

Diabetic Ketoacidosis Study Guide

Pathophysiology:

There is not enough insulin to move glucose into the cells for your body to use as energy, so your body breaks down fat instead. This leads to increased levels of ketones and ketoacids in your body, causing a decrease in pH and metabolic acidosis.

Causes:

Lack of insulin (most often caused by infection and illness)

Assessment:

3 P's: Polyuria (increased urine output)
Polydipsia (excessive thirst)
Polyphagia (excessive hunger)

Weight loss

Vomiting

Dehydration

Abdominal pain

Fruity breath

Kussmaul's respirations

Increased intracranial pressure (ICP)

Hypokalemia

Critical Points:

Watch for hypokalemia. Insulin will move potassium back into the cells and reduce the potassium level in the blood (serum potassium level).

Watch for increased intracranial pressure. When the glucose levels fall in the body, water moves into the cerebral spinal fluid (CSF) and the brain.

Nursing Interventions:

0.9% or 0.45% normal saline (NS) IV infusion

IV insulin

IV potassium

Heart monitoring (telemetry)

Monitor urine output and hydration status

Monitor blood glucose levels (CBG or lab draw)

Add glucose to IV infusion when blood glucose levels are around 300 mg/dL

Patient education:

Always take medications as prescribed

Check blood glucose and urine ketones as prescribed

If illness occurs:

Maintain insulin schedule

Drink 8oz of fluid every hour

Keep eating as much as possible or drink something with carbohydrates

When to go to the emergency room:

Blood glucose levels are greater than 250 or less than 60 mg/dL on 2 readings

Moderate or high amount of urine ketones

Severe diarrhea

Trouble breathing

Mental status changes