

# **Development of a Chemotherapy Ordering Management System**

**Department of Veterans Affairs (VA)  
Strategic Incubation Initiative**

## **Use Case for Chemotherapy Template Order Source Module v.1.4**



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Prepared for

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## Revision History

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## **1.0 Chemotherapy Template Order Source**

### **1.1 Brief Description**

The first module of the Chemotherapy Ordering Management System (COMS) application is the Chemotherapy Template Order Source (CTOS). The CTOS module permits the oncology provider to download a chemotherapy regimen template from a central library and modify it for local use. It also enables authorized users to create original, new templates or create a template from an existing one. User- created templates are available immediately for local use and ultimately for national use upon review and inclusion in the central library.

Each template provides pre-therapy, therapy, and post-therapy information including recommended medications; dosages and parameters for dosing; total number of cycles; number of days and administration days within each cycle; and medical references. CTOS incorporates standardized template naming conventions, acceptable medical terminology and abbreviations, and other applicable medical guidelines to reflect the existing care practices. At any time, users may review clinical practice guidelines and references relevant to the template supporting the provision of chemotherapy for a specified treatment regimen.

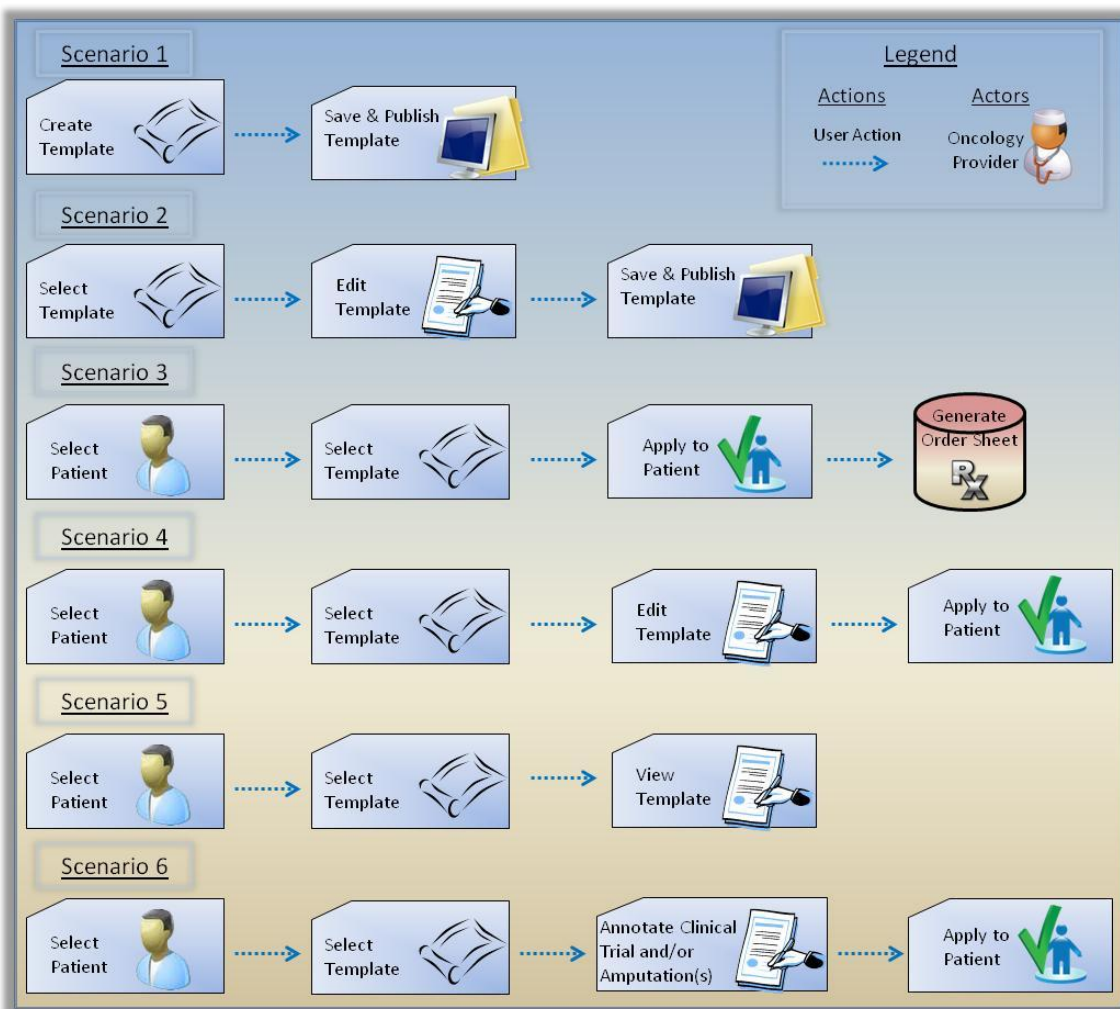
CTOS also affords flexibility to enable the user to assign a user-friendly template name. These templates may be applied to a particular patient record to generate an order sheet for the regimen and used throughout the remaining modules of the COMS application. During the process of applying a template to a patient, the oncology provider has the opportunity to identify the effective date; select the body weight and body surface area formula to use for medication dosage calculations; categorize the regimen for the patient as curative or palliative care; indicate whether the patient/regimen are part of a clinical trial and specify the name of the clinical trial, if applicable; identify patient amputation(s); and document the current performance status of the patient. Although users may only apply one template to a patient at any given time, all templates previously applied to the patient remain available for view. The six most common scenarios encountered within the CTOS module are the primary focus of this Chemotherapy Template Order Source Use Case and are detailed in section 5.

