

**SELF- GUIDED PRACTICE WORKBOOK [N84]**  
CST Transformational Learning

WORKBOOK TITLE:

**Provider: Radiologist**

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## # SELF-GUIDED PRACTICE WORKBOOK

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

**Disclaimer:**

Welcome to the Medical Imaging Education. The learning materials contain scenarios meant to mimic the functionalities used in your daily practice. The journey is designed to gradually introduce you to the functionalities and workflows specific to Cerner. You may fulfill simple tasks that may not be specific to your role, but that will introduce you to the functionalities that you might use.

## ■ 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**
- 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

## PATIENT SCENARIO 1

### Learning Objectives

As an MI Physician you will be completing the following activities:

-  Access PowerChart and use the message center to sign co-signed orders and review orders.
-  View Ambulatory Organizer and access a patient chart
-  Select the patient, select the encounter and document in the chart
-  Place an order in PowerChart
-  Manage a PowerPlan
-  Start and complete an exam

### SCENARIO

This workbook contains a series of activities that will guide you on how to complete necessary tasks during your workday. It starts with a review of how to access the Clinical Information System (CIS) from PACS and continues with activities that use PowerChart. You will also learn to start and complete an exam within RadNet (the RIS).

Follow the steps in the CIS with the patients given to you on your training card. If you have any questions please ask your instructor.

## Activity 1.1 – Accessing PowerChart from Radiologist Desktop

In the **Train environment you will not be able to login through FFI** however in real life you will most likely access a patient’s chart this way. We are demonstrating here how you would access PowerChart from FFI.

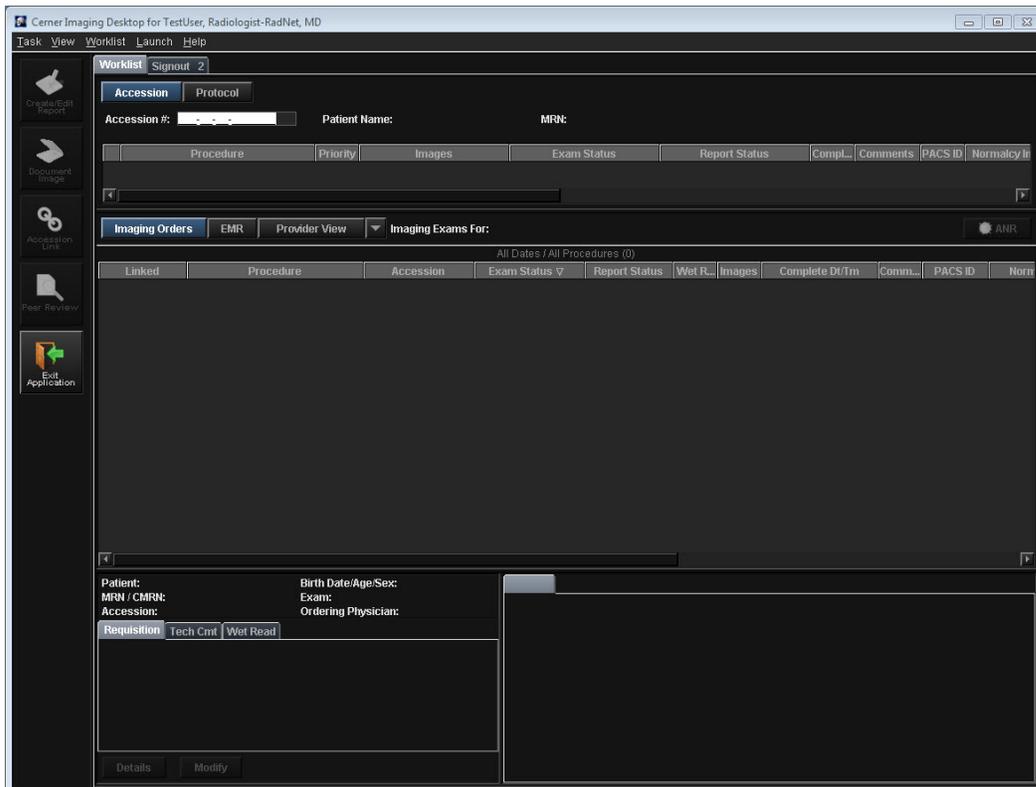
- 1 When you start your shift we suggest you login to Citrix and Fluency. Login to Citrix Storefront – and locate the Desktop Launcher icon and open:



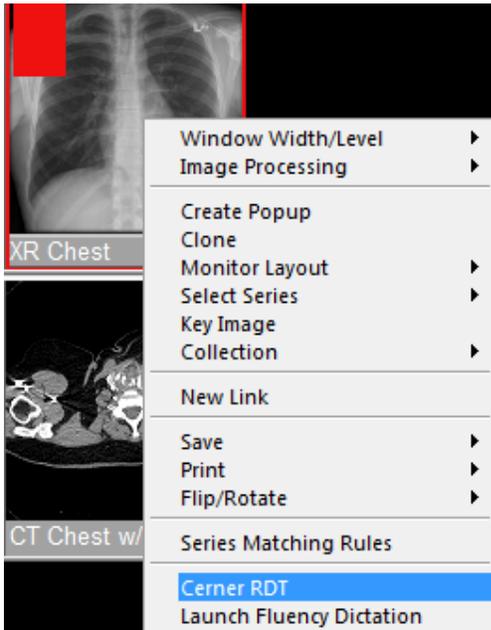
Launch the Philips IntelliSpace Radiology / FFI dual launch icon on the Windows desktop



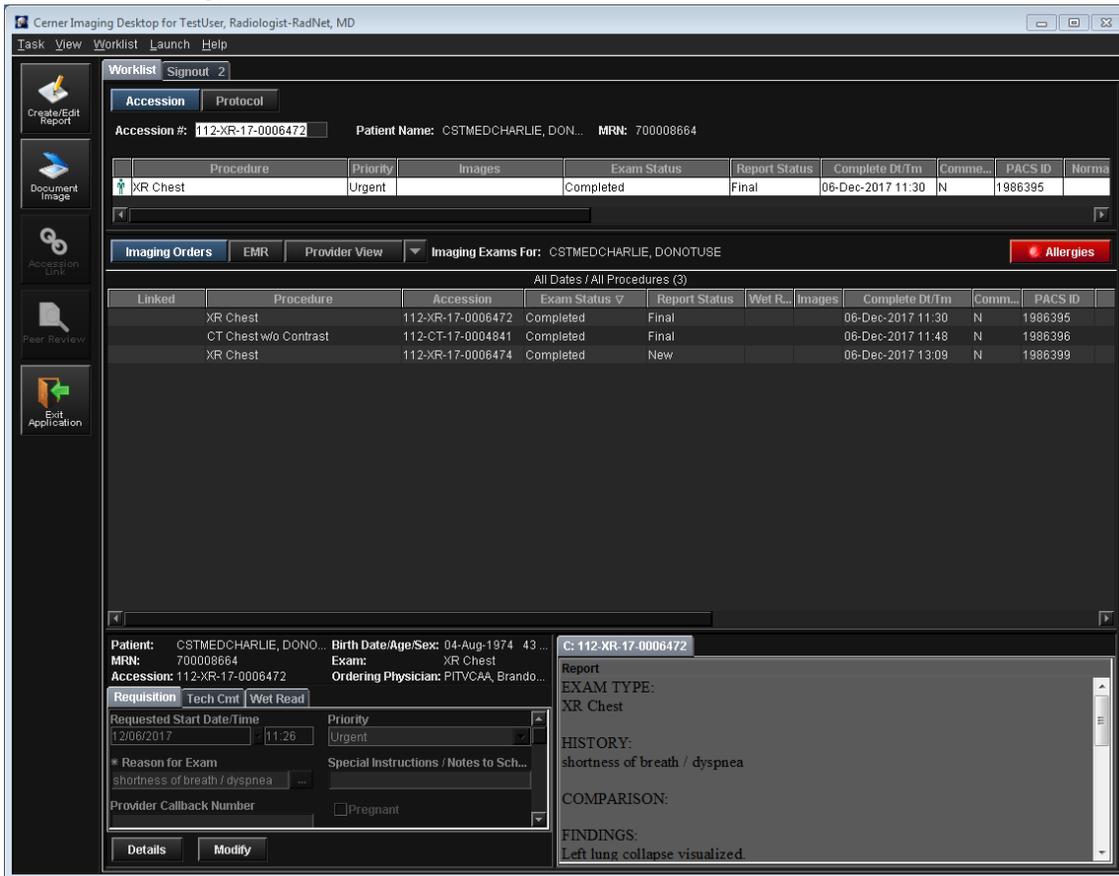
- 2 Cerner Radiology Desktop window opens:



- Once Philips and FFI are open and logged in, open an exam in Philips IS Radiology Right-click on the study's image thumbnail or the image in Philips and select **Cerner RDT**.



- Cerner Radiology Desktop will load the accession number in context.



You can view the patient's chart by going to the Launch menu and selecting PowerChart



5 PowerChart opens into the patient's chart to the Imaging Radiologist Summary.

**Patient Summary**

**CSTMEDCHARLIE, DONOTUSE**  
 43 Years M DOB: 08/04/1974  
 Visit: 706/12/2017 11:00, LGH 4E  
 Patient Portal: No

**Primary Care**  
 Provider: Bonilla, NOLDAP, Johanna

**Patient Information**  
 Chief Complaint: Shortness of breath and cough x 3 days, feeling unwell  
 Reason For Visit: Shortness of Breath  
 Primary Physician: Bonilla, NOLDAP, Johanna  
 Attending Physician: PITVCAB, Chelsea, MD  
 Admitting Physician: PITVCAB, Chelsea, MD  
 Service: General Internal Medicine  
 Room/Bed: 410-01  
 Admit Date: 06/12/17  
 Targeted Discharge Date: No results found  
 Advance Directive: No  
 Last Visit: 06/12/17 (Recurring)  
 Code Status: Attempt CPR, Full Code

**Allergies (1)**  
 Demerol HCl rash

**Labs**  
 Last 90 days for all visits

Lab	Today's value	Previous value
Urea	5.5	
Glomerular Filtration Rate Estimated	112	
INR	1.1	
WBC Count	9.9	
WBC Count	9.9	
RBC Count	4.45	
Hemoglobin	135	
Hematocrit	0.45	

**Documents (4)**  
 ED Patient Summary  
 Admission Note Provider  
 ED Screening - Adult - Text  
 ED Triage - Adult - Text

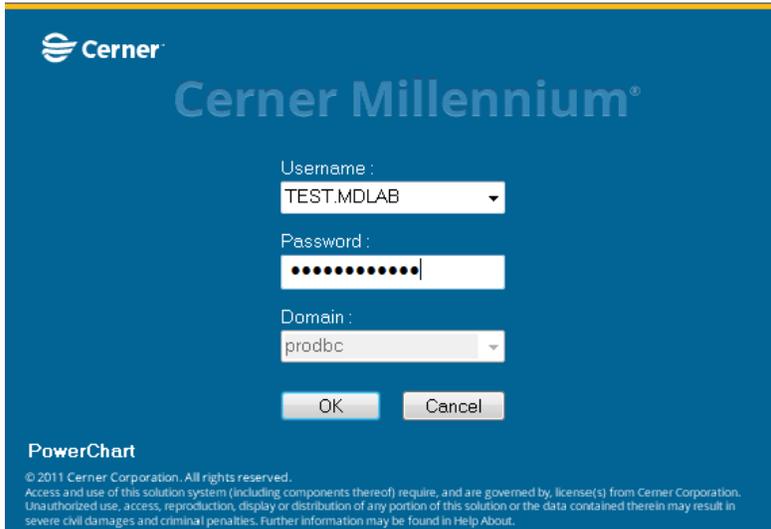
**Medications**  
 Scheduled (1) Next 12 hours  
 ceFTRIAXone 2,000 mg = 50 mL, 150 mL/h, 07/12/17 14:00  
 sodium chloride 0.9% (NS) continuous infusion 1,000 mL 100 mL/h, IV, Stop: 07-Dec-2017 13:21 PST  
 PRN/Unscheduled Available (1) Last 48 hours  
 dimeehyDRINATE 50 mg, IV, q4h, PRN: 06/12/17 11:51  
 nausea or vomiting

PRODBC TEST.RADIOLOGIST Thursday, 07-December-2017 12:05 PST

## Activity 1.2 – Access PowerChart and Utilize Message Centre

### 1 Username and Password

Begin by entering the provided Username and Password into the Login screen.



**Cerner**  
Cerner Millennium®

Username :  
TEST.MDLAB

Password :  
●●●●●●●●

Domain :  
prodbc

OK Cancel

**PowerChart**  
© 2011 Cerner Corporation. All rights reserved.  
Access and use of this solution system (including components thereof) require, and are governed by, license(s) from Cerner Corporation. Unauthorized use, access, reproduction, display or distribution of any portion of this solution or the data contained therein may result in severe civil damages and criminal penalties. Further information may be found in Help About.

### 2 Message Center

When you open PowerChart this way your landing page will be **Message Centre**. This is where you will have messages waiting for your attention (pending orders or results to review – (1)). The messages in bold have not been previously viewed (2).

