

SELF-GUIDED PRACTICE WORKBOOK [N4]
CST Transformational Learning

WORKBOOK TITLE:

Pharmacist (Workbook #4)

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SELF-GUIDED PRACTICE WORKBOOK

Duration	4 hours
Before getting started	<ul style="list-style-type: none"> ■ Sign the attendance roster (this will ensure you get paid to attend the session). ■ Put your cell phones on silent mode.
Session Expectations	<ul style="list-style-type: none"> ■ This is a self-paced learning session. ■ A 15 min break time will be provided. You can take this break at any time during the session. ■ The workbook provides a compilation of different scenarios that are applicable to your work setting. ■ Each scenario will allow you to work through different learning activities at your own pace to ensure you are able to practice and consolidate the skills and competencies required throughout the session.
Key Learning Review	<ul style="list-style-type: none"> ■ At the end of the session, you will be required to complete a Proficiency Assessment. ■ This will involve completion of some specific activities that you have had an opportunity to practice through the scenarios. ■ Your instructor will review and assess these with you. ■ Upon completion of the Proficiency Assessment, both you and your instructor will complete your Competency Assessment Checklist.

■ Using Train Domain

You will be using the train domain to complete activities in this workbook. It has been designed to match the actual Clinical Information System (CIS) as closely as possible.

Please note:

- Scenarios and their activities demonstrate the CIS functionality not the actual workflow
- An attempt has been made to ensure scenarios are as clinically accurate as possible
- Some clinical scenario details have been simplified for training purposes
- Some screenshots may not be identical to what is seen on your screen and should be used for reference purposes only
- Follow all steps to be able to complete activities
- If you have trouble to follow the steps, immediately raise your hand for assistance to use classroom time efficiently
- Ask for assistance whenever needed

PATIENT SCENARIO 1 – ED Tracking Shell

Learning Objectives

At the end of this Scenario, you will be able to:

- Access the ED Tracking Shell to visit all ED patients
- Filter the ED Tracking Shell for patients requiring Best Possible Medication History (BPMH)
- Completing the BPMH task upon finishing

SCENARIO

You are assigned to work in the ED at your facility and will need to use the ED Tracking shell as a guideline to view the patients and their current status in the ED.

You are interested in viewing a comprehensive list of all patients in the ED who require BPMH.

You will **not** be using the ED application, FirstNet.

Activity 1.1 – View All Patients Requiring BPMH

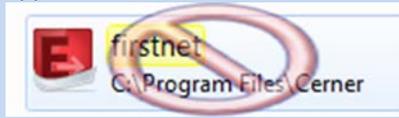
Estimated Completion Time - 5 min

1

1. Log in to **PowerChart** with Username and Password

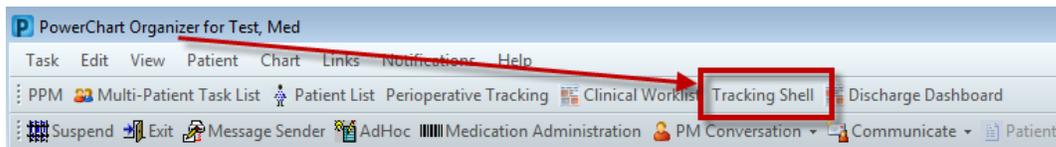


NOTE: Do NOT login directly to the FirstNet application. Pharmacists do not have access to this application.

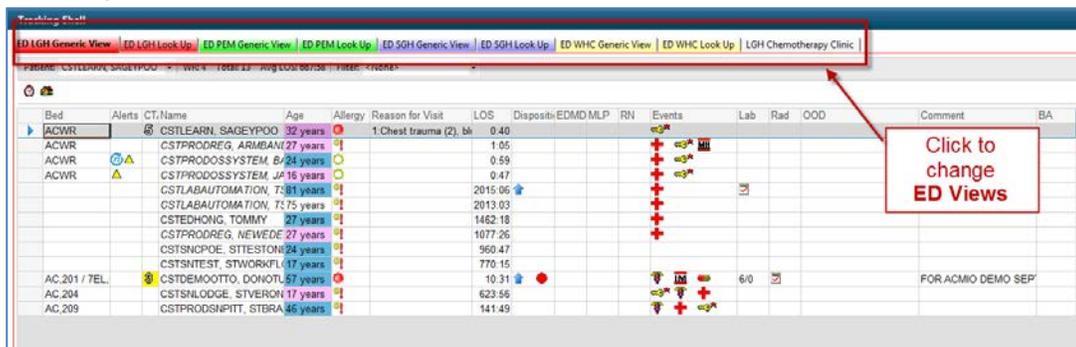


2. Click on **Tracking Shell** from the toolbar

Depending on the location (hospital) of where you work, the ED tabs will already be set to your location.



3. Tracking Shell screen will appear.



NOTE: For this Tracking Shell screen only, this page updates automatically every 60 seconds.

Therefore, you do not have to refresh the page each time.

2 ED Tracking Shell Icon Meanings by Columns

Other Icons by Column	Screen Tips that appear when you hover over the icon						
Alerts Column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-28 11:34</td> <td>72 Hour Return</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Aug-28 11:34	72 Hour Return	Request
Time	Event	Status					
2017-Aug-28 11:34	72 Hour Return	Request					
CTAs indicators 	Acuity: 4 - Less Urgent						
EDMD column	Grafstein, Eric - EG						
Alerts Column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-25 13:39</td> <td>Hosp High Utilizer</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Aug-25 13:39	Hosp High Utilizer	Request
Time	Event	Status					
2017-Aug-25 13:39	Hosp High Utilizer	Request					
Alerts Column ^A	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-25 13:44</td> <td>ADE Risk Positive</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Aug-25 13:44	ADE Risk Positive	Request
Time	Event	Status					
2017-Aug-25 13:44	ADE Risk Positive	Request					
Disposition column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-25 14:11</td> <td>Admit</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Aug-25 14:11	Admit	Request
Time	Event	Status					
2017-Aug-25 14:11	Admit	Request					
Disposition column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-25 14:11</td> <td>Inpt Bed Request</td> </tr> </tbody> </table>	Time	Event	2017-Aug-25 14:11	Inpt Bed Request		
Time	Event						
2017-Aug-25 14:11	Inpt Bed Request						
Events column 	Event Consult Request						
Events column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Jul-04 15:08</td> <td>Consult Psych Reques</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Jul-04 15:08	Consult Psych Reques	Request
Time	Event	Status					
2017-Jul-04 15:08	Consult Psych Reques	Request					
Events column 	Registration overdue by 30 minutes						
Events column 	Registration overdue by 15 minutes						
Events Column 	<table border="1"> <thead> <tr> <th>Time</th> <th>Event</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>2017-Aug-25 14:11</td> <td>Perform BPMH</td> <td>Request</td> </tr> </tbody> </table>	Time	Event	Status	2017-Aug-25 14:11	Perform BPMH	Request
Time	Event	Status					
2017-Aug-25 14:11	Perform BPMH	Request					

NOTE: This is not a complete list of all icons. Hover over the icon to find what it indicates.

3 To find all ED patients requiring BPMH

There is a filter setup for Pharmacists and Pharmacy Technicians to find patients requiring BPMH.

1. Locate the Filter label and choose **Perform BPMH LGH** from the drop down list.

List will truncate to only show patients requiring BPMH

Bed	Alerts	CT, Name	Age	Allergy	Reason for Visit	LOS	Disposition	EDMD	MLP	RN	Events	Lab	Rad	OOD	Comment	BA
AC,201		Pharm-Emerg, Audrey	47 years		1.Myocardial infarction	428.29										
AC,202		Pharm-Emerg, Faith	47 years		1.Myocardial infarction	428.29										
AC,203		Pharm-Emerg, Rose	47 years		1.Myocardial infarction	428.29										
AC,204		Pharm-Emerg, Charlene	47 years		1.Myocardial infarction	428.29										

2. Highlight the patient line for which BPMH is to be performed.

Open your assigned ED patient’s chart.

Double-click the Blue Play button  in the first column.

Bed	Alerts	CT, Name	Age	Allergy	Reason for Visit	LOS	Disposition	EDMD	MLP	RN	Events	Lab	Rad	OOD	Comment	BA
ACWR / 306.0		CSTADTJAMTHREE, ADT	58 years			100.40										
ACWR		CSTLABENOUGH, UTHA	30 years			71.15										
ACWR		CSTPRODBCSN, INSIDE	67 years			45.42										
ACWR		CSTPRODBCSN, TIMECR	47 years			46.47										
ACWR		CSTPRODEMPI, TESTDO	62 years			96.40							1/0			
ACWR		CSTPRODEMPI, TESTPS	18 years			73.35										

3. The patient’s chart will open.

BPMH can now be performed on your patient. Please refer to Pharmacist Workbook #1 for instructions to complete BPMH.

Key Learning Points

- Access Tracking Shell through PowerChart. **Do not** use FirstNet.
- Icons in Tracking Shell help provide a quick visual of patient status to help with prioritizing your day.
- You can hover your mouse (Hover to discover) over any icon to find out their meaning.
- Apply filter: Perform BPMH to only view patients who need BPMH.
- Capsule icon  indicates that patient needs BPMH.
- Double click blue arrow to open patient chart.
- Establish a relationship to access patient chart.

2 Reversing the Complete Perform BPMH Event

1. Single click on the **patient line** for Patient A
2. Right click on the patient name, select **Request Event** → **Perform BPMH**
3. The pill icon will reappear under the **Events** column for the patient.

