

Pharmacy – Managing Ambulatory Clinic Medication Orders

Providers in ambulatory clinics will be able to use ad hoc ordering as well as PowerPlans. Inventory has been created to ensure access to the medications that will be provided in clinic. Furthermore, medications that are found in ambulatory clinics will have order sentences available in PowerChart; if a medication is not available in the clinic then the order details will need to be manually filled by the Provider. As well, auto-verification by pharmacy will occur if the following conditions are met:

1. the product is available for auto-verification
2. the provider has privileges for auto-verification
3. the location is designated for auto-verification (e.g. ED, OR, ambulatory clinics where only stocked medications are orderable for in-office medication administration),
4. No alert is triggered during the ordering process
5. that APA (Automatic Product Assignment) is successful

Ambulatory Clinics will also make use of the Future orders function. In PowerChart, Future orders allow a Provider to enter an order that will be actioned during a future encounter. Orders designated as Future will be in an “on hold” state once verified and will need to be activated during the future encounter. Therefore, when pharmacy processes these orders, the pharmacist will be verifying medications to be administered at a later date, and there will be no verification performed on the day of administration.

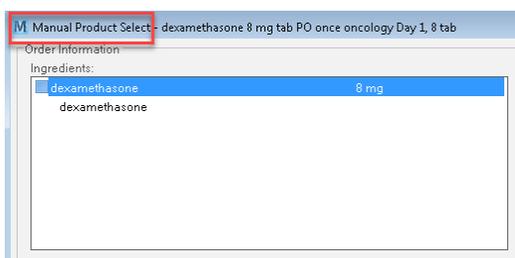
This Skill Sharpener will provide guidance on how to manage medications requiring pharmacy verification, medications requiring pharmacy to send, management of Future orders, and verification of the OPAT/ED Vancomycin BID Infusion orders.

NOTE: the chemotherapy workflow will not be reviewed in this document.

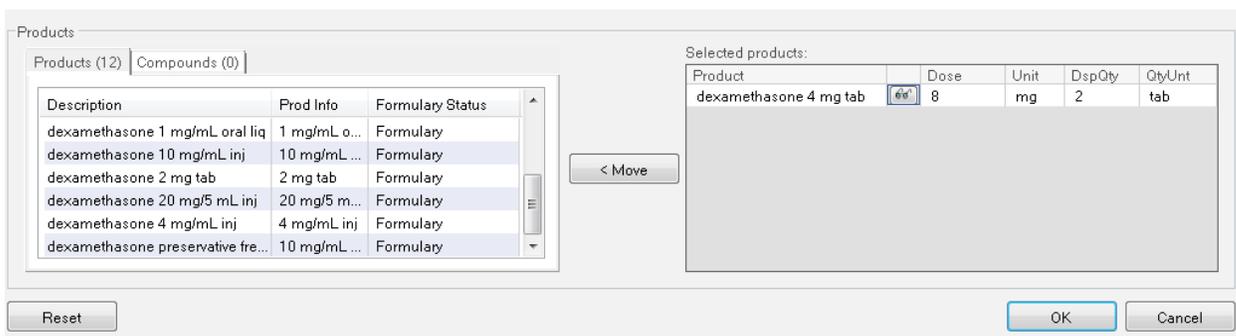
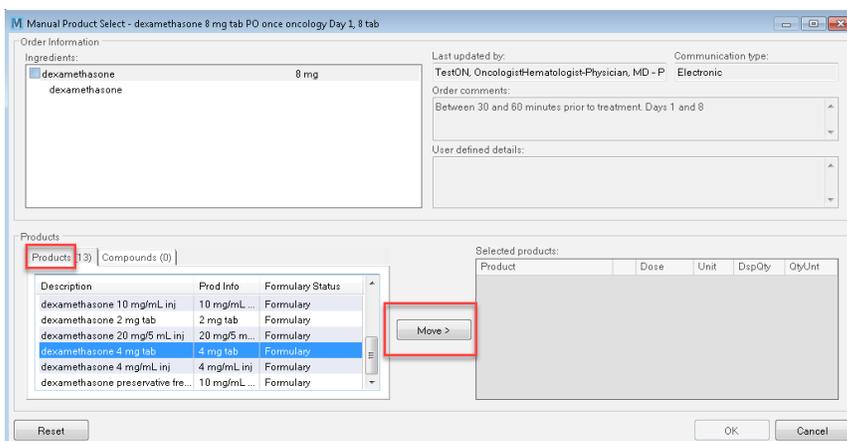
Managing Orders Requiring Pharmacy Verification

In the event that a product does not undergo Automatic Product Assignment – APA (and therefore will not undergo auto-verification) or is ordered in areas that always require Manual Product Assignment (e.g. LGH Chemo Clinic and LGH MDC), pharmacy will need to manually assign a product during verification.