**Message Centre** [Full screen]

**Inbox Summary**

**Inbox** Proxies Pools

Display: Last 90 Days

- Inbox Items (481)
  - Results (16/23)**
    - Abnormal (2/2)
    - Critical (3/3)
    - Other (11/18)
  - Documents (4/4)
    - Sign (2/2)
    - Review (2/2)
  - Orders (461/462)
    - Cosign Orders (456/457)
    - Proposed Orders (5/5)
  - Messages (0/1)
    - General Messages (0/1)
    - Results FYI
  - Work Items (0)
    - Saved Documents (0/3)
    - Deficient Documents
    - Reminders
  - Notifications
    - Trash
    - Sent Items
    - Notify Receipts

**Results** x

Communicate Open Message Journal Forward Only Select Patient Select All Result Journal

Abnormal	Assigned	Create D...	Subject	Fr...	O...	N...	Status	Patient Na...	Update Date	Result Status	Result Type
Critical: 0 High...	TestUser, ...	28-Nov-2017 ...	EC Echocardi...				Opened	CSTPROD...	16-Jan-2018 1...	Unauth	Radiology
Critical: 0 High...	TestUser, ...	28-Nov-2017 ...	EC Echo Peric...				Opened	CSTPROD...	16-Jan-2018 1...	Modified	Radiology
Critical: 0 High...	TestUser, ...	02-Jan-2018 1...	EC Echocardi...				Opened	CSTPROD...	23-Feb-2018 0...	Auth (Verified)	Radiology
		03-Jan-2018 ...	IR Angiogram...		33		Pending	CSTPROD...	03-Jan-2018 ...	Auth (Verified)	Radiology
		03-Jan-2018 ...	NM Myocardi...		3		Pending	CSTPROD...	03-Jan-2018 ...	Auth (Verified)	Radiology
		03-Jan-2018 ...	CT Angio Chest		33		Pending	CSTPROD...	03-Jan-2018 ...	Auth (Verified)	Radiology
		03-Jan-2018 ...	NM Myocardi...		3		Pending	CSTPROD...	03-Jan-2018 ...	Auth (Verified)	Radiology
Critical: 0 High...	TestUser, ...	03-Jan-2018 1...	EC Echo Peric...				Opened	CSTPROD...	16-Jan-2018 1...	Auth (Verified)	Radiology
		17-Jan-2018 ...	EC Echo Peric...				Pending	CSTPROD...	17-Jan-2018 ...	Auth (Verified)	Radiology
		20-Jan-2018 ...	Fungus Culture		20		Pending	CSTPROD...	20-Jan-2018 ...	Auth (Verified)	MBO
		22-Jan-2018 1...	US Abdomen		1		Opened	CSTPROD...	22-Jan-2018 1...	Modified	Radiology
Critical: 0 High...		24-Jan-2018 ...					Pending	CSTLABSQ...	24-Jan-2018 ...		
Critical: 0 High...		31-Jan-2018 ...			6		Pending	CSTLABSQ...	12-Mar-2018 ...		
Critical: 1 High...		31-Jan-2018 ...			1		Pending	CSTLABSQ...	02-Feb-2018 ...		
Critical: 2 High...		01-Feb-2018 ...			1		Pending	CSTLABSQ...	01-Feb-2018 ...		
Critical: 4 High...		02-Feb-2018 ...			25		Pending	CSTLABSQ...	09-Feb-2018 ...		
NEG		07-Feb-2018 ...	Blood Culture		1		Pending	CSTLABSQ...	07-Feb-2018 ...	Auth (Verified)	MBO
		20-Feb-2018 1...	BD Whole Body				Opened	CSTPROD...	20-Feb-2018 1...	Auth (Verified)	Radiology
See Result		28-Feb-2018 ...	CSF Culture		6		Pending	CSTLABSQ...	28-Feb-2018 ...	Auth (Verified)	MBO
		05-Mar-2018 ...	NM Bone Mar...		69		Pending	CSTPROD...	05-Mar-2018 ...	Auth (Verified)	Radiology
		06-Mar-2018 ...	MRI Abdome...		9		Pending	CSTPROD...	06-Mar-2018 ...	Auth (Verified)	Radiology
		06-Mar-2018 1...	US OB > 14 De...		9		Opened	CSTPROD...	06-Mar-2018 1...	Modified	Radiology
		30-Mar-2018 ...	Blood Culture		12...		Pending	LASTNAME...	30-Mar-2018 ...	Auth (Verified)	MBO

Message Centre needs to be checked once a day when working and can also be accessed from anywhere within the CIS by clicking **Message Centre** from the toolbar.

**PowerChart Organizer for TestUser, Radiologist-RadNet, MD**

Task Edit View Patient Chart Links Notifications Inbox Help

**Message Centre** Patient Overview Ambulatory Organizer Patient List

Propo.: 0 Abnor.: 0 Criti.: 0

CareConnect PHSA PACS VCH and PHC PACS MUSE FormFast WFI

- 3 The main function you will use in Message Centre is to **Co-Sign orders** (verbal, telephone, electronic). All medications administered by a technologist or a nurse in the department, must be cosigned. These orders will display under the **Cosign Orders** section in Message Centre.

Cosign Orders x Cosign Orders: CSTDEMO, ZEUS x

Forward Only | Select Patient | **Inbox View** | Summary View

**CSTDEMO, ZEUS** DOB:01-Feb-1979 MRN:700004780 Code Status:Attempt CPR, Fu...Process:Falls Risk **Location:LGH PACU 1; PAC...**  
 Age:39 years Enc:700000013571 Disease: Enc Type:Inpatient  
**Allergies: Egg, cloNIDine, ...** Gender:Male PHN:9876810595 Dosing Wt:75 kg Isolation:Airborne Attending:Plisvca, Rocco, MD

Original order entered and electronically signed by TestUser, Nurse on 26-Mar-2018 at 10:44 PDT.  
 Cosignature Required order by TestUser, GeneralMedicine-Physician, MD  
 Laboratory Department  
**Differential (CBC and Differential)**

Details | Additional Info | History | Comments | Validation | Results | Ingredients | Pharmacy

**Details**

Specimen Type	Blood
Collection Priority	Routine
Unit collect	No
Collected	No
Collection Date/Time	26-Mar-2018 10:43 PDT
Frequency	once
Stop Date/Time	26-Mar-2018 10:43 PDT
CC Provider 1 (Outpatient Only)	TestCST, GeneralMedicine-Physician1 ORD, MD
Order for future visit	No
Order Location	LGH PACU 1
Override Share Y/N	No
Provider Processed	N
Preprocessing Script	phsa_cd_oef_prov_preprocess

**Action Pane**

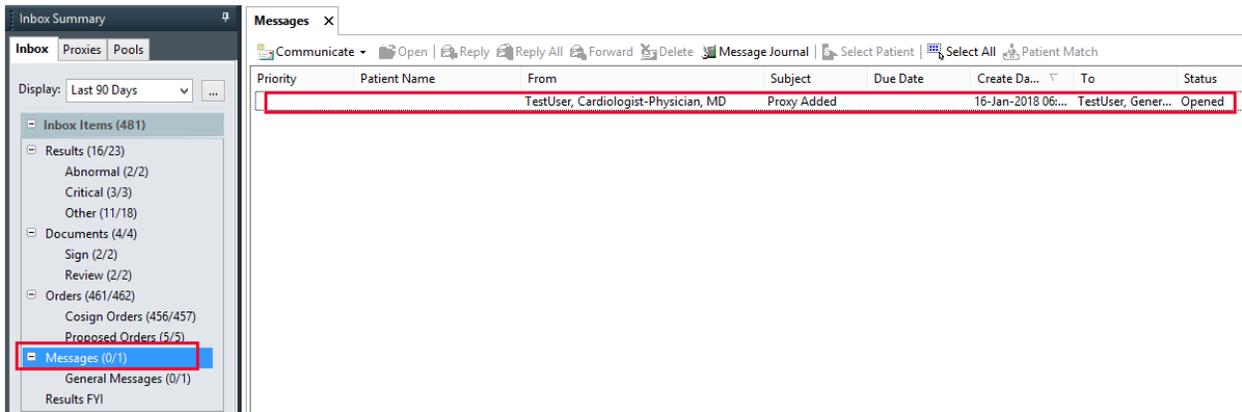
Approve (No dose range)  Refuse Reason:

Comments: (Limit 212)

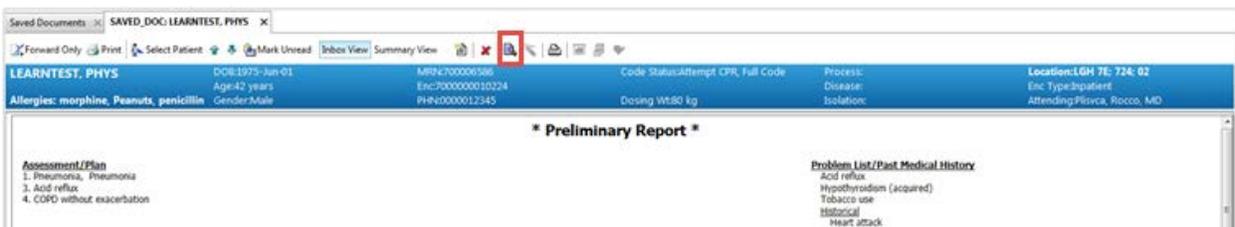
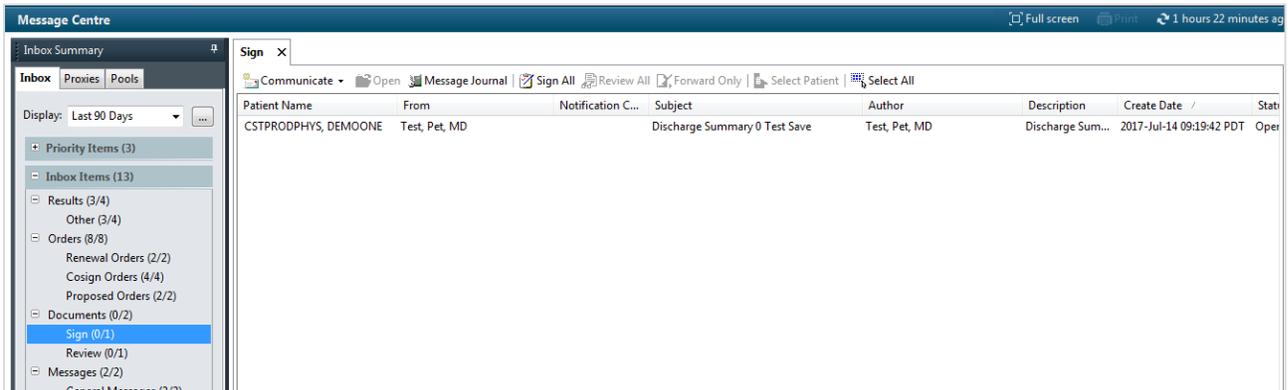
Next OK & Close **OK & Next**

1. Select **Cosign Orders** and select one of the orders to review. Click **OK & Next** to sign the order. You also have the option to sign and leave the rest for later by clicking **OK & Close**. If you want to view the orders use the **Next** button, this will not sign them.

- 4 Another function you may use Message Centre for is to view messages. Double-click to open a message. The message opens and you can act on it by clicking the icons in the menu bar. Hover over each icon to see its functionality.



- 5 All notes that require your co-signature will automatically flow to your Message Centre **Sign** folder. You may receive documents for signature from medical students and residents. Click the **Modify** icon on the toolbar to make edits and complete the note.



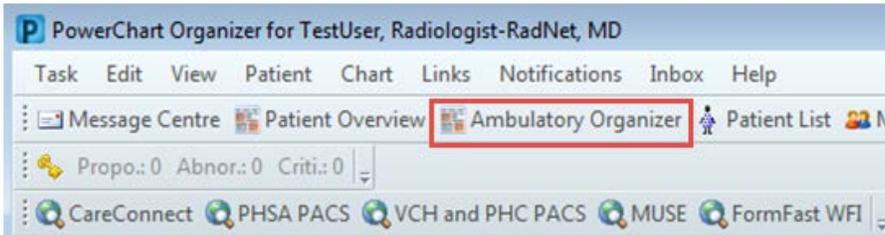
**NOTE:** It will open as a Preliminary Report and when you **Sign** the document it will be saved as a **Final Report**.

- 6 The system will bring you back to the Message Centre. Periodically push the **refresh button** at the upper right of your screen in order to have real time updates.