Name	Age	Aller	Disposition	EDMD/MLP	RN	Events
Pharm-Emerg, Audrey	48 years		26 ↑			
Pharm-Emerg, Faith	48 years		26 ↑			
Pharm-Emerg, Rose	48 years		26 ↑			
Pharm-Emerg, Chardene	48 years		26 ↑			
Pharm-Emerg, Jo			26 ↑			
Pharm-Emerg, Le.			26 ↑			
Pharm-Emerg, Ta			26 ↑			

Key Learning Points

- Access Tracking Shell through PowerChart
- Right click on patient’s chart to document completion of BPMH

PATIENT SCENARIO 2 – Oncology Clinics

Learning Objectives

At the end of this Scenario, you will be able to:

-  Manage Oncology medication regimens
-  Use the Manual Product Selection screen to choose medication(s)
-  Use the Chemotherapy tracking shell to communicate with all members of the clinic
-  Use the Clinical Check Intervention Form

SCENARIO

You are assigned to work in Oncology at your facility. Your patient is a female undergoing treatment for Breast Cancer. The protocol ordered for your patient is **ONC BR BRAVGEMP**.

As a Pharmacist assigned to Oncology, you will need to perform the following tasks.

1. Pharmacy Verification specific to Oncology.
2. Use Oncology tracking shell to view, update patient's status and their current status in Oncology.

Activity 2.1 – Completing Chemo Clinical Check

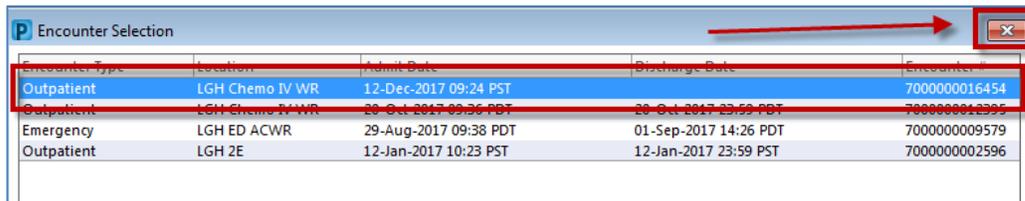
Estimated Completion Time - 10 min

The Pharmacy Chemotherapy Clinical Check PowerForm will be filled out prior to the commencement of Chemotherapy Treatment.

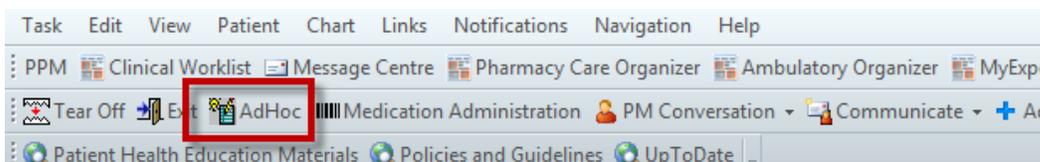
1. Log in to **PowerChart** with Username and Password.
2. From the PPM screen, change view to LGH Chemo.
3. Click your patient's name as it is a hyperlink to open their chart.



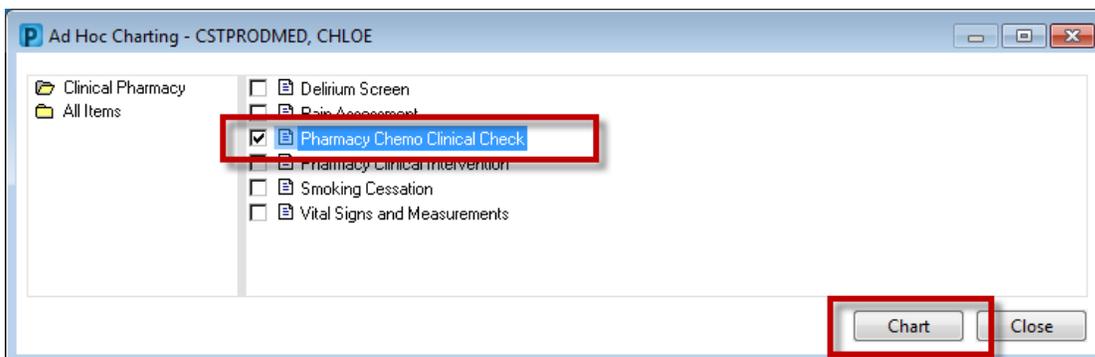
4. The Encounter Selection screen may appear. Ensure the correct encounter is selected by double clicking on the correct encounter or right-click and choose “change encounter”.



5. Click the **AdHoc** button from the toolbar.



6. Select the **Pharmacy Chemo Clinical Check** PowerForm and click the **Chart** button.



7. The Pharmacy Chemotherapy Clinical Check PowerForm will appear.

- a) **Protocol** field: Type the Protocol Name, **BRAVGEMP**
- b) **Cycle** field: Type the Cycle number, **2**
- c) **Day** field: Type the Day number, **1**
- d) **Pharmacist 1, Date, Time** fields: pre-populates to user and current date/time
- e) **Pharmacy Clinical Check List**: Once complete, add checkmarks to items.
ie. **Select all except for CAP Approval and Clinical Trial**
- f) **Clinical Check Complete**: Select **No**
Note: The second pharmacist, upon completion of chemotherapy clinical check, will update this field to Yes
- g) **Lab Check Complete**: Select **Yes**
- h) Click the Sign  button



NOTE: If unable to complete this form it can be saved by clicking the Save icon  This form can be retrieved from Form Browser menu in the Table of Contents.

The screenshot shows the 'Pharmacy Chemotherapy Clinical Check' form. Key elements are highlighted with red boxes and letters:

- h**: The 'Sign' button (checkmark icon) in the top toolbar.
- a**: The 'Protocol' text box containing 'BRAVGEMP'.
- b**: The 'Cycle' text box containing '2'.
- c**: The 'Day' text box containing '1'.
- d**: The 'Pharmacist 1' text box containing 'TestMM, Pharmacist-PhamNet2, RPh' and the date/time dropdowns.
- e**: The 'Pharmacy Clinical Check List' on the right, with 'CAP Approval' and 'Clinical Trial' unchecked.
- f**: The 'Clinical Check Complete' radio buttons, with 'No' selected.
- g**: The 'Lab Check Complete' radio buttons, with 'Yes' selected.

 **Key Learning Points**

-  Access patient from PPM in Toolbar
-  Ensure correct encounter for patient visit
-  Access and complete Pharmacy Chemo Clinical Check through the Ad Hoc folder

Activity 2.2 – Oncology Medication Verification

Estimated Completion Time - 30 min

1

1. Log in to **PowerChart** with Username and Password.
2. Change PPM View to **LGH Chemo**.

NOTE: This queue will display patients checked in to LGH Chemo with orders for verification including future order for the next 96 hours.



3. Find your assigned patient in the PPM list, click **Process**.

Your patient is a female undergoing treatment for breast cancer.

The protocol ordered by the Oncologist is **ONC BR BRAVGEMP**

Facility	Encounter #	Visit #	Enc Type	Med Service	Unit/Clinic	Room	Bed	Est Arrival Date	Reg Date	Disch Date	Attending
LGH Chemo	70000000041112	7000000004128	Recurrence	zzOncology	LGH Chemo	IV Hold			07-Apr-2017 12:22	09-Aug-2017 11:17	
LGH Lion...	7000000003958	7000000003614	Inpatient	zzInternal Med	LGH 2E	218	01		13-Mar-2017 13:21		Pfevcia, F
LGH Lion...	7000000000658	7000000000657	Inpatient	zzCardiothoraci	LGH 2E	224	02		29-Sep-2016 9:11	02-Mar-2017 8:48	Mainra, F

NOTE: The Encounter Search window may appear. Ensure the correct encounter is selected

4. For orders that are “Initiated”, the order status is Ordered.

This is the order example for the **ONC BR BRAVGEMP** protocol

PPM

View: LGH Chemo

- LGH Chemo
- LGH Med Request Only
- PERN
- PERN Med Request Only
- SGH
- SGH Chemo
- SGH Med Request Only
- WHC
- WHC Med Request Only
- Temporary

CSTONC, STWQMTHREE, STWQMTHREE - 17 years

MRN: 70000000041112
DOB: 09-Sep-1980

LGH Chemo / LGH Chemo

PITTHIRTYFOURLEE, JORDAN - 40 years

MRN: 7000000003958
DOB: 29-Sep-1980

CSTPRODMED, CHLOE MRN: 700001748 DOB: 29-Sep-1980 Age: 37 years Sex: Female Weight:

Inpatient Orders

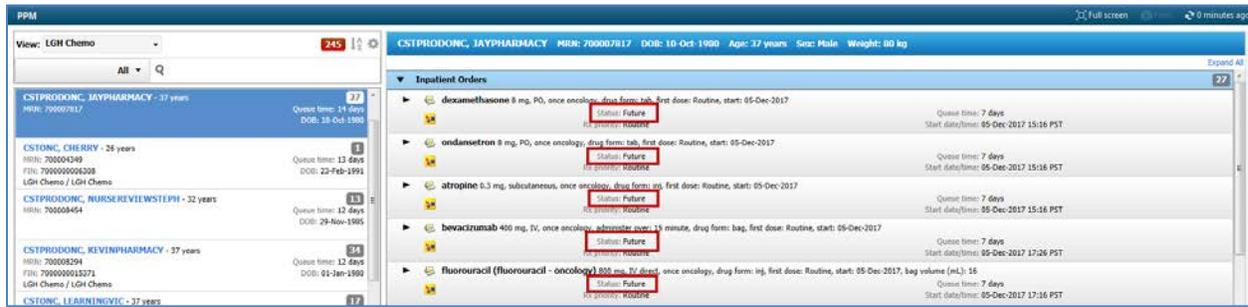
- ondansetron 8 mg, PO, once oncology, drug form: tab, first dose: Routine, start: 12-Dec-2017 09:31 PST, stop: 19-Dec-2017 09:29 PST
Status: Ordered
Rx priority: Routine
- dexamethasone 8 mg, PO, once oncology, drug form: tab, first dose: Routine, start: 12-Dec-2017 09:31 PST, stop: 19-Dec-2017 09:29 PST
Status: Ordered
Rx priority: Routine
- cisplatin (CISplatin - oncology) 30 mg/m2, IV, once oncology, administer over 45 minute, drug form: bag, first dose: Routine, start: 12-Dec-2017 10:31 PST, stop: 19-Dec-2017 10:29 PST
Status: Ordered
Rx priority: Routine

View Process

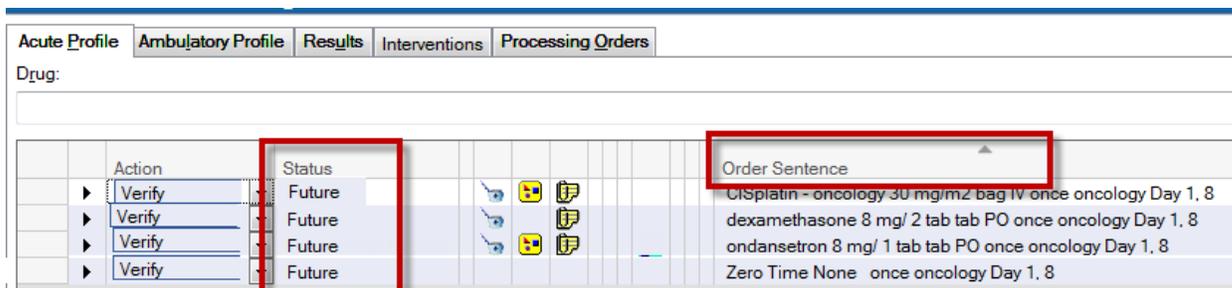
Part of a PowerPlan

Comment for Medication

NOTE: For orders that are not initiated, the order status is Future



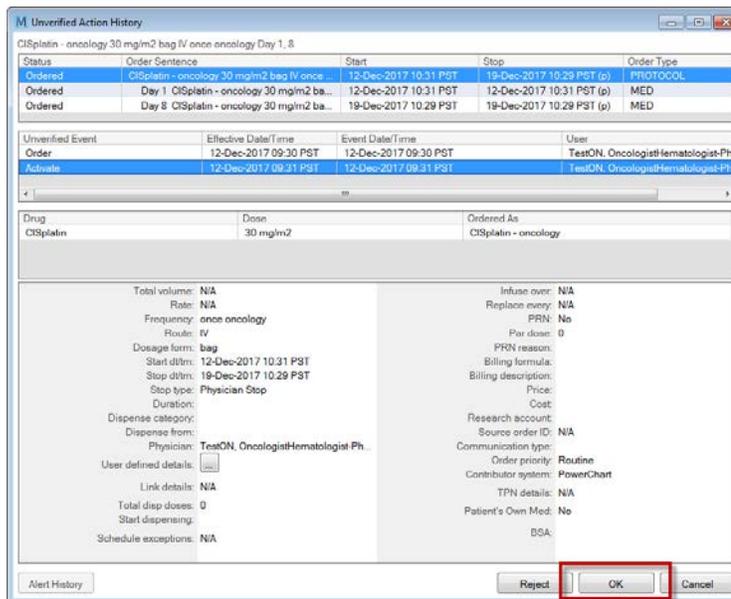
5. Click **Process** from the PPM queue.
The **Pharmacy Medication Manager** application will launch with your patient's profile.
6. For the purpose of this activity, click the header titled Order Sentence to sort medications alphabetically.
7. Click **Apply** button.
Note: In the training environment, your “Zero Time None” will have a “Discontinued” status. This is just a date placeholder.



2 Reference

Unverified Action History box

1. You may be alerted to confirm an unverified action.
This appears if at any time the medication was updated between initial medication ordering and pharmacy medication verification.
Note: In the training environment, you will see this for the next 3 orders.
2. Review the medication in this box and click the **OK** button.

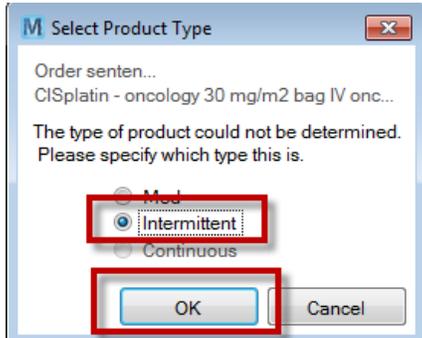


The screen will proceed to the medication for verification

3 Cisplatin – oncology 30 mg/m² bag IV once on Day 1, 8

1. This medication is available in an IV bag.

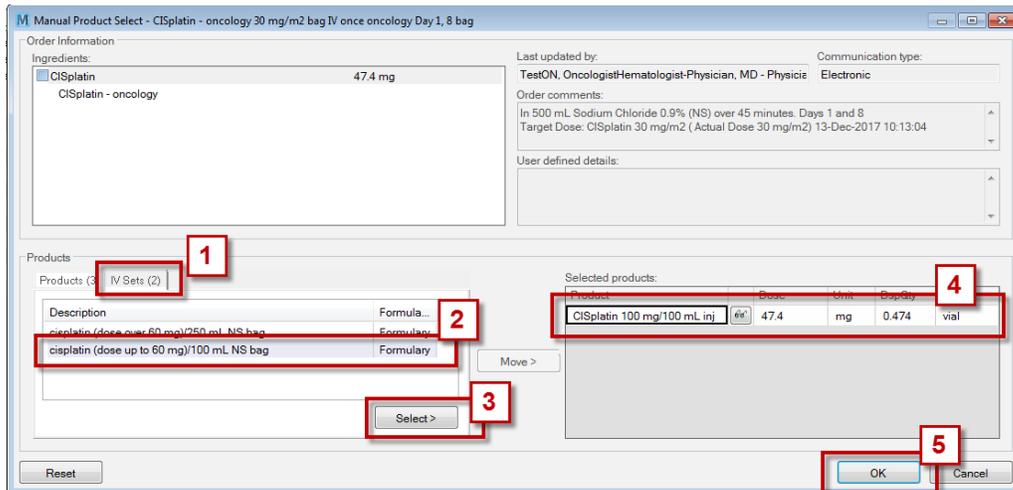
For the Select Product Type box, select the **intermittent** radio button and click the **OK** button.



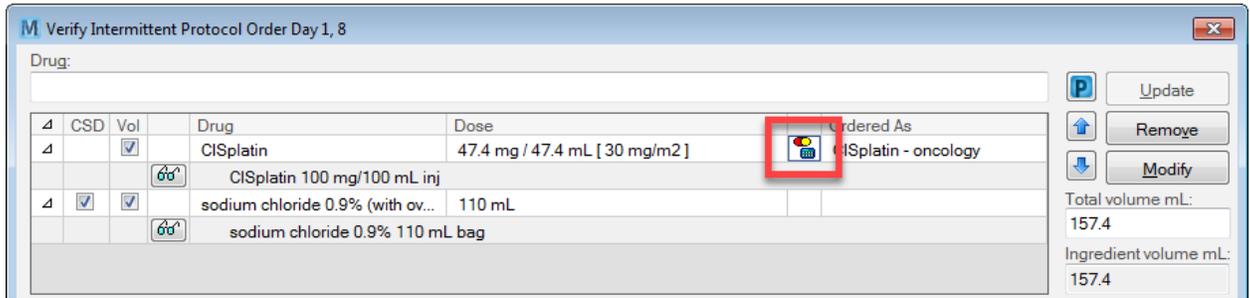
2. Manual Product Select Screen

For every Oncology medication requiring verification, the Manual Product Select screen will appear.

- a) Select the **IV Sets** tab.
- b) Select the appropriate product – **cisplatin (dose up to 60 mg)/100 mL NS bag**
- c) Click the **Select** button.
- d) The desired product will move under the “Selected products” box.
- e) Click the **OK** button.