### **1.2 Use Case Diagram**

Common CTOS scenarios involve creating/modifying a specific template for availability to use on any patient and applying/editing an existing template for use on a specific patient, as follows:

- Scenario 1 – Create New Template
- Scenario 2 – Modify Existing Template
- Scenario 3 – Apply Existing Template to Patient and Generate Order Sheet
- Scenario 4 – Edit Template Currently Applied to Patient
- Scenario 5 – View Template Previously Applied to Patient
- Scenario 6 – Specify Clinical Trial and Patient Amputation(s)

These scenarios are detailed in section 5 and depicted graphically in the Use Case diagram shown in **Figure 1** below.



**Figure 1 – COMS Chemotherapy Template Order Source Use Case Diagram**

### 1.3 Background

Within the COMS application, the CTOS module displays chemotherapy order templates available to the oncology provider. Templates may be based upon – and include references to – industry standard chemotherapy regimens, such as those published by the National Comprehensive Cancer Network (NCCN), American Society of Clinical Oncology (ASCO), or other recognized source. While national templates are approved and maintained by an authoring panel comprised of Veterans Health Administration (VHA) experts for VA-wide use, other templates may be created and used locally by any authorized user.

Using drop-down menus with browse and search functionality, the oncology provider may select and retrieve the appropriate national template, local template, or “my” template based on type of cancer.

An oncology provider may then modify the selected template and save under “My Templates”. Any template contained within COMS may be applied to any registered patient to initiate the chemotherapy process. An oncology provider may also edit/tailor templates applied to a patient as the patient’s condition, performance status, or other considerations warrant.

In support of the template application selection process and provision of chemotherapy, the COMS application queries VA legacy healthcare systems (Veterans Health Information Systems and Technology Architecture (VistA) and Computerized Patient Record System (CPRS)) and retrieves applicable patient data. From VistA/CPRS, COMS displays patient-specific information such as gender, age, height, weight, allergies, and relevant laboratory results. COMS also displays any chemotherapy template currently and previously applied to the patient through the application. Once an order template is selected and applied, it is available for tailoring to the specific patient and customizing into an individual care plan throughout the various cycles and multiple administration days of the regimen.

#### 1.4 Stakeholders

COMS stakeholders include oncology patients, those involved with management of the contract, the clinical healthcare team, and the dbITpro development team. For the CTOS module, oncology providers and advanced practice nurses account for the most involved and concerned stakeholders. This subset of stakeholders is shown in **Figure 2** below.

