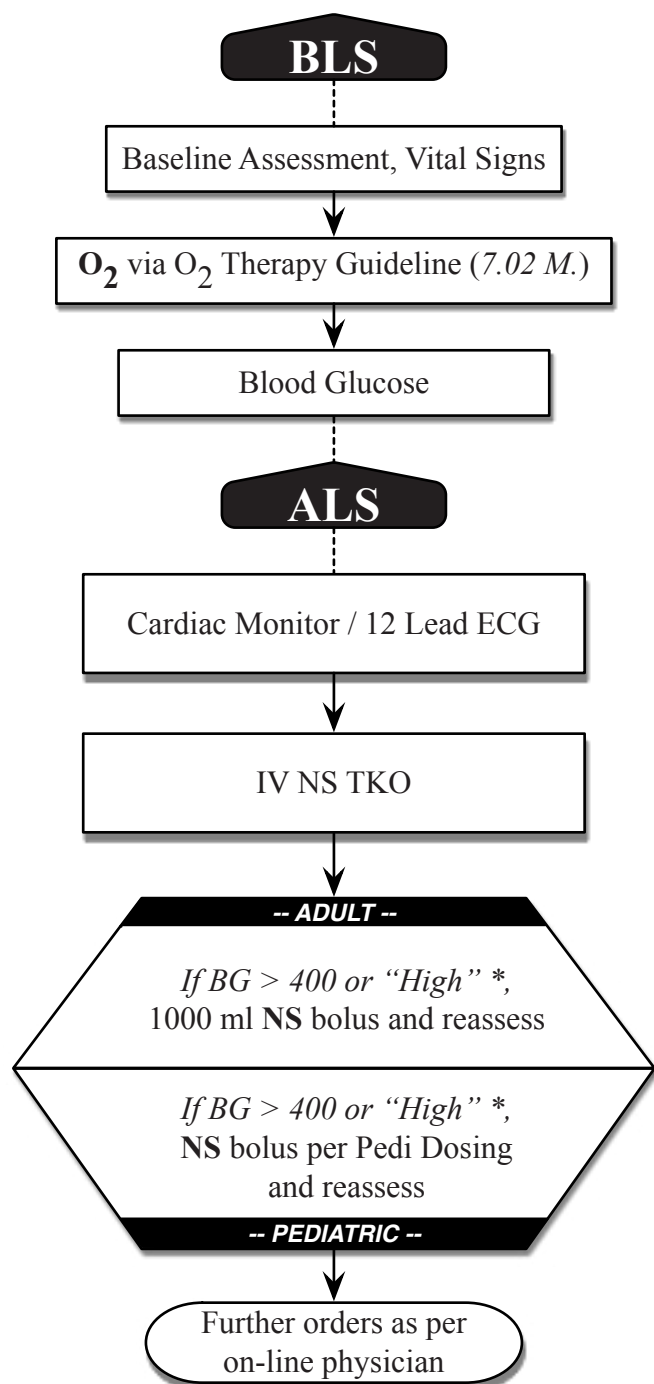


8.03 V. Hyperglycemia



Differential Diagnosis of Hyperglycemia

***Diabetic Ketoacidosis (DKA):** this is due to the inability of the cells to take up and use glucose when insulin is not present. This subsequently results in the release of counter-regulatory hormones (epinephrine, cortisol, glucagon, growth hormone) ultimately resulting in hyperglycemia, ketosis, and acidosis. Patients will often present with hyperventilation with or without altered mental status due to the acidosis.*

***Hyperglycemic Hyperosmolar Non-Ketotic Syndrome (HHNK):** This typically occurs in elderly diabetic patients resulting from an osmotic diuresis (water loss due to glucose impairing the kidneys ability to concentrate the urine). This is a very lethal disease with mortality rates ranging from 12-46% if untreated. Patients often present with a very elevated blood sugar and altered mental status.*

***Hyperglycemia:** This represents an elevated blood sugar without subsequent complications associated with DKA or HHNK. Patients often complain of Polyuria (excessive urination), Polydypsia (excessive thirst), weight loss, fatigue and weakness, nausea and vomiting, and nonspecific abdominal pain.*

Patients with significant hyperglycemia are often dehydrated secondary to the excessive urination (loss of water) associated with the elevated blood sugar. For this reason we will be providing 1 Liter of NS to patients with blood sugars > 400.

** "High" on the Glucometer is a glucose ≥ 600 .*