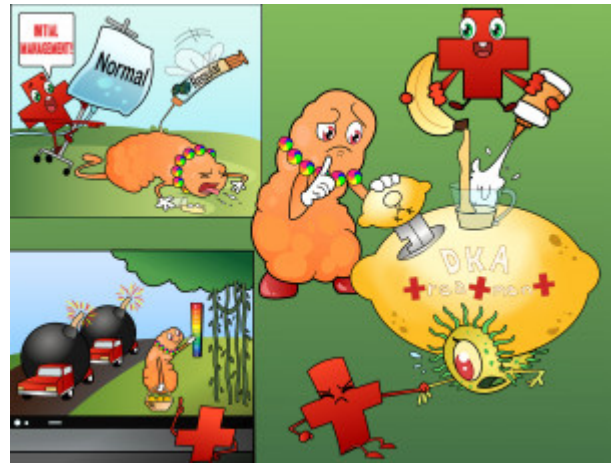


Diabetic Ketoacidosis (DKA) Treatment

Diabetic ketoacidosis (DKA) is a medical emergency and complication of diabetes. Patients have increased insulin requirements, which leads to a shortage. As a response, the body begins burning excess fat (and fatty acids), causing ketone body buildup. DKA management can be broken into initial management, which involves fluid resuscitation and insulin drip, electrolyte correction with potassium and glucose, and monitoring venous pH levels and serum bicarbonate.



PLAY PICMONIC

Initial Management

IV Normal Saline

IV Normal Saline-sail

Initially, it is important to correct the fluid loss incurred in DKA. Fluid resuscitation is a large part of DKA treatment because it replenishes intra- and extravascular fluid loss, while replacing lost electrolytes.

Regular Insulin Drip

Regular Insect-syringe Dripping

Regular insulin drip should be started initially, as well, as DKA was caused by a deficiency of it. This helps to correct hyperglycemia and to decrease ketone formation. It should be noted not to over-administer insulin and cause hypoglycemia.

Subsequent Management (correction of electrolytes)

Potassium (K⁺)

Banana

In DKA, serum potassium is high due to a shift, and total body potassium is actually depleted. Thus, after initial treatment, it is important to monitor and administer potassium as needed.

Glucose

Glue-bottle

At this point in treatment, patients have been stabilized and given insulin. It is important to monitor patient glucose levels and administer to maintain a healthy level; this is because insulin may cause the patient to become hypoglycemic.

Treat Underlying Cause

Underlying Bacteria

DKA can be caused by a precipitating factor or incident (infection, stress) which leads to the antagonism of insulin. Thus, many times along with stabilizing the patient, infection, stress, etc. need to be treated as well.

Monitoring

Venous pH

Vines with pH-strip

Venous pH is monitored in patients, in order to see if their acidosis has been corrected.

Serum Bicarbonate (HCO_3)

Bi-car-bombs

Serum bicarbonate levels are monitored, but not typically replaced, as they will improve with stabilizing and other treatments for DKA. In life-threatening acidosis, replacement bicarbonate may be given, but with the caveats of possible cerebral edema and paradoxical acidosis.