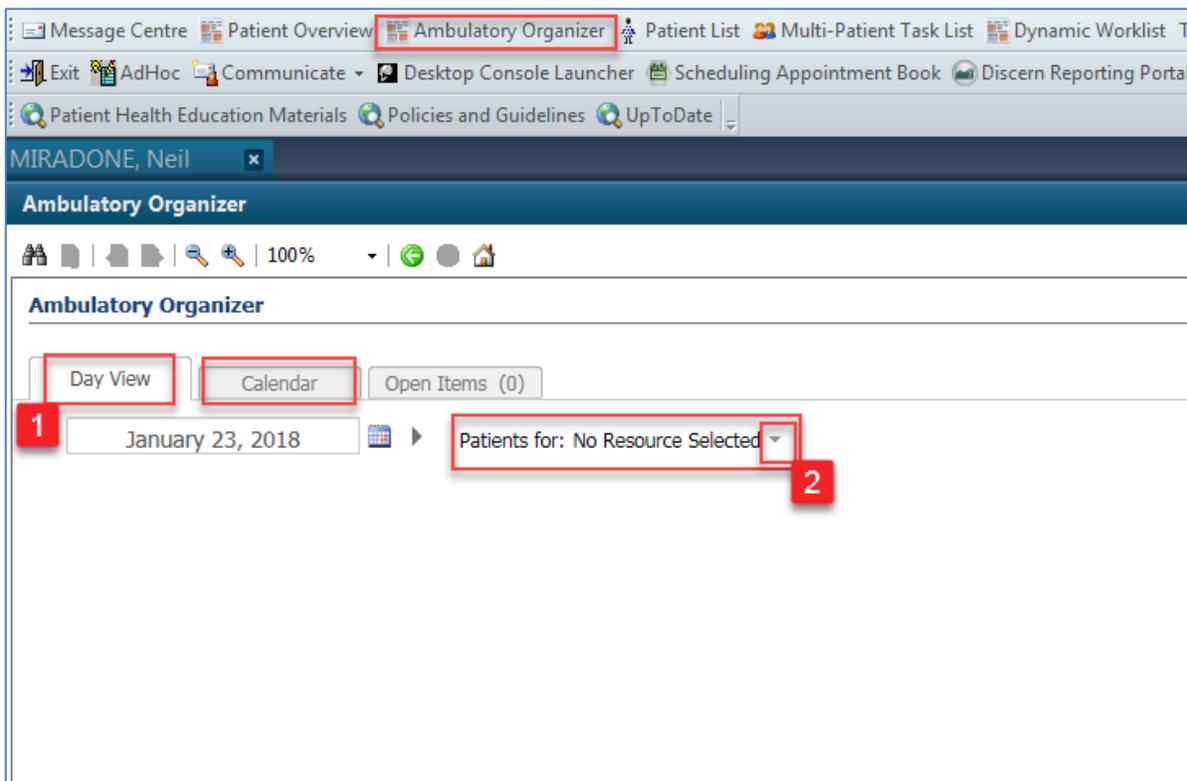


### Activity 1.3 – Ambulatory Organizer

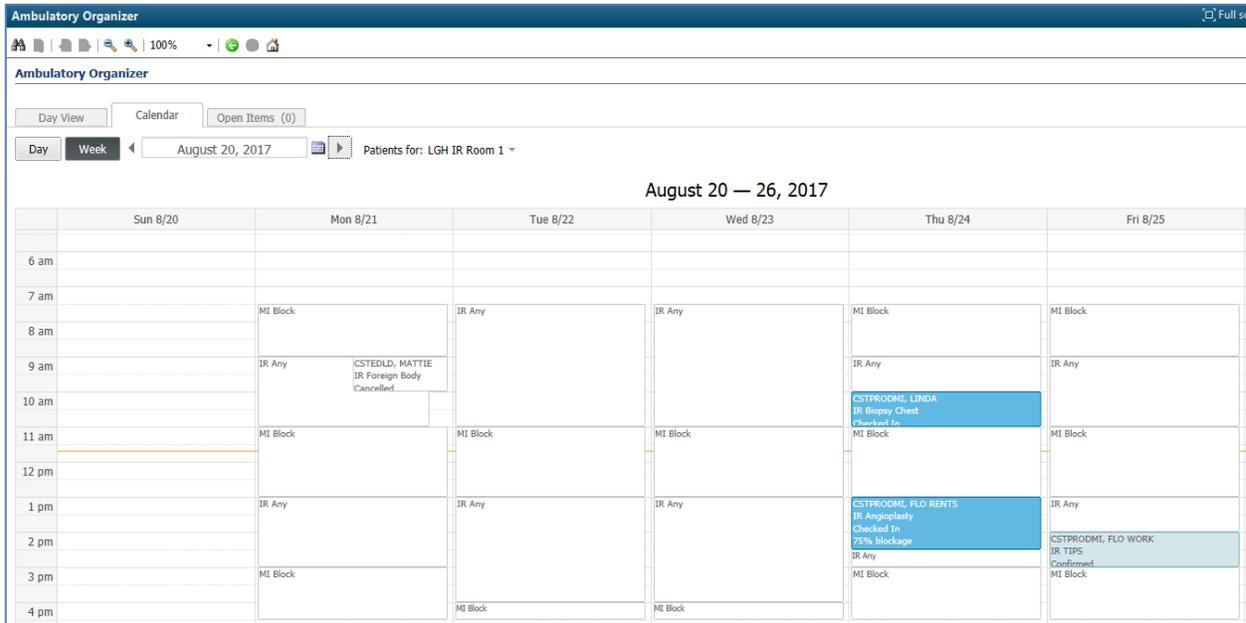
Ambulatory Organizer is another common view within the CIS that you may want to use. To access it, find the heading in the toolbar and click **Ambulatory Organizer**.



- 1 The default area you will land on after you click Ambulatory Organizer is set to Day View. This view provides a display of scheduled appointments for ambulatory providers or locations including:
  - Appointment times and details
  - Patient information and status
    1. In day view, next to **Patients for:** (2) select **LGH IR Room 1** to view the appointments in the IR room today.

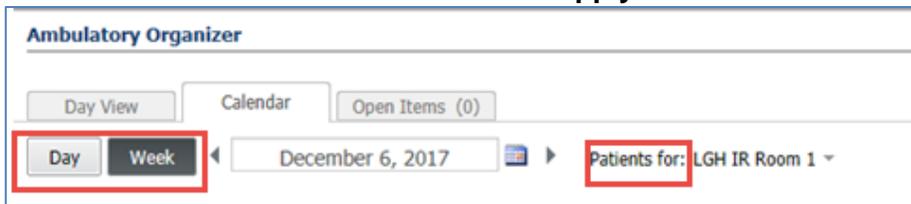


2 This Calendar view provides a Day and a Week view of the Calendar.



3 The appointments are sorted into rooms. Use the drop-down menu under **Patients for:** to view the desired area.

1. Select the **LGH CT Rm 1** and click **Apply**.



The colour status on the left side of the Day View and on the Calendar view assists you to understand the flow of the appointments. Your site might be using a different color scheme assigned to the appointment status.



Light blue – a confirmed appointment



Medium blue – checked appointment



Green – patient seen by nurse, medical student or other custom status



Orange – seen by a provider or a resident



Dark gray – appointment has been checked out

4

### Opening an Individual chart from Ambulatory Organizer

Hover over an exam to see more details. If you need more information than is being provided click on the timeslot or patients name to open the patient's chart.

Thu 8/24
MI Block
IR Any
<b>CSTPRODMI, LINDA</b> IR Biopsy Chest Checked In
MI Block
<b>CSTPRODMI, FLO RENTS</b> IR Angioplasty Checked In 75% blockage
IR Any

## **Activity 1.4 – Selecting a Patient, Selecting an Encounter and Documenting in the Chart**

In this section you will become familiar with an Individual's chart and how to find the different areas that you will access.

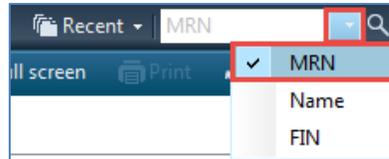
### **1 Patient Search**

Your colleague has provided you with both the patient's name and MRN. You can use either piece of information to begin searching for patients.

1. Navigate up to the patient search box in the upper-right corner of the page



2. a) Type in the name of the patient and click the magnifying glass icon to search. 
- b) If only an MRN is provided, click the drop down arrow beside the name search box and select MRN to change the search criteria to MRN. Manually type in the MRN and click the magnifying glass icon to search.



**2 Correct Patient and Encounter**

Select the correct patient and encounter from the results list.

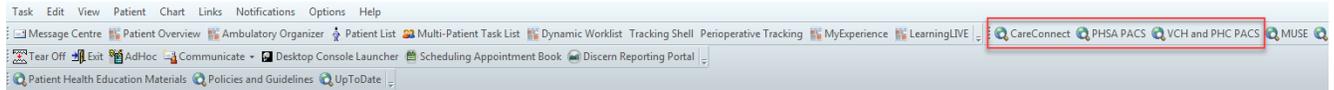
1. Click on the correct patient from the top box with the list of names. A list of encounters will appear in the box below.
2. Examine the details of the encounter to ensure it is correct.
3. Click **OK**.



**NOTE:** Several encounters can be active at the same time. Remember “Right Patient, Right Encounter.”

### 3 Chart Familiarity

In the toolbar (shown below) you will see different buttons that you may need to use to jump to different activities. Find the **CareConnect**, **PHSA PACs** and **VCH and PHC PACS** buttons where you will be able to view previous or recently completed images, reports and documentation. In the train environment you will not be able to connect to these resources.

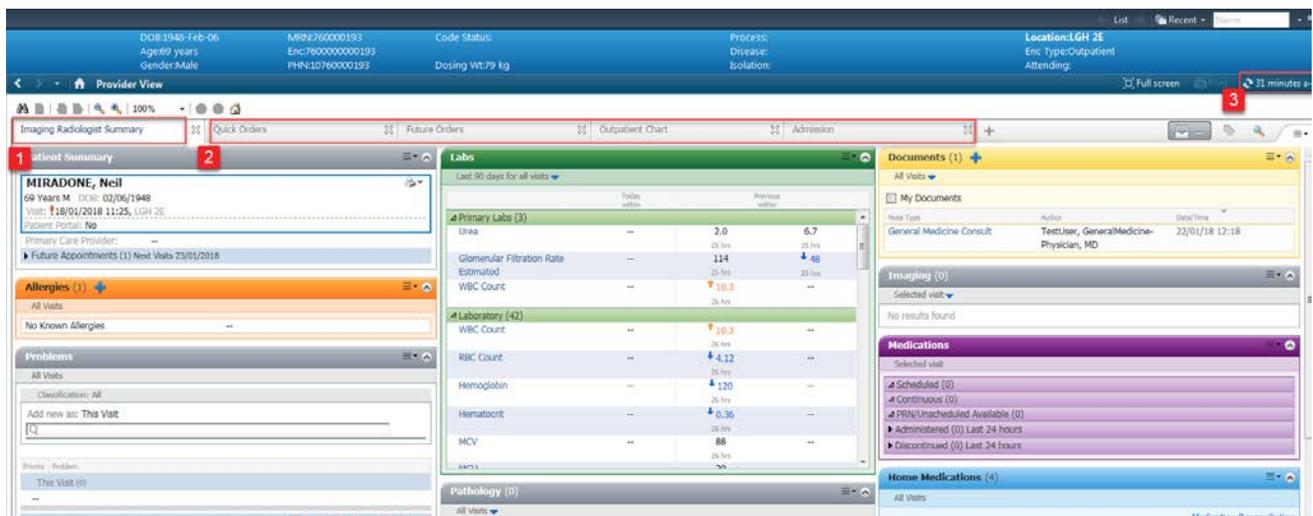


The **Banner Bar** located at the top of the screen displays demographic data, alerts, information about patient's location, and current encounter.



Below the Banner Bar the patient's chart opens to the **Imaging Radiologist Summary** (1) which is your current default screen when accessing a patient's chart. There are several tabs (2) designed to support specific workflows. Click each **tab** to see the differences.

Click the **refresh** icon  to ensure that your display is up-to-date. A timer shows how long ago the information on your screen was last updated. **Refresh** frequently (3).



Each window has its title. The current one is called **Provider View**. Note that you can use typical internet navigation buttons for moving one screen forward or back and going back to the **Home** view (your default screen).



**4 Workflow Tabs**

Each tab is designed to support a specific workflow. Click each tab to open a corresponding workflow view.

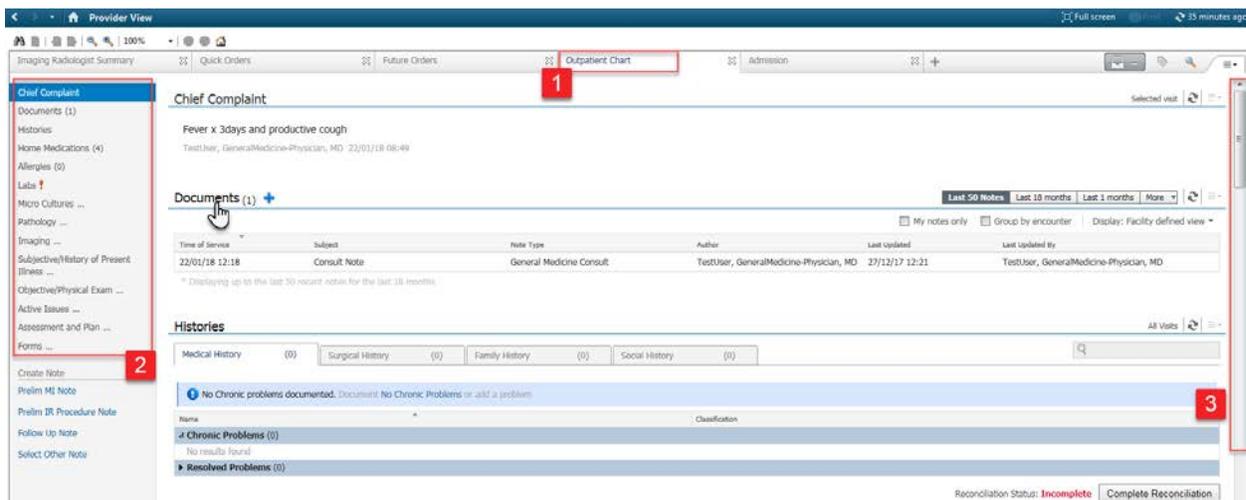
1. Navigate to the **Admission (1)** tab.

On the left side of the screen there is a list of **components (2)** representing workflow steps specific for your specialty.

2. Click on the components or use the **scroll bar (3)** to display the content of the patient's chart.

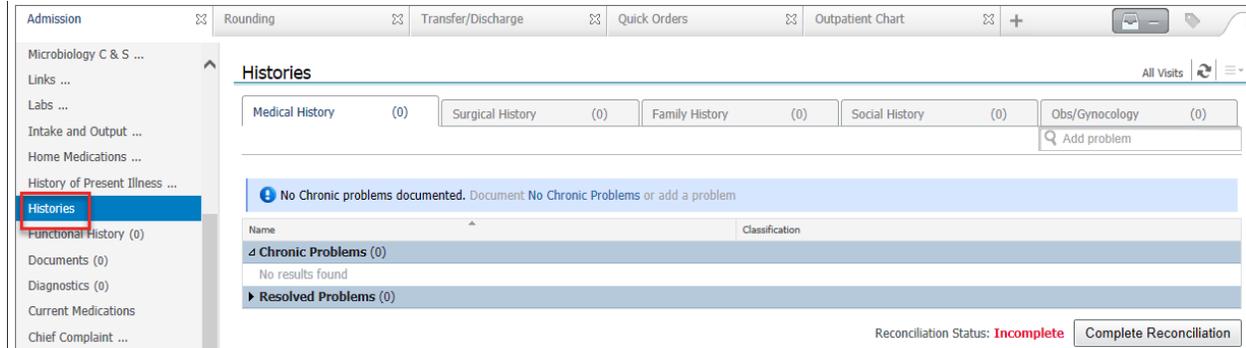
Each component has a heading. Place the cursor over the heading. This icon  means it is a link.

3. Click a heading to open a comprehensive window with more details.
4. Select **Documents** from the components to bring that section to the top of your page.
5. Click on a note to review.



