

Safe insulin prescribing tip 6

“What insulin do I adjust?”

Have you ever been called to review the blood sugar results of a diabetic patient?

Does the below scenario look familiar?

Do you know what insulin to adjust for abnormal pre-breakfast, pre-lunch, pre-evening meal or night time blood sugar levels?

Scenario

- You are called to review the insulin prescription (figure 1) for your patient.
- The CBG levels can be seen in table 1.
- What insulin dose would you adjust?

Table 1: Blood glucose level (mmol/L)

time/date	2/2	3/2	4/2.
8am	6.2	7.1	6.8
12pm	13.1	13.4	13.2
5pm	15.1	16.4	15.3
10pm	7.1	7.2	6.9

Figure 1: Insulin prescription

Prescribing tips

Table 2: Blood sugar reading and what insulin to review

Insulin type	Examples	Timing of dose	8am	12pm	5pm	10pm
Short/rapid acting	Novorapid, Apidra, Humalog	Pre-breakfast		*		
Short/rapid acting	Novorapid, Apidra, Humalog	Pre-lunch			*	
Short/rapid acting	Novorapid, Apidra, Humalog	Pre-evening meal				*
Biphasic insulin	NovoMix 30, Humalog Mix 25	Pre-breakfast		*	*	
Biphasic insulin	NovoMix 30, Humalog Mix 25	Pre-evening meal	*			*
Long acting insulin	Lantus, Toujeo, Levemir	Evening	*			

Prescribing tips

- Always look for trends in CBG levels, don't adjust insulin dose(s) on the basis of one raised result.
- Once you have identified the trends, identify what insulin is influencing the CBG level (Highlighted in yellow and with a * in table 2).
- Long acting insulins** should be adjusted based on the **fasting CBG level** (for example pre-breakfast CBG level).
- Short / rapid acting insulins** will typically influence the **CBG in four hours time** (eg pre-breakfast dose will influence pre-lunch CBG).
- Biphasic insulins** will typically influence the CBG in **four and eight hours time** (eg the pre-breakfast dose will influence pre-lunch and pre-evening meal CBG levels).
 - Prescribe tomorrow's insulin dose now!
 - If in doubt ask for help!

Back to the scenario!

- The pre-lunch and pre-evening meal CBG levels are raised.
 - NovoMix 30 insulin is a biphasic insulin.
- As per table 2, the pre-breakfast NovoMix 30 insulin dose requires increasing.