

Insulin Drip Guidelines

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



Children's Mercy
 KANSAS CITY

Evidence Based Practice



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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

Nursing action items:

- Obtain weight (kg)
- Place on CR and pulse oximetry monitors
- Assess neurologic status at least every 1 hour
- Assess patient POC chemistries every hour:
 - Blood glucose
 - Beta-hydroxybutyrate (BOHB) [ketones]
- Assess vital signs every 2 hours
- Measure I&O
- Obtain BMP every 4 hours
- Obtain other labs for new onset diabetes if not previously obtained

Abbreviations excluding labs and radiology:

DKA = Diabetic ketoacidosis
 LOC = Level of consciousness
 NS = Normal saline
 I&O = Input & Output
 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

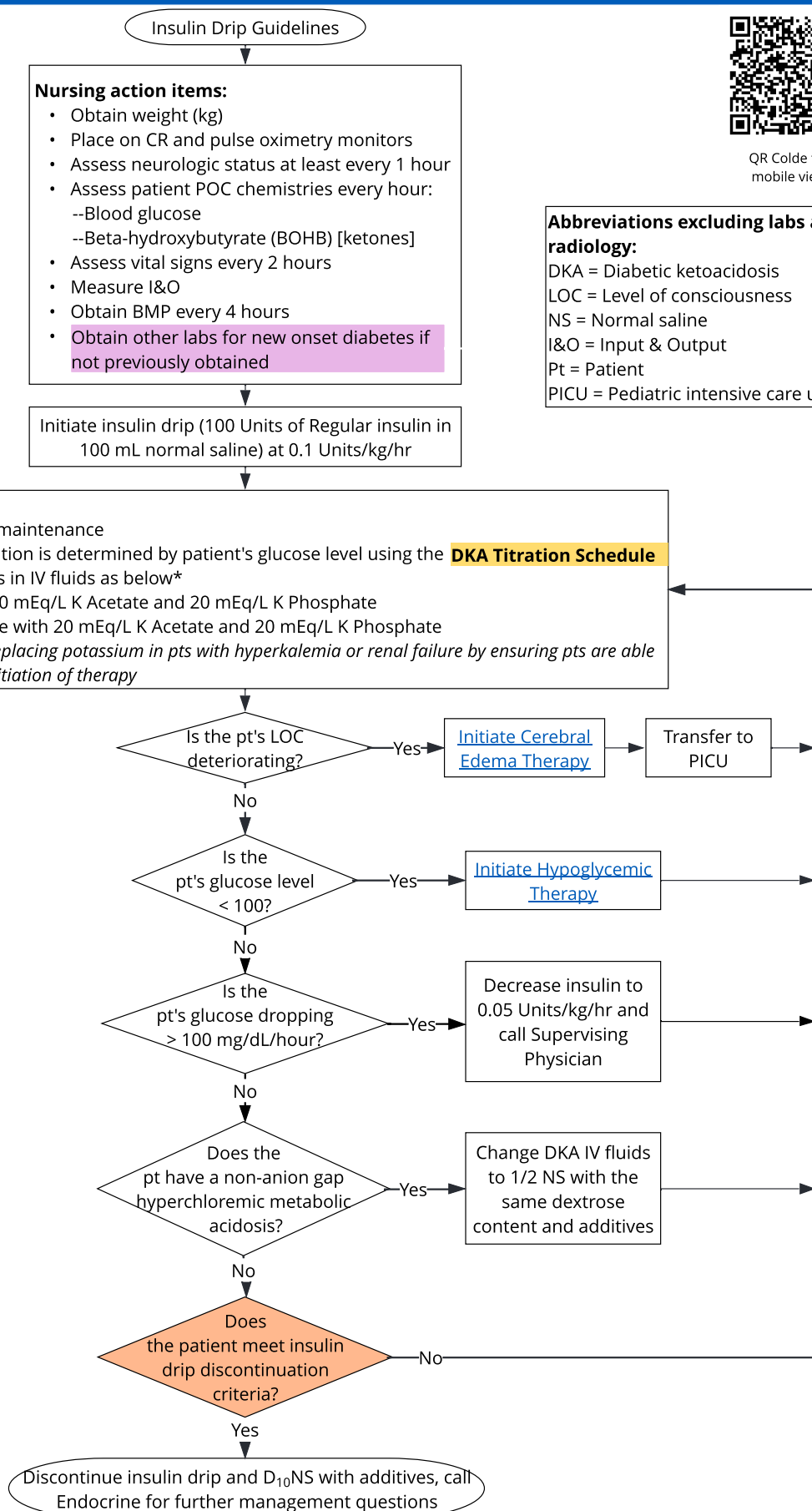
Administer IV fluids

- 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*
 - D₁₀NS 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

DKA Titration Schedule			
	BAG 1	BAG 2	
Plasma glucose (mg/dL)	NS w/ additives	D ₁₀ NS w/ additives	Final dextrose concentration
≥ 250	100%	0%	0%
200-249	50%	50%	5%
150-199	25%	75%	7.5%
< 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



Contact: EvidenceBasedPractice@cmh.edu

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For additional information, [link to DKA synopsis](#)