Name	Role	Organization	Phone	Email
Michael Kelley	Lead Innovator, Oncologist	Veterans Affairs	919.286.0411 ext 2199	Michael.Kelley6@va.gov
Janet Cogswell	Oncology Nurse	Veterans Affairs	973.676.1000 ext 1531	Janet.Cogswell@va.gov
Michele Johnson	Oncology Nurse	Veterans Affairs	432.926.1176 ext 2687	Michele.Johson2@va.gov
Steven Krasnow	Oncologist	Veterans Affairs		Steven.Krasnow@va.gov
William Schubach	Oncologist	Veterans Affairs	206.764.2709	William.Schubach@va.gov

**Figure 2 – COMS Chemotherapy Template Order Source Stakeholders**

#### 1.5 Supporting Requirements

As a uniquely high-risk and high-complexity domain of health care, oncology requires fully interfaced support of all participating healthcare applications. Notably, this includes VistA, CPRS, Bar Code Medication Administration (BCMA) and COMS to create a clinical environment with standardization and direct order entry of chemotherapy. This environment will facilitate automated ordering, promote VA-wide standardization, augment adverse event tracking/reporting, and fortify patient safety through enhanced efficiencies in the provision of oncology services. Accordingly, an interoperable environment among VistA, CPRS, BCMA and COMS is an essential supporting requirement for this CTOS Use Case.

## **2.0 Actors**

Directing the provision of oncology services and prescribing the healthcare regimen for patients under their care, oncology providers fulfill the primary role in the CTOS module. Within the CTOS module, the oncology provider reviews/revises chemotherapy regimen templates and applies selected templates to each individual patient. For each template, the oncology provider will determine pre-therapy/therapy/post-therapy medications, dosages and parameters for dosing, routes of administration, and sequencing; indicate type of cancer, emetogenic level, febrile neutropenia risk, and reference for each regimen; specify the total number of cycles, number of days, and administration days within each cycle; identify each template source as a national template, local template, or “my” template; and save templates with a user-friendly name correlated to a COMS-generated standard naming convention template name. The oncology provider may also review and modify templates currently applied to a specific patient then save the new template for future application to other patients.

The oncology provider is the critical human link to facilitate the interoperable environment among VistA, CPRS, BCMA, and COMS. Oncology provider actions within the CTOS module serve as the foundation to forge the desired clinical environment for standardization and direct order entry of chemotherapy. Within the new interoperable environment, properly constructed and applied templates enable an oncology provider to place an automated chemotherapy order in COMS for administration and documentation of healthcare within VA’s electronic health record.

## **3.0 Supporting Use Case List**

There are no supporting Use Cases for the Chemotherapy Template Order Source module at this time.

## **4.0 Preconditions**

As the first module within the COMS application, CTOS requires few preconditions to function properly. The following preconditions are required to support the Use Case scenarios detailed in section 5:

- To Create New Template or Modify Existing Template, sufficient supporting data such as types of cancer must be loaded in COMS. Additionally, availability of clinically valid information (e.g. emetogenic level, febrile neutropenia risk, and maximum/number of cycles) is required to support the creation or modification of chemotherapy regimen templates.
- To Apply an Existing Template to a Patient and Generate Order Sheet, Edit an Existing Template Currently Applied to a Patient, or View Template Previously Applied to Patient, a valid national/local/my template must be available in COMS and an actual/notional patient must also exist in the application.
- To Specify Clinical Trial and Patient Amputation(s) or Apply an Existing Template to a Patient, the oncology provider must have knowledge of the patient’s performance status and specific amputation(s) of the patient. Further, the provider must determine the regimen’s effective date

and goal, weight and body surface area formula to use for calculating medication dosages, whether care is curative or palliative, and specific clinical trial, if applicable.

## 5.0 Use Case Scenarios

The intent of the following scenarios is to walk the user through common process flows associated with the CTOS module and application of templates to a specific patient.

