

Tips for Inpatient Diabetes Management

Types of insulins			
	<i>Onset</i>	<i>Peak</i>	<i>Duration</i>
Lispro, Aspart or Glulisine (Apidra)	5-15 min	1-2 hours	3-4 hours
Regular	30-60 min	2-4 hours	4-6 hours
NPH/Lente	1-2 hours	4-8 hours	14-18 hours
Ultralente	2-4 hours	Unpredictable	16-20 hours
Glargine	1-2 hours	Flat	24 hours

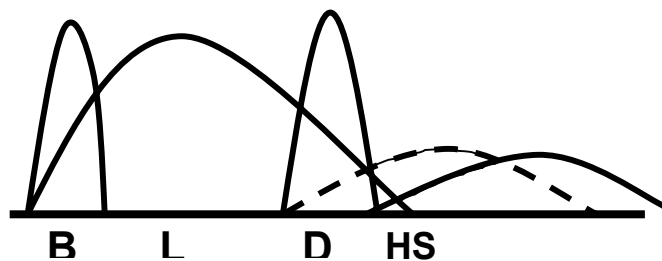
Insulin patterns for patients eating meals

Strategy 1:

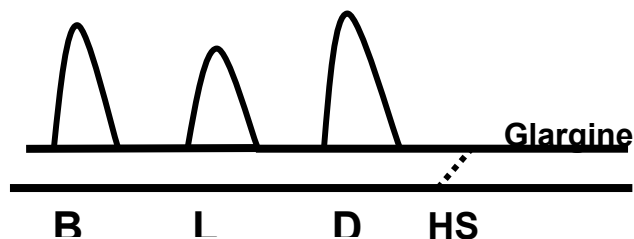
- Determine 24 hr basal requirement: by multiplying 8 hr overnight requirement x 3 or 50% of the total insulin used/24 hrs
- Reduce by 20% for safety (reduce by 40% if medically improving rapidly)
- Give as Glargine once daily or NPH twice daily (see below)
- Adjust basal based on AM glucose
- Calculate meal doses using same basal requirement, give short-acting divided among meals (usually B 30%, L 30%, D 40%)
 - If using NPH/regular, can increase AM NPH and give regular just at B, D (shown below, see insulin transition orders)
 - Can give Lispro or Aspart after meal if PO intake uncertain

If 24 hr requirement unknown, start with 0.6-0.8 units/kg/day

3 injections a day – NPH in AM, HS, short-acting at breakfast and dinner (minimum for Type 1 patients)

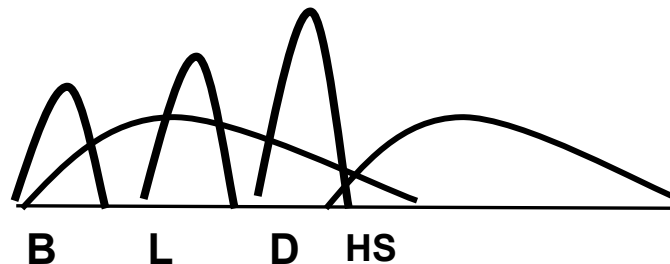


Basal-Bolus Insulin: Glargine + Short-acting



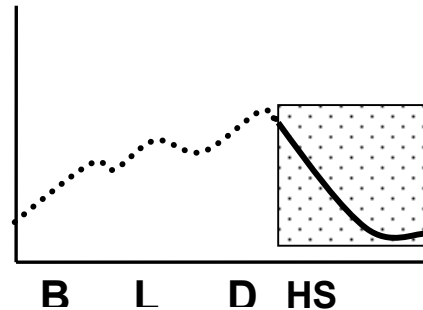
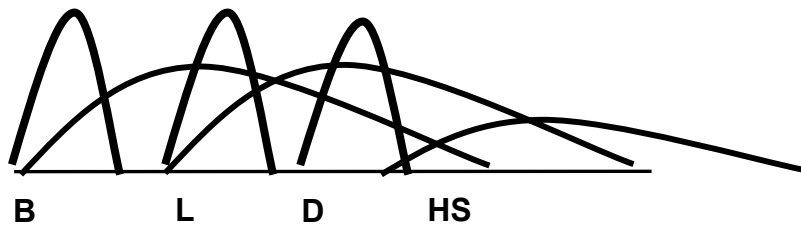
Prednisone Strategy 1: Increase premeal regular, particularly lunch and dinner

- Determine 24 hr requirement (e.g., from insulin drip)
- Reduce by 20% for safety
- Give either Glargine 40% acB OR NPH 25% acB, 15% at HS (or determine HS NPH dose by overnight 8 hour insulin drip amt)
- Give rapid acting 15% acB, 20% acL, 25% acD



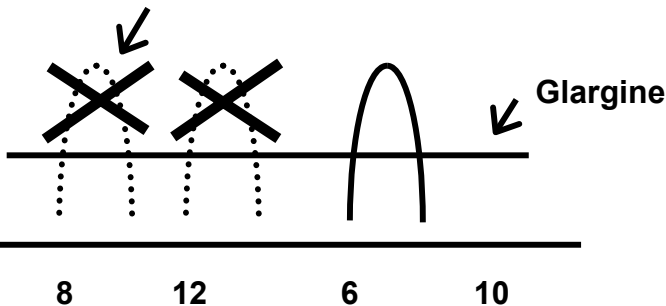
Prednisone Strategy 2: AM, noon and hs NPH, premeal short-acting

1. Determine 8 hr overnight requirement (10 PM-6 AM) and daytime 16 hour requirement (6 AM-10 PM)
2. Reduce by 20% for safety
3. Give half of the daytime requirement as NPH, 25% acB and 25% acL
4. Give the 8 hr overnight requirement as NPH at HS
5. Give rest as rapid acting in equal doses acB, acL, acD



If NPO for procedure: Give glargine (or 1/2 NPH), hold short-acting until eating

Lispro or Aspart



Supplemental Insulin – See Supplementary Insulin Orders for standard scale

To calculate individualized scale:

Calculate sensitivity ratio:

Determine total daily dose (TDD)

Sensitivity ratio = $1700/TDD$ = amount 1 unit of insulin will drop BG

Adjust supplemental insulin scale based on response to this amt of insulin

Carb counting

Calculate Carb:Insulin ratio:

Determine total daily dose (TDD)

Carb:Insulin ratio is sensitivity ratio divided by 3 ($1700/TDD$)/3 = grams of carbohydrate covered by one unit of insulin

Enteral or parenteral nutrition (continuous)

Determine 24 hr requirement, give as glargine once (or twice) a day, NPH every 6-8 hours

Have D5 ready in case nutrition interrupted

Bolus tube feeds: Give 40% of 24 hr requirement as glargine, 60% as rapid-acting divided equally among boluses