



Transition from IV to SQ insulin

This worksheet suggests only starting doses of SQ insulin; daily assessment of insulin needs and dose adjustment is required. (See other side for explanation of suggested doses)

Average hourly rate of IV insulin [£]	=	Dose of Lantus	and	Dose of Scheduled short/rapid insulin**	and	Correction Scale
1 unit/hour	=	8 units once daily	and	2 units every 6 hours (or before meals)	and	Low dose
1.5 units/hour	=	12 units once daily	and	3 units every 6 hours (or before meals)	and	Low dose
2 units/hour	=	16 units once daily	and	4 units every 6 hours (or before meals)	and	Low dose
2.5 units/hour	=	20 units once daily	and	5 units every 6 hours (or before meals)	and	Low dose
3 units/hour	=	24 units once daily	and	6 units every 6 hours (or before meals)	and	Moderate dose
4 units/hour	=	32 units once daily	and	8 units every 6 hours (or before meals)	and	Moderate dose
5 units/hour	=	40 units once daily	and	10 units every 6 hours (or before meals)	and	Moderate dose
6 units/hour	=	48 units once daily	and	12 units every 6 hours (or before meals)	and	Moderate dose
7 units/hour	=	56 units once daily	and	14 units every 6 hours (or before meals)	and	High Dose
8 units/hour	=	30 units q12h	and	16 units every 6 hours (or before meals)	and	High Dose
9 units/hour	=	36 units q12h	and	18 units every 6 hours (or before meals)	and	High Dose
10 units/hour	=	40 units q12h	and	20 units every 6 hours (or before meals)	and	High Dose

* CAUTION: Patients without a history of insulin-requiring diabetes who are receiving <2 units/hour of IV insulin may not require transition to scheduled SQ insulin. For these patients, consider starting "low dose" correction insulin. Start Lantus insulin only if BG is uncontrolled on correction insulin

£ Usually best determined by taking the average rate of insulin over the past 8 hours.

** Use **regular insulin** every 6 hours in patients on continuous nutrition; Use insulin lispro (HumaLOG), insulin aspart (NovoLOG) or insulin glulisine (Apidra) three times daily before meals in patients eating meals.

Important Notes:

- **Be sure to discontinue IV insulin infusion 60 minutes after the first doses of SQ insulin if both insulin glargine (Lantus) and either rapid-acting or regular insulin is given. Discontinue IV insulin 4 hours after insulin if just insulin glargine (Lantus) is given.** (Therefore it is best to transition the patient at a meal time.)
- It is clinically acceptable to schedule the second dose of once daily Lantus within 20-28 hours of the first dose and then every 24 hours thereafter.
- For patients who are on continuous enteral nutrition (tube feedings):
 - Check capillary BGs and give scheduled regular insulin every 6 hours
 - If enteral feeds are stopped/held/interrupted:
 - Hold scheduled regular insulin, but **do NOT hold Lantus or the correction insulin**
 - Start an IV infusion of 10% Dextrose (D10) at the same rate as the feedings
- For patients tolerating meals:
 - Check capillary BGs before meals and at bedtime
 - Give scheduled HumaLOG, NovoLOG, or Apidra three times daily before meals
 - HumaLOG, NovoLOG, or Apidra are best dosed 15 minutes prior to the meal, however, if the nurse suspects the patient may not eat, they can be given within 15 minutes of starting each meal. 50% of the dose may be given if the patient eats ½ or less of the meal.
 - If the meal is missed or the patient is NPO:
 - Hold the scheduled HumaLOG, NovoLOG, or Apidra, but **do NOT hold Lantus or the correction insulin**

Transition from IV to SQ Insulin: Explanation of the Suggested Doses

- Determine the average hourly rate of intravenous insulin (over the past 8 hours) and multiply by 24 hours to determine the daily IV insulin requirement
- Convert 2/3rds (about 70%) of the daily IV insulin requirement to subcutaneous insulin
 - Give 50% as Lantus, ordered daily.
 - Give 50% as scheduled short/rapid-acting insulin in divided doses
 - If the patient is on enteral nutrition, divide into 4 doses of regular insulin and give every 6 hours. If enteral feeds are stopped abruptly, start an IV infusion of 10% Dextrose (D10) at the same rate as the feedings and hold scheduled regular insulin
 - If the patient is eating, divide into 3 doses of HumaLOG, NovoLOG, or Apidra and give before meals. Hold if patient is NPO
 - Short/rapid-acting insulin can be adjusted to allow for changes in diet/steroids/etc. It may be adjusted or held based upon patient conditions
- Order correction insulin which is given regardless of nutrition status to cover hyperglycemia
 - Low Dose Scale: recommended for patients on <40 units of scheduled insulin/day
 - Moderate Dose Scale: recommended for patients on 40-100 units of scheduled insulin/day
 - High Dose Scale: recommended for patients on >100 units of scheduled insulin/day

CAUTION: Patients without a history of insulin-requiring diabetes who are receiving <2 units/hour of IV insulin may not require transition to scheduled SQ insulin. For these patients, consider starting "low dose" correction insulin. Start Lantus only if BG is uncontrolled on correction insulin

Version: 3/1/2010