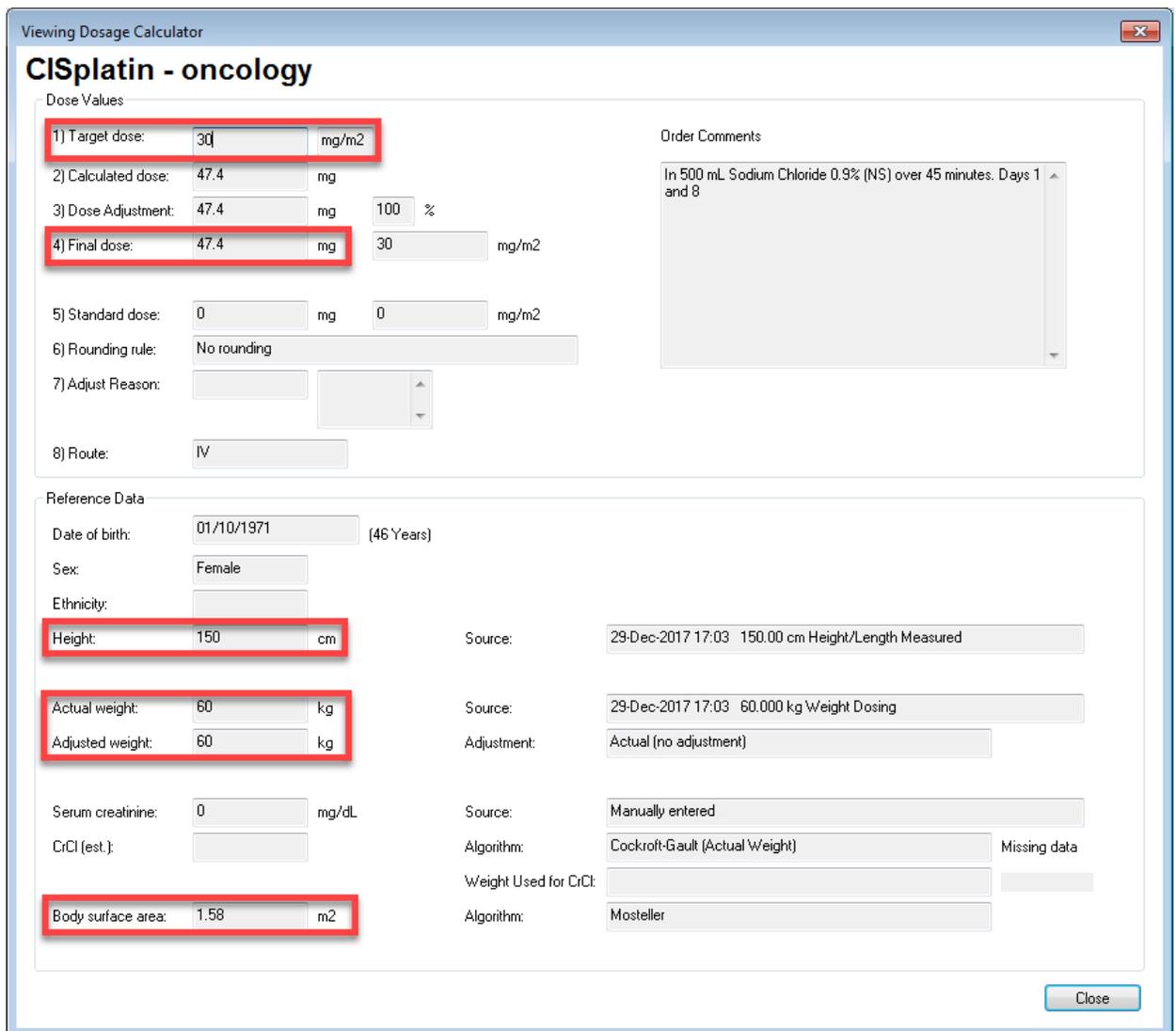


- Click on the View Dosage Calculator icon to view dosing details.



Δ	CSD	Vol	Drug	Dose	Ordered As
Δ		<input checked="" type="checkbox"/>	CISplatin	47.4 mg / 47.4 mL [30 mg/m2]	CISplatin - oncology
		<input checked="" type="checkbox"/>	CISplatin 100 mg/100 mL inj		
Δ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sodium chloride 0.9% (with ov...	110 mL	
		<input checked="" type="checkbox"/>	sodium chloride 0.9% 110 mL bag		

- Verify that the Final Dose is appropriate for your patient’s Height, Weight, and Body surface area.
NOTE: This is a view-only screen.



CISplatin - oncology

Dose Values

1) Target dose: 30 mg/m2

2) Calculated dose: 47.4 mg

3) Dose Adjustment: 47.4 mg 100 %

4) Final dose: 47.4 mg

5) Standard dose: 0 mg 0 mg/m2

6) Rounding rule: No rounding

7) Adjust Reason:

8) Route: IV

Order Comments

In 500 mL Sodium Chloride 0.9% (NS) over 45 minutes. Days 1 and 8

Reference Data

Date of birth: 01/10/1971 (46 Years)

Sex: Female

Ethnicity:

Height: 150 cm Source: 29-Dec-2017 17:03 150.00 cm Height/Length Measured

Actual weight: 60 kg Source: 29-Dec-2017 17:03 60.000 kg Weight Dosing

Adjusted weight: 60 kg Adjustment: Actual (no adjustment)

Serum creatinine: 0 mg/dL Source: Manually entered

CrCl (est.): Algorithm: Cockcroft-Gault (Actual Weight) Missing data

Weight Used for CrCl:

Body surface area: 1.58 m2 Algorithm: Mosteller

Close

5. If the dose requires adjustment, click **Close** on the Viewing Dosage Calculator Screen.
 - a) Click **Modify** in the Verifying Intermittent Protocol Order Day 1,8 Screen

M Verify Intermittent Protocol Order Day 1, 8

Drug:

Δ	CSD	Vol	Drug	Dose	Ordered As
Δ		<input checked="" type="checkbox"/>	CISplatin	47.4 mg / 47.4 mL [30 mg/m2]	CISplatin - oncology
			CISplatin 100 mg/100 mL inj		
Δ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sodium chloride 0.9% (with ov...	110 mL	
			sodium chloride 0.9% 110 mL bag		

Buttons: Update, Remove, **Modify**

Total volume mL: 157.4
Ingredient volume mL: 157.4

- b) Click the Dose Calculator icon

M Verify Intermittent Protocol Order Day 1, 8

Drug: CISplatin Dose: 30 mg/m2 Ordered as: CISplatin - oncology

Δ	CSD	Vol	Drug	Dose	Ordered As
Δ		<input checked="" type="checkbox"/>	CISplatin	47.4 mg / 47.4 mL [30 mg/m2]	CISplatin - oncology
			CISplatin 100 mg/100 mL inj		
Δ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sodium chloride 0.9% (with ov...	110 mL	
			sodium chloride 0.9% 110 mL bag		

Buttons: Update, Remove, Modify

Total volume mL: 157.4
Ingredient volume mL: 157.4

- c) Round the Final dose to **47.0 mg** and select reason from Adjust Reason drop-down list. In this scenario, choose **Dose rounded** and click **Apply Dose**.

Dose Calculator

CISplatin

Dose Values:

- 1) Target dose: 30 mg/m2
- 2) Calculated dose: 47.4 mg
- 3) Dose Adjustment: 47.4 mg, 100 %
- 4) Final dose: 47.0 mg, 29.7468 mg/m2
- 5) Standard dose: mg, mg/m2
- 6) Rounding rule: Manually Entered
- 7) Adjust Reason: **Dose rounded**
- 8) Route: (None)

Reference Data:

- Apnea/Respiratory Depression
- Anemia
- Cardiotoxicity
- Coagulopathy
- Constipation
- Diarrhea
- Disseminated Intravascular Coagulation
- Dose rounded
- Encephalopathy
- Fatigue
- Graft Versus Host Disease
- Hematologic Considerations
- Hepatotoxicity
- Maximum recommended dose exceeded
- Mucositis/Stomatitis
- Nausea/Vomiting
- Nephrotoxicity
- Neutropenia
- Otitotoxicity
- Patient with amputation
- Performance Status
- Peripheral Neuropathy
- Prior toxicity
- Skin Integrity
- Thrombocytopenia

13-Dec-2017 10:12 150.00 cm Height/Length Measured

13-Dec-2017 10:12 60.000 kg Weight Dosing

Actual [no adjustment]

Manually entered

Cookstov-Gault (Actual Weight)

Mosteller

- d) Click **Update** and click **Okay**.

M Verify Intermittent Protocol Order Day 1, 8

Drug: CISplatin Dose: 30 mg/m2 Ordered as: CISplatin - oncology

Δ	CSD	Vol	Drug	Dose	Ordered As
Δ		<input checked="" type="checkbox"/>	CISplatin	47 mg / 47 mL [30 mg/m2]	CISplatin - oncology
			CISplatin 100 mg/100 mL inj		
Δ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sodium chloride 0.9% (with ov...	110 mL	
			sodium chloride 0.9% 110 mL bag		

Buttons: Update, Remove, Modify

Total volume mL: 157
Ingredient volume mL: 157

6. Verify Intermittent Protocol order Day 1, 8
 - a) Dose: self-adjusted 47 mg
 - b) Total volume: pre-populates
 - c) Route: IV pre-populates
 - d) Rate: pre-populates
 - e) Infuse over: pre-populates
 - f) Physician: pre-populates
 - g) Order comments: In 500 mL Sodium Chloride 0.9% (NS) over 45 minutes. Days 1 and 8
 - h) Target Dose: CISplatin 30 mg/m² (Actual Dose 30 mg/m²) DD-MMM-YYYY TT:MM:SS High Alert Medication pre-populates
 - i) Dispense category: Hazardous INJ intermittent pre-populates

Confirm the fields in this window

M Verify Intermittent Protocol Order Day 1, 8

Drug:

