



## **USER MANUAL**

Department of Veterans Affairs,  
Pre-Procedure Checklist Tool  
VA118-11-RQ-0508

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**02/19/2013**

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## User Manual Version Log

Date	Version	Author	Revision Description
1/26/2012	1.0.0	Marisol Smith	Created (Sprint 3, First Prototype Delivery)
2/26/2012	1.0.9	Marisol Smith	Added 'Assign Checklist', 'Patient Lookup', Updated previous sections
3/26/2012	2.0.0	Marisol Smith	Added new features in 'Single Patient', 'Patient Lookup', 'Assign Checklist'
4/25/2012	2.1.2	Marisol Smith	Added 'Multi Patient View'
5/25/2012	2.2.0	Marisol Smith	Updated previous sections to include ability to map and write to VistA and other new features
6/14/2012	2.2.8	Marisol Smith	Updated Single Patient View explanation of summary indicators, updated screenshots
6/25/2012	2.3.8	Marisol Smith	Updated figures to reflect section 508 compliance changes, updated Lab Items.
7/24/2012	2.6.0	Marisol Smith	Updated figures with requested changes, section 508 compliance
8/23/2012	2.7.1	Marisol Smith	Updated Login Dialog figure, updated text
9/24/2012	2.9.3	Marisol Smith	Updated text and figures, including cancel option, toggle feature and scrolling.
10/22/2012	2.9.7	Marisol Smith	Updated text and figures including sorting of Items and trend.
11/19/2012	3.3.5	Marisol Smith	Updated text and figures to reflect layout changes, checklist version updating.
12/20/2012	3.4.3	Marisol Smith	Updated figures.
1/22/2013	3.4.7	Marisol Smith	Updated figures, text.
2/15/2013	3.7.2	Marisol Smith	Updated manual with feedback, included Quick Entry information
2/19/2013	3.7.2	Marisol Smith	Added figure/text regarding Values view Quick Entry

## Introduction

The Pre-Procedure Checklist Tool is a software application being developed by Intellica Corporation for the Department of Veterans Affairs under solicitation: VA118-11-RQ-0508. All development, testing, and demonstration of the prototype are being done exclusively in the VA Innovations Sandbox. The prototype provides for the generation of, and graphical representations of, pre-procedure checklists. This checklist displays patient attributes based on existing VistA fields.

## Logging on

A User Name and Password are required to gain access to the application. Users can use their Vista username and password to log on to the application.

