

# Pediatric DKA Pathway - ED

**Includes:** Patients up to 18 yo with presumed diagnosis of diabetic ketoacidosis (DKA)  
**Excludes:** Patients with alternate diagnoses such as non acidotic states, e.g. hyperosmolar hyperglycemia, or other causes of elevated anion gap metabolic acidosis (eg poisoning)

Focused assessment including neurologic and hydration status, measure weight, obtain bloodwork, place 2 large bore PIV's, place on cardiorespiratory monitors

## INTRAVENOUS FLUIDS

- Start with 0.9% NS bolus 10ml/kg over 30 min-1 hr
- May start with 20mL/kg if severely dehydrated/shock, or run second 10mL/kg over 1 hr
- After NS bolus(es) are completed, run 1.5x maintenance NS containing fluids, with potassium for hypo/normokalemia

## LABORATORY TESTING

- Basic metabolic panel, blood glucose (+/- bedside glucose)
- Venous blood gas
- Complete blood count
- Magnesium, phosphorus
- Hemoglobin A1C
- Urinalysis

## DO NOT:

- Administer insulin bolus, subQ or IV
- Administer sodium bicarbonate bolus
- Administer more than 30mL/kg 0.9% NS bolus total as fluid deficit should be corrected over 24-48 hours

Assess neurologic status

## SYMPTOMS

- Severe/progressive headache, irritability, confusion, decreased consciousness
- Decreased HR, rising BP
- Localizing neurological signs

## MANAGEMENT

- Support airway, breathing, circulation
- Consider 3% hypertonic saline IV or mannitol IV
- **Immediate transfer to PICU**

## RE-EVALUATE at 1 hour:

- Bedside glucose
- Complete vital signs
- Neurologic status
- ECG and repeat electrolytes if abnormal T waves, otherwise electrolytes to be repeated after 2 h
- Ins/Outs
- Disposition for hospitalization: PICU/ICU if confirmed DKA
- Initiation of **insulin infusion** (usually 0.025 Units/kg/hr if <5 yo, 0.05 Units/kg/hr if > 5 yo and pre pubertal, 0.1 Units/kg/hr if post pubertal or obese; must have dextrose available – **see reverse**)
- Remove home insulin pump if confirmed DKA and starting IV insulin infusion

DKA SEVERITY	MILD	MODERATE	SEVERE
Venous pH	<7.3	<7.2	<7.1
Serum bicarbonate	<15	<10	<5