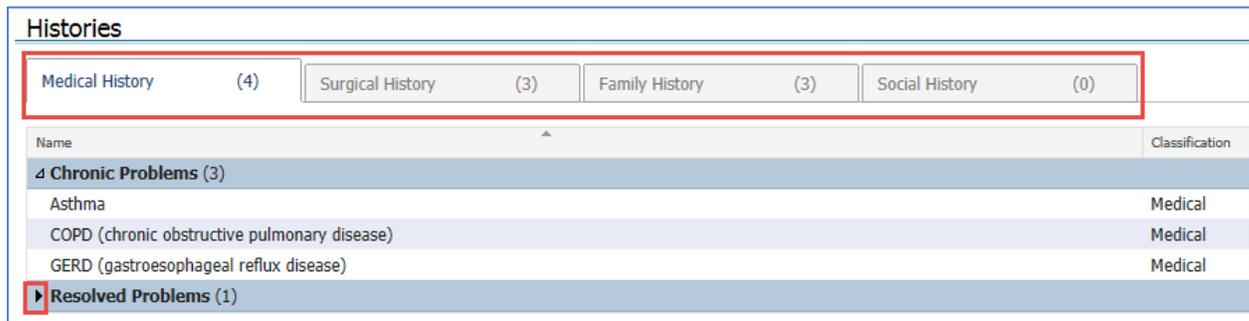
**5 Components - Histories**

1. Click on the **Histories** component within the components list to bring Histories to the top of the page.

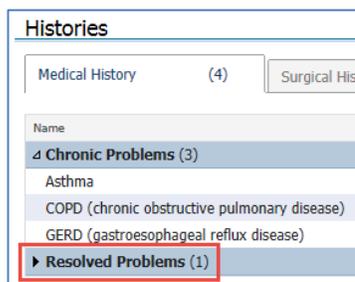


The **Histories** component is divided into four sections: Medical, Surgical, Family, and Social History.

2. Click on each of the **tabs** to review any previously recorded patient history within that section.



3. Subsections of Histories that are collapsed can be expanded clicking on the subsection title.



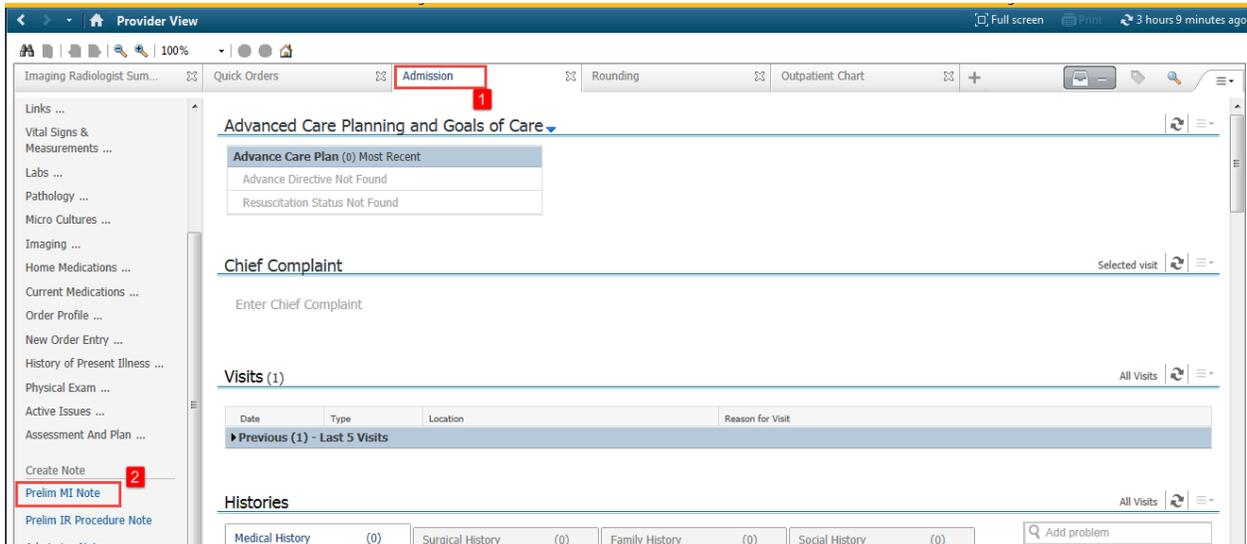
**NOTE:** You have the functionality to add to, remove from, or modify Histories. However, as a Radiologist, this will not be a function expected of you, so it has not been shown.

## 6 Creating a Note

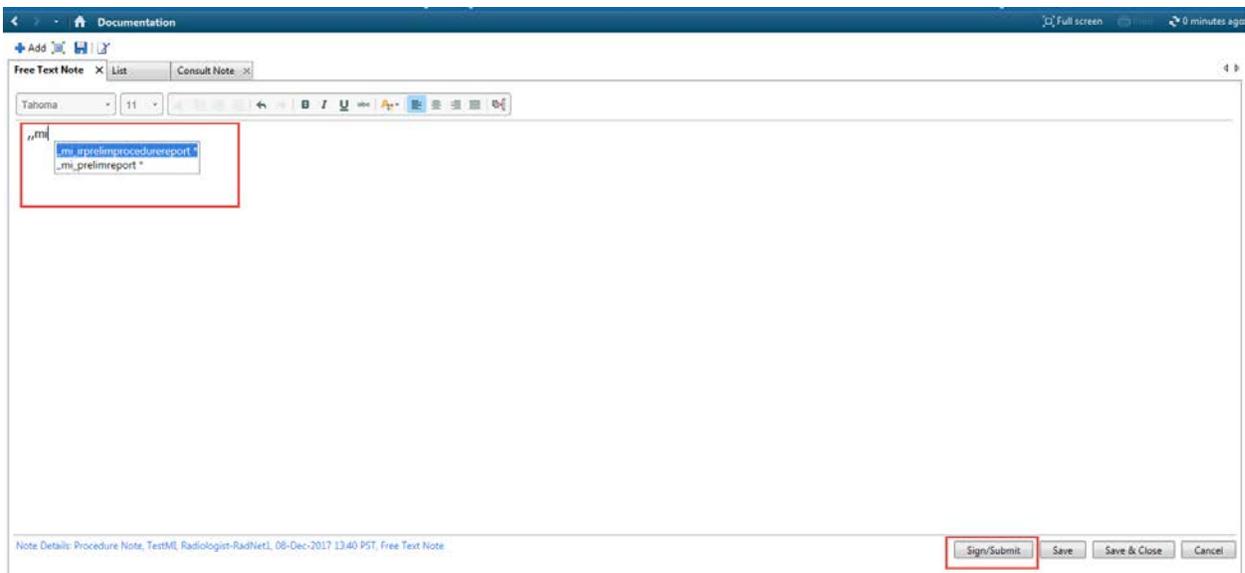
After an exam has been done, you may want to create a preliminary note for the ordering provider. To do this, select the **Admission** tab. At the bottom of the list of components you will see a section called **Create Note** with hyperlinks that when clicked will open that type of note. Select **Prelim MI Note**.



**NOTE:** These notes will also be available in the Outpatient, Discharge, and Rounding Tabs.



A free text note will display. If desired type in „mi and then double click „mi\_prelimreport from the drop-down menu.



The fields for introducing data are ready to be used, and can be activated by directly clicking on the field.



**NOTE:** You can also add new information by typing.

In order for the note to be shared in the system, you need to click on **Sign/Submit** when ready.

Title your document if necessary and click **Sign** one more time.

Creating a note this way will take you directly back to the provider view after you sign. In order to see your new note, click the local **refresh** button in the right corner of the documents section.

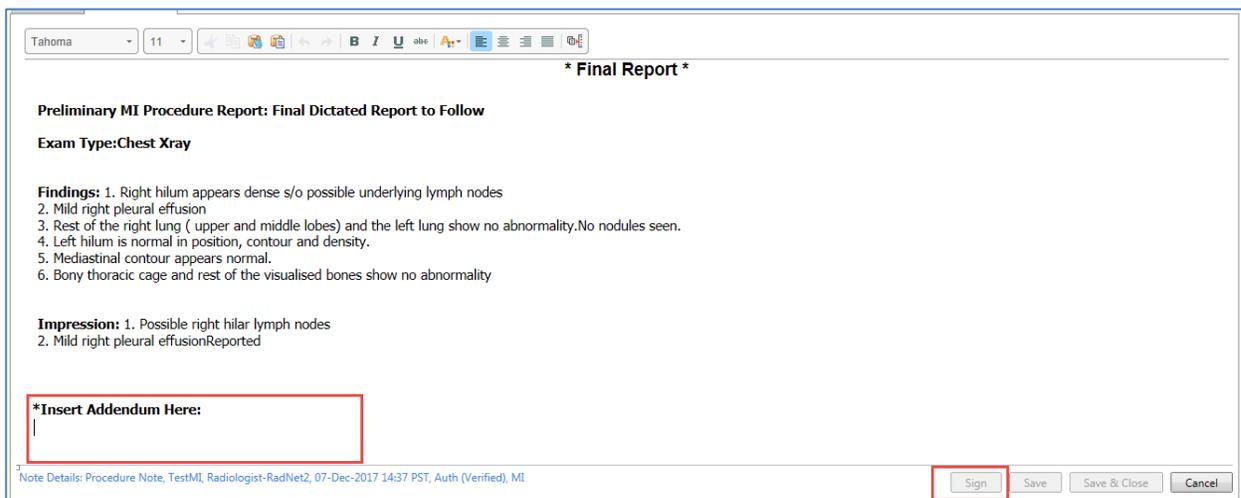
Time of Service	Subject	Note Type	Author	Last Updated	Last Updated By
13/12/17 10:10	MI Prelim Note	Procedure Note	TestMI, Radiologist-RadNet8	13/12/17 10:10	TestMI, Radiologist-RadNet8

## 7 Adding an Addendum to a CIS created note

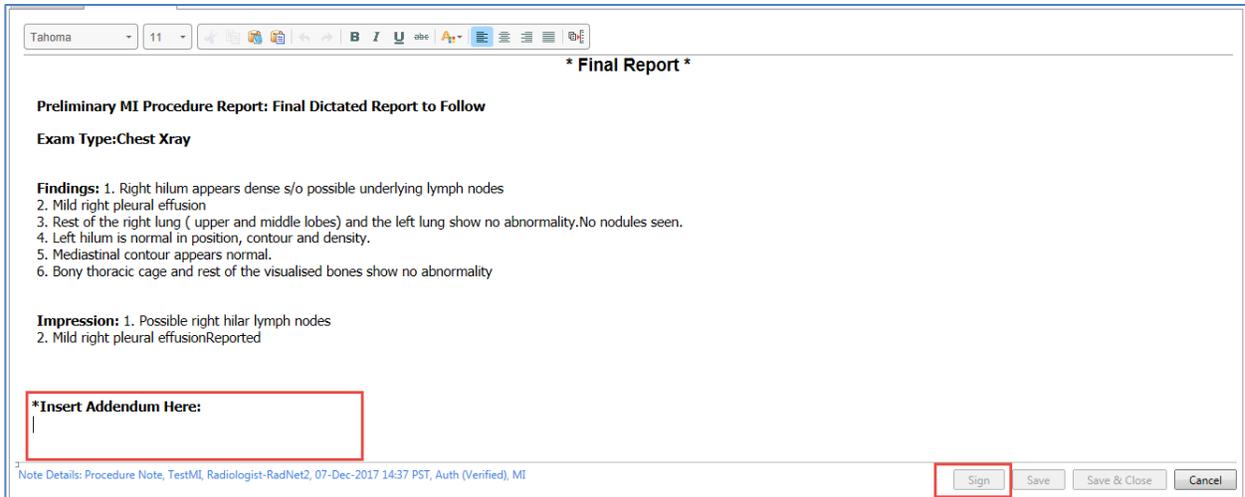
**NOTE:** This will never be done on a report that was dictated in FFI; in these cases continue to use FFI for dictating addendums)

After documents have been finalized, the body of their content cannot be edited. Instead, addendums can be created to reflect any changes that were needed after document submission.

1. Click on the consult note you just created under the **Documents** component and click **Open Document**.
2. Once the document opens in a new window, click on the **Modify** icon  or  **Modify** located in the tool bar.
3. The **Final Report** displays in edit mode with the added section **Insert Addendum Here** at the bottom. Type a comment of your choice.

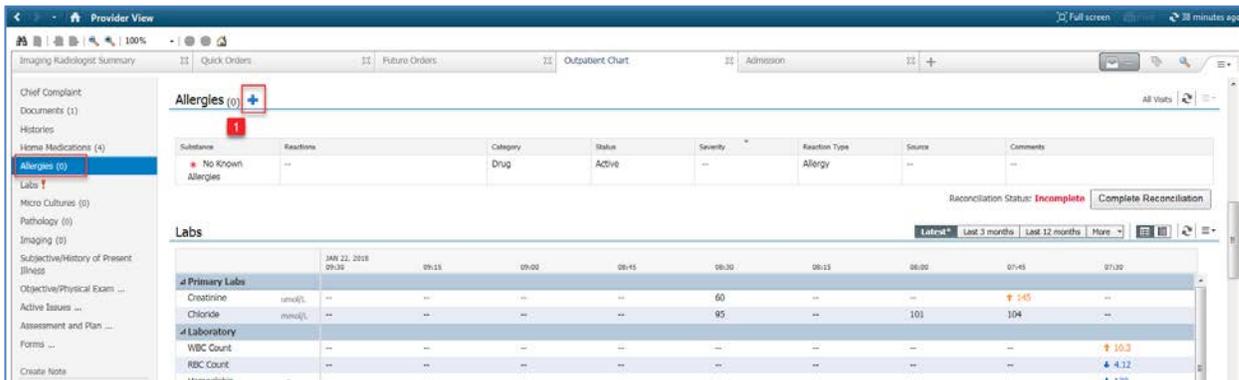


4. Add information and click **Sign/Submit** to complete the note. The updated note will be automatically distributed to all previously selected recipients. The addendum is stamped by the electronic signature.