Δ	CSD	Vol	Drug	Dose	Ordered As
Δ		✓	CISplatin	47 mg / 47 mL [30 mg/m ²]	CISplatin - oncology
			CISplatin 100 mg/100 mL inj		
Δ	✓	✓	sodium chloride 0.9% (with ov...	110 mL	
			sodium chloride 0.9% 110 mL bag		

* Route: IV Frequency: once oncology PRN doses: PRN reason: (None) * Physician: TestON, OncologistHematologist-f
 * Rate: 209.33 mL/h * Infuse over: 45 minute
 Treatment period duration: (None) Start date: Original 2018-Jan-07 09:00 PST Stop date: 14-Jan-2018 Time: PST 09:00 Stop type: Physician Stop
 Previous scheduled administration: **_**_**_** Next administration: Skip Following: **_**_**_** Remaining doses:
 Order comments: In 500 mL Sodium Chloride 0.9% (NS) over 45 minutes. Days 1 and 8 Target Dose: CISplatin - oncology 30 mg/m² 2017-Dec-29 17:36:03 High Alert Medication Target Dose: CISplatin 30 mg/m² (Actual Dose 29.7468 mg/m²) 2018-Jan-30 14:57:57
 Dosage form: (None) * Communication type: Electronic Order priority: Routine Sequence: (None)
 * Dispense category: Hazardous INJ intermittent * Dispense from location: LGH MAIN PHARMACY Initial doses: 0 Initial quantity:
 * Billing formula: Standard Start dispense date: **_**_**_** Time:
 Price: \$7.92 Cost: \$1,007.92
 Patient's own med Auto calculate initial dose
 Buttons: Product..., Printing..., Comments..., Order Type, Alert History..., Rx Intervention, Lot Info, Reject, OK, Cancel

7. Click the **OK** button.

Screen will continue to the next medication for verification.

2 Dexamethasone Order

1. Confirm the fields in this window
 - a) Dose: **8 mg/2 tab**
 - b) Route: **PO**
 - c) Physician: **pre-populates**
 - d) Order comments: **Between 30 and 60 minutes prior to treatment. Days 1 and 8**
 - e) Product notes: **Take with food**
 - f) Dosage form: **tab**
 - g) Dispense category: pre-populates

2. Click the **OK** button.

Screen will continue to the next medication for verification.

3 Ondansetron Order

1. Confirm the fields in this window
 - a) Dose: **8 mg/1 tab**
 - b) Route: **PO**
 - c) Physician: **pre-populates**
 - d) Order comments: **Between 30 and 60 minutes prior to treatment. Days 1 and 8**
 - e) Dosage form: **tab**
 - f) Dispense category: pre-populates

The screenshot shows a software window titled "Verify Med Protocol Order Day 1, 8". It contains a table with the following data:

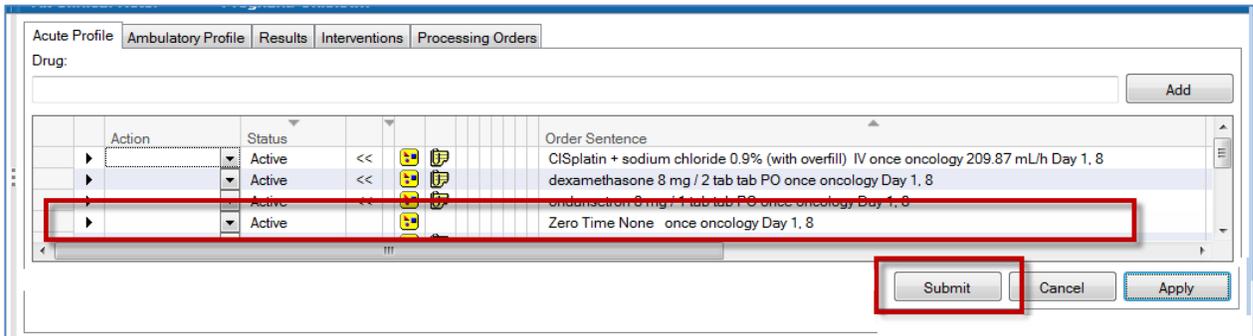
Drug	Dose	Ordered As
ondansetron	8 mg / 1 tab	ondansetron

Below the table, various fields are populated:

- Route:** PO
- Frequency:** once oncology
- PRN doses:** (unchecked)
- PRN reason:** (None)
- Physician:** TestON, OncologistHematologist-f
- Treatment period duration:** (None)
- Start date:** Original 12-Dec-2017 09:31 PST
- Stop date:** 19-Dec-2017
- Time:** 09:29 PST
- Stop type:** Physician Stop
- Order comments:** Between 30 and 60 minutes prior to treatment. Days 1 and 8
- Product notes:** (empty)
- Dosage form:** tab
- Communication type:** Electronic
- Order priority:** Routine
- Sequence:** MED/IV WOI
- Dispense category:** AUD
- Dispense from location:** LGH MAIN PHARMACY
- Initial doses:** 1
- Initial quantity:** 1
- Billing formula:** Standard
- Start dispense date:** **_**_**_**
- Price:** \$0.12
- Cost:** \$0.12
- Buttons:** Update, Remove, Modify, Product..., Printing..., Comments..., Order Type, Alert History..., Rx Intervention, Lot Info, Reject, OK, Cancel.
- Checkboxes:** Patient's own med (unchecked), Auto calculate initial dose (checked).

2. Click the **OK** button.

- 3. All medications have now been verified.
Click the **Submit** button.

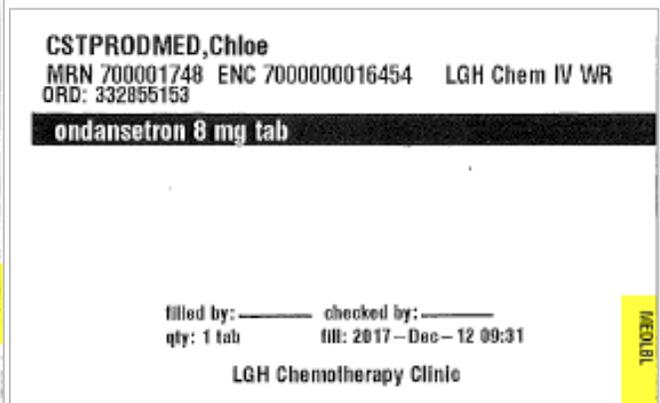
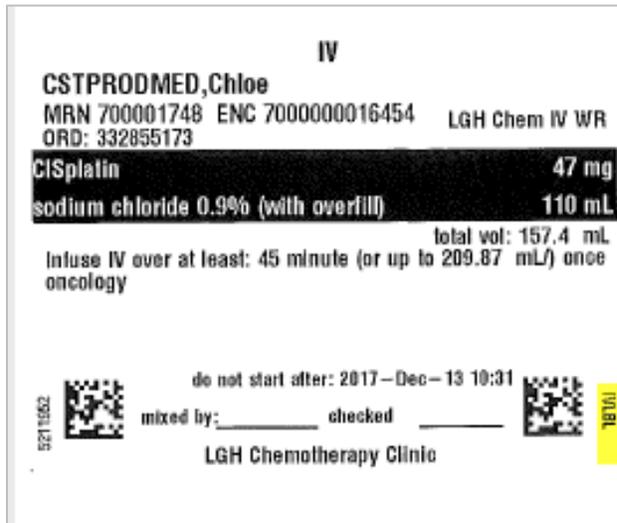


- 4. Labels for medications prepared by pharmacy will print.
NOTE: Labels will not print from the training environment.

4 Reference

1. Please note the auto-verified order for **Zero Time None once oncology Day 1, 8** acts as an anchor for the start date and time of the oncology order.
2. Sample Labels

NOTE: Barcode present on IV Label for nursing to perform Barcode Medication Administration (BCMA)



3. For a **Multiple Day Regimen Protocol**, click the roll-up arrow icons to expand to view orders.

Acute Profile		Ambulatory Profile		Results		Interventions		Processing Orders	
Drug:									
	△	Active	<<						Order Sentence
									Cisplatin + sodium chloride 0.9% (with overfill) IV once oncolog...
									- Cisplatin 56.7 mg / 56.7 mL [30 mg/m2]
									- sodium chloride 0.9% (with overfill) 110 mL
		Future	<<						Day 1 Cisplatin + sodium chloride 0.9% (with overfill) IV once...
		Active	<<						Day 8 Cisplatin + sodium chloride 0.9% (with overfill) IV once...
	▶	Active	<<						Zero Time None once oncology Day 1, 8
	▶	Active	<<						prochlorperazine 10 mg / 1 tab tab PO once oncology Day 1, 8
	▶	Active	<<						dexamethasone 8 mg / 2 tab tab PO once oncology Day 1, 8
	▶	Active	<<						ondansetron 8 mg / 1 tab tab PO once oncology Day 1, 8
	△	Future	<<						Day 1 ondansetron 8 mg / 1 tab tab PO once oncology
		Active	<<						Day 8 ondansetron 8 mg / 1 tab tab PO once oncology
	▶	Active	<<						gemcitabine + sodium chloride 0.9% (with overfill) IV once onco...

