

Prescribing Insulin on MedChart

This document will demonstrate how Doctors may prescribe regularly scheduled and supplemental insulin via the Prescribe and Quick Lists functionality for inpatient use and discharge.

Contents

1.	<i>Prescribing Insulin</i>	
1.1	<i>Prescribing Regular Insulin</i>	2
1.2	<i>Prescribing Pen Device for self-administration</i>	5
1.3	<i>Prescribing Supplemental (sliding scale and STAT orders) Insulin</i>	6
1.4	<i>Prescribing for Insulin for Discharge</i>	8
2.	<i>Editing Insulin Orders</i>	9
3.	<i>Reviewing insulin doses administered</i>	10

Please refer to the instructional video '[Prescribing Insulin. For Doctors](#)' with the following timestamps.

1.	<i>Prescribing Insulin</i>	
1.1	<i>Prescribing Regular Insulin</i>	00:24 min
1.2	<i>Prescribing Supplemental (sliding scale) Insulin</i>	01:58 min
1.3	<i>Prescribing Pen Device Insulin</i>	03:18 min
1.4	<i>Prescribing Insulin for Discharge</i>	04:54 min
2.	<i>Editing Insulin Orders</i>	06:12 min
3.	<i>Reviewing Insulin doses administered</i>	06:53 min

Protocols/Hospital Policies for Reference:

[Intravenous Insulin Infusion Protocol](#) located on PROMPT

1.1. Prescribing REGULAR insulin

- When prescribing insulin on eMM you need to select either a *Penfill* or *Pen Device* product.
- *Pen Devices* can only be self-administered by the patient and not administered by nursing staff as according to Cabrini policy, due to the risk of needle stick injury.
- Quick lists have been set up to assist selection of the correct insulin product for the patient.
 - **Insulin – (Inpatient / Nurse administration) Quick List** – contains penfill orders which can be administered by nursing staff.
 - **Insulin – pen device (Self-administration / Discharge) Quick List** – contains pen device orders which can be only administered by the patient.
- Note: Insulin infusions are prescribed on paper as per the [Intravenous Insulin Infusion Protocol](#).
- Generic prescribing of insulin is blocked on MedChart due to various formulations and strength causing confusion and consequently patient harm. An alert will fire on such occasions (as shown below). Please prescribe by **BRAND NAME** only.

Insulin, glargine 100 units/1 mL Injection	
Rules	
Insulin generic prescribing	
Insulin prescribing on MedChart must be done by BRAND NAME only.	
Prescribing insulin by generic name is not recommended as the various formulations and strength can cause confusion and consequently patient harm.	
Option 1: Click 'Back' and return to the Prescribe search screen. Search insulin by BRAND NAME.	
OR	
Option 2: Click 'Cancel' and go to QuickList. Click on the appropriate Insulin Quick List folder and scroll through to select the appropriate insulin order.	
Both options will NOT remove any of the medications you are attempting to prescribe.	
Rule Indices	
Class prescribed: Insulin preparations	
You may not prescribe this medication.	

Note: When continuing inpatient medications from **Medications on Admission** tab prescribers must carefully check the insulin device is correct and appropriate for the patient. Most inpatients will need a Penfill device prescribed for nurse administration. Pen Devices can only be self-administered by the patient.

1.1.1. There are two options to prescribing regular insulin:

Option A) Select **Quick List** and navigate to the appropriate Insulin folder

All - 18	Meds On Adm - 11	Scheduled - 14
Cease	Prescribe	Quick List
Regular Oral		
Medication		



ED CAPPED Nurse Initiated Medications
General
ICU Infusions
Insulin - (Inpatient / Nurse administration)
Insulin - pen devices (Self-administration / Discharge)
Insulin - supplemental
Maternity Standing Orders

Option B) Select **Prescribe** and enter the name of the insulin required by **BRAND NAME**.

