Insulin Prescribing

Adapted from MedEd Third Year slides

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What is this question?

Insulin prescribing is a special type of prescribing – and this is mainly because of how personalised it is to each patient. Each patient has their own regime and targets.

In this question, you'll be given a scenario involving a patient with a diagnosis of diabetes. Your task will be to write up their regular insulin prescription, their blood glucose (known as BM) recordings, and their required insulin dosages for that day and the next day.

Step 1: Fill out patient details

It's important that you double check this after you've written all this information, and then check once again when you've finished the question.

All the information needed should be given in the question stem, or at the front of question booklet.

Step Two: Front Page

This page tells the reader:

- The name of the insulin – this is the brand name (eg. Levemir Flexpen, Novorapid Flexpen, Lantus Solostar Pen)
  This can be found in the BNF, or will be given in the question.
- The type of device – this is how the insulin is administered
  This can also be found in the BNF *(search for the brand name of the insulin in the index, then under Medicinal Forms)*, or will be given in the question.
- The frequency – this is when the insulin should be administered as different patients may have different regimes. It's important to note specifically when the patient should have it ("at night" may not be enough, you should write "once daily at night" or a time if it is given to you).
  This will be given in the question stem.

- Below in an example:

Current Insulin(s) Prescription
Insulin must also be prescribed on the In-Patient Treatment Chart as 'Insulin as per daily Insulin Chart'
On Admission:- The insulin name and dose should be recorded in the medical notes.
The box below is for recording the insulin(s) which are currently being prescribed.
Insulin requirements should be reviewed daily and prescribed on the inside of this chart.

Insulin Name Start Date DD/MM/YY	Device V = 10ml Vial C = 3ml Cartridge D = Disp / Device (Name)	Frequency e.g. Twice daily With meals Once daily Once only As required	Prescribers signature + name (print) Date: DD/MM/YY	Discontinued	Pharmacy	
					S/O	Val.
NOVORAPID FLEXPEN (INSULIN ASPART) Start Date: 22/10/23	DEVICE – FLEXPEN	THREE TIMES DAILY WITH MEALS	SURAYA FOSTER SMF Date: 22/10/23	Initials: Date:		
LANTUS SOLOSTAR PEN (INSULIN GLARGINE) Start Date: 22/10/23	DEVICE – SOLOSTAR PEN	ONCE DAILY AT NIGHT	SURAYA FOSTER SMF Date: 22/10/23	Initials: Date:		
Start Date:			Date:	Initials: Date:		
Start Date:			Date:	Initials: Date:		
Start Date:			Date:	Initials: Date:		
Start Date:			Date:	Initials: Date:		
Refer to In-Patient Treatment Chart for other diabetes treatment						

Step 3: Back Page

This page tells the reader:

- The name of the insulin – again, this is the brand name (eg. Novorapid, Lantus)
- The dose of insulin – this is how much insulin is being given to the patient, and different patients have different regimes and requirements.
  This information will be given in the question.
- The timing of the doses – this is when the patient has their insulin (options include pre-breakfast, lunch etc).
  This information will be given in the question.
- Below is an example:

Diabetes Blood Glucose Monitoring & Daily Subcutaneous Insulin Chart

Patient Details: (affix label if available)
Surname: CRABAPPLE
First Name: FIONA
Date of Birth: 14 March 1975
Patient Number: 86 Northumberland Rd, NE1 8SG

If Blood Glucose <4mmol/L treat as hypoglycaemia (guideline - Hypoglycaemic Emergencies) record hypoglycaemia below
If Blood Glucose >15mmol/L check urine for ketones
Blood glucose meters are not reliable if Blood Glucose <3 or if >20mmols/L consider checking venous sample

Date DD/MM/YYYY	Time	Capillary Blood Glucose Result	Capillary Blood Glucose Initials	Urine Ketones	Subcutaneous Insulin Name	Dose	Prescriber's Signature	Administered by (1) Checked by (2) Time	1 Initial	2 Initial
22/10/2023	Pre breakfast				NOVORAPID	4 units	SURAYA FOSTER SMF			
	Pre lunch				NOVORAPID	6 units	SURAYA FOSTER SMF			
	Pre eve. meal				NOVORAPID	8 units	SURAYA FOSTER SMF			
	Pre bedtime				LANTUS	30 units	SURAYA FOSTER SMF			
	Pre breakfast					units				
	Pre lunch					units				
	Pre eve. meal					units				
	Pre bedtime					units				

At this point it's important for you to go back and check your work. This question type in particular has a lot of information and numbers for you to copy – therefore making sure you've copied everything correctly is vital!

Additional Information for this question

Adjusting Insulin Doses

A patient's blood glucose should be kept between 4-10mmol/mol.

However it may be the case that you are given a patient who has got a reading outside of their target – this will be made obvious by the question (eg a BM of 1.9 or 15).

If this is the case, adjust the preceding insulin dose by +10% if the BM is high (So 30 units becomes 33 units) or -20% is the BM is low (so 30 units becomes 24 units).

You can normally get away with adjusting by 2 units either side – as this will show that you understand the basics of how to adjust insulin dosing.

Below is an example:

	Glucose measurement	Insulin Units
Pre-breakfast	6.4	4
Pre-lunch	5.5	6
Pre evening meal	13.5	8
Pre bedtime	7.1	30

This patient has a high pre-evening meal glucose measurement. Therefore we need to adjust the insulin units for the next day, so that when the blood glucose is checked, it will be within the 4-10mmol/mol range that we want.

This patient should have their insulin units at the pre-lunch increased to 8.

	Glucose measurement	Insulin Units
Pre-breakfast		4
Pre-lunch		**8**
Pre evening meal		8
Pre bedtime		30