

How to Calculate Insulin Dosage from a Corrective Scale

Step 1:

Enter your patients Mar, select the medication to be administered by scanning the medication. Scan and verify your patient.

The screenshot shows a medical software interface for a patient named Mar. The patient's name is highlighted in green. The medication list shows several medications, with 'Insulin Aspart' highlighted in green. The medication details for 'Insulin Aspart' are visible, including the trade name 'NovoLOG Flexpen' and the Rx# '00024312'. The medication is administered subcutaneously (SUBCUT) with meals (SCH). The administration times are shown in a grid, with the current time being 08:00 on Sun Dec 17. The medication is active.

Step 2:

Part 1: Identify which scale (A or B) should be used based on how many carbohydrates have been eaten.

Part 2: Identify the amount of insulin to be administered by reviewing the corrective scale.

For example: if your patients finger stick blood sugar (FSBS) was 253 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive 5 units of insulin.

The screenshot shows a medication administration window for 'Insulin Aspart'. The medication details are visible, including the trade name 'NovoLOG Flexpen' and the Rx# '00024312'. The medication is administered subcutaneously (SUBCUT) with meals (SCH). The administration time is 12/04/17 12:00, and the status is Active. Below the medication details is a table of corrective scales. A red arrow points to the 'Corrective Scale #2 (TDI 26-50 UNITS)' row. The table lists various blood glucose ranges and the corresponding insulin units for Scale A and Scale B. The 'Protocol Text' field is also visible, containing instructions for when to use Scale A or Scale B.

Condition	Dose/Route	Instruction
Corrective Scale #2 (TDI 26-50 UNITS)		
Fingerstick Blood Glucose	Insulin Units	
150-199 mg/dl	Scale A = 2 unit/ Scale B = 1 unit	
200-249 mg/dl	Scale A = 3 unit/ Scale B = 1 unit	
250-299 mg/dl	Scale A = 5 unit/ Scale B = 2 unit	
300-349 mg/dl	Scale A = 7 unit/ Scale B = 3 unit	
350-400 mg/dl	Scale A = 8 unit/ Scale B = 4 unit	
Greater than 400 mg/dl	Scale A = 9 unit/ Scale B = 4 unit	Call Provider

Protocol Text: USE SCALE A WHEN MEAL OF 30 OR MORE CHO EATEN OR WHEN TUBE FEED/TPN RUNNING. USE SCALE B WHEN NPO, MEAL OF <30GM CHO EATEN, TUBE FEED/TPN NOT RUNNING, AND HS. *NOT APPROPRIATE TO USE SCALE IF LESS THAN 3 HOURS SINCE PREVIOUS MEAL AND SCALE DOSE*

How to Calculate Insulin Dosage from a Corrective Scale

Step 1:

Enter your patients Mar, select the medication to be administered by scanning the medication. Scan and verify your patient.

Medication	Start	Stop	Status
Insulin Aspart See Protocol CARB COVERAGE 1:5 Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: Give 1 Unit of Aspart for Every 5 GM CHO Eaten At Meals	XX/XX/XX 0800		Active

Step 2:

Review Dose Instructions to identify the ratio for insulin amount to carbohydrates eaten.

Medication	Start	Stop	Status
Insulin Aspart See Protocol CARB COVERAGE 1:5 Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: Give 1 Unit of Aspart for Every 5 GM CHO Eaten At Meals	XX/XX/XX 0800		Active

Step 3:

Verify how many carbohydrates have been eaten at the meal.

Step 4:

Divide the number of carbohydrates eaten by the number provided in the Dose Instructions to give you the total units of insulin required.

For example: if your patient has eaten their breakfast totaling 30 grams of carbohydrates then they would need to receive 6 units of insulin. $30 \text{ CHO} / 5 = 6 \text{ units}$.

