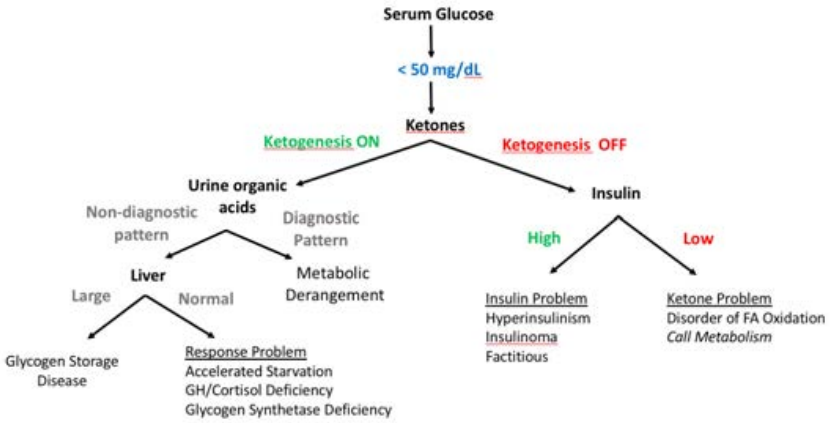
Hypoglycemia	
PowerPlan/ Ordersets	ED hypoglycemia critical labs plan, ICP hypoglycemia fasting plan, NICU hypoglycemia plan, Metabolism hypoglycemia admit plan
Definition	Plasma glucose ≤ 40-50 mg/dL; *Normal fasting blood sugar is 60-100 mg/dL*
Etiology	**Decreased Production of Glucose** • Decreased release of glucose from liver: glycogen storage diseases, liver failure • Impaired gluconeogenesis: fructose 1,6 diphosphatase deficiency, pyruvate carboxylase deficiency, maple syrup urine disease, ethanol • Galactosemia, hereditary fructose intolerance • Disorders of fatty acid oxidation (↓FAO → ↓ATP and glycerol production → ↓gluconeogenesis) **Increased Utilization/Impaired Conservation of Glucose** • Disorders of fatty acid oxidation • Ketotic hypoglycemia (accelerated starvation) • Starvation **Decreased Production and Increased Utilization of Glucose** • Hyperinsulinemia ▪ Endogenous: congenital (transient or permanent), insulinoma ▪ Exogenous insulin ▪ Sulfonylureas ▪ Dumping syndrome • Counter-regulatory hormone deficiency: growth hormone (only in infants), cortisol/ACTH • Beta Blockers
Presentation	• Early manifestations (blood sugar 40-70): sweating, tachycardia, tremor, hunger • Later manifestations (blood sugar <40): lethargy, irritability, confusion, seizure, coma • Ask about any medications in home (sulfonylureas, beta blockers, insulin) • Ask about temporal relationship to feeds
Diagnostic Approach	
Diagnostic Studies	Send critical labs at time of hypoglycemia. (Endocrine service can help w/ prioritization of labs) • Plasma blood glucose (< 50 mg/dL to be considered "critical sample"), electrolytes, beta-hydroxybutyrate, insulin level,VBG, Lactate, Pyruvate, Ammonia, Growth hormone, Cortisol, Free fatty acids, Total and free carnitine, Serum amino acids, acylcarnitines • UA for ketones, Urine organic acids, Acylglycines