### 5.1 Scenario 1: Create New Template

Step	Action	COMS Reaction
1	Select "Template Authoring" tab	Presents next level of selection (radio buttons to "Select Existing Template" or "Create New Template")
2	Select "Create New Template" radio button	Presents next level of selection
3	Select "Lung Cancer, Small Cell" from Select a Type of Cancer pull-down menu	Displays "Lung Cancer, Small Cell" as selected Cancer Type
4	Enter Max Cycles value of "4"	Displays "4" for Max Cycles
5	Select Cycle Length value of "3" from Cycle Length pull-down menu	Displays "3" for Cycle Length
6	Select Cycle Length Units of "Weeks" from pull-down menu	Displays "Weeks" for cycle length units
7	Select Emetogenic Level "Low" from pull-down menu	Displays "Low" for Emetogenic Level
8	Enter Febrile Neutropenia Risk value of "5" (percent)	Displays "5" for Febrile Neutropenia Risk Value
9a	Enter Pre-Therapy Instructions, as appropriate	Displays entered text
9b	Select "Add Drug" button for Pre-Therapy Drug Regimen	Presents next level of selection
9c	Select Medication Type "Outpatient" radio button	Displays "Outpatient" as selection
9d	Select Drug "DEXAMETHASONE TAB" from pull-down menu	Displays "DEXAMETHASONE TAB" for Select Drug
9e	Select Sequence Value of "1" from pull-down menu	Displays "1" for Sequence
9f	Enter Administration Day(s) value of "1 – 5"	Displays "1 – 5" for Administration Day(s)
9g	Enter Dosage Amount value of "8"	Displays "8" for Dosage Amount
9h	Select Dosage Units of "mg" from pull-down menu	Displays "mg" for Dosage Units
9i	Select Route of "Oral" from pull-down menu	Displays "Oral" for Route
	Note: Disregard "OR" section of template. This section will be removed due to a requirement change.	
9j	Enter Instructions, as appropriate	Displays entered text
9k	Save Pre-Therapy medication	Displays all medications in Pre-Therapy Drug Regimen grid
10a	Enter Therapy Instructions, as appropriate	Displays entered text
10b	Select "Add Drug" button for Therapy Drug Regimen	Presents next level of selection



Step	Action	COMS Reaction
10c	Select Medication Type “Inpatient” radio button	Displays “Inpatient” as selection
10d	Select Drug “TOPOTECAN INJ” from pull-down menu	Displays “TOPOTECAN INJ” for Select Drug
10e	Select Sequence value of “1” from pull-down menu	Displays “1” for Sequence
10f	Enter Administration Day(s) value of “1 – 5”	Displays “1 – 5” for Administration Day(s)
10g	Enter Dosage Amount value of “1.5”	Displays “1.5” for Dosage Amount
10h	Select Dosage Units of “mg/m2” from pull-down menu	Displays “mg/m2” for Dosage Units
10i	Select Route of “IVPB” from pull-down menu	Displays “IVPB” for Route and presents next level of selection for IV fluids
10j	Select Administration Time of “9:00 a.m.” from pull-down menu (Note: Administration time designation is optional)	Displays “9:00 a.m.” for Administration Time
10k	Enter Fluid Volume value of “100” (ml)	Displays “100” ml for Fluid Volume
10l	Enter Flow Rate value of “200” (ml/hr)	Displays “200” ml/hr for Flow Rate; auto-calculates & displays “0 hrs 30 mins” for Infusion Time
10m	Select “Fluid Type” of “Normal Saline” from pull-down menu	Displays “Normal Saline” for Fluid Type
10n	Enter Instructions, as appropriate	Displays entered text
10o	Save Therapy medication	Displays all medications in Therapy Drug Regimen grid
11a	Enter Post-Therapy Instructions, as appropriate	Displays entered text
11b	Select “Add Drug” button for Post-Therapy Drug Regimen	Presents next level of selection
11c	Select Medication Type “Outpatient” radio button	Displays “Outpatient” as selection
11d	Select Drug “PROCHLORPERAZINE TAB” from pull-down menu	Displays “PROCHLORPERAZINE TAB” for Select Drug
11e	Select Sequence value of “1” from pull-down menu	Displays “1” for Sequence
11f	Enter Administration Day(s) value of “1-5”	Displays “1-5” for Administration Day(s)
11g	Enter Dosage Amount value of “10”	Displays “10” for Dosage Amount
11h	Select Dosage Units of “mg” from pull-down menu	Displays “mg” for Dosage Units
11i	Select Route of “Oral” from pull-down menu	Displays “Oral” for Route
	Note: Disregard “OR” section of template. This section will be removed due to a requirement change.	
11j	Enter Instructions, as appropriate	Displays entered text
11k	Save Post-Therapy medication	Displays all medications in Post-Therapy Drug Regimen grid
12a	Select “Add Reference” button	Presents next level of selection
12b	Add Reference narrative and URL to pop-up form; save	Displays entered information in