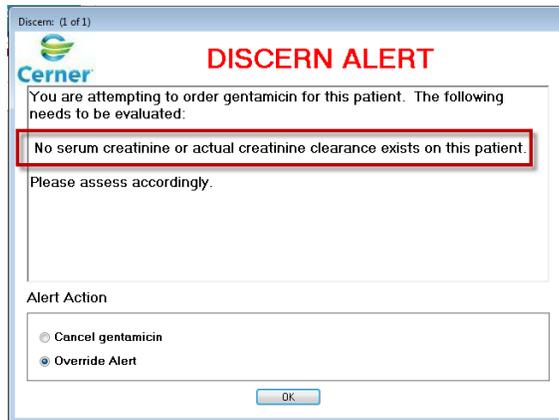
NOTE: For medication orders with multiple Days of Treatment, clicking the roll-up arrow will display the child orders with their assigned days of treatment. Verification of the order is performed once for the parent order to verify all days of treatment.

4. Managing Discern Alerts

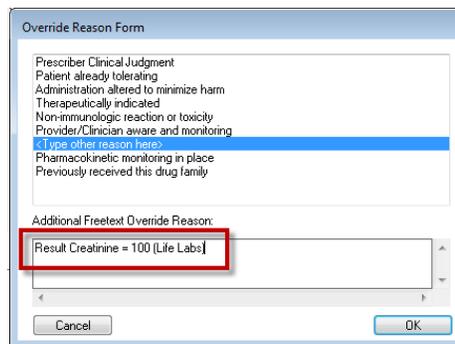
Example: Missing Serum Creatinine and Creatinine Clearance.

This alert may appear for certain oncology regimens. Not all patients will have their lab work available in Cerner. Pharmacists will need to refer to supporting paper documentation or look up results via CareConnect.

- a) Within Discern Alert, click radio dot for **Override Alert**



- b) Select appropriate Override Reason and type *note* in **Additional Freetext Override Reason:**



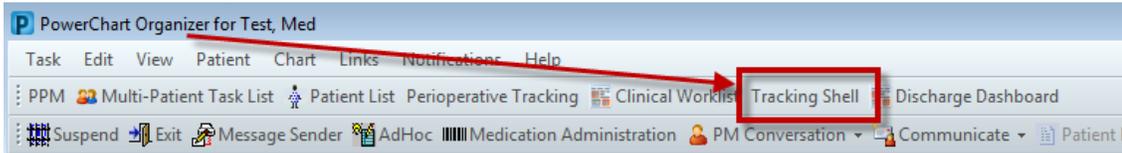
Key Learning Points

- For Medication Verification, set the PPM view to the correct location and choose correct patient encounter
- Verify orders in Pharmacy Medication Manager. Ensure Order Action is selected “verify”.
- After completion of medication verification, click submit to print labels
- For medication orders with multiple days of treatment, verification of the order is performed once for the parent order to verify all days of treatment.
- Discern Alert may appear for certain oncology regimens.
- Not all patients will have their lab work available in Cerner. Pharmacists will need to refer to supporting paper documentation or look up results via CareConnect

Activity 2.3 – Oncology Tracking Shell

Estimated Completion Time - 15 min

1. Log in to **PowerChart** with Username and Password
2. Click on **Tracking Shell** from the toolbar



3. Click on your facility's Oncology tab. A listing of patients will appear.

You will use this tool to help with communicating to the Oncology team regarding the preparation of medications.

Location	Modality	Name	Date of Birth	Isolation	Allergies	Arrival Mode	RN	To Note	To Do	Comments	Lab	LOS
Chair 01		CSTPRODNOC, RECURRINGOVI	31-Aug-1985									48:21:
Chair 02		CSTPRODREG, RECURRINGFOI	10-May-1990									21:4:2
Chair 03	Chemotherapy	CSTPRODNOC, STEPHANIE	10-Jan-2005			Air Ambulance O				waiting on lab results	5/0	287:0:0
Chair 04		CSTONC, TUESDAY	27-Aug-1988								4/0	27:23:3
Chair 05	Chemotherapy	CSTPRODNOC, WORKINGGROL	09-Aug-1973									78:18:3
Chair 06	Dual Modality	CSTPRODREG, RECURTESTING	10-May-1990									111:23:3
Chair 07		CSTONC, STWQMTTHREE	12-Apr-2000									23:2:34
Chair 08												
Chair 09		CSTPRODREG, TESTRECURAG	10-May-1990									111:22:3
Chair 10		CSTPRODREG, RECURTHREE	10-May-1990									111:23:3
Chair 11		CSTCLINTRIALS, STORANGE	22-Aug-1985								4/0	58:0:25

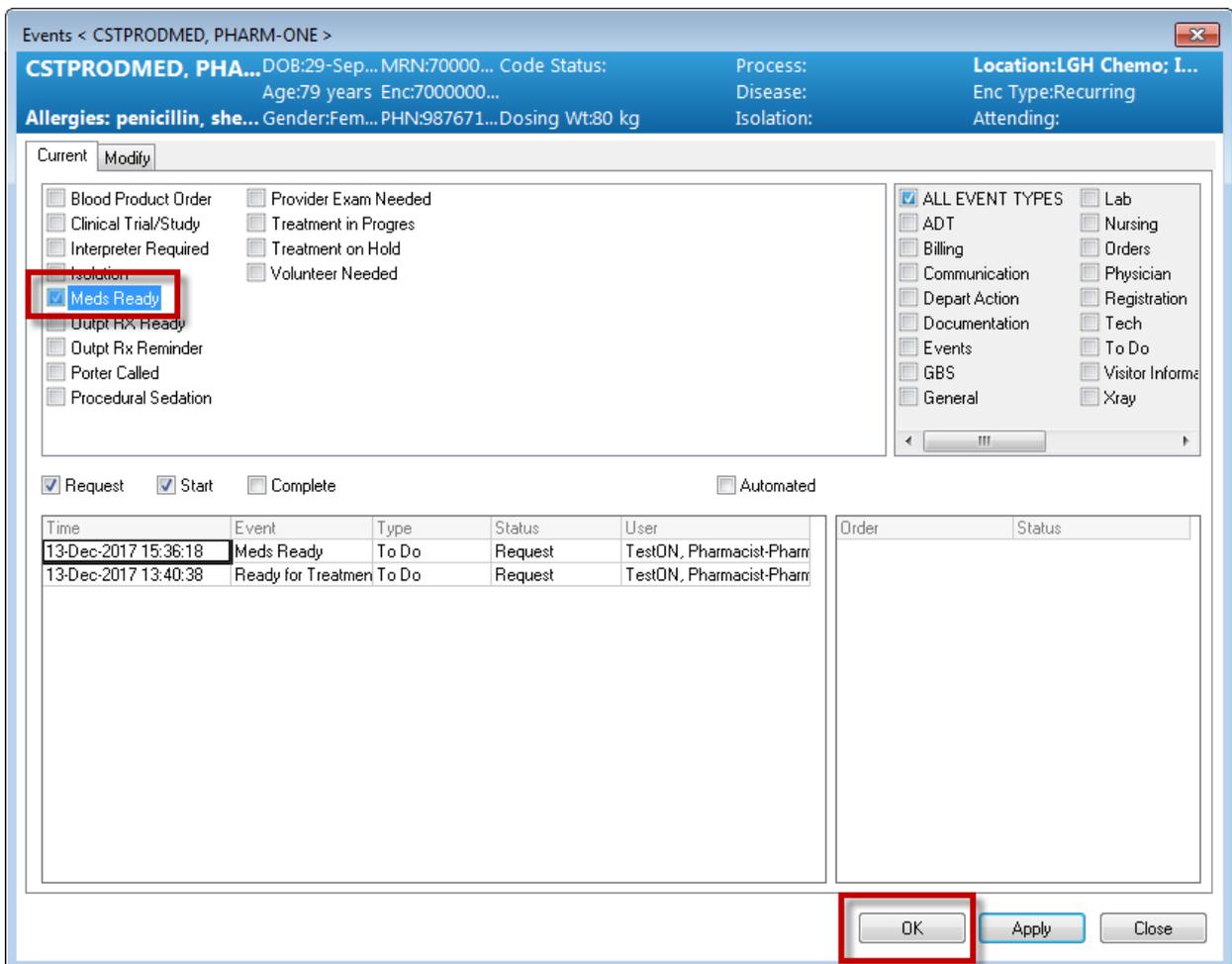
Indicator Icons related to Pharmacy

- Ready for Treatment
- Meds Ready
- Medications to be reviewed by Nursing

Location	Modality	Name	Date of Birth	Isolation	Allergies	Arrival Mode	RN	To Note	To Do	Comments
Exam 02		CSTONCONE, ONE	24-Oct-1975							
IV WR		CSTPRODHIM, STESTSEVEN	01-Jan-2000							
IV WR	Chemotherapy	CSTPRODMEDE, CHLOE	29-Sep-1980							
IV WR	Chemotherapy	CSTPRODMEDE, PHARM-ONE	29-Sep-1938							
IV WR		CSTPRODMEDE, LGH-CHEMO	18-Feb-1967							
IV WR		CSTPRODNOC, JOEPHARM	01-Dec-1981							

4. In the Tracking Shell, find your assigned patient with the icon Ready for Treatment  under the **To Note** column.
5. This icon is added to the Tracking Shell by the nursing staff.
After you have prepared the medication for the patient, you will add the Meds Ready icon  under the **To Note** column.
6. On the same line of your patient name, right-click in the **To Note** column.
7. The Events screen will appear.
8. Add a checkmark for Meds Ready.
9. Click the **OK** button

When this icon is added, this alerts the team to have someone collect the medications for administration.