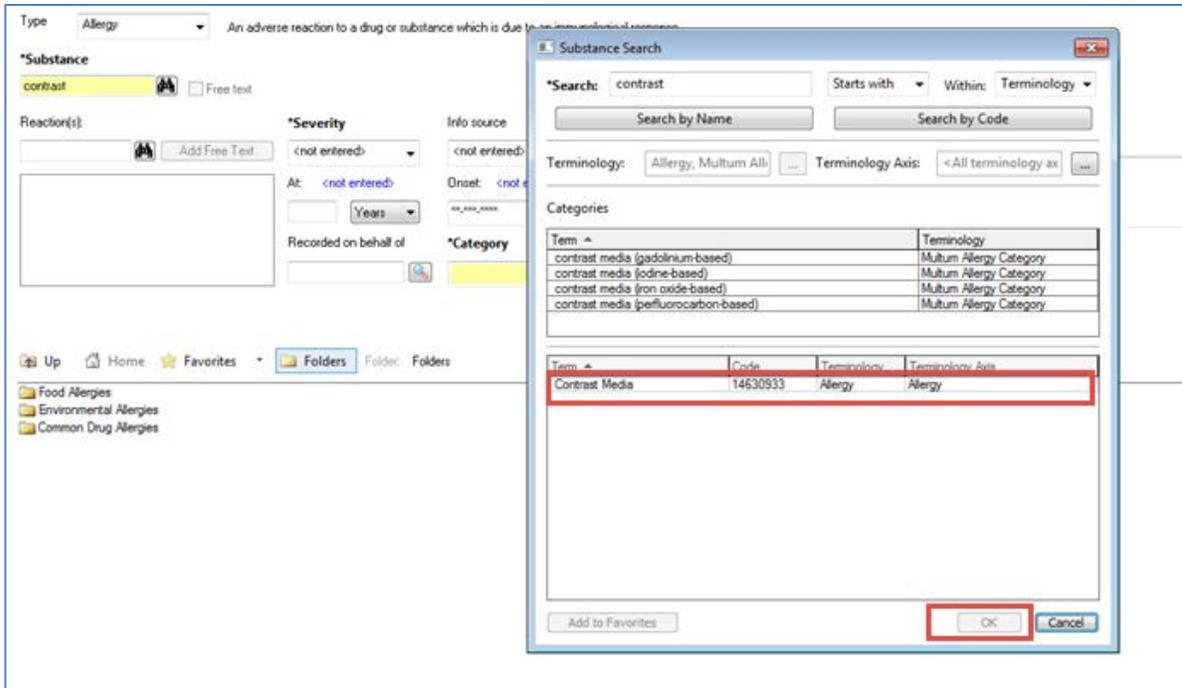
**8 Allergies**

Your patient just informed you that they have had a previous reaction to **contrast media (iron-oxide based)** however you do not see this documented in the chart. There are several ways to add an allergy. One way is to click on the **Allergies** component and then click on the **+**.



Fill in the required documentation denoted by the asterisk (\*).

1. Select the correct substance by clicking on the **Search** icon . A Substance Search window will open.
2. Search **Contrast media (iron-oxide)** and click Search by Name
3. Select the correct allergy and click **OK**.
4. Complete any other pertinent information such as the **severity** and **category**. Click **OK**.



**NOTE:** If a substance that the patient is allergic to can't be found in the substance search, a free-text allergy must be entered. Only pharmacists can enter free-text allergies. To request that a pharmacist document this free-text allergy, please submit a consult to pharmacy by ordering "IP Consult to Pharmacy – Determine Allergy History" in the details section indicate the substance that must be entered as free-text.



5. Click on **Mark All as Reviewed**, to review all allergies.
6. **Refresh** your page to see the new allergy displayed in the BannerBar.

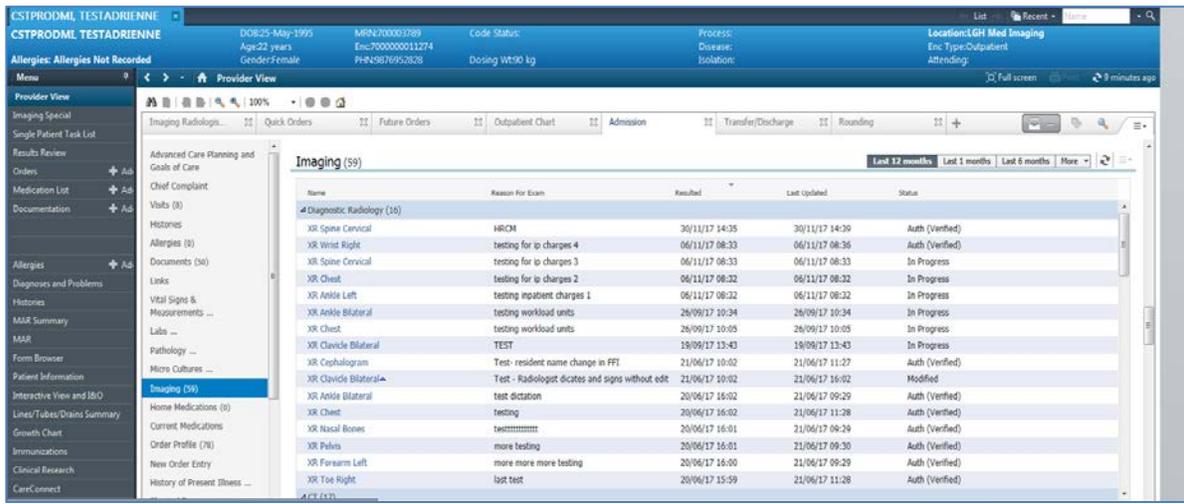


7. Press the back button to navigate back the Outpatient Chart tab.

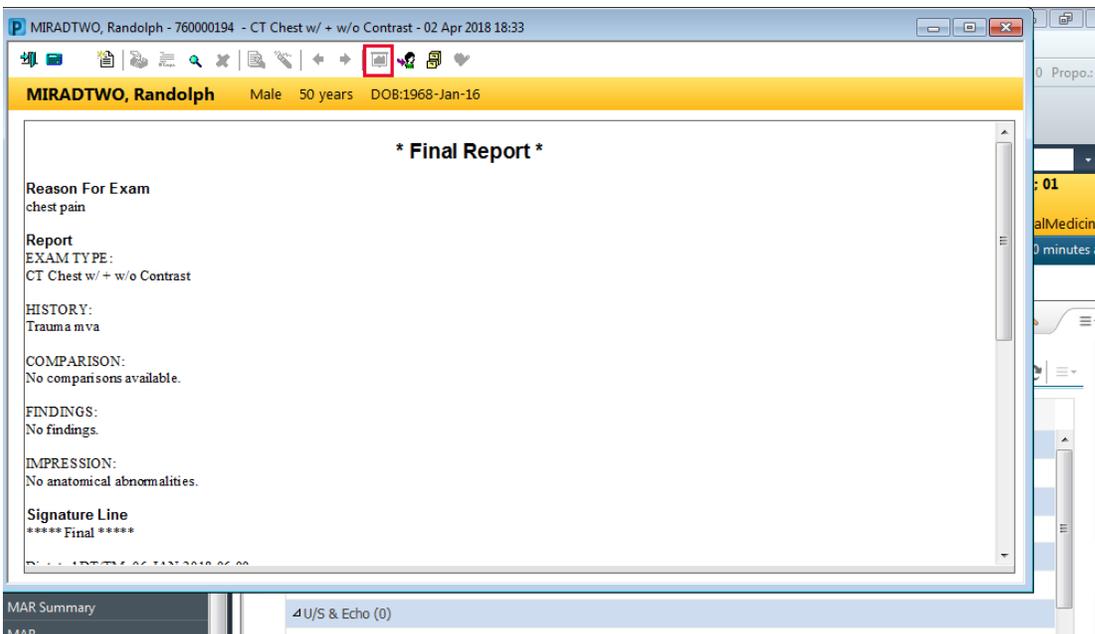
9 **Imaging – How Clinicians Review MI in PowerChart**

Once an imaging exam is completed and reported, the patient’s provider can navigate to the Imaging component to view the results.

1. Select **Imaging** from the components. Any images that have been reported on will have a blue hyperlink.
2. Click the hyperlink to open the report.



3. The final report opens on the screen. Clicking on the **View Image** icon will bring you directly in accession context to the images in PACS. However this is not the highest quality image and should not be used for diagnostic purposes.



## Activity 1.5 – Place an order in PowerChart

As an MI Provider/ Radiologist you will mostly place Medication (contrast) and Lab orders in PowerChart. The activity below will let you explore how to both place an order and manage your orders.

### 1 Orders

To access the list of orders placed on the patient:

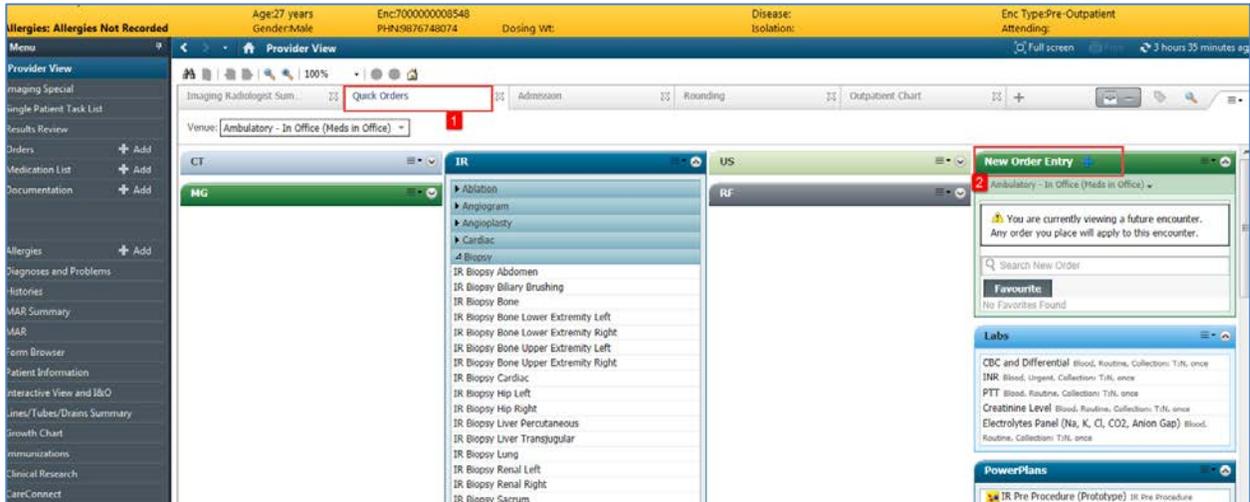
1. Select **Orders** from the Menu. The list contains the statuses and the details of the orders (2).
2. You can place an order by clicking either of the **Add** buttons (3).

The screenshot displays the PowerChart interface for patient CSTPRODML TESTADRIENNE. The top navigation bar includes patient information such as DOB (25-May-1995), MRN (700003789), and Code Status. The left sidebar contains a menu with 'Orders' highlighted. The main window shows a list of 'Diagnostic Tests' with columns for Order Name, Status, and Dose. A table of orders is visible below the menu.

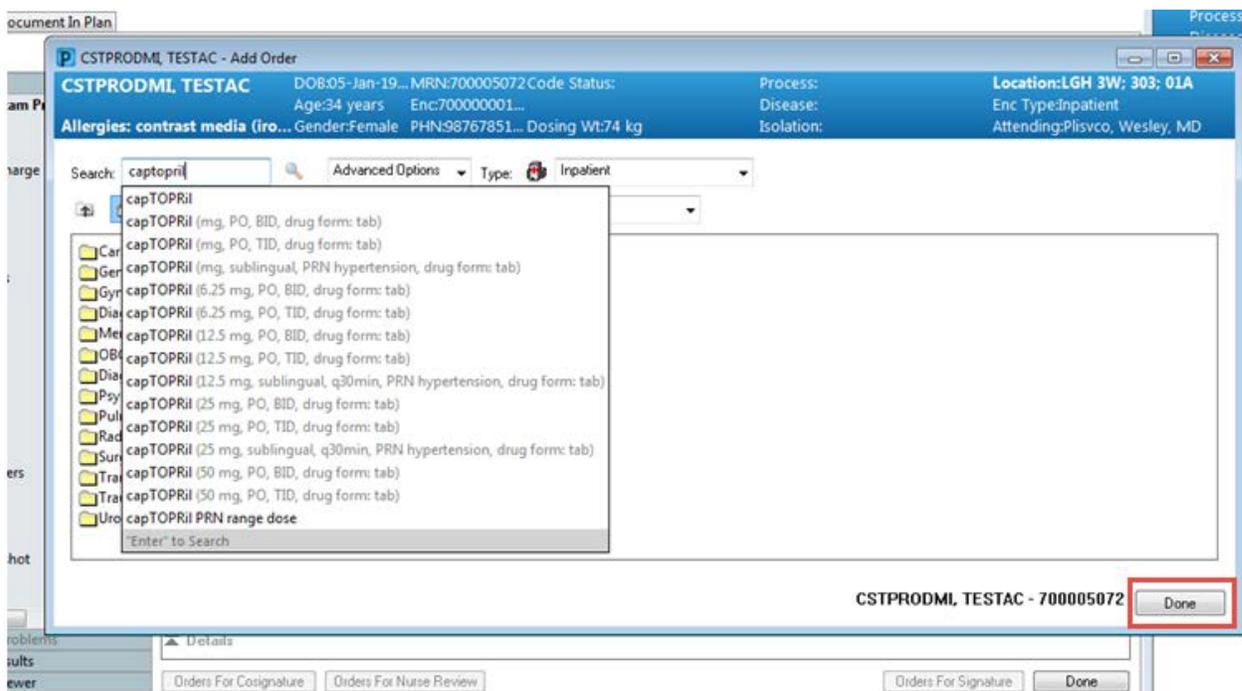
Order Name	Status	Dose	Details
BD Single Area	Future (On Hold)		07-Jun-2017, Routine, Reason: Baseline - History of Fragility Fracture, History: testin
BD Whole Body	Future (On Hold)		16-Oct-2017, Routine, Reason: Follow-up - Moderate and High Risk patients on OP
CT Abdomen w/ Contrast	Future (On Hold)		2017-Jul-12, Routine, Reason: test encounter ID, Order for future visit, Scheduling L
CT Abdomen w/o Contrast	Future (On Hold)		2017-Oct-03, Urgent, Reason: test default, Transport: Ambulatory, Order for future
CT Ablation Bone	Future (On Hold)		17-Oct-2017, Routine, Reason: test, Order for future visit, Scheduling Locations: LGI
CT Ankle Head	Future (On Hold)		17-Oct-2017, Routine, Reason: test, Order for future visit, Scheduling Locations: LGI
CT Ankle w/ - w/o Contrast Left	Future (On Hold)		07-Dec-2017, Routine, Reason: Query Fracture, Transport: Ambulatory
CT Ankle w/o Contrast Bilateral	Future (On Hold)		2017-Jun-30, Routine, Reason: test undo check in, Transport: Ambulatory, Order fo
CT Biopsy Liver	Future (On Hold)		16-Oct-2017, Routine, Reason: testing cc provider fields, Special Instructions: testin
CT Biopsy Liver	Future (On Hold)		2017-Jul-07, Routine, Reason: test if autocancel, Order for future visit, Scheduling L
CT Chest Abdomen w/ Contrast	Future (On Hold)		2017-Jul-13, Routine, Reason: no show, Transport: Ambulatory
CT Chest w/o Contrast	Future (On Hold)		2017-Aug-02, Routine, Reason: test, Transport: Ambulatory
CT Sinogram or Fistulogram Ab...	Future (On Hold)		2017-Sep-07, Routine, Reason: test, Transport: Ambulatory
EC Echo	Future (On Hold)		2017-Jul-11, Routine, Additional Reason: testing purposes, Special Instructions: Fiel
EC Echo Transesophageal	Future (On Hold)		16-Oct-2017, Routine, Additional Reason: Dsrrhythmia (Must Specify), Additional Reason: test
EC Echo Transesophageal	Future (On Hold)		2017-Aug-03, Routine, Additional Reason: test, Transport: Ambulatory
EC Echo Transesophageal	Future (On Hold)		02-Aug-2017, Routine, Reason: Embolus Source, Additional Reason: unit testing, Tr
EC Echocardiogram	Future (On Hold)		2017-Jul-31, Routine, Additional Reason: test, Transport: Ambulatory
Graded Exercise Test	Future (On Hold)		12-Dec-2017, Routine, Reason: Palpitations, Order for future visit, Referred by: -TH
Graded Exercise Test	Future (On Hold)		17-Nov-2017, Routine, Reason: Chest Pain, Order for future visit, Referred by: -THE
Graded Exercise Test	Future (On Hold)		16-Nov-2017, Routine, Reason: Other (please specify), Order for future visit, Referer
Graded Exercise Test	Future (On Hold)		2017-Aug-21, Routine, Reason: Palpitations, Order for future visit, Referred by: -TH
IR Cholangiogram	Future (On Hold)		2017-Aug-01, Routine, Reason: test, Transport: Ambulatory
MG Galactogram Bilateral	Future (On Hold)		2017-Sep-29, Routine, Reason: testing additional copies to, Order for future visit, Sc