Step	Action	COMS Reaction
	Reference	Reference grid
13	Provide user-friendly name for template and select “Save Template” button	Indicates template was saved, correlating user-friendly name and COMS-generated Chemotherapy Regimen Name

## 5.2 Scenario 2: Modify Existing Template

Step	Action	COMS Reaction
1	Select Template Authoring tab	Presents next level of selection (radio buttons to “Select Existing Template” or “Create New Template”)
2	Select “Select Existing Template” radio button	Presents next level of selection (Select a Template Source pull-down menu)
3	Select “Local Templates” from Template Source pull-down menu	Displays “Local Templates” and presents next level selection (Select a Type of Cancer)
4	Select “Lung Cancer, Non-Small Cell” from Type of Cancer pull-down menu	Displays “Lung Cancer, Non-Small Cell” and presents next level selection (Select a Template pull-down menu)
5	Select the template NSCLC – Single Agent Paclitaxel_IV_Pre-Therapy_Meds from pull-down Menu	Displays selected template regimen and presents next level of selection (Save Template and Clear Template buttons)
6	Change Max Cycles value to “3”	Displays “3” for Max Cycles
7	Change Cycle Length value to “4”	Displays “4” for Cycle Length
8	View/confirm Cycle Length Units of “Weeks”	N/A
9	Select Emetogenic Level “Medium”	Displays “Medium” for Emetogenic Level
10	Change Febrile Neutropenia Risk Value to “10” (percent)	Displays “10” (%) for Febrile Neutropenia Risk
11a	Amend Pre-Therapy Instructions, as appropriate	Displays entered text
11b	Click on “DIPHENHYDRAMINE CAP, ORAL” (listed as Sequence #2) and select Remove Drug button	Removes DIPHENHYDRAMINE CAP, ORAL from Pre-Therapy Drug Regimen Grid and re-sequences RANITIDINE TAB from #3 to #2
11c	Select “Add Drug” button for Pre-Therapy Drug Regimen	Presents next level of selection
11d	Select Medication Type “Outpatient” radio button	Displays “Outpatient” as selection

Step	Action	COMS Reaction
11e	Select Drug "PROCHLORPERAZINE TAB" from pull-down menu	Displays "PROCHLORPERAZINE TAB" for Select Drug
11f	Select Sequence value of "3" from pull-down menu	Displays "3" for Sequence
11g	Enter Administration Day(s) value of "1"	Displays "1" for Administration Day
11h	Enter Dosage Amount value of "10"	Displays "10" for Dosage Amount
11i	Select Dosage Units of "mg" from pull-down menu	Displays "mg" for Dosage Units
11j	Select Route of "Oral" from pull-down menu	Displays "Oral" for Route
	Note: Disregard "OR" section of template. This section will be removed due to a requirement change.	
11k	Enter Instructions, as appropriate	Displays entered text
11l	Save Pre-Therapy medication	Displays all medications in Pre-Therapy Drug Regimen grid
12a	Amend Therapy Instructions, as appropriate	Displays entered text
12b	Select "Add Drug" button for Therapy Drug Regimen	Presents next level of selection
12c	Select Medication Type "Inpatient" radio button	Displays "Inpatient" as selection
12d	Select Drug "CARBOPLATIN INJ" from pull-down menu	Displays "CARBOPLATIN INJ" for Select Drug
12e	Select Sequence value of "2" from pull-down menu	Displays "2" for Sequence
12f	Enter Administration Day(s) value of "1"	Displays "1" for Administration Day(s)
12g	Enter Dosage Amount value of "6"	Displays "6" for Dosage Amount
12h	Select Dosage Units of "AUC" from pull-down menu	Displays "AUC" for Dosage Units
12i	Select Route of "IVPB" from pull-down menu	Displays "IVPB" for Route and presents next level of selection for IV fluids
12j	Select Administration Time of "11:30 a.m." from pull-down menu (Note: Administration Time designation is optional)	Displays "11:30 a.m." for Administration Time
12k	Enter Fluid Volume value of "250" (ml)	Displays "250" ml for Fluid Volume
12l	Enter Flow Rate value of "500" (ml/hr)	Displays "500" ml/hr for Flow Rate; auto-calculates & displays "0 hrs 30 mins" for Infusion Time
12m	Select "Fluid Type" of "Normal Saline" from pull-down menu	Displays "Normal Saline" for Fluid Type
12n	Enter Instructions, as appropriate	Displays entered text
12o	Save Therapy medication	Displays all medications in Therapy Drug Regimen grid
13a	Amend Post-Therapy Instructions, as appropriate	Displays entered text
13b	Select "Add Drug" button for Post-Therapy Drug Regimen	Presents next level of selection