Allergies: Substance Intolerance to Ticagrelor - Non-Cardiac Chest Pain , Substance Intolerance to Ramipril - ACEI Cough Add

All Meds On Adm Scheduled Variable Dose PRN Stat Infusion Discharge Summary

Cease **Prescribe** Quick List Protocol Discharge Transfer From Transition Reconciliation Script Edit Administer Time Telephone Order Resupply Assign Source

Regular Oral

Medication Search			
Name	Search	Quick List Orders	
		Quick List	Medication
Brands		Insulin - (Inpatient / Nurse administration)	NovoMix 30 PenFill Injection
NovoMix		Insulin - (Inpatient / Nurse administration)	NovoMix 30 PenFill Injection
		Insulin - (Inpatient / Nurse administration)	NovoMix 30 PenFill Injection
		Insulin - pen devices (Self-administration / Discharge)	NovoMix 30 FlexPen Injection
		Insulin - pen devices (Self-administration / Discharge)	NovoMix 30 FlexPen Injection

Penfill orders listed first under **Insulin Quick List**

Pen device orders listed under **Insulin – pen devices Quick List**

1.1.2. Select the appropriate order with required frequency/time from the available Quick List orders, then click **Continue**.

Note: Insulin orders will initially appear as an error, as they require the dose to be entered.

Medication	Dose
NovoMix 30 PenFill Injection Indication: To control blood sugar levels. 05/05/2022	Errors and Warnings (Click the medication name to correct them) Dose line number 2: <ul style="list-style-type: none"> Dose (0) must be between 1 and 9,999,999
NovoMix 30 PenFill Injection Indication: To control blood sugar levels. 06/05/2022	Errors and Warnings (Click the medication name to correct them) Dose line number 1: <ul style="list-style-type: none"> Dose (0) must be between 1 and 9,999,999

1.1.3. Click the medication name to update the insulin dose(s), then click **Continue**.

Note: The maximum dose of insulin in MedChart is set at 50 units. If a dose higher than 50 units is prescribed, MedChart will alert prescribers and a reason must be entered to override the alert.

Maximum Single Dose
The dosage of Insulin, aspart (60 units being prescribed) exceeds the recommended maximum single dose of 50 units.

Action

Override Remove

Comment

confirmed dose with endocrinologist, happy to continue with this dose.

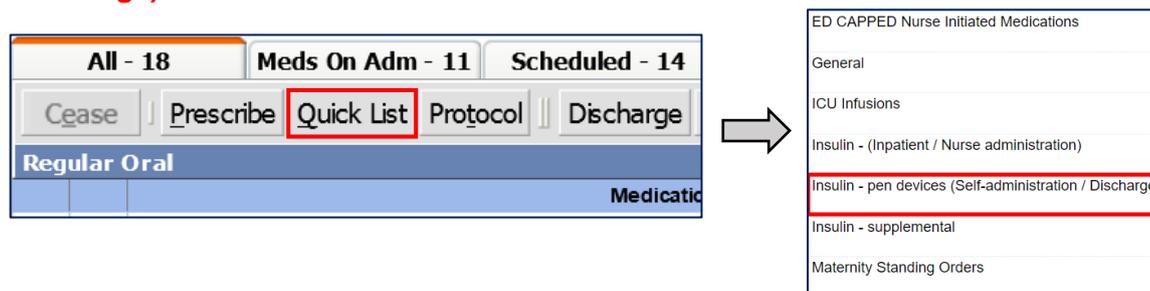
1.1.4. Click **Update** once complete.

1.2 Prescribing PEN DEVICE for self-administration

Note: For patients who have been started on insulin during their hospitalisation and require insulin on discharge, there may be a transition period where patients will be guided/educated on how to self-administer insulin. In this instance the penfill order must be **ceased** and a new **Insulin – pen devices (Self-administration / Discharge)** order must be prescribed instead.

1.2.1. **Cease** the penfill order.