Events < CSTPRODME, PHARM-ONE >

CSTPRODME, PHA... DOB:29-Sep... MRN:70000... Code Status: Process: Location:LGH Chemo: I...
 Age:79 years Enc:7000000... Disease: Enc Type:Recurring
 Allergies: penicillin, she... Gender:Fem... PHN:987671... Dosing Wt:80 kg Isolation: Attending:

Current Modify

- Blood Product Order
- Clinical Trial/Study
- Interpreter Required
- Isolation
- Meds Ready
- Output Rx Ready
- Output Rx Reminder
- Porter Called
- Procedural Sedation
- Provider Exam Needed
- Treatment in Progress
- Treatment on Hold
- Volunteer Needed
- ALL EVENT TYPES
- ADT
- Billing
- Communication
- Depart Action
- Documentation
- Events
- GBS
- General
- Lab
- Nursing
- Orders
- Physician
- Registration
- Tech
- To Do
- Visitor Informa
- Xray

Request Start Complete Automated

Time	Event	Type	Status	User
13-Dec-2017 15:36:18	Meds Ready	To Do	Request	TestDN, Pharmacist-Pharm
13-Dec-2017 13:40:38	Ready for Treatment	To Do	Request	TestDN, Pharmacist-Pharm

Order Status

OK Apply Close

Activity 2.4 – Documenting Lifetime Cumulative Dosing

Duration: Estimated Completion Time - 5 min

Specific drugs are pre-set in the system to capture Lifetime Cumulative Dosing

1

1. Click the Lifetime Cumulative Dosing Icon  in the Pharmacy Medication Manager Menu



2. Select **Doxorubicin** to be documented and fill out the remaining mandatory fields
 - a) Dose: **75 mg**
 - b) Height: **150 cm**
 - c) Weight: **60 kg**
 - d) In the Date field, press “**T**” as a short-cut to fill in today’s date
 - e) In the Physician field, search for **TestON, Oncologist**
Use Oncologist MSP #99692

Lifetime Cumulative Dosing

*Drug: DOXOrubicin *Dose: 75 *Dose Units: mg *Height: 150 *Height Unit: cm *Weight: 60 *Weight Units: kg

*Date: 30-Jan-2018 *Physician: TestON, Oncologist

Comments:

Outside Administrations						
Drug	Dose	Height	Weight	Date	Physician	Comments
Total:						

Administrations						
Drug	Administered Dose	Administered Date & Time	Ordered Dose	Scheduled Date & Time	Order Id	Result Status
Total:						

Overall Total:

Edit Add Close

3. Click **Add**.
4. Click **Close**.

PATIENT SCENARIO 3 – Residential Facilities

Learning Objectives

At the end of this Scenario, you will be able to:

- Manage medication profiles for residential patients
- Verify medication order pre-entered by pharmacy technicians
- Perform order entry from faxed Orders form.

SCENARIO

You are the pharmacist assigned to perform verification of medications for a residential facility. As Computerized Provider Order Entry will not be performed at residential sites, you will be using Pharmacy Medication Manager directly to verify all medication orders.

There are **no** Pharmacy Patient Monitor (PPM) queues set up for residential sites.

Activity 3.1 – Verifying Orders entered by Pharmacy Technician

Estimated Completion Time - 20 min

In this scenario, pharmacy technicians will be tasked to enter medication orders for residential patients in Pharmacy Medication Manager to expedite the verification process for pharmacists.

The pharmacy technician has entered medication orders for your assigned patient to be verified in the following activity.

According the faxed copy of the orders, the physician has written the following:

- Today at 07:20

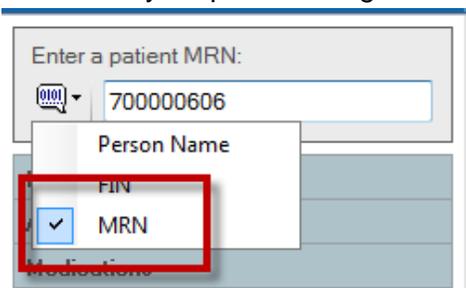
Medication Name
1. ASA 81 mg, 1 tab daily
2. Docusate 100 mg, 1 cap, BID
3. Metformin 250 mg, 1 tab, BID

- Today at 08:00 (Updated by physician)

Medication Name
1. D/C Metformin
2. Change to glyburide 5 mg, 1 tab, BID

1

1. Login to **Pharmacy Med Manager** with your Username and Password
2. Search for your patient using their MRN



NOTE: Recommended method to search for patients is by MRN. Change the dropdown to MRN to search by MRN.

Refer to the orders above for the appropriate action commands for the medication orders.

NOTE: The Mortar and Pestle icon denotes pharmacist verification is needed.

2 Pharmacy Medication Manager Action Orders

1. **ASA Order**

In the Action field for ASA 81mg choose **Verify** from the drop-down menu.

2. **Docusate Order**

This order has been entered incorrectly by the Pharmacy Technicians. The dose is 100mg and not 200mg. In the Action field for docusate 200 mg, 1 cap PO BID and choose **Void** from the drop-down menu.

3. **Metformin Order**

The Pharmacy Technician entering this order did not see the note below to discontinue this order and change to Glyburide 5 mg 1 tab BID. In the Action field for Metformin 250 mg, choose **Void** from the drop-down menu.

4. When done with selecting all actions, click the **Apply**.

The screenshot shows a software interface with tabs for 'Acute Profile', 'Ambulatory Profile', 'Results', 'Interventions', and 'Processing Orders'. Below the tabs is a 'Drug:' input field and an 'Add' button. A table displays three orders:

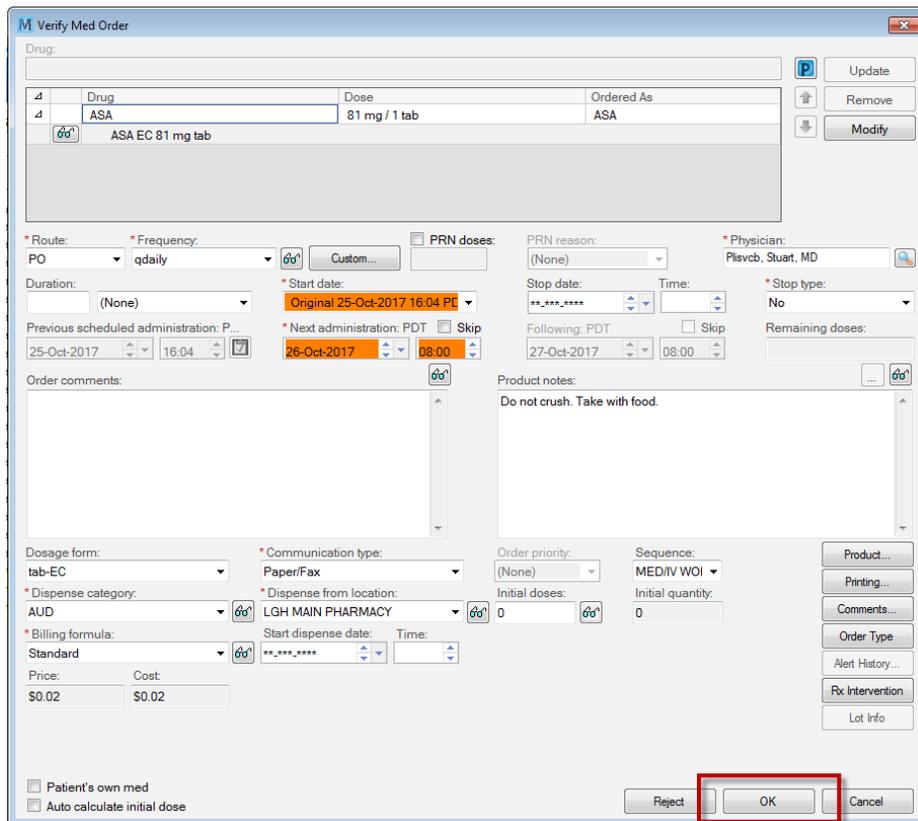
Action	Status	Order Sentence
Verify	active	ASA 81 mg / 1 tab tab-EC PO qdaily
Void	active	docusate 200 mg / 1 cap cap PO BID
Void	active	metFORMIN 250 mg / 1 tab tab PO BID

At the bottom of the interface are 'Submit', 'Cancel', and 'Apply' buttons. A blue note box with a lightbulb icon contains the following text:

NOTE: Do not use the Modify Action Command. Modify Order Action is only used to modify a Verified Order's rate or order comments.

3 ASA EC 81 mg

1. In the Verify Med Order screen.
 - Confirm all mandatory fields
 - a. Route: **PO**
 - b. Frequency: **qdaily**
 - c. Physician: **pre-populates**
 - d. Communication type: **Paper/Fax**
 - e. Dispense category: **pre-populates**
 - f. Dispense from location: **pre-populates**
2. When complete, click the **OK** button.

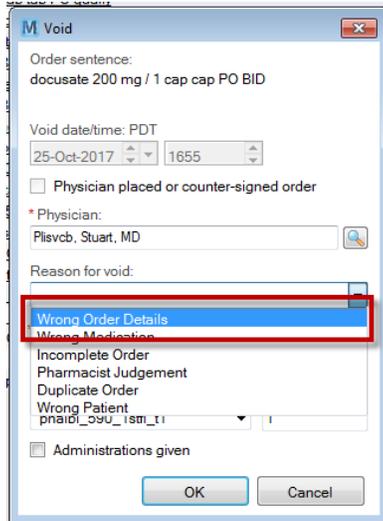


Screen will continue to the next medication

4 Docusate 200 mg Order

Fill out mandatory fields.

