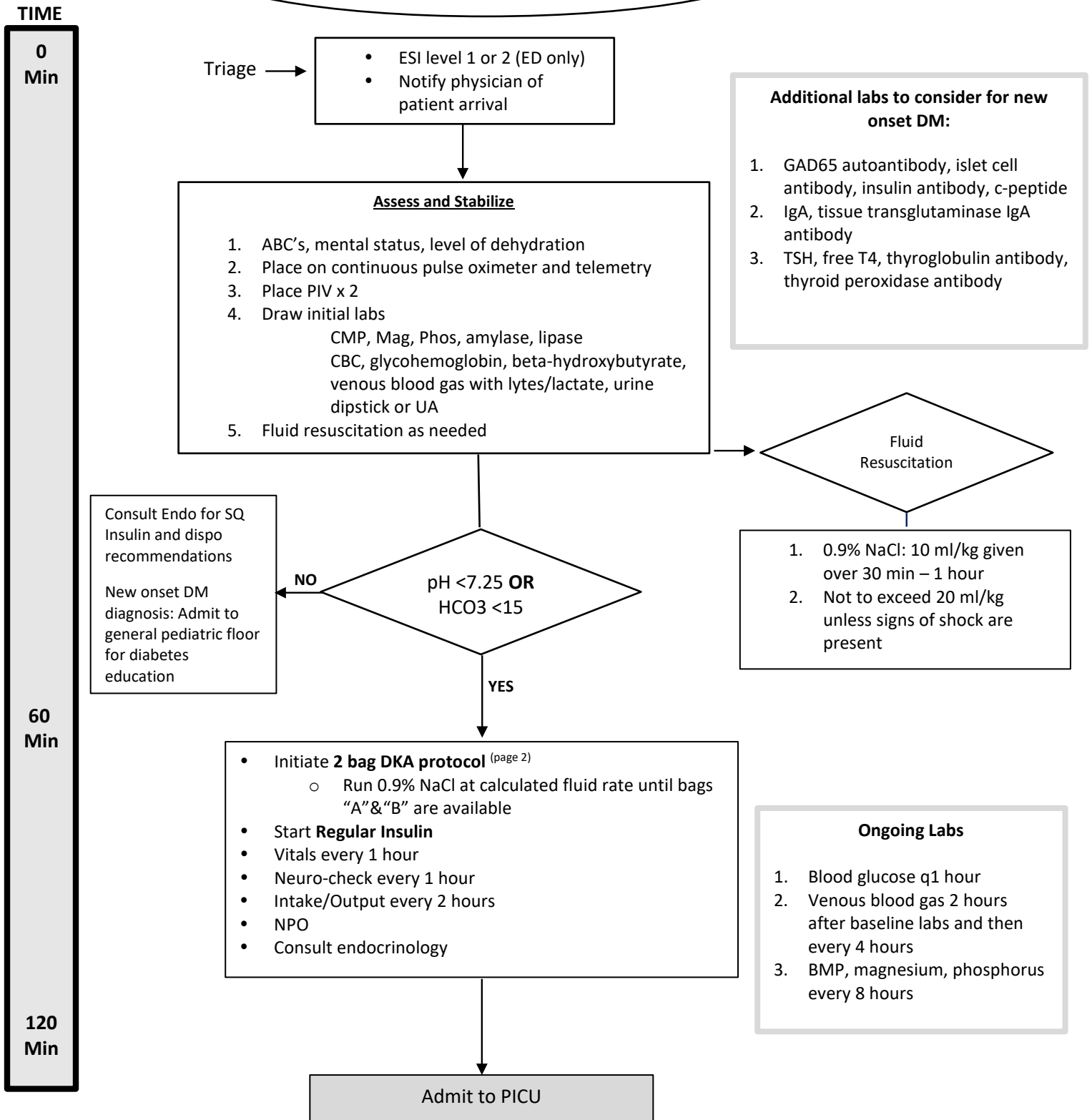


Pediatric Diabetic Ketoacidosis (DKA)



Created by	Department	Creation Date	Version Date
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Diabetic Ketoacidosis (DKA): 2 IV Bag Protocol

Medications

- a. Regular Insulin 100 unit/100ml NS (1 unit/ml); infuse 0.1 unit/kg/hour. (**NO BOLUS DOSES**)

IV Fluid Rate Calculation

- a. Boluses received previously (in ER or pre-hospital) = _____ ml \longrightarrow Total boluses = _____ ml (a)
 Boluses received in PICU = _____ ml \longrightarrow

- b. Calculate free water deficit from table below. _____ kg x _____ ml/kg = _____ ml (b)

Degree of Dehydration	Water deficit
Mild	5% = 50ml/kg
Moderate	8% = 80ml/kg
Severe	10%= 100ml/kg

Severity of DKA	pH	Serum bicarbonate (mmol/L)
Mild	< 7.3	< 15
Moderate	< 7.2	< 10
Severe	< 7.1	< 5

- c. Calculate remainder of free water deficit: subtract (a) from (b) _____ ml (c)
- d. Calculate maintenance fluid requirements for next **48 hours**
 200ml/kg for first 10 kg (e.g. 10kg child = 2000 mL)
 +100ml/kg for next 10kg (1000 mL for next 10 kg, e.g. 30 kg child --> 2000 mL +1000 mL = 3000 mL)
 +40ml/kg for every kg greater than 20 kg \longrightarrow _____ ml (d)
- e. Calculate total fluids required for next 48 hr: add (c) + (d) _____ ml (e)
- f. Determine **Hourly IV Rate**: divide (e) by 48 _____ ml/hr (f)
- g. Adjust the rates of two IV solutions (one containing dextrose, one without) based on blood glucose levels. (See table below).
- h. **IF SERUM POTASSIUM IS GREATER THAN 5.5 mMol/L** infuse **0.9% NaCl** at calculated hourly rate (f) and **recheck potassium in 1 hour**. Once serum potassium is **LESS THAN OR EQUAL TO 5.5 mMol/L with urine output** begin IV fluids as indicated below. **Hourly IV Rate:**

Blood Glucose level	Bag "A" NO DEXTROSE	Bag "B" WITH DEXTROSE
	0.9% NaCl – 1,000ml + K Phosphate 15 mMol/L + K Acetate 20 mEq/L	Dextrose 10%- 0.9% NaCl – 1,000ml + K Phosphate 15 mMol/L + K Acetate 20 mEq/L
Greater than 350	100% Hourly IV Rate _____ ml/hr	Zero % Hourly IV Rate 0 ml/hr
301 - 350	75% Hourly IV Rate _____ ml/hr	25% Hourly IV Rate _____ ml/hr
251 - 300	50 % Hourly IV Rate _____ ml/hr	50% Hourly IV Rate _____ ml/hr
201 - 250	25% Hourly IV Rate _____ ml/hr	75% Hourly IV Rate _____ ml/hr
Less than 200	Zero % Hourly IV Rate 0 ml/hr	100% Hourly IV Rate _____ ml/hr
Less than 100	Zero % Hourly IV Rate 0 ml/hr	HOLD INSULIN & recheck glucose in 30 minutes 100% Hourly IV Rate _____ ml/hr

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