1. After selecting a medication for verification in Medication Manager, the Manual Product Selection screen will appear.



2. Under the Products tab, select your desired product and click the Move button to populate the "Selected products" field with your selection. The Selected products field will now display the desired product, dose, and number of units for a given dose.



3. Click OK and follow normal verification workflow.

Managing Order Not Stocked in Clinic

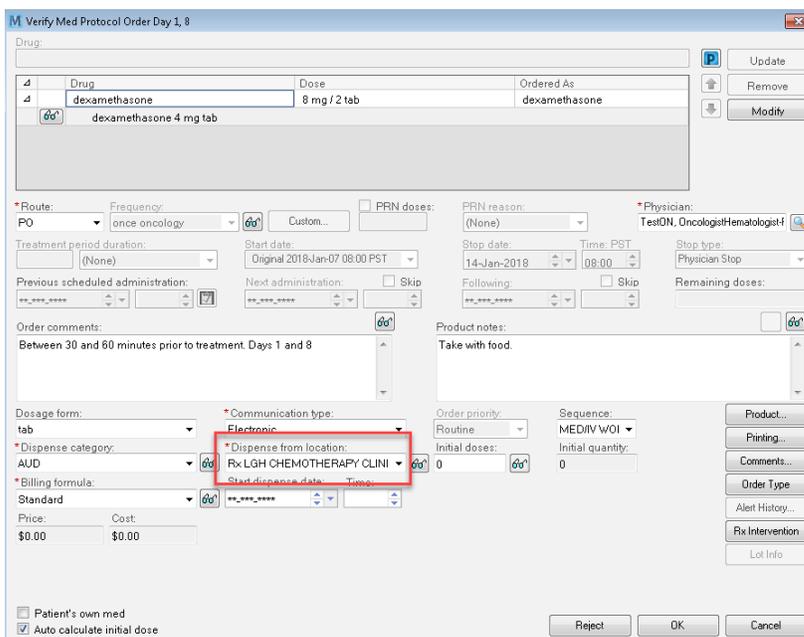
There may be times when a medication has been ordered in an ambulatory clinic but the product is not stocked in that area. For example, it may be the case that the Provider orders a medication that is not part of the PowerPlan. In this event, 2 scenarios can occur:

- The order is auto-verified. In this case, the label will print at the main pharmacy and pharmacy will send the medication.
- The order does not undergo auto-verification. This may occur because the orderable is not designated for auto-verification, an alert is triggered during this process, and/or APA is unsuccessful.
 - If the product is not designated for auto-verification or an alert is triggered—the pharmacist will review the order per normal verification workflow to ensure the medication is appropriate for the patient.
 - If APA does not occur then the pharmacist will need to follow the workflow noted above: Managing Order Requiring Manual Product Assignment.

During the verification process, you can view the dispense location of the medication. This will be useful when verifying medications for these areas—selection of a product that will be dispensed in the ambulatory clinic will save time and allow for easy access for administration versus a product that dispenses in the main pharmacy.

Outlined below is the process for viewing the dispense location and possible use of this information:

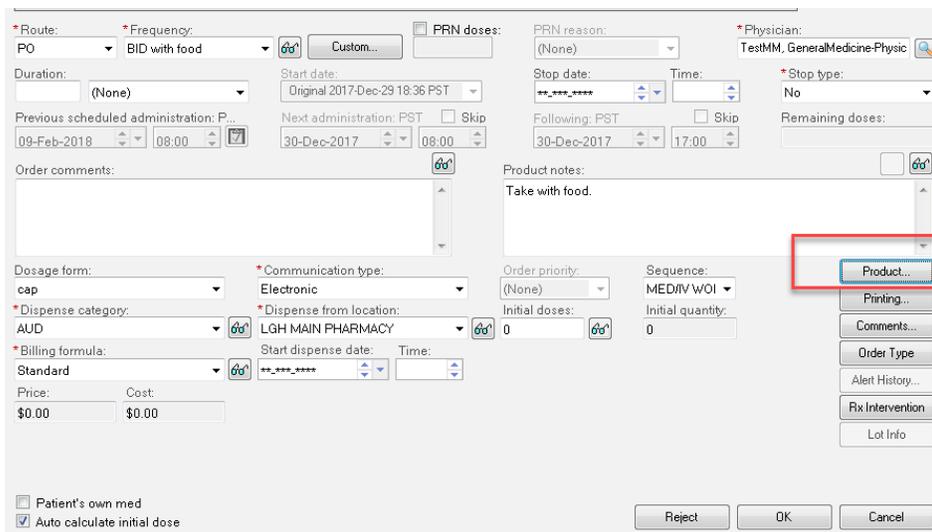
1. View the “Dispense from location:” field.



The screenshot shows a software interface for verifying medication orders. The main window is titled "Verify Med Protocol Order Day 1, 8". It contains several sections:

- Drug List:** A table with columns for Drug, Dose, and Ordered As. The entry is "dexamethasone 4 mg tab" with a dose of "8 mg / 2 tab" and ordered as "dexamethasone".
- Order Parameters:** Includes fields for Route (PO), Frequency (once oncology), Start date (Original 2018-Jan-07 08:00 PST), Stop date (14-Jan-2018), and Time (08:00 PST).
- Dispense Location:** A dropdown menu labeled "Dispense from location:" is highlighted with a red box. The selected value is "Rx: LGH CHEMOTHERAPY CLINI".
- Order Comments:** A text area containing "Between 30 and 60 minutes prior to treatment. Days 1 and 8".
- Product Notes:** A text area containing "Take with food".
- Order Details:** Includes fields for Order priority (Routine), Sequence (MED/IV WOI), Initial doses (0), and Initial quantity (0).
- Buttons:** Includes "Update", "Remove", "Modify", "Product...", "Printing...", "Comments...", "Order Type", "Alert History...", "Rx Intervention", "Lot Info", "Reject", "OK", and "Cancel".

2. If manual product selection is required, and the medication is stocked in the ambulatory clinic—proceed with the normal verification workflow. The “Dispense from location” will reflect this.
3. If the manually selected product is dispensed from the main pharmacy, you may want to re-select the product to one that will dispense from your desired location.
 - i. Click on the Product type button and follow workflow for manual product selection.



The screenshot shows a medication order entry form. Key fields include:

- *Route: PO
- *Frequency: BID with food
- Start date: Original 2017-Dec-29 18:36 PST
- Stop date: **_**_****
- Physician: TestMM, GeneralMedicine-Physic
- Dispense category: AUD
- Dispense from location: LGH MAIN PHARMACY
- Price: \$0.00, Cost: \$0.00

 A red box highlights the 'Product...' button in the right-hand sidebar, which is used for manual product selection. Other buttons in the sidebar include 'Pricing...', 'Comments...', 'Order Type', 'Alert History...', 'Rx Intervention', and 'Lot Info'.

- ii. View the “Dispense from location:” field to view where the medication will be dispensed from.

WARNING: DO NOT change the “Dispense from location” field. Treat this field as view-only. Changing this field may lead to a catastrophic change in scheduled batch fills going forward. Do not change this field!

4. If the desired medication is not stocked in the ambulatory clinic—pharmacy will need to send the product as per their normal workflow.

Managing Future Orders

Ambulatory clinic orders may be Future orders. For example, a patient has been seen in the ED and will now be receiving cefazolin and probenecid in MDC. The order has been entered in PowerChart and you are verifying in Medication Manager. The patient is scheduled to attend MDC starting tomorrow.

Future	ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h Day 1 to 4	2018-Feb-10 08:00 PST	2018-Feb-13 22:00 PST (p)
Future	probenecid 1 g/ 2 tab tab PO once Day 1 to 4	2018-Feb-10 08:00 PST	2018-Feb-13 08:00 PST (p)

The status of the orders will appear as “Future” as opposed to what is regularly seen (e.g. Active, Discontinued, Cancelled, etc.). As well, the SIG will include which days the medication will be administered once activated. The screenshot above shows the parent order.