Step	Action	COMS Reaction
13c	Select Medication Type “Outpatient” radio button	Displays “Outpatient” as selection
13d	Select Drug “RANITIDINE TAB” from pull-down menu	Displays “RANITIDINE TAB” for Select Drug
13e	Select Sequence value of “1” from pull-down menu	Displays “1” for Sequence
13f	Enter Administration Day(s) value of “1”	Displays “1” for Administration Day(s)
13g	Enter Dosage Amount value of “50”	Displays “50” for Dosage Amount
13h	Select Dosage Units of “mg” from pull-down menu	Displays “mg” for Dosage Units
13i	Select Route of “Oral” from pull-down menu	Displays “Oral” for Route
13j	Enter Instructions, as appropriate	Displays entered text
13k	Save Post-Therapy medication	Displays Sequence pop-up tile (“You have entered a duplicate sequence number. Would you like to”) and radio buttons “Apply Next Sequence Number” and “Insert as Entered and Re-sequence Drugs”
13l	Select “Insert as Entered and Re-sequence Drugs” button	Displays medications in Post-Therapy grid with RANITIDINE TAB as #1 in sequence and PROCHLORPERAZINE TAB as #2 in sequence
14a	Add/edit Reference to support changes	Displays entered text
14b	Save Reference	Saves Reference and displays in Reference grid
15	Provide user-friendly name for template and select “Save Template” button	Indicates template was saved, correlating user-friendly name and COMS-generated Chemotherapy Regimen Name

The next four scenarios require the selection of a specific patient. For Use Case scenario testing, patients will be assigned to each test team as follows:

Team	Use Case Patient	Patient Identifier
1	PATIENT FOURHUNDRED	F0400
2	PATIENT FOURHUNDREDFIFTEEN	F0415
3	PATIENT FOURHUNDREDTWENTYFIVE	F0425
4	PATIENT FOURHUNDREDFORTYFIVE	F0445
5	PATIENT FOURHUNDREDFIFTY	F0450
6	PATIENT FOURHUNDREDFIFTYTWO	F0452
7	PATIENT FOURHUNDREDFIFTYFIVE	F0455
8	PATIENT FOURHUNDREDSIXTY	F0460

Team	Use Case Patient	Patient Identifier
9	PATIENT FIVEHUNDREDFIFTEEN	F0515
10	PATIENT FIVEHUNDREDFIFTY	F0550

Patient selection of the test team's specific patient for these scenarios is as follows:

Step	Action	COMS Reaction
1	From the Patient tab, enter the patient identifier for team's assigned patient in the Patient panel and click on the "Query CPRS for Patient" link	Displays "Please Click Here to Confirm This is the Patient You Want"
2	Select the link for team's assigned patient to confirm the patient	Presents patient information for team's assigned patient
3	Select/Open/Expand the "Patient Information" panel	Expands "Patient Information" panel
4	View patient gender, age, and amputation(s); Body Surface Area (BSA) weight method, BSA method, and BSA calculations; template information; regimen status; type(s) of cancer; allergies; and clinical trial information	Permits viewing of information
5	Select/Open/Expand the "Patient History" panel	Expands "Patient History" panel
6	View vital signs historical information (date taken, temperature, pulse, blood pressure respirations, pain level, oxygen saturation, performance status, height, weight, and four columns for BSA information of weight formula, body weight, BSA method, and calculated BSA)	In reverse chronological order, displays information as obtained from VistA, COMS OEM module, and COMS ND module/ General Information panel
	ALTERNATE	ALTERNATE
1	From the Patient tab, enter the patient identification for team's assigned patient in the Patient panel and press enter	Displays "Select Patient from CPRS" pull-down menu
2	Select the team's assigned patient from the pull-down menu	Presents patient information for team's assigned patient
3	Select/Open/Expand the "Patient Information" panel	Expands "Patient Information" panel
4	View patient gender, age, and amputation(s); Body Surface Area (BSA) weight method, BSA method, and BSA calculations; template information; regimen status; type(s) of cancer; allergies; and clinical trial information	Permits viewing of information
5	Select/Open/Expand the "Patient History" panel	Expands "Patient History" panel
6	View vital signs historical information (date taken, temperature, pulse, blood pressure respirations, pain level, oxygen saturation, performance status, height, weight, and four columns for BSA information of weight formula, body weight, BSA method, and calculated BSA)	In reverse chronological order, displays information as obtained from VistA, COMS OEM module, and COMS ND module/ General Information panel
	ALTERNATE	ALTERNATE
1	From the Patient tab, using the Enter a Range of Administration Dates to Search functionality and the default of today's date for the "from" range, select a future date from the pop-up calendar "to" range, and click on the "Select	Displays "Select Patient from CPRS" pull-down menu

Step	Action	COMS Reaction
	Patient by Administration Date(s)" link	
2	Select team's assigned patient from the pull-down menu	Presents patient information for team's assigned patient
3	Select/Open/Expand the "Patient Information" panel	Expands "Patient Information" panel
4	View patient gender, age, and amputation(s); Body Surface Area (BSA) weight method, BSA method, and BSA calculations; template information; regimen status; type(s) of cancer; allergies; and clinical trial information	Permits viewing of information
5	Select/Open/Expand the "Patient History" panel	Expands "Patient History" panel
6	View vital signs historical information (date taken, temperature, pulse, blood pressure respirations, pain level, oxygen saturation, performance status, height, weight, and four columns for BSA information of weight formula, body weight, BSA method, and calculated BSA)	In reverse chronological order, displays information as obtained from VistA, COMS OEM module, and COMS ND module/ General Information panel
Step	Action	
7*	Proceed to Step 7 for Chemotherapy Template Order Source Use Case Scenarios 3 – 6	

### 5.3 Scenario 3: Apply Existing Template to Patient and Generate Order Sheet

Step	Action	COMS Reaction
7*	Under CTOS Tab/What do you want to do?, select "Select an Existing Standard Template" radio button	Presents next level of selection (Select a Template Source pull-down menu)
8	Select "My Templates" from Select a Template Source pull-down menu	Presents next level of selection (Type of Cancer pull-down menu)
9	Select "Lung Cancer, Small Cell" from Type of Cancer from pull-down menu	Presents next level of selection (Select a Template pull-down menu)
10	Select the template name you created in Scenario 1 above from Select a Template pull-down menu	Displays selected template regimen and presents next level of selection (Apply Template to Patient radio button)
11	Review displayed regimen	Permits scrolling, as appropriate
12	Select "Apply Template" to Patient radio button	Applies selected template to patient if no template is currently applied. If another template is currently applied, prompts user to verify current selection is to be applied
13	Select "OK" if prompted "Template already applied. Would you like to archive existing template and apply current selection?"	Presents "Enter Date to Start" pop-up tile
14	Enter date to start (manually or from calendar pop-up)	Provides pop-up calendar, if

Step	Action	COMS Reaction
	(Note – For better testing of pharmacist and nurse activities, select today's date)	selected; Accepts date $\geq$ today
15	Select the Weight to Use of "Actual Weight" from the pull-down menu	Indicates "Actual Weight" is selected
16	Select the body surface area (BSA) formula of "DuBois" from the pull-down menu	Indicates "DuBois" is selected
17	Select the goal for this Regimen as "Curative" from the radio button options	Indicates "Curative" is selected
18	Verify the "No" radio button (default selection) is selected for "Specify the type of clinical trial" options	"No" is already selected as default selection
19	Verify the "No" radio button (default selection) is selected for patient indicator of amputation	"No" is already selected as default selection
20	Select "1" for "Select the Performance Status" of the patient	Indicates "1" is selected
21	Select "Save" button	Indicates template was successfully applied to patient and generates order sheet for regimen