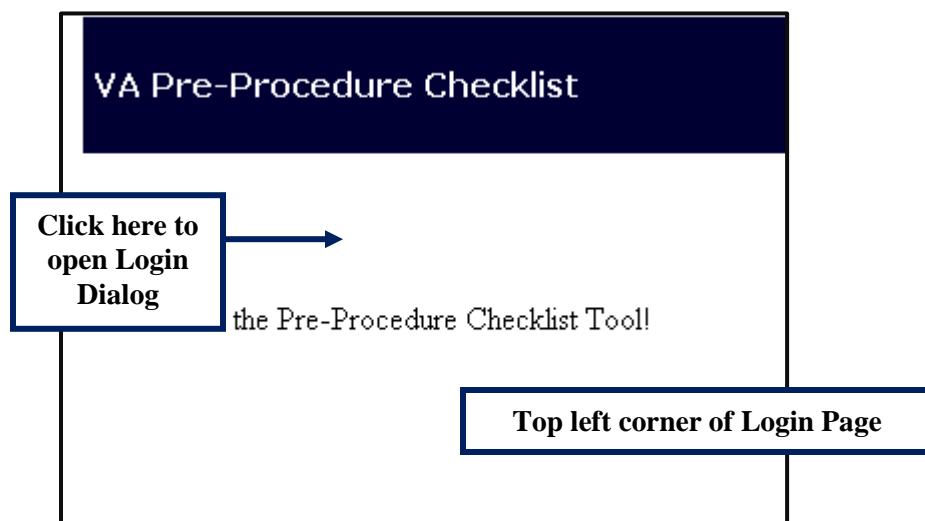


Figure 1 - Login Page

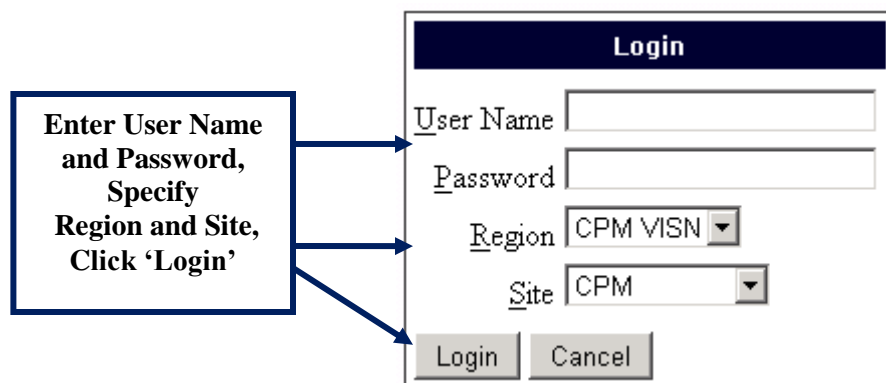


Figure 2 - Login Dialog

The User enters their username and password and selects their region and site, in order to log in to the application. The application has a time out period of 20 minutes. After 20 minutes of user inactivity the User is logged off the system and will need to log on again.

## Home View

The Home View is the default page to which the application navigates after the User logs in. The Home View has a navigation toolbar across the top with links to all the other pages in the application. In the upper right hand corner of the view the currently logged-in user is displayed, along with the date and time of the login. A log-off button is available in this area as well. The navigation and logging options remain available in all the pages in the application.

A horizontal navigation toolbar with a blue border. It contains the following links: Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. The 'Home' link is underlined.

[Home](#) [Multi Patient](#) [Patient Lookup](#) [Assign Checklist](#) [Variable Editor](#) [Item Editor](#) [Checklist Editor](#) [Help](#)

Figure 3 - Navigation Toolbar

The navigation links on the toolbar allows user to have access to:

Home

Multi Patient View

Patient Look Up Page

Assign Checklist Page

Variable Editor Page

Item Editor Page

Checklist Editor Page

Help Page

A screenshot of the application's Home View. At the top is a dark blue header bar with the text 'VA Pre-Procedure Checklist Prototype Alpha 3.4.3' on the left and 'Home' on the right. Below this is a navigation toolbar with links: Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. The 'Home' link is underlined. To the right of the toolbar, the text 'ONE VEHU, Logged In: 12/19/2012 11:31' is displayed, followed by a 'Log Off' button. Below the toolbar, the text 'Welcome to the Pre-Procedure Checklist Tool!' is shown.

VA Pre-Procedure Checklist Prototype Alpha 3.4.3 Home

[Home](#) [Multi Patient](#) [Patient Lookup](#) [Assign Checklist](#) [Variable Editor](#) [Item Editor](#) [Checklist Editor](#) [Help](#) ONE VEHU, Logged In: 12/19/2012 11:31 Log Off

Welcome to the Pre-Procedure Checklist Tool!

Figure 4 - Home View

A blue-bordered box containing the text 'Login information'. A blue arrow points from this box to the login information area in the screenshot above.

Login information



## Variable Editor

In the Variable Editor Page the User maintains variable data used by the Item Editor. The User may define Temporal States, Outcome States, Decision States, Item Groups, and Services on this page.