1.2.2. Select **Quick List** and navigate to the **Insulin – pen devices (Self-administration / Discharge)** list.



1.2.3. Follow steps 1.1.2., 1.1.3. and 1.1.4. as mentioned in **1.1. Prescribing Regular insulin.**

Note: When charting the insulin pen device order on the inpatient chart, ensure the **box 'For Self Administration' is ticked**. If a patient is self-titrating their own insulin doses, the box **'For Self Administration' needs to be ticked for them too**. This allows for accurate documentation of administration.

The image shows a medication form for 'Ryzodeg 70/30 FlexTouch Injection 3mL, Insulin aspart 30 units/mL, Insulin degludec 70 units/mL'. The form includes fields for 'Form' (Injection), 'Route' (Subcutaneous), 'Dose' (12 units), 'Frequency' (Scheduled), 'Schedule' (At Breakfast Time), 'For Administration On' (Every day), 'Administer From' (29/07/2022), 'Start Time' (08:00), and 'For Duration'. A calendar icon is visible. The 'Qualifier' is set to 'For self-administration only. Mixed insulin. Administer immed'. The 'Indication' is 'To control blood sugar levels'. The 'Show Due' and 'Show Overdue' fields are set to 30 minutes. The 'For Self Administration' checkbox is checked. Below the main form, there is an 'AND' section with 'Route' (Subcutaneous) and 'Dose' (15 units). Callouts with orange boxes point to the 'Dose' fields, and a green callout points to the 'For Self Administration' checkbox.

*N/B:

Self-administration occurs when patients administer their own insulin at a defined dose.

Self-titration occurs when patients select their own insulin dose(s) from a defined range e.g. 0 - 12 units.

Patients may be self-administering, self-titrating or both, depending on their clinical circumstances and experience in managing their diabetes. In both situations, the **'For Self Administration' box must be ticked** as shown above.

1.3. Prescribing **SUPPLEMENTAL insulin** (sliding scale or STAT orders)

- Supplemental insulin orders on MedChart replace the sliding scale section on the previous MR 170 paper charts.

Supplemental Insulin order				
In addition to routine Insulin orders, give _____ Insulin at the following times:				
<input type="checkbox"/> Breakfast	<input type="checkbox"/> Lunch			
<input type="checkbox"/> Dinner	<input type="checkbox"/> Nocte			
If Blood Glucose: between -				
_____ and _____ mmol/L	give _____ units			
_____ and _____ mmol/L	give _____ units			
_____ and _____ mmol/L	give _____ units			
_____ and _____ mmol/L	give _____ units			
<table border="1"> <tr> <td>Doctor's name (Print):</td> </tr> <tr> <td>Signature:</td> </tr> <tr> <td>Prescriber number:</td> </tr> </table>		Doctor's name (Print):	Signature:	Prescriber number:
Doctor's name (Print):				
Signature:				
Prescriber number:				

- Supplemental (correctional doses) insulin can be prescribed on eMM using the *OR function*.
- OR orders* allow nursing staff to administer the required insulin dose, based on the patient's BSLs.
- It is important that each dosing option has the BSL range specified in the qualifier.
- Supplemental orders should have a **Scheduled** frequency e.g three times daily (not PRN) so that nursing staff are prompted at each mealtime to check BSL and administer the appropriate insulin dose. If BSLs are within range they will administer 0 units in eMM.
- Common supplemental dosing regimens can be selected by using **Insulin – supplemental Quick List**.
- Novorapid is the recommended product for supplemental insulin at Cabrini.

1.3.1. Select **Quick List** and navigate to **Insulin - supplemental**

The screenshot shows the eMM interface with three tabs: 'All - 18', 'Meds On Adm - 11', and 'Scheduled - 14'. Below the tabs are buttons for 'Cease', 'Prescribe', 'Quick List', 'Protocol', and 'Discharge'. The 'Quick List' button is highlighted with a red box. An arrow points to a dropdown menu with the following options: 'ED CAPPED Nurse Initiated Medications', 'General', 'ICU Infusions', 'Insulin - (Inpatient / Nurse administration)', 'Insulin - pen devices (Self-administration / Discharge)', 'Insulin - supplemental' (highlighted with a red box), and 'Maternity Standing Orders'.