#### 5.4 Scenario 4: Edit Template Currently Applied to Patient

Step	Action	COMS Reaction
7*	Under CTOS Tab/What do you want to do?, Select "Select from Templates Currently Applied to this Patient" radio button	Presents next level of selection (Select a Template pull-down menu)
8	Select the template name you applied to your team's patient in Scenario 3 above from Select a Template pull-down menu	Displays selected template regimen and presents next level of selection (Edit Template button)
9	Review displayed regimen	Permits scrolling, as appropriate
10	Select Edit Template button	Opens CTOS module
11	Make changes, as appropriate	Accommodates changes
12a	Add/Edit Reference to support changes	Displays entered text
12b	Save Reference	Saves Reference and displays information in Reference grid
13	Provide user-friendly name for revised template and select "Save Template" button	Indicates template was saved, correlating user-friendly name and COMS-generated Chemotherapy Regimen Name

#### 5.5 Scenario 5: View Template Previously Applied to Patient

Step	Action	COMS Reaction
7*	Select/Open/Expand the "Treatment Regimens and Summaries" panel	Expands "Treatment Regimens and Summaries" panel; presents historical templates previously

Step	Action	COMS Reaction
		applied to the patient and lists End of Treatment Summaries
8	Select a template by clicking “Show Details” link	Presents information for the selected template in the CTOS module (below Laboratory Information panel)

## 5.6 Scenario 6: Specify Clinical Trial and Patient Amputation(s)

Step	Action	COMS Reaction
7*	Under CTOS Tab/What do you want to do?, select “Select an Existing Standard Template” radio button	Presents next level of selection (Select a Template Source pull-down menu)
8	Select “My Templates” from Select a Template Source pull-down menu	Presents next level of selection (Type of Cancer pull-down menu)
9	Select “Lung Cancer, Non-Small Cell” from Type of Cancer from pull-down menu	Presents next level of selection (Select a Template pull-down menu)
10	Select the template for NSCLC – Single Agent Paclitaxel_IV_Pre-Therapy_Meds from pull-down Menu	Displays selected template regimen and presents next level of selection (Apply Template to Patient radio button)
11	Review displayed regimen	Permits scrolling, as appropriate
12	Select “Apply Template” to Patient radio button	Applies selected template to patient if no template is currently applied. If another template is currently applied, prompts user to verify current selection is to be applied
13	Select “OK” if prompted “Template already applied. Would you like to archive existing template and apply current selection?”	Presents “Enter Date to Start” pop-up tile
14	Enter date to start (manually or from calendar pop-up) (Note – For better testing of pharmacist and nurse activities, select today’s date)	Provides pop-up calendar, if selected; Accepts date $\geq$ today
15	Select the Weight to Use of “Ideal Weight” from the pull-down menu	Indicates “Ideal Weight” is selected
16	Select the body surface area (BSA) formula of “Mosteller” from the pull-down menu	Indicates “Mosteller” is selected
17	Select the goal for this Regimen as “Curative” from the radio button options	Indicates “Curative” is selected
18a	Change the Clinical Trial radio button indicator from the default of “No” to indicate “Yes” to “Specify the type of clinical trial”	Indicates “Yes” is selected; presents text field to specify the clinical trial



Step	Action	COMS Reaction
18b	Type text in “Type of Trial” field to specify clinical trial	Displays entered text
19a	Change the “Amputee?” radio button from the default of “No” to indicate “Yes”	Indicates “Yes” is selected; presents 12 check boxes to indicate amputation(s)
19b	Check the boxes for “Left Hand and Fingers” and “Left Foot”	Indicates selection of appropriate checked boxes
20	Select “1” for “Select the Performance Status” of the patient	Indicates “1” is selected
21	Select “Save” button	Indicates template was successfully applied to patient and generates order sheet for regimen
22	Open/Expand Patient Information panel to view the applied template, clinical trial, and patient amputations	Displays regimen information, text for clinical trial, and designated amputations