1. Select the order(s) for verification.
2. Clicking the roll-up arrow will allow you to view the order details of each child order that will start when activated on the specific encounter.

4	Future	ceFAZolin-dextrose 5% 2,000 mg / 50 mL bag IV q24h 200 mL/h Day 1 to 4	2018-Feb-10 08:00
	Future	Day 1 ceFAZolin-dextrose 5% 2,000 mg / 50 mL bag IV q24h 200 mL/h	2018-Feb-10 08:00
	Future	Day 2 ceFAZolin-dextrose 5% 2,000 mg / 50 mL bag IV q24h 200 mL/h	2018-Feb-11 08:00
	Future	Day 3 ceFAZolin-dextrose 5% 2,000 mg / 50 mL bag IV q24h 200 mL/h	2018-Feb-12 08:00
	Future	Day 4 ceFAZolin-dextrose 5% 2,000 mg / 50 mL bag IV q24h 200 mL/h	2018-Feb-13 08:00
	Future	probenecid 1 g / 2 tab tab PO once Day 1 to 4	2018-Feb-10 08:00

3. Verify the parent order.

Action	Status	Order Sentence	Start	Stop
4 Verify	Future	ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h Day 1 to 4	2018-Feb-14 08:00 PST	2018-Feb-17 22
	Future	Day 1 ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h	2018-Feb-14 08:00 PST	2018-Feb-14 22
	Future	Day 2 ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h	2018-Feb-15 08:00 PST	2018-Feb-15 22
	Future	Day 3 ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h	2018-Feb-16 08:00 PST	2018-Feb-16 22
	Future	Day 4 ceFAZolin-dextrose 5% 2,000 mg 50 mL bag IV q24h 200 mL/h	2018-Feb-17 08:00 PST	2018-Feb-17 22
4 Verify	Future	probenecid 1 g / 2 tab tab PO once Day 1 to 4	2018-Feb-14 08:00 PST	2018-Feb-17 08
	Future	Day 1 probenecid 1 g / 2 tab tab PO once	2018-Feb-14 08:00 PST	2018-Feb-14 08
	Future	Day 2 probenecid 1 g / 2 tab tab PO once	2018-Feb-15 08:00 PST	2018-Feb-15 08
	Future	Day 3 probenecid 1 g / 2 tab tab PO once	2018-Feb-16 08:00 PST	2018-Feb-16 08
	Future	Day 4 probenecid 1 g / 2 tab tab PO once	2018-Feb-17 08:00 PST	2018-Feb-17 08

Submit Cancel **Apply**

4. Select Facility/Location

M Future Order - Facility/Location Selection

Facility:

Location:

5. Finish verifying orders by clicking **OK** for each drug and by clicking **Submit**.

Twice Daily Vancomycin Order—OPAT/ED

For OPAT sites that are unable to provide q12h Vancomycin due to time constraints, we will continue with current practice—the patient receives the AM dose of Vancomycin in the ambulatory OPAT clinic, and will receive the PM dose in the ED.

The following section will give an overview of how pharmacy will process these orders.

The Infectious Disease Provider will use the OPAT/ED Vancomycin BID Infusion PowerPlan for order entry. By using this PowerPlan, they will be able to select for administration a vancomycin loading dose, maintenance doses, as well as order other necessary non-medication orders (e.g. scheduling, PICC, etc).

Furthermore, the ordered maintenance doses will be Future orders; MDC nursing will then be able to activate the AM maintenance dose for administration in MDC, and the ED nurse will be able to activate the PM dose. Pharmacy will only need to verify the initial parent order. Subsequent days of administration will only require activation by nursing staff prior to administration.