1.3.2. Select the appropriate insulin dosing regimen, then click **Continue**.

1.3.3. If a different dosing regimen is required, click the medication name to update the insulin dose(s) and/or BSL range specified in the Qualifier.

Note: Supplemental insulin orders should have a scheduled frequency e.g three times a day so it will be listed on the Scheduled tab (not PRN)

1.3.4. Edit the required doses and/or corresponding BSL ranges in the Qualifier, then click **Continue**.

NovoRapid Penfill 3 mL Injection 100 units/mL

Form: Injection
 Route: Subcutaneous
 Dose: 0 units
 Frequency: Scheduled
 Schedule: Three Times Daily Before Meals
 For Administration On: Every day
 Administer From: 10/11/2022 **Note: Starts Tomorrow** Start Today
 Start Time: 08:00
 For Duration: []
 Qualifier: If BSL before meals is less than 12 mmol/L - no pre-meal correctional dose
 Indication: Supplemental Insulin / Pre-meal correctional dose (may be in addition to regular insulin dose)
 Show Due: 60 minute(s) before scheduled time
 Show Overdue: 60 minute(s) after scheduled time
 For Self Administration:

OR Dose: 4 units
 Qualifier: If BSL range before meals is between 12.1 and 14.9 mmol/L

OR Dose: 6 units
 Qualifier: If BSL range before meals is between 15 and 20 mmol/L

OR Dose: 8 units
 Qualifier: If BSL range before meals is greater than 20 mmol/L. Give dose and call

Buttons: Calculate, Delete, Continue, Cancel

1.3.4.1. If additional dose lines are required, use the **OR** button to add another dose and corresponding BSL range. Conversely if a dose line is no longer required, use the **Delete** button to remove that dose line.

OR Dose: 8 units
 Qualifier: If BSL range before meals is greater than 20 mmol/L. Give dose and call

Buttons: Calculate, Then, And, Or, Delete

1.3.5. Click **Update** once complete.

STAT ORDERS

STAT (once only) orders of insulin will also be prescribed on eMM. A default order can be found using the **Insulin – supplemental Quick List**. Edit the required doses and/or corresponding Qualifier, then click **Continue**.

NovoRapid Penfill 3 mL Injection 100 units/mL	DOSE: 0 units Subcutaneous Stat Indication: Supplemental Insulin / Pre-meal correctional dose (may be in addition to regular insulin dose).
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1.4. Prescribing insulin on DISCHARGE

Option A)

- 1.4.1. Review the details of the current insulin order(s). If the patient is already prescribed the correct insulin device for discharge complete this normal discharge process. If you intend for the patient to be discharged on a different device, see *Option B*). The *penfill order* should not be pushed through for Discharge.
 - 1.4.1.1. Select the insulin required on discharge (from the **Scheduled** tab), then click the **Discharge** button.
 - 1.4.1.2. Review the details of the order(s) that are being 'pushed' to Discharge, then click **Continue**.

Note: Prescribers must carefully check the patient's current inpatient medications that are being selected and pushed through for discharge. Be careful not to push any Supplemental Insulin orders that are still charted on your patient's Scheduled chart.

Option B)

- 1.4.2. Click on the **Discharge** tab and select **Quick List**. Navigate to **Insulin – pen devices** list.

ED CAPPED Nurse Initiated Medications
General
ICU Infusions
Insulin - (Inpatient / Nurse administration)
Insulin - pen devices (Self-administration / Discharge)
Insulin - supplemental
Maternity Standing Orders

- 1.4.3. Select the appropriate insulin pen device (listed in alphabetical order by **BRAND NAME**) and regimen. Click **Continue**.
- 1.4.4. Click the medication name to update the insulin dose(s), then click **Continue**.
- 1.4.5. Click **Update** once complete. Enter in your credentials to update the order.