2 You can also place an order from Provider View by selecting the **Quick Orders** tab (1), and clicking on New Order Entry + (2).

1. Add a medication order of Captopril 25 mg po once.



3 Type in Captopril to the Search box, you do not see a correct order sentence so click on the first option to enter the correct order details. If you do not have any other orders to place, select **Done**.



- 4 Enter the correct dose, dose unit, route and frequency. **Sign** when completed to activate the order.

Orders for Signature

Order Name	Status	Start	Details
LGH 2E; 218; 01 Enc:7600000000194 Admit: 2018-Jan-02 07:44 PST			
Medications			
capTOPRil	Order	2018-Apr-03 09:42 ... start: 2018-Apr-03 09:42 PDT	

Details for capTOPRil

Details | Order Comments

Remaining Administrations: (Unknown) Stop: (Unknown)

\*Dose:

\*Dose Unit:

\*Route of Administration:

\*Frequency:

PRN:  Yes  No

PRN Reason:

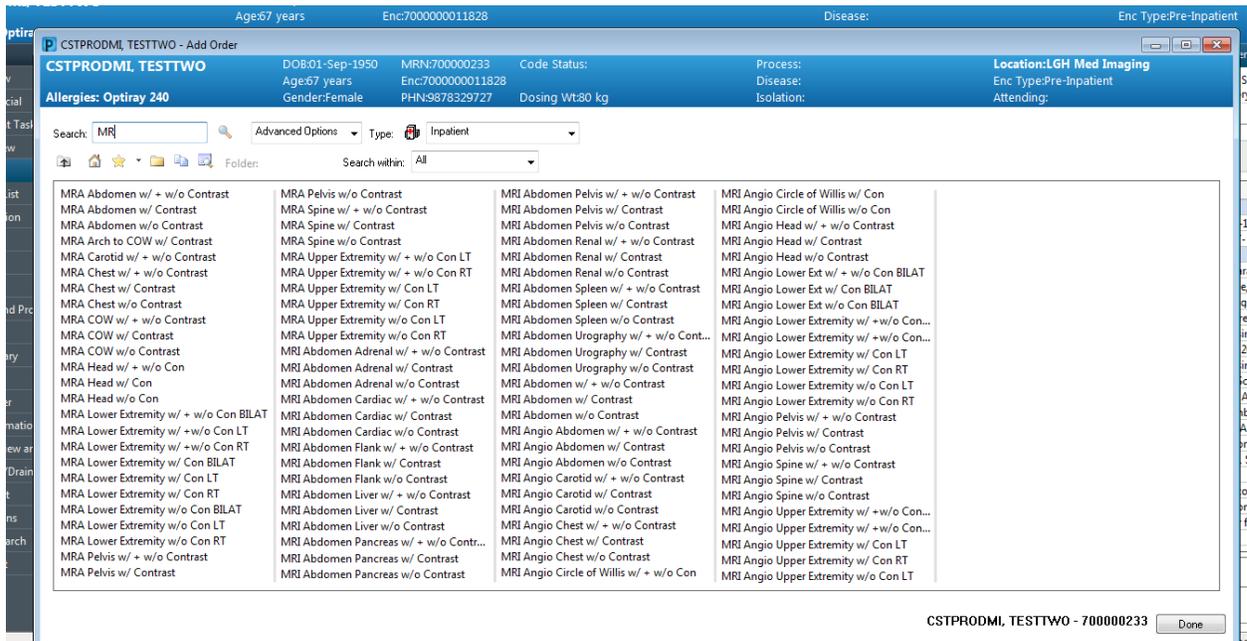
Administer over:

Administer over Unit:

4 Missing Required Details | Orders For Cosignature | Orders For Nurse Review | **Sign** | Cancel

**NOTE:** The  icon indicates missing information. Click on the order or find the Missing Required Details button to add the required information. You will not be able to Sign the order until this information has been added.

5 Note that other providers will be ordering imaging studies this way.



The Imaging orderable will be visible on multiple electronic platforms therefore standardization is necessary and will follow this table.

Modality Prefix	The Sequence Of The Order Naming Convention:	Order Of Abbreviation Prioritization
<b>BD:</b> Bone Density <b>CT:</b> Computed Tomography <b>IR:</b> Interventional <b>MG:</b> Mammography <b>MRI:</b> Magnetic Resonance Imaging <b>NM:</b> Nuclear Medicine <b>PET:</b> Positron Emission Tomography <b>RF:</b> Fluoroscopy <b>US:</b> Ultrasound <b>VL:</b> Vascular Lab <b>XR:</b> General Radiography	<ol style="list-style-type: none"> <li>1. Modality (e.g., CT, MR)</li> <li>2. Sub Specialty (e.g., US OB, US OB Fetal)</li> <li>3. Procedure (e.g., Biopsy, Drainage, Therapy, Injection)</li> <li>4. Anatomical Site (e.g., Chest, Whole Body, Brain)</li> <li>5. Procedure Descriptor (e.g., Percutaneous)</li> <li>6. Isotopes/Compounds (e.g., Y90, DTPA)</li> <li>7. Sedation</li> <li>8. Medication (e.g., Dobutamine)</li> <li>9. Contrast (e.g., w/ Contrast)</li> </ol>	<ol style="list-style-type: none"> <li>1. Sedation to Sed</li> <li>2. Contrast to Con</li> <li>3. Adjective. For consistency, the adjective will be abbreviated throughout that particular order subset.</li> <li>4. Procedure descriptor (e.g., Percutaneous to Perc)</li> <li>5. Laterality to (LT, RT, BILAT). When laterality is abbreviated it will be entirely capitalized and will be abbreviated throughout that particular order subset.</li> <li>6. Procedure. Where a</li> </ol>

	<p>10. Laterality (e.g., Left, Right, Bilateral)</p>	<p>procedure abbreviation is used, it should be abbreviated throughout that particular order subset for consistency (e.g., CT Angio for CT Angiogram)</p> <p>7. Anatomical Site (e.g., Abdo for Abdomen).</p>
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## Activity 1.6 – Managing a Powerplan

PowerPlans are similar to pre-printed orders (PPOs), allowing you to plan and coordinate care by defining sets of orders that are often used together. You can adapt PowerPlans to fit your needs:

- You can select and deselect individual orders from the PowerPlan list
- You can add orders that are not listed in the PowerPlan
- You can add other modules (order sets) that are not listed in a PowerPlan

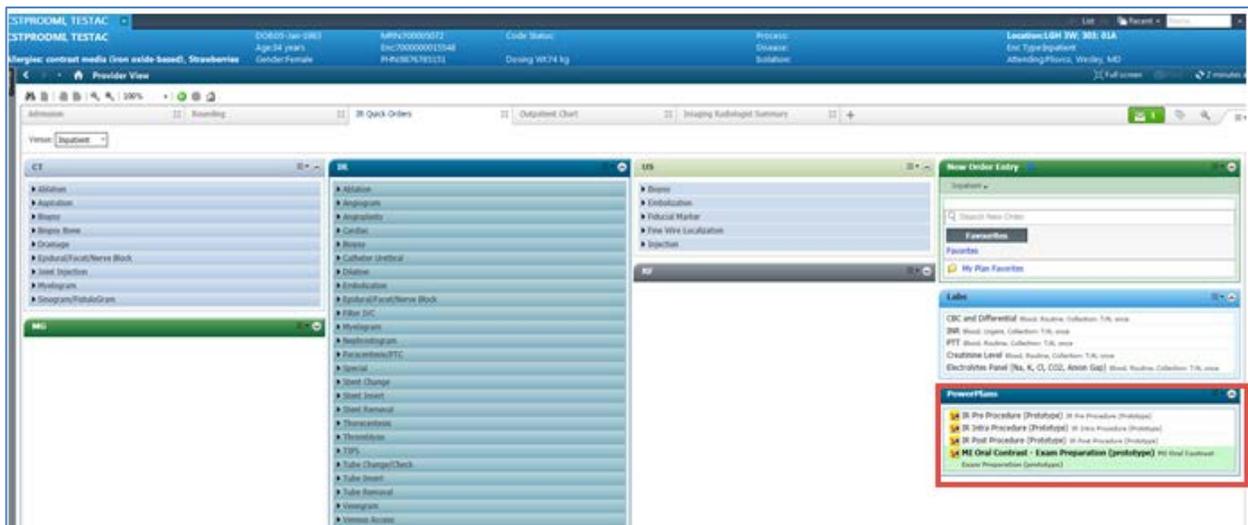
An **Initiated** PowerPlan becomes active immediately and its orders may create respective tasks and actions for other care team members.

A PowerPlan that is **not** initiated remains in a **planned** stage allowing you to prepare orders for a future activation as needed. (Interventional Radiology will use this)

The most common PowerPlans you will be using are for MI Oral Contrast and phases for Interventional Radiology. This material will illustrate how to place a PowerPlan, and how to manage its components.

### 1 PowerPlans

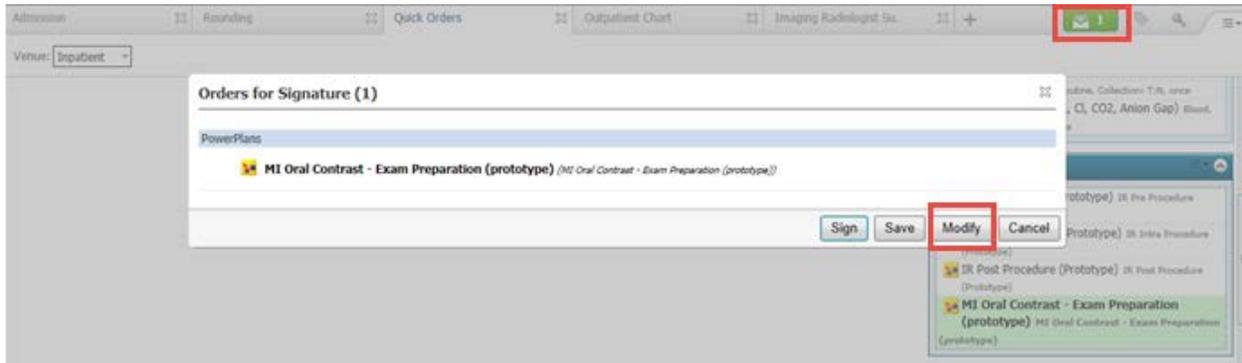
1. Navigate to the **Quick Orders** tab. Find the PowerPlans in the bottom right corner.
2. Click on **MI Oral Contrast**. It will highlight in green and add a 1 to your inbox. PowerPlans are marked by the  icon.



**NOTE:** Under each category, there are folders. For example, under the IR category is the Ablation folder which contains individual orders for IR Ablation bone, Liver and Miscellaneous. Orders may allow you to add additional details or may have these details pre-determined for ease of ordering as an order sentence. Categories and folders can be collapsed or expanded by clicking the expansion arrows  and .