1. Void screen will appear.
2. For the Reason for void: field, choose **Wrong Order Details** from the drop-down menu.



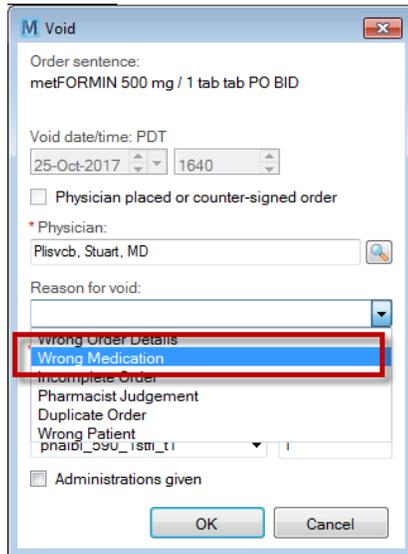
3. In the Communication field, choose **Paper/Fax**.
4. Click the **OK** button

Screen will continue to the next medication

5 Metformin 500 mg Order

Fill out mandatory fields.

1. Void screen will appear.
2. For the Reason for void: field, choose **Wrong Order Details** from the drop-down menu.



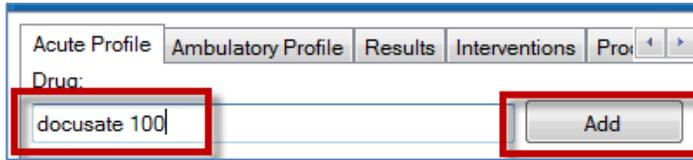
3. In the Communication field, choose **Paper/Fax**.
4. Click the **OK** button

Screen will return to the Acute Profile tab.

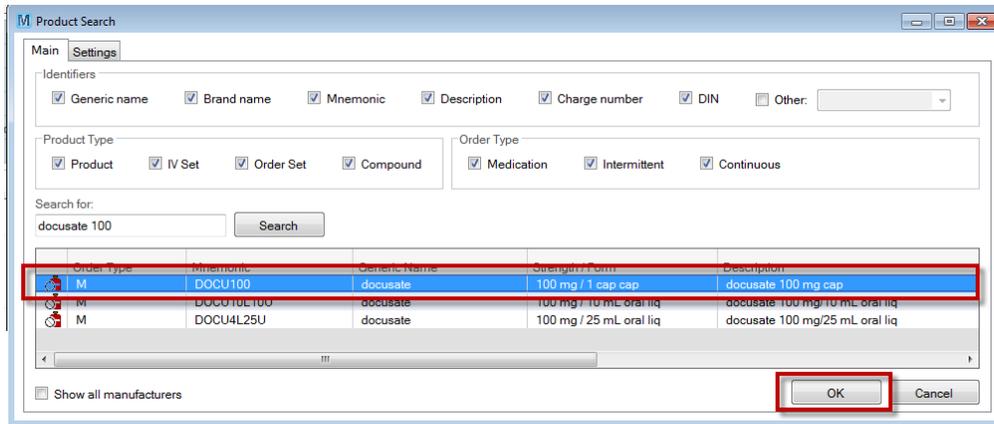
6 Correct Docusate Order

Enter Correct Order Docusate 100 mg, 1 cap PO BID

1. In the Drug field, type **Docusate 100** and click **Add**



2. In the Product Search screen, select line time with docusate **100 mg tab / 1 cap cap** in the Description column and click **OK**.



3. In the New Med Order screen confirm the correct dose 100 mg and click the **Update** button



4. Confirm all the mandatory fields in the New Med order screen.
 - a. Route: **PO**
 - b. Frequency: **BID**
 - c. Physician: **pre-populates**
 - d. Communication type: **Paper/Fax**
 - e. Dispense category: **pre-populates**
 - f. Dispense from location: **pre-populates**

Click the **OK** button

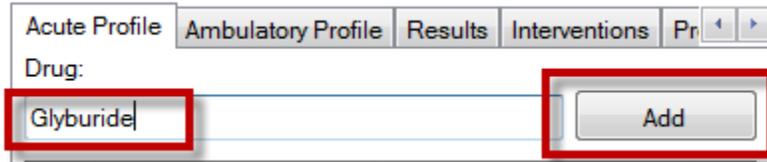
The screenshot shows the 'New Med Order' window with the following details:

- Drug:** docusate 100 mg cap
- Dose:** 100 mg / 1 cap
- Ordered As:** docusate
- Route:** PO
- Frequency:** BID
- Physician:** Plisvcb, Stuart, MD
- Communication type:** Paper/Fax
- Dispense category:** AUD
- Dispense from location:** EGH EN2
- Start date:** 25-Oct-2017
- Time:** 21:00
- Order priority:** (None)
- Sequence:** MED/IV WOI
- Initial doses:** 0
- Initial quantity:** 0
- Price:** \$0.00
- Cost:** \$0.00
- Auto calculate initial dose:**

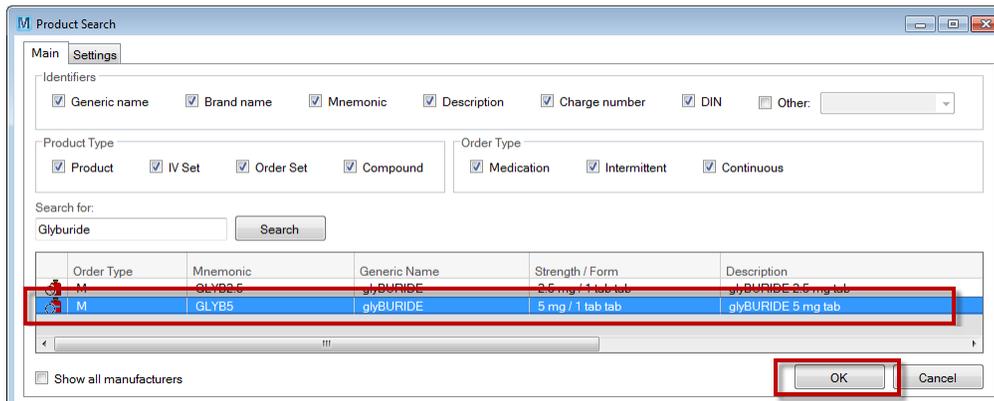
7 Correct Glyburide Order

Enter Correct Order Glyburide 5 mg PO BID

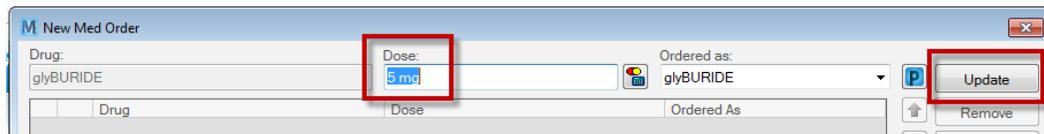
1. In the Drug field, type **Glyburide** and click **Add**



2. In the Product Search screen, select line with **glyburide 5 mg tab** in the Description column and click **OK**.



3. In the New Med Order screen confirm the correct dose 5 mg and click the **Update** button



4. Confirm all the mandatory fields in the New Med order screen.
 - a. Route: **PO**
 - b. Frequency: **qdaily**
 - c. Physician: **pre-populates**
 - d. Communication type: **Paper/Fax**
 - e. Dispense category: **pre-populates**
 - f. Dispense from location: **pre-populates**

Click the **OK** button

The screenshot shows the 'New Med Order' window with the following details:

- Drug:** glyBURIDE 5 mg tab
- Route:** PO
- Frequency:** BID
- Dose:** 5 mg / 1 tab
- Ordered As:** glyBURIDE
- Physician:** Plsvcb, Stuart, MD
- Start date:** 25-Oct-2017
- Time:** 17:35
- Next administration:** 26-Oct-2017 08:00
- Communication type:** Paper/Fax
- Dispense category:** AUD
- Dispense from location:** EGH EN2
- Order priority:** (None)
- Sequence:** MED/IV WOI
- Initial doses:** 0
- Initial quantity:** 0
- Product notes:** Take with food.
- Buttons:** Update, Remove, Modify, Product..., Printing..., Comments..., Order Type, Link Info..., Alert History..., Rx Intervention, Lot Info, OK (highlighted), Cancel.

- 8 Screen returns to the Acute Profile.
All orders have the chevron icon denoting the orders need to be submitted.
Click the **Submit** button.

Action	Status	Order Sentence	Start
	Active <<	ASA 81 mg / 1 tab tab-EC PO qdaily	12-[E]
	Voided <<	docusate 200 mg / 1 cap cap PO BID	12-[E]
	Voided <<	metFORMIN 250 mg / 1 tab tab PO BID	12-[E]
	Active <<	docusate 100 mg / 1 cap cap PO BID	12-[E]
	Active <<	glyBURIDE 5 mg / 1 tab tab PO BID	12-[E]

Buttons: Submit, Cancel, Apply

Key Learning Points

- Recognize there is no PPM Queue for Residential medication orders
- Pharmacy Order Entry is only done through Pharmacy Medication Manager
- Ability to process medication orders entered by Pharmacy Technicians by manually using the Action commands based on paper/faxed orders sent to Pharmacy by residential facility.
- Ability to directly enter medication orders from the paper/faxed sheet.

End Book Four

You are ready for your Key Learning Review. Please contact your instructor for your Key Learning Review.