VA Pre-Procedure Checklist Prototype Alpha 3.4.3 Variable Editor

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 12/19/2012 12:14 Log Off

**Temporal State(s)**

Label	Definition	Active	Default
<a href="#">Completed</a>	Completed	Active	Default
<a href="#">Not Completed</a>	Not Completed	Active	Default
<a href="#">Not Ordered</a>	Not Completed	Active	Not Default
<a href="#">Unknown</a>	Unknown	Active	Default
<a href="#">Pending</a>	Not Completed	Inactive	Not Default

[New](#) [Edit](#)

**Outcome State(s)**

Label	Definition	Active	Default
<a href="#">Abnormal</a>	Abnormal	Active	Default
<a href="#">Borderline High</a>	Abnormal	Active	Not Default
<a href="#">Borderline Low</a>	Abnormal	Active	Not Default
<a href="#">Normal</a>	Normal	Active	Default
<a href="#">Unknown</a>	Unknown	Active	Default

[New](#) [Edit](#)

**Decision State(s)**

Label	Definition	Active	Default
<a href="#">Go</a>	Go	Active	Default
<a href="#">NoGo</a>	NoGo	Active	Default
<a href="#">Unknown</a>	Unknown	Active	Default
<a href="#">Go with Caveat</a>	Go	Inactive	Not Default
<a href="#">No Go - Needs Physician Approval</a>	NoGo	Inactive	Not Default

[New](#) [Edit](#)

**Item Group(s)**

Label	Active
<a href="#">Blood</a>	Active
<a href="#">Lab Items</a>	Active
<a href="#">Measurement</a>	Active
<a href="#">Medication</a>	Active
<a href="#">Note Titles</a>	Active
<a href="#">Question Selection</a>	Active

[New](#) [Edit](#)

**Service(s)**

Label	Active
<a href="#">Service 1</a>	Active
<a href="#">Service 2</a>	Active
<a href="#">Service 3</a>	Active

[New](#) [Edit](#)

Figure 5 - Variable Editor Page

The Temporal State variables define the possible state of an item. The Outcome State variables define the resultant state of an item. The Decision State variables define a rule-based state for an item (e.g. Go or No Go). A set of default variables is automatically included in each of the state variable lists. The Item Groups are used by the application in the 'Multi Patient View' to aggregate the statuses of multiple items into one group value, allowing the User to collapse or expand groups as needed for comparison. The Services are used to group checklists.

## Creating a New Variable

The User can click on the 'New' button below a list of variables to add a new state, item group or service variable. This will cause the corresponding state or item group editor dialog to appear.

VA Pre-Procedure Checklist Prototype Alpha 3.4.3 Variable Editor

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 12/19/2012 12:14 Log Off

Temporal State(s)

Label	Definition	Active	Default
<a href="#">Completed</a>	Completed	Active	Default
<a href="#">Not Completed</a>	Not Completed	Active	Default
<a href="#">Not Ordered</a>	Not Completed	Active	Not Default
<a href="#">Unknown</a>	Unknown	Active	Default
<a href="#">Pending</a>	Not Completed	Inactive	Not Default

Outcome State(s)

Label	Definition	Active	Default
<a href="#">Abnormal</a>	Abnormal	Active	Default
<a href="#">Borderline High</a>	Abnormal	Active	Not Default
<a href="#">Borderline Low</a>	Abnormal	Active	Not Default
<a href="#">Normal</a>	Normal	Active	Default
<a href="#">Unknown</a>	Unknown	Active	Default

Decision State(s)

Label	Definition	Active	Default
<a href="#">Go</a>	Go	Active	Default
<a href="#">NoGo</a>	NoGo	Active	Default
<a href="#">Unknown</a>	Unknown	Active	Default
<a href="#">Go with Caveat</a>	Go	Inactive	Not Default
<a href="#">No Go - Needs Physician Approval</a>	NoGo	Inactive	Not Default

Item Group(s)

Label	Active
<a href="#">Blood</a>	Active
<a href="#">Lab Items</a>	Active
<a href="#">Measurement</a>	Active
<a href="#">Medication</a>	Active
<a href="#">Note Titles</a>	Active
<a href="#">Question Selection</a>	Active

Service(s)