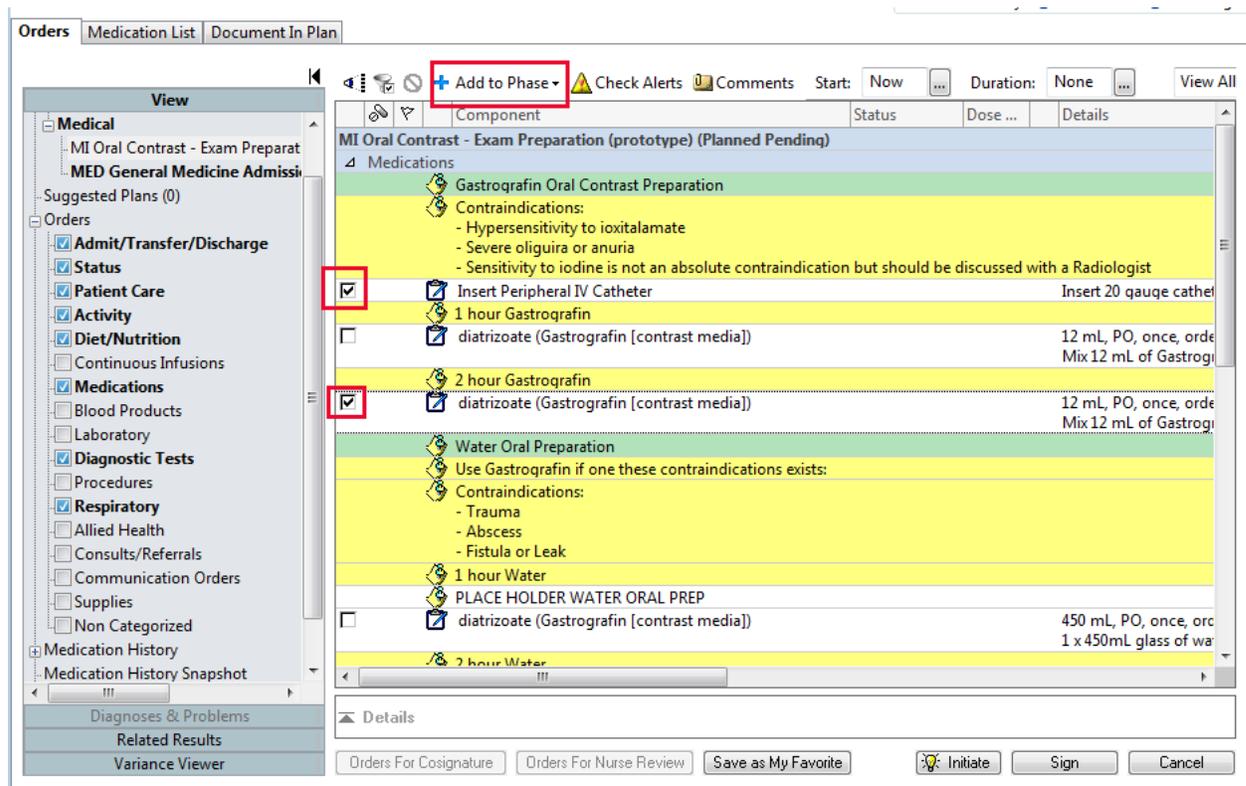
2

3. Click the **Orders for Signature** icon  to modify the PowerPlan.
4. Select **Modify** and the PowerPlan will open.



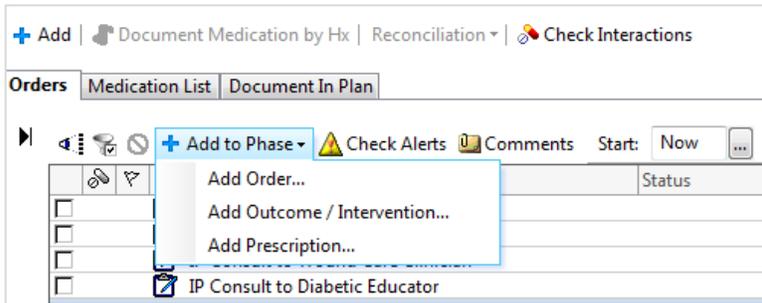
PowerPlans open in the Plan Navigator. Scroll through to locate visual cues organizing orders:

- Bright blue highlighted text for critical reminders.
- Bright yellow highlights for clinical decision support information.
- Light blue highlights that separate categories of orders.
- Green highlights a separate oral contrast preparation.



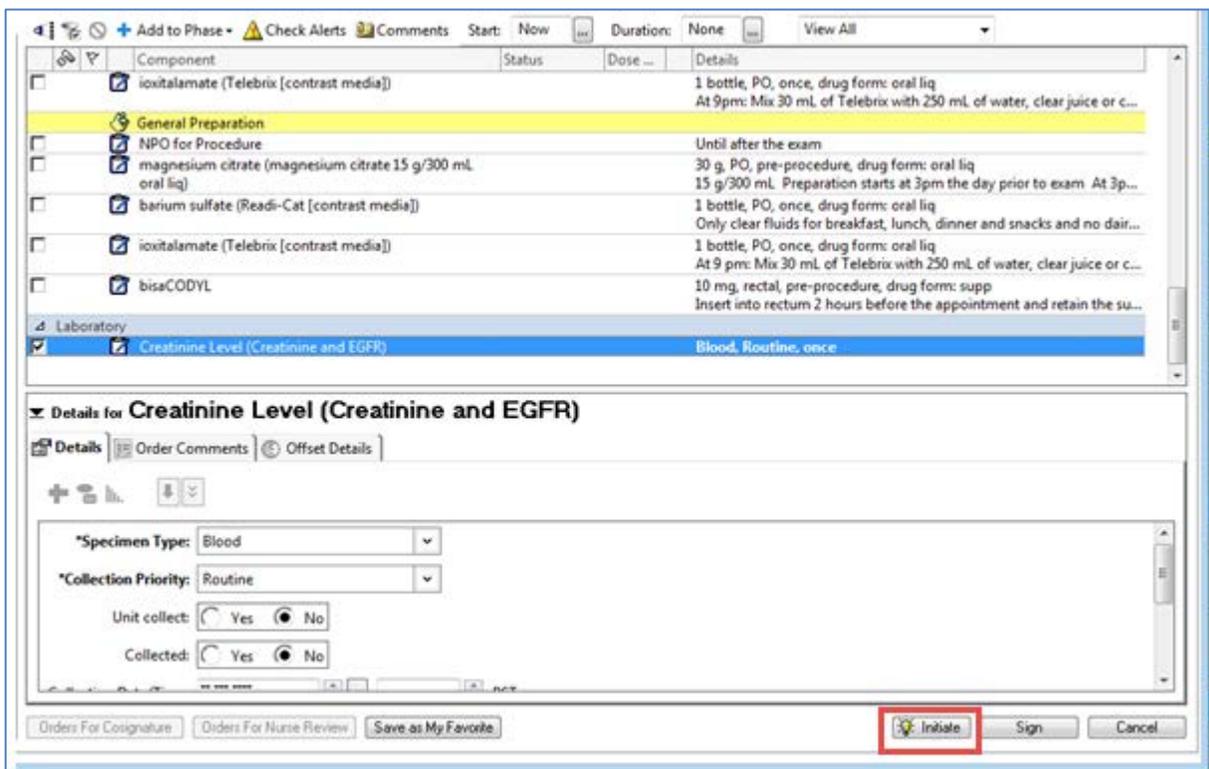
5. Select **Insert Peripheral IV Catheter** and **2 hour Gastrografin Oral Contrast Preparation**.

- 3 To add an unlisted order to the PowerPlan:
1. Click + **Add to Phase** button, then **Add order**.



2. Search the order catalogue for:
  - *Creatinine and EGFR*

Once you have selected the appropriate orders, click **Done** at the lower right corner. Check the order to see if you need to adjust anything.



3. Click **Initiate**.



**NOTE:**

**Initiate:** PowerPlan becomes active immediately and its orders create respective tasks and actions for other care team members.

**Sign:** Remains in a planned stage allowing to prepare orders for future activation as needed.

4 You will see the orders added under the appropriate order categories, in this case, **Laboratory**.

The screenshot shows a list of medical orders. The 'Creatinine Level (Creatinine and EGFR)' order is highlighted with a red box. Below the list, the 'Orders For Signature' button is highlighted with a red box.

Component	Status	Dose ...	Details
diatrizoate (Gastrografin [contrast media])			12 mL, PO, once, order duration: 3 doses/times, drug form: oral liq Mix 12 mL of Gastrografin into each 450 mL glass (use non-carbonated liquid eg. water or ...
<b>1 hour PEGlyte</b>			
polyethylene glycol 3350 (PEG 3350 17 g powder)		17 g, PO, pre-procedure, drug form: powder	Mix in 1200 mL of water. A total of three 400 mL glasses need to be drunk 1.60 minutes p...
<b>Readicat and Telebrix Oral Contrast Preparation</b>			
<b>Incomplete Colonoscopy</b>			
Insert Peripheral IV Catheter			Insert 20 gauge catheter in right antecubital fossa (ACF)
NPO at Midnight			Until after the exam
Clear Fluid Diet			Until midnight
barium sulfate (Readi-Cat [contrast media])			1 bottle, PO, once, drug form: oral liq Only clear fluids for breakfast, lunch, dinner and snacks and no dairy products At 6pm : D...
ioxitalamate (Telebrix [contrast media])			1 bottle, PO, once, drug form: oral liq At 9pm: Mix 30 mL of Telebrix with 250 mL of water, clear juice or carbonated drink May ...
<b>General Preparation</b>			
NPO for Procedure			Until after the exam
magnesium citrate (magnesium citrate 15 g/300 mL oral liq)		30 g, PO, pre-procedure, drug form: oral liq 15 g/300 mL. Preparation starts at 3pm the day prior to exam At 3pm : Drink one bottle (3...	
barium sulfate (Readi-Cat [contrast media])			1 bottle, PO, once, drug form: oral liq Only clear fluids for breakfast, lunch, dinner and snacks and no dairy products At 6pm : D...
ioxitalamate (Telebrix [contrast media])			1 bottle, PO, once, drug form: oral liq At 9 pm: Mix 30 mL of Telebrix with 250 mL of water, clear juice or carbonated drink May ...
bisaCODYL			10 mg, rectal, pre-procedure, drug form: supp Insert into rectum 2 hours before the appointment and retain the suppository for 15 minu...
<b>Laboratory</b>			
<b>Creatinine Level (Creatinine and EGFR)</b>	Order		Blood, Routine, Collection: 08-Dec-2017, once, Order for future visit

Buttons: Orders For Cosignature, Orders For Nurse Review, Save as My Favorite, Initiate, **Orders For Signature**, Cancel

4. Then click **Orders For Signature**.

The screenshot shows a list of medical orders. The 'Creatinine Level (Creatinine and EGFR)' order is highlighted. Below the list, the 'Sign' button is highlighted with a red box.

Order Name	Status	Start	Details
LGH 2E; 218; 01 Enc:7600000000194 Admit: 2018-Jan-02 07:44 PST			
<b>Patient Care</b>			
Insert Peripheral IV Ca...	Order	2018-Apr-03 09:51 ...	2018-Apr-03 09:51 PDT, Insert 20 gauge catheter
<b>Medications</b>			
diatrizoate (Gastrografin [contras...	Order	2018-Apr-03 10:00 PDT	12 mL, PO, once, drug form: oral liq, start: 2018- Mix 12 mL of Gastrografin into each 450mL glass
<b>Laboratory</b>			
Creatinine Level (Crea...	Order	2018-Apr-03 09:51 ...	Blood, Routine, Collection: 2018-Apr-03 09:51 PD

Buttons: 0 Missing Required Details, Orders For Cosignature, Orders For Nurse Review, **Sign**, Cancel

5. Then click **Sign**.



**NOTE:** You must click both Initiate and then Sign.

The  icon next to the order indicates missing details. This is a standard icon across the entire CIS. You must complete all required details in order to sign the order.

6. Click **Done**.

7. Click on **Orders** from the Menu to bring you back to the Orders page to review the active PowerPlan.

The orders in the PowerPlan change their status to ordered. Hover over the other icons under the flag symbol to see what they indicate.

Order Name	Status	Dose ...	Details
<b>Patient Care</b>			
Insert Peripheral IV Ca...	Ordered	07-Dec-2017 15:08 PST	Insert 20 gauge catheter in right antecubital fossa (ACF)
<b>Medications</b>			
diatrizoate (Gastrografin [contras...)	Ordered	12 mL, PO, once, drug form: oral liq, start: 07-Dec-2017 16:00 PST, stop: 07-Dec-2017 16:00 PST	Mix 12 mL of Gastrografin into each 450mL glass (use non-carbonated liquid eg. water or juice). Do not drink contrast through ...
diatrizoate (Gastrografin [contras...)	Ordered	12 mL, PO, once, drug form: oral liq, start: 07-Dec-2017 16:00 PST, stop: 07-Dec-2017 16:00 PST	Mix 12 mL of Gastrografin into each 450mL glass (use non-carbonated liquid eg. water or juice). Do not drink contrast through ...
<b>Laboratory</b>			
Creatinine Level (Crea...)	Future (On Hold)	Blood, Routine, Collection: 08-Dec-2017, once,	Order for future visit
<b>Diagnostic Tests</b>			
IR Biopsy Liver Transj...	Future (On Hold)	07-Dec-2017, Routine, Reason: because,	Order for future visit, Scheduling Location: LGH Med Imaging

5

Similar to the order list, you can act upon the components of the PowerPlan by right-clicking on the order and choosing the action from the pop-up menu (discontinue, plan Information, Add comment and save as favourite).

To view PowerPlans always look under the **Plans** section of the orders profile (1). This plan is initiated so all the orders will show up because they are active however if the PowerPlan was planned the orders would not be visible and it would show as Planned (2).

If you want to replace an order in the PowerPlan, you can do so by Cancel and Reorder. On the current patient cancel and reorder the gastrografin prep order with different details. Right-click on the gastrografin order and select Cancel and Reorder.



**NOTE:** If changing the drug or route, a cancel/ discontinue order is needed and you will have to enter a new order or PowerPlan.

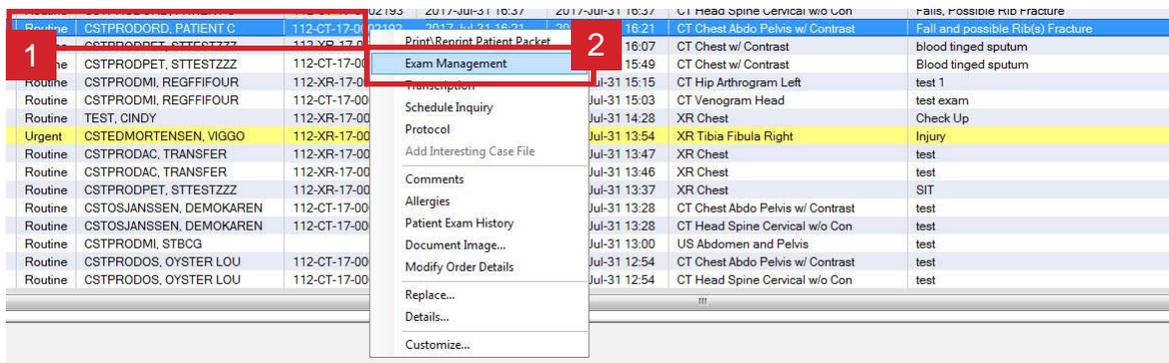
## Activity 1.7 – Start and Complete an Exam

Sign in and open RadNet Online Work List. Set your desired filters for the Online Worklist.

