Hyperinsulinism & Diabetes
When blood sugar is high

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105 patients after pancreatectomy followed for metabolic outcomes

Incidence of diabetes is very high in young adolescence for those who had near-total pancreatectomies (diffuse disease)

Need for insulin varies from patient to patient
Basal insulin
Bolus insulin
First-phase insulin response

Pancreas insulin production
Years spent checking for lows
• FBG ≥ 126 mg/dl
• HbA1c > 6.5%
Blood sugar monitoring

- Check fasting blood sugars
- Check blood sugars 2 hours after eating
Adding insulin: Basal

- Basal insulin
- Lantus
- Levemir
- Basal insulin through an insulin pump
Adding insulin: Bolus

- Bolus Insulin
- Humalog
- Novolog
- Apidra

Bolusing through a pump
Measuring insulin

- Syringes
- Pens
- Insulin pumps
Carbohydrates need to match insulin
Using an insulin:CHO ratio
Carbohydrates to treat low blood sugars
Correcting blood sugars

- Using insulin for correction
- Correction ratios
- Sliding scales
Blood sugar testing for insulin management

- When to test
- How many times per day to test
- When to adjust
Blood sugar trends

- Look at time of day
- Look at how quickly numbers are corrected
- Goal: blood sugars <150 most of the time
Blood sugar testing

- Meters
- CGM
Insulin Pumps

- Basal Insulin
- Bolus Insulin
- Connection with CGM
Hypoglycemia

- Treat with 15 grams of CHO
- Re-check in 15-20 minutes
- Glucagon Injection
  - For severe lows
  - Inject into a muscle
Hyperglycemia

- Correcting blood sugar quickly
- Fluids
- Illness
- Anxiety/stress
Blood sugar goals

- Hemoglobin A1c <7%
- Age/developmental goals:
  - 0-6 <8.5%
  - 6-12 <8.0%
  - 13-18 <7.5%
Tired

Feelings

Diabetes

Frustrated

Angry

Mad

Grumpy

Inconvenienced

Lonely