Medication	Start	Stop	Status
Insulin Aspart See Protocol CARB COVERAGE 1:5 Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: Give 1 Unit of Aspart for Every 5 GM CHO Eaten At Meals	XX/XX/XX 0800		Active

Practice Questions

Medication	Start	Stop	Status
Insulin Aspart See Protocol SUBCUT TID.WITH.MEALS SCH Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: SEE PROTOCOL Label Comments: **TI FOR HUMALOG, APIDRA * 28 DAY EXPIRATION **HIGH RISK MEDICATION-USE WITH CAUTION* **NAME IS SIMILAR TO OTHER MEDS, USE CAUTION*	12/04/17 12:00		Active
Protocol: None			

Condition	Dose/Route	Instruction
Corrective Scale #2 (TDI 26-50 UNITS)		
=====	=====	=====
Fingerstick Blood Glucose	Insulin Units	
150-199 mg/dl	Scale A = 2 unit/ Scale B = 1 unit	
200-249 mg/dl	Scale A = 3 unit/ Scale B = 1 unit	
250-299 mg/dl	Scale A = 5 unit/ Scale B = 2 unit	
300-349 mg/dl	Scale A = 7 unit/ Scale B = 3 unit	
350-400 mg/dl	Scale A = 8 unit/ Scale B = 4 unit	
Greater than 400 mg/dl	Scale A = 9 unit/ Scale B = 4 unit	Call Provider

Protocol Text	USE SCALE A WHEN MEAL OF 30 OR MORE CHO EATEN OR WHEN TUBE FEED/TPN RUNNING. USE SCALE B WHEN NPO, MEAL OF <30GM CHO EATEN, TUBE FEED/TPN NOT RUNNING, AND HS. **NOT APPROPRIATE TO USE SCALE IF LESS THAN 3 HOURS SINCE PREVIOUS MEAL AND SCALE DOSE*
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1. Your patients FSBS was 99 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
2. Your patients FSBS was 300 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
3. Your patients FSBS was 288 and they have eaten their breakfast with 20 grams of carbohydrates then they would need to receive how many units of insulin? _____
4. Your patients FSBS was 488 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
5. Your patients FSBS was 249 and they have refused breakfast then they would need to receive how many units of insulin? _____

Medication	Start	Stop	Status
Insulin Aspart See Protocol CARB COVERAGE 1:5 Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: Give 1 Unit of Aspart for Every 5 GM CHO Eaten At Meals	XX/XX/XX 0800		Active

6. Your patient has eaten their breakfast totaling 25 grams of carbohydrates then they would need to receive how many units of insulin? _____
7. Your patient has eaten their breakfast totaling 40 grams of carbohydrates then they would need to receive how many units of insulin? _____

8. Your patient has eaten their breakfast totaling 35 grams of carbohydrates then they would need to receive how many units of insulin? _____
9. Your patient has eaten their breakfast totaling 5 grams of carbohydrates then they would need to receive how many units of insulin? _____
10. Your patient has eaten their breakfast totaling 25 grams of carbohydrates then they would need to receive how many units of insulin? _____

You have two insulin orders for the next 5 questions.

Medication	Start	Stop	Status
Insulin Aspart See Protocol SUBCUT TID.WITH.MEALS SCH Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: SEE PROTOCOL Label Comments: *TI FOR HUMALOG,APIDRA * 28 DAY EXPIRATION *HIGH RISK MEDICATION-USE WITH CAUTION* *NAME IS SIMILAR TO OTHER MEDS, USE CAUTION*	12/04/17 12:00		Active
Protocol: None			

Condition	Dose/Route	Instruction
Corrective Scale #2 (TDI 26-50 UNITS)		
=====		
Fingerstick Blood Glucose	Insulin Units	
150-199 mg/dl	Scale A = 2 unit/ Scale B = 1 unit	
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Protocol Text	USE SCALE A WHEN MEAL OF 30 OR MORE CHO EATEN OR WHEN TUBE FEED/TPN RUNNING. USE SCALE B WHEN NPO, MEAL OF <30GM CHO EATEN, TUBE FEED/TPN NOT RUNNING, AND HS. *NOT APPROPRIATE TO USE SCALE IF LESS THAN 3 HOURS SINCE PREVIOUS MEAL AND SCALE DOSE*
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Medication	Start	Stop	Status
Insulin Aspart See Protocol CARB COVERAGE 1:5 Trade: NovoLOG Flexpen Give: See Protocol Dose Instructions: Give 1 Unit of Aspart for Every 5 GM CHO Eaten At Meals	XX/XX/XX 0800		Active

11. Your patients FSBS was 253 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
12. Your patients FSBS was 253 and they have eaten their breakfast with 15 grams of carbohydrates then they would need to receive how many units of insulin? _____
13. Your patients FSBS was 140 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
14. Your patients FSBS was 422 and they have eaten their breakfast with 30 grams of carbohydrates then they would need to receive how many units of insulin? _____
15. Your patients FSBS was 148 and they are NPO then they would need to receive how many units of insulin? _____