloremic metabolic acidosis?

No

Does the patient meet insulin drip discontinuation

criteria?

Yes

Contact: EvidenceBasedPractice@cmh.edu

For additional information, link to DKA synopsis

Last Updated: 7/7/2023

Change DKA IV fluids

to 1/2 NS with the same dextrose

content and additives

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