5- In 30 kilo child insulin infusion rate is about £.5 to 3mL per hour.
6- Start with lower rate esp in young child , recent onset and pts with rapid declinig glucose.
7- Required glucose reduction 2-5 mmol (35-90 mg).
8- Rapid reduction more than 100mg pet hour can reduce insulin rate only if Improved acidosis,
9- Consider adding glucose 5 percent if blood glucose decline to 250 to 300 mg or even before if there is rapid reduction of glucose more than 100mg per hour to avoid brain edema.
10- You may increase glucose cone to 10 or even 12.5 percent.
11- If blood glucose less than 100 mg give bolus of glucose 10 percent 2mI per kg.

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Notes to remember in DKA

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* History:

1- Thirst
2- Toilet
3- Tired
4- Thinner
5- Test

*Laboratory investigation:

1- RBS is more than 200 mg >(11.1 mmol)
You can use glucometer while awaiting the result of serum blood glucose.
2- Urine ketones (moderate to large ketonemia) or ketonemia if bedside test available equal or more than 3 mmol

*Assessment:

1- Airway.
2- Vital signs.
3- Level of consciousness.
4- Degree of dehydration.
   a- 5 % dehydration
   - CRT more than 2s.
   - Poor skin turgor.
   - Tachypnea.

   b- 10 % dehydration
   - Weak rapid pulse.
   - Non palpable peripheral pulsation.
   - Cold mottled extremities.
   - Oliguria.
   - Hypotension.

5- Weight of patient.
6- Collect urine in sterile urine bag (no need for cauterization unless critically ill).

*Lab assessments:

1. RBS.
2. Serum electrolytes .
   - NA
   - K
   - Chloride
   - If available: Ca, Mg and phosphorus.

* Calculate:-

1- Calculate anion:-

- Na-(HCO3+CLV.
- Normally 12 mmol/L

2- Calculate corrected sodium:-

- Actual sodium +2(glucose – 100) /100.

3- Calculate effective asmolarity:-

- 2(Na}+ glucose/t8.
- Normally 275- 295 mosm per kg water.

*Goals of therapy:-

1- Correct dehydration.
2- Reverse ketosis.
3- Correct acidosis.
4- Return glucose & asmolarity to near normal levels.
5- Identify and treat precipitating factors.
6- Avoid DKA complications.

* Fluid therapy:-

Very important to start with fluid before insulin to restore tissue perfusion, improve renal blood flow, correct acidosis and hyperglycemia.

* Insulin therapy:-

1- Should start at least one hour after fluids .
2- No direct bolus insulin IV in pediatrics.
3- Risk of hypovolemia, brain edema, hypokalemia.
4- 50 units of regular insulin added to 50 ml normal saline by infusion or syringe pump at a rate 0.05 to 0.1 units per kg .