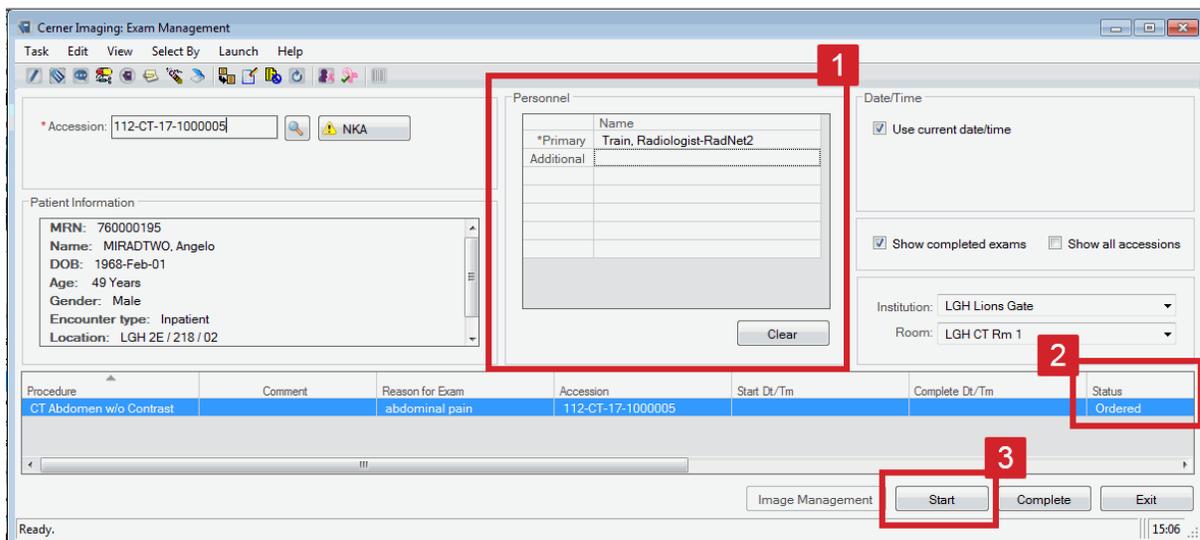
This software is a Radiology Information System (RIS) and is used by clerical staff and technologists to manage daily tasks in your department. As a Radiologist you will likely not need to work in RadNet however for situations when you do not have access to a tech or clerk you would need to **start** and **complete** an exam.

Finally you will now learn to start and complete exams.

- From the Online Worklist, you will choose the **CT Chest Abdo Pelvis w/ Contrast** in order to complete the exam. Select the exam (1), right-click and choose **Exam Management** from the drop-down menu (2).

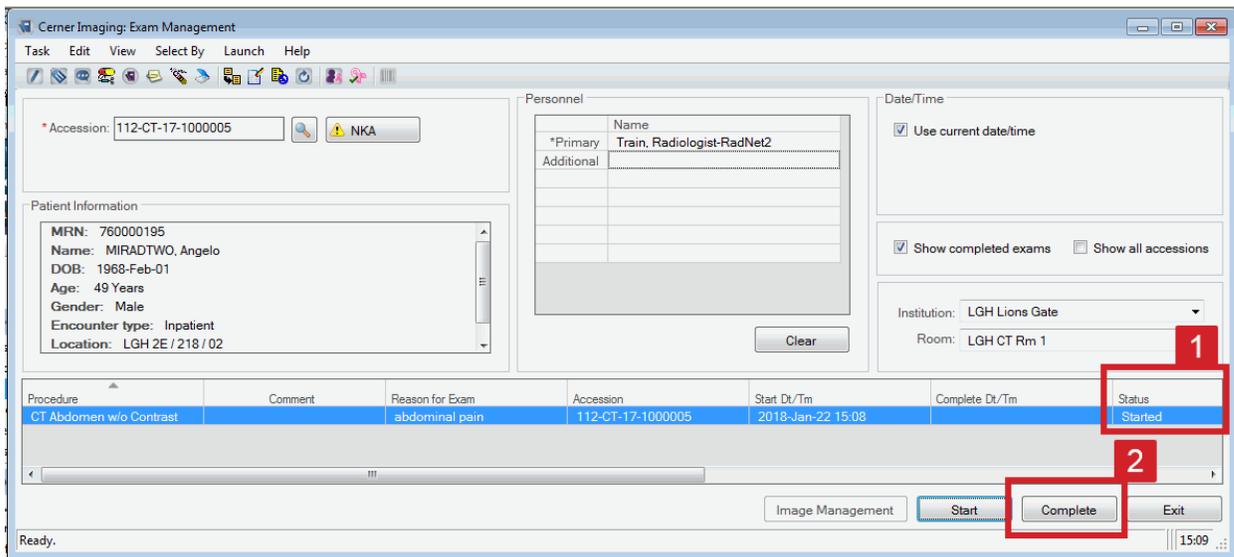


- Verify the **Personnel** list (1) to ensure all relevant personnel are included. The exam appears listed in the working window (2) with the status of **Ordered**. Click on **Start** (3).



**NOTE:** It is important to click on **START** before the patient comes into the room in order to avoid non-MI staff cancelling or modifying the exam while it is in progress.

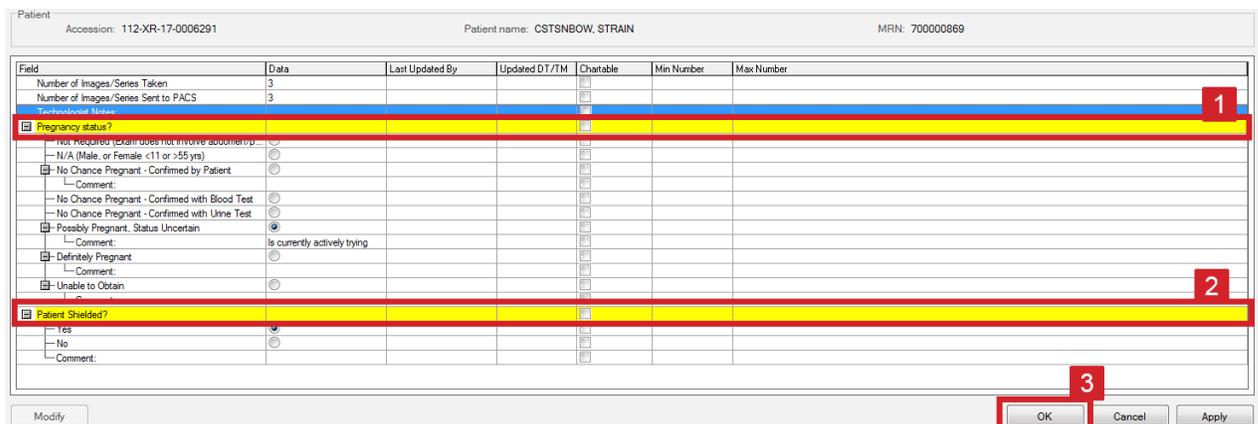
3 The exam status changes to **Started** (1) in the list. When the exam is done, click **Complete** (2).



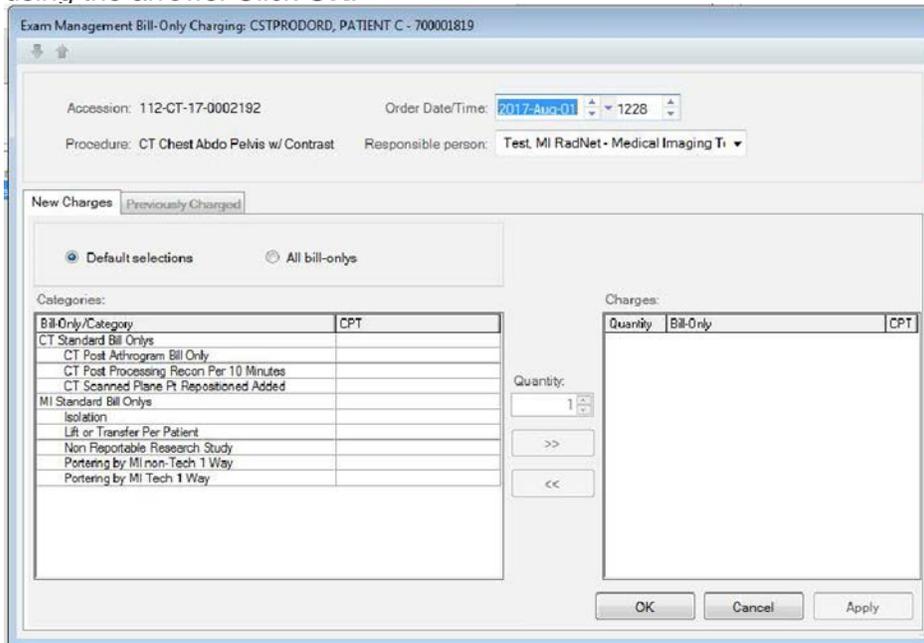
4 The **Technical Comments** window pops-up. Complete the yellow highlighted required fields: **Pregnancy Status** (1) and **Patient Shielded** (2). When done click **OK** (3)



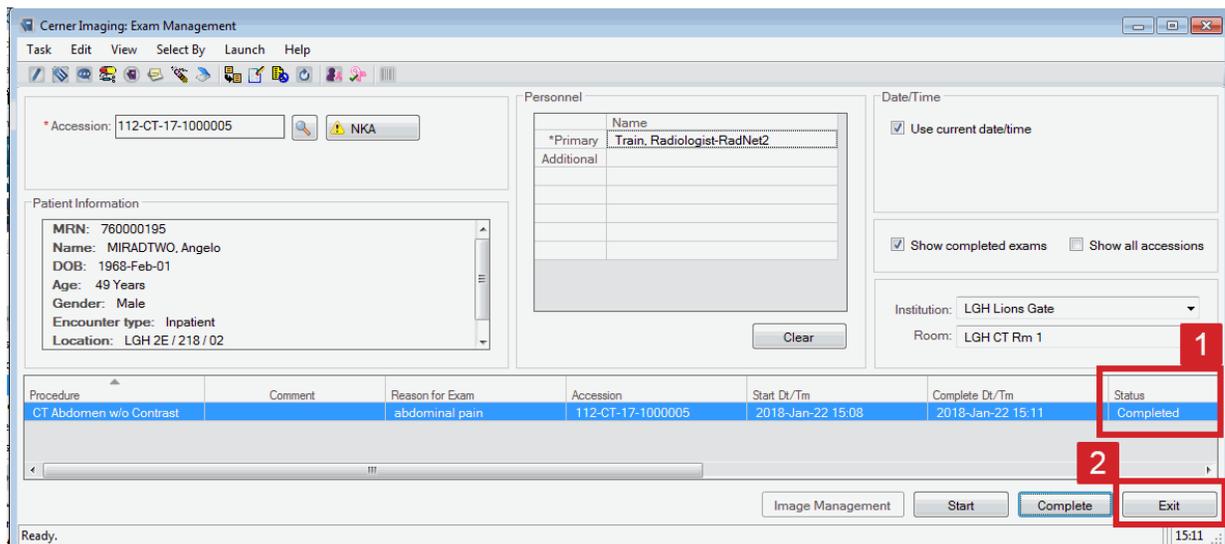
**NOTE:** There are different required fields depending on the modality and/or the exam. Expand the columns to see the fields.



- The **Bill Only Charging** window opens. If needed, select the Bill-Only Categories to be attached to the exam and move them into the **Charges** window specifying the Quantity and using the arrows. Click **OK**.



- After completion, the exam will say completed in the working space and the status will change to completed. Click **Exit** to close Exam Management.



- 7 On the **Online Work List**, the exam status will be changed to **Completed** (1). Show completed exams (2) must be ticked if you want the completed exams to appear on the list. Click **Exit** (3) when done.

For all modalities except ECHO, the order will not be available to be reported on in Fluency for Imaging (FFI) until you click on COMPLETE. It is very important to do this step.



**NOTE:** The status of the exam in PowerChart, RadNet, and PACS may differ. Please consult the table of equivalences below.

Status Type	Cerner					ISP PACS Exam Status	FFI Exam Status
	Powerchart Order Status	RadNet Order Status	RadNet Exam Status	RadNet Report Status	ISP PACS Exam Status		
Future/Scheduled	Future (On Hold)	On Hold	On Hold	New	N/A	N/A	
Ordered	Ordered (Exam Ordered)	Ordered	Ordered	New	S	N/A	
Started	Ordered (Exam Started)	Started	Started	New	S	N/A	
In Process (multi-segment)	Ordered (Exam Started)	In Process	In Process	New	S	N/A	
Completed	Ordered (Exam Completed)	Completed	Completed	New	C	Available/Completed	
Finalized	Completed	Final	Completed	Final	F	Signed	
Addendum	Completed	Final	Completed	Final	A	Signed	
Canceled	Canceled	Canceled	Canceled	Canceled	X	N/A	
Replaced (Before Completed)	Canceled (Exam Replaced)	Replaced	Replaced	Canceled	S	N/A	
Replaced (After Completed)	Canceled (Exam Replaced)	Replaced	Replaced	Canceled	C	Available/Completed	
Removed	Canceled (Exam Removed)	Removed	Removed	Canceled	X	Canceled	

## Key Learning Points

- A patient's information can be directly accessed in PowerChart by right click launching Cerner RDT from within the image in PACS
- Message Center should be checked once a day for cosigning of orders and notes.
- Ambulatory Organizer is a way to view appointments and open the patient chart.
- Progress notes and orders can be written, viewed and edited through tabs within the Provider View.
- PowerPlans are replacing pre-printed orders (PPOs), and define sets of orders that are often used together.
- RadNet replaces your department's current RIS and will be used by clerical, technologists and some Imaging Physicians to start and complete exams.

## End of Workbook

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