2. EDITING insulin doses

To edit the dose of an existing insulin order:

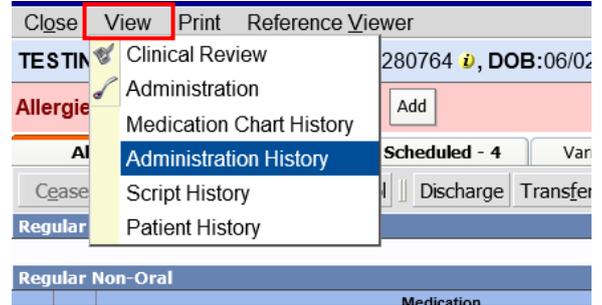
- 2.1. Use **All** tab or **Scheduled** tab to find the insulin order that requires editing
- 2.2. Click the medication name to edit the order
- 2.3. Edit the **Dose** to the required number of units and click **Continue**
- 2.4. Click **Update** once complete.

3. REVIEWING insulin doses administered

There are two options to review insulin doses that have been administered.

Option A) **Administration History** can be useful in displaying the supplemental doses a patient has received over several days, without having to hover over each tick.

- From the Prescribing Medication Chart, click **View** menu and select **Administration History**



- Find insulin order(s), using either the **All** or **Scheduled** tab. Medications are listed alphabetically.

All	Scheduled	Variable Dose	PRN	Stat	Infusion	Summary
Regular Medications - 4 Active						
*VTE Risk Assessment complete - High VTE Risk Indication: High VTE Risk Non-Pharmaceutical Regularly (08:00) every 7 days Pharmacological prophylaxis required						
Enoxaparin Injection Indication: VTE Prophylaxis DOSE: 40 mg Subcutaneous Regularly (20:00) every 24 hours for CrCl 30 mL/min or more						
Graduated Compression Stockings Indication: Mechanical VTE Prophylaxis Non-Pharmaceutical Once Daily (20:00) for High Risk patients, where Pharmacological Prophylaxis or SCDs contraindicated						
NovoRapid Penfill 3 mL Injection 100 units/mL Indication: Supplemental Insulin / Pre-meal correctional dose (may be in addition to regular insulin dose). Click to display variable scale details						
Ryzodeg 70/30 Penfill Injection 3mL Insulin aspart 30 units/mL Insulin degludec 70 units/mL Indication: To control blood sugar levels. DOSE: 12 units Subcutaneous At Breakfast Time (08:00) Mixed insulin. Administer immediately before meals.						

Edit date if needed

Number of units administered for each dose time will be listed

Option B) Both the regular and supplemental insulin orders will be listed alphabetically on the **Scheduled** tab

All - 7	Meds On Adm	Scheduled - 4	Variable Dose	PRN - 3	Stat
Cease Prescribe Quick List Protocol Withhold Discharge Transfer From Transition Reconciliation Script					
May 2022 Jun 2022					
To view full details of the supplemental order, click here					
NovoRapid Penfill 3 mL Injection 100 units/mL Indication: Supplemental Insulin / Pre-meal correctional dose (may be in addition to regular insulin dose). 01/06/2022 Doctor Doctor					
Administered 4 units Subcutaneous at 12:35 on 01-06-2022. By Lucy Wilson					
Ryzodeg 70/30 Penfill Injection 3mL Insulin aspart 30 units/mL Insulin degludec 70 units/mL DOSE: 12 units Subcutaneous At Breakfast Time (08:00) Mixed insulin. Administer immediately before meals. Indication: To control blood sugar levels. 01/06/2022 Doctor Doctor					

If you hover over the ticks, you can see the insulin dose administered