	IMPORTANT: This section highlights the need to view the Order comments when verifying vancomycin orders. Due to limitations of the system and the unique process for the BID administration in two different encounters, it may appear as if we are viewing duplication of vancomycin orders. However, this is not the case.
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You are a pharmacist verifying medications in dispensary. The following order has been entered in the by the ID specialist:

- vancomycin loading dose of 25 mg/kg IV x 1 Dose this AM (March 7th)
- vancomycin maintenance dose of 15 mg/kg IV q12h starting this evening (March 7th)

(For this scenario, clinical checking is not necessary → assume the dose is appropriate)

1. Select your patient in the PPM.
2. Multiple vancomycin orders will appear→**it may appear that we have order duplication. This is not the case. Continue with the order process below.**
3. Click the Process button to open Medication Manager

CSTPRODME, TEST-BRIAN MRN: 700008727 DOB: 24-Apr-1980 Age: 37 years Sex: Male Weight: 80 kg Expand All

Inpatient Orders 3

- vancomycin 15 mg/kg, IV, once, first dose: Routine, start: 08-Mar-2018, stop: 10-Mar-2018**
 Status: Future Queue time: 27 min
 Rx priority: Routine Start date/time: 08-Mar-2018 14:00:00 PST
- vancomycin 2,000 mg, IV, once, administer over: 2 hour, first dose: Routine, start: 07-Mar-2018, bag volume (mL): 500**
 Status: Future Queue time: 27 min
 Rx priority: Routine Start date/time: 07-Mar-2018 14:00:00 PST
- vancomycin 15 mg/kg, IV, once, first dose: Routine, start: 07-Mar-2018, stop: 10-Mar-2018**
 Status: Future Queue time: 27 min
 Rx priority: Routine Start date/time: 07-Mar-2018 14:00:00 PST

View Process

4. Hover over the to display information about the PowerPlan.

5. In Medication Manager click the (it will change to the symbol below)

- A drop down field will appear—the child orders are shown with the dosage and day of administration.

▼	Future			vancomycin 1,250 mg / 1.25 each inj IV once Days 1 to 4	07-Mar-2018 14:00 PST
▼	Future			Days 1 vancomycin 1,250 mg / 1.25 each inj IV once	07-Mar-2018 14:00 PST
▼	Future			Days 2 vancomycin 1,250 mg / 1.25 each inj IV once	08-Mar-2018 14:00 PST
▼	Future			Days 3 vancomycin 1,250 mg / 1.25 each inj IV once	09-Mar-2018 14:00 PST
▼	Future			Days 4 vancomycin 1,250 mg / 1.25 each inj IV once	10-Mar-2018 14:00 PST

6. Use the verification order action for the vancomycin load.

- We will need to select a Facility and Location as the PowerPlan automatically sets the orders as Future Order.

Future Order - Facility/Location Selection

Facility: LGH OCC Medical Daycare

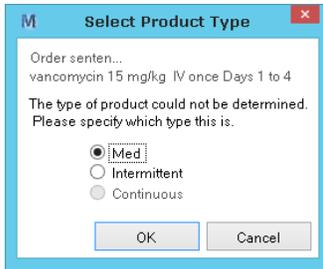
Location: LGH OCC Medical Daycare

Treatment Periods OK Cancel

- Continue with the normal verification process.

7. Select a maintenance order for verification

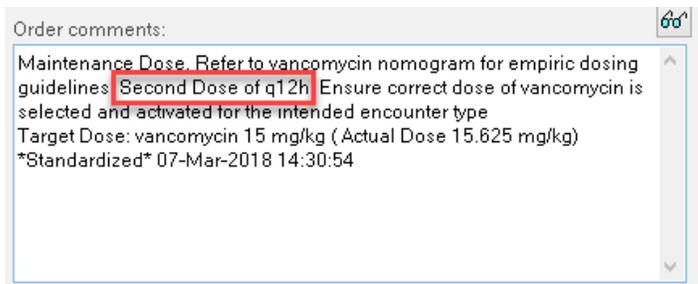
- The Select Product Type window will appear—if you are sending vials select Med



- The Dosage calculator may appear → apply standard dosing
- The Manual Product Select screen will appear → select desired vial

8. **IMPORTANT:** View the Order comments section

- You will be unable to differentiate between the AM and PM doses without viewing the Order comments for an order as the frequency will be entered as *once*.
- A crucial bit of information is contained here. For AM doses the Order comments will state *First Dose of q12h*
- For the PM doses to be given in the ED, the Order comments will state *Second Dose of q12h*



9. Continue with normal verification process.

It is important to note that there will be 2 orders for maintenance vancomycin on the profile: one for the AM dose (First Dose of q12h) and one for the PM dose (Second Dose of q12h).

This is necessary because the doses do not cross encounters. Since one dose is being administered in the MDC and the other Dose in the ED, both doses are required for administration in each encounter.