

ICU Insulin Sliding Scale

Do not use in DKA/HHS



Surname: NHI:
 First Names:
 Date of Birth:/...../..... Sex:
 PLACE PATIENT ID HERE

1 is the patient's blood glucose > 12 mmol/L ?

NO → repeat blood glucose 4 hourly

YES → add 60 IU NOVORAPID to 60 mL 0.9% Saline in 60 mL syringe

To determine starting scale (A or B): is the patient

- post cardiac surgery *or*
- receiving steroids (including hydrocortisone) *or*
- usually on >80 IU insulin per day

2 START INFUSION AT RATE BELOW

NO do not start here

YES do not start here

BLOOD GLUCOSE (mmol/L)	SCALE A	SCALE B	SCALE C	SCALE D	SCALE E
<8	STOP INFUSION unless patient has type I diabetes →				
8-10	1	2	3	4	
10.1-12	2	4	6	8	
12.1-14	3	5	8	11	
14.1-16	4	7	10	14	
>16	6	9	12	16	

INFUSION RATE in mLs/hr (= IU/hr)

Patients with type I diabetes must **always** continue to receive some form of insulin; this can be given in long-acting subcutaneous form (e.g. *Lantus*) in which case IV insulin can be stopped.

If long-acting insulin is **not** being given **and** blood glucose <8 mmol/L, **continue IV insulin and start 10% dextrose IV at 40 mL/hr**

3 MONITORING

- Check blood glucose **hourly for 4 hrs** until within range **6-12 mmol/L**
- If remains in range, **decrease frequency** of testing to **every 2 hrs** for next **12 hrs**
- If remains in range for **≥ 12 hrs**, **decrease frequency** of testing to **every 4 hrs**
- If blood glucose > 12 mmol/L, increase infusion/scale. Return to measuring

4 CHANGING SCALES

Move **UP** a scale if blood glucose:
 > 12 mmol/L for 2 consecutive readings on a given scale **OR**
 > 16 mmol/L after 1 hour on a given scale

Move **DOWN** a scale if blood glucose:
 <8 mmol/L for 2 consecutive readings

Inform medical staff if any patient requires ≥ 8 mLs/hr

Higher hourly infusion rates can be prescribed in blank **SCALE E** if scale D is insufficient to achieve blood glucose target range

5 DOCUMENTATION

DOCTOR NAME & SIGNATURE

Date: ___/___/___

SCALE (A-E)	TIME/DATE STARTED	RN NAME & SIGNATURE
	___:___/___/___	
	___:___/___/___	
	___:___/___/___	
	___:___/___/___	
	___:___/___/___	

ICU Insulin Sliding Scale

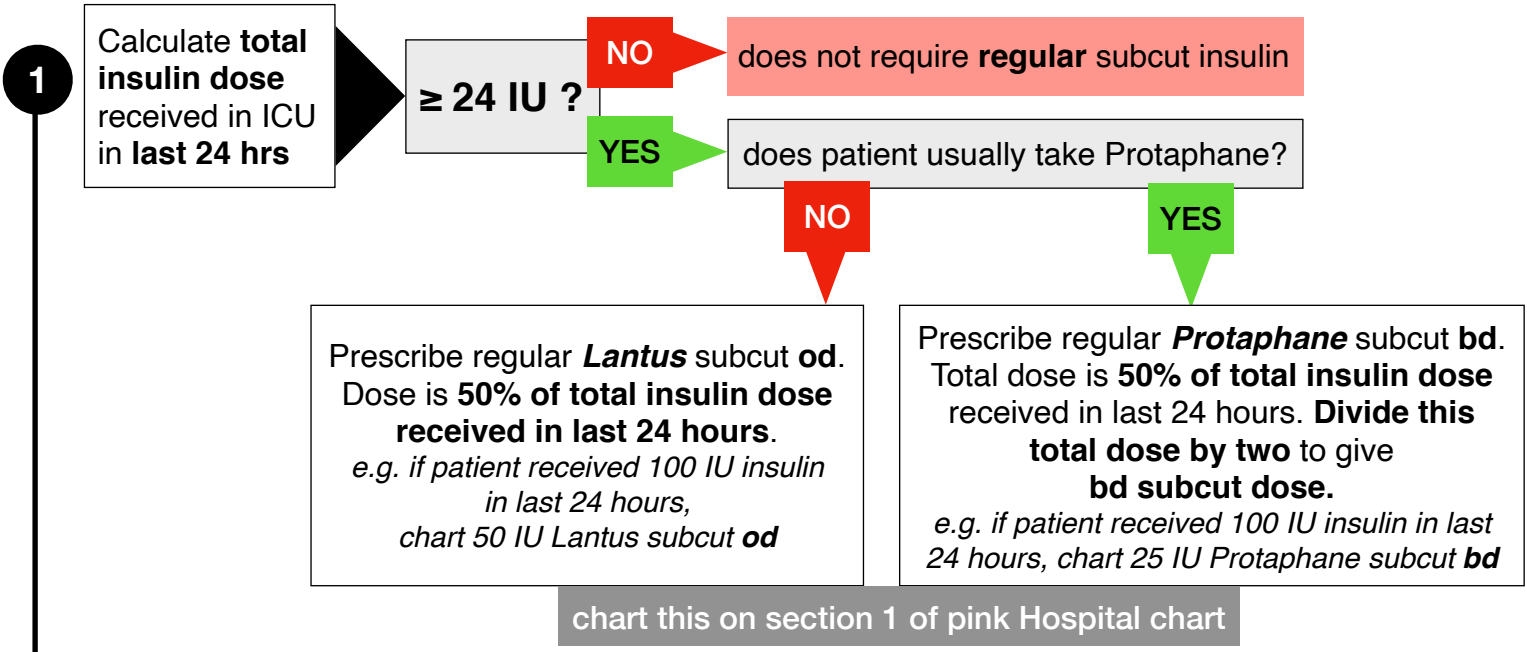
Conversion to Hospital subcutaneous insulin chart guide

WHEN TO START SUBCUTANEOUS INSULIN

Patients should be changed to the pink Hospital *Adult Subcutaneous Insulin Prescription & Blood Glucose Monitoring Form* as soon as the **decision to discharge to the ward** has been made. If they require regular subcutaneous insulin (*long-acting insulin such as Protaphane or Lantus*), this should be administered immediately.

Any patient who requires > 24 IU insulin a day and is cardiovascularly stable can be commenced on long-acting insulin during their ICU stay. This will simplify subsequent transition to the pink Hospital chart.

HOW TO PRESCRIBE SUBCUTANEOUS INSULIN



2 Irrespective of amount of insulin received in the past 24 hours in ICU, prescribe **NovoRapid** on *Subcutaneous Correctional Rapid Acting Insulin Bolus* (section 2 of pink Hospital chart). Choose appropriate scale based on **total insulin dose** received in ICU in last 24 hrs.

3 Restart oral hypoglycaemic drugs prior to ICU discharge if the patient usually takes these unless **significant new renal dysfunction** or is **not being fed/eating**. If patient does not usually take insulin, consider trial of usual regular oral hypoglycaemic drugs alone **before** starting regular long-acting insulin.

WHEN TO REFER PATIENTS TO THE DIABETES SERVICE

Any of the following groups should be referred to the in-patient diabetes service **prior to ICU discharge**:

- All patients with type 1 diabetes, irrespective of reason for ICU admission
- All patients with severe pancreatitis who require insulin
- Patients with DKA or HHS
- Patients newly started on insulin therapy

Referrals are electronic through MAP: Select Patient ⇒ Add New Document ⇒ Diabetes Inpatient Referral