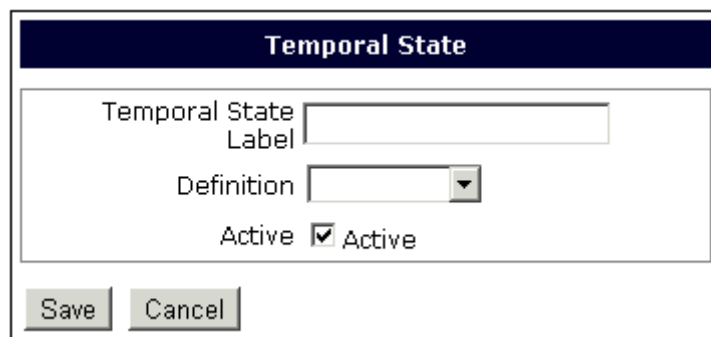
Label	Active
<a href="#">Service 1</a>	Active
<a href="#">Service 2</a>	Active
<a href="#">Service 3</a>	Active

Click 'New' to add new variable to list

The diagram illustrates the process of adding a new variable. A central callout box with the text "Click 'New' to add new variable to list" has four arrows pointing to the "New" buttons located below each of the five variable categories: Temporal State(s), Outcome State(s), Decision State(s), Item Group(s), and Service(s). Each category also has an "Edit" button next to its "New" button.

Figure 6 - New Variable

The User needs to enter a label for the new variable. The Temporal State, Outcome State, and Decision State variables also require a definition that can be selected from a drop down list. The definitions serve to tell the application how to interpret the variable when it is selected in a patient's checklist. Definitions cannot be edited or created. For example, the User can create an outcome label of 'Critical High' and define it as abnormal. If a checklist item has an outcome state value of 'Critical High', the application knows to flag the item as abnormal.



The dialog box is titled "Temporal State" in a dark blue header. Below the header, there is a text input field labeled "Temporal State Label". Underneath that is a dropdown menu labeled "Definition". Below the dropdown is a checkbox labeled "Active" which is checked, followed by the word "Active". At the bottom of the dialog are two buttons: "Save" and "Cancel".

Figure 7 - Example New Variable Dialog

The User can indicate if they want the variable to be active by placing a checkmark in the 'Active' checkbox (removing the check causes the variable to be inactive, thus not show up in other parts of the application). The User can click the 'Save' to save the new variable.

## Editing a Variable

The User also has the ability to edit variables, although the default variables cannot be edited. First, the User must select the variable they wish to edit by clicking on it. Once the desired variable is highlighted, they can click on the 'Edit' button located below the list of variables.

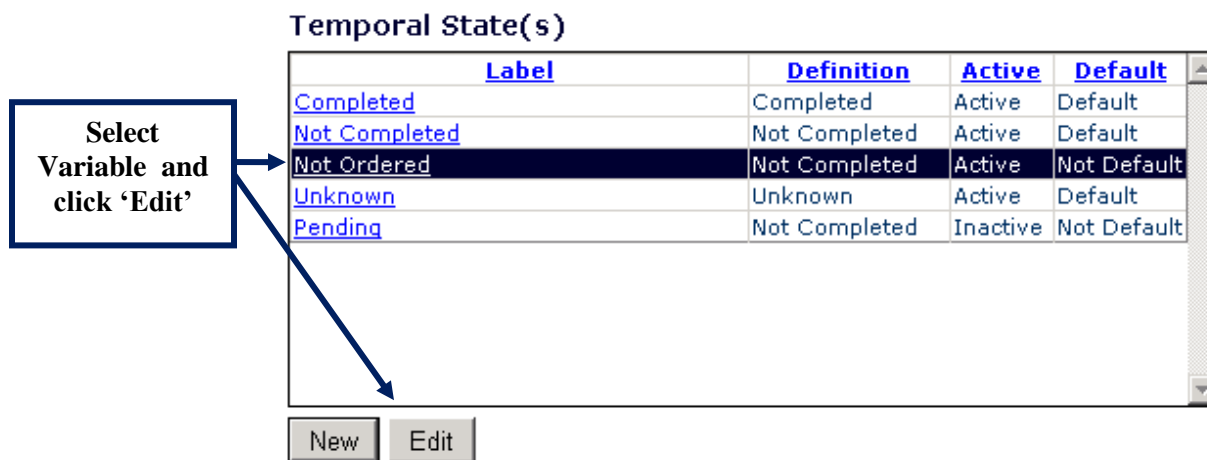


Figure 8 - Editing Variable

This will prompt the corresponding variable dialog to pop up prefilled with the selected variable's information. The User can make desired changes and click 'Save' when done.

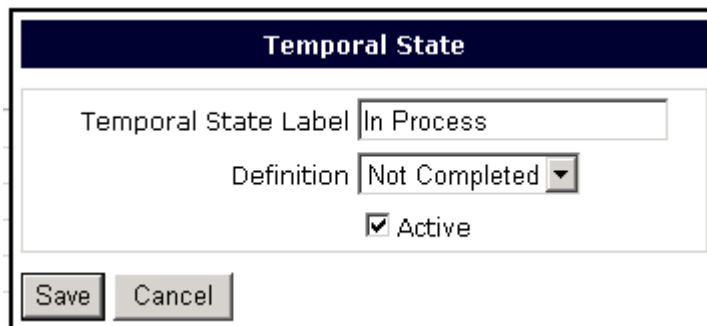


Figure 9 - State Variable Dialog edit

## Item Editor

In the Item Editor page the User creates checklist items for use in the Checklist Editor. A User may add or edit items (including designating them as active or inactive). The User can search for current items filtering by Item Label, Item Type, and Item Group.

VA Pre-Procedure Checklist Prototype Alpha 2.9.3 Item Editor

Home Multi Patient Patient Lookup Assign Checklist Variable Editor **Item Editor** Checklist Editor Help ONE VEHU,  
Logged In: 09/24/2012 08:24 Log Off

**Item Filters**

☐ Enable Item Label Filter  
Item Label

☐ Enable Item Type Filter  
Item Type

☐ Enable Item Group Filter  
Item Group

**Item(s)**

Click on 'New' to open 'item Editor' dialog to create a new item

Figure 10 - Item Editor

## Creating a New Item

The User can click on the 'Add Item' button to add a new item. The 'Item Editor Dialog' will pop up. For each item the User can select an item type, group, item label, description, lookback time (in days), and select whether the item is active or inactive.

The item type describes whether the item is, for example, a laboratory test or a question with selections or free text answer. The item group serves to group items in the multi-patient view to allow for data compression for easier viewing. The description field is a free text area where the User can describe the item being created. The lookback time is the amount of previous days the application will include in its search for data values for that item. This data will be stored locally and will allow for quicker retrieval of data for the checklists.

## Laboratory Type Items

The User can create Laboratory type items by selecting 'Laboratory' from the drop down 'Type' menu. This will enable the 'Map' button that will allow the User to map the item to the corresponding VistA test.

The screenshot shows the 'Item Editor' window. At the top is a dark blue header with the text 'Item Editor'. Below the header is a section titled '- Item Fields'. This section contains several form elements: a checked checkbox labeled 'Active', a dropdown menu for 'Type' with 'Laboratory' selected, a text input field for 'Map ID (optional)', a 'Map' button, a dropdown menu for 'Group', a text input field for 'Label', a text area for 'Description' with up and down arrow buttons on the right, and a text input field for 'Lookback Time' followed by 'Day(s)'. A blue callout box with a white border points to the 'Map' button, containing the text: 'User can click on 'Map' to map the item to VistA test'. Below the 'Item Fields' section is a section titled 'Item Component(s)' with an 'Add Component' button. At the bottom of the window are 'Save' and 'Cancel' buttons.

Figure 11 - Mapping Lab Item to VistA

The User will then be able to select the desired VistA test in the Map Lab Test dialog that appears. The User can enter a search term and click ‘Search’ on the top right to narrow the results. To make a selection the User clicks on the desired test (it will become highlighted) and clicks ‘Select’.

The dialog box is titled "Map Lab Test". It features a search bar labeled "Search Laboratory Test(s)" with the text "cholesterol" entered. To the right of the search bar is a "Search" button. Below the search bar, the text "Laboratory Test(s)" is displayed. A table lists the search results with columns for Laboratory, Lo Ref, Hi Ref, Ref Range, Units, and Description. The first three rows are visible: CHOLESTEROL, CHOLESTEROL CRYSTALS (highlighted), and LDL CHOLESTEROL. At the bottom of the dialog are "Select" and "Cancel" buttons.

<u>Laboratory</u>	<u>Lo Ref</u>	<u>Hi Ref</u>	<u>Ref Range</u>	<u>Units</u>	<u>Description</u>
CHOLESTEROL					CHOLESTEROL Highest urgency allowed: ROUTINE Lab c...
CHOLESTEROL CRYSTALS					CHOLESTEROL CRYSTALS Highest urgency allowed: ASAP
LDL CHOLESTEROL					LDL CHOLESTEROL Highest urgency allowed: ROUTINE C...

Figure 12 - Map Lab dialog

After selecting the test, the User will be brought back to the Item Editor where the User can enter the acceptable value ranges and other pertinent information for the lab item. The User can click ‘Save’ on the bottom left when done.

**Item Editor**

**Item Fields**

☒ Active

Type: Laboratory

Map ID (optional): 183\*CHOLESTEROL [Map]

Group: Mapped Lab Items

Label: CHOLESTEROL

Description: Mapped to cholesterol.

Lookback Time: 9999 Day(s)

**Item Component(s)** [Add Component]

<input checked="" type="checkbox"/> Active	Component Label	Sort Order	Units	Legal Min	Critical Low	Low	High	Critical High	Legal Max
	Value	1	mg/dL	0	0	0	200	240	400

Invalid Critical Low Low Normal High Critical High Invalid

**Component Fields for items with 'Laboratory' item Type**

[Save] [Cancel]

Figure 13 - Item Editor Dialog: Laboratory Items



## Question Selection Type Items

For 'Question Selection' type items the User defines a 'State' to be associated with the label instead. The state allows the application to know if a positive for the component is a positive or negative for the item (which would lead to Go/No Go). Available States are hard coded as 'Good', 'Bad', or 'Unknown' and cannot be edited. If a component with a 'Good' state is selected in a patient's checklist, the application will know it is a positive for the item.

**Item Editor**

**- Item Fields**

☒ Active

Type: Question Selection

Map ID (optional):  Map

Group: Question Selection Items

Label: Has the patient's referral been received?

Description: Verify if the patient's referral from primary caregiver has been received.

Lookback Time: 9999 Day(s)

**Item Component(s)** Add Component

Active	Component Label	Sort Order	State
<input checked="" type="checkbox"/>	Yes	1	Good
<input checked="" type="checkbox"/>	No	2	Bad
<input checked="" type="checkbox"/>	Unknown	3	Unknown

Save Close

**Component Fields for items with 'Question Selection' item Type**

Figure 14 - Item Editor Dialog: Question Selection Items

Once the User has completed the item, they can click 'Save'. The dialog will remain open for any further changes until the User clicks 'Cancel'.

## Note Title Type Items

The User can create a Note type item and map it to a note title from VistA as well. The Note Title will become the Item Label.

**Item Editor**

**- Item Fields**

☒ Active

Type: Note Title

Map ID (optional): ATTENDING NOTE **Map**

**Click Map to open list of VistA Note Titles**

Group: **Note Title will populate the item Label field**

Label: **Note Title will populate the item Label field**

Description: Mapped to note title

Lookback Time: 9999 Day(s)

**Item Component(s)** **Add Component**

Active	Component Label	Sort Order
<input checked="" type="checkbox"/>	Text	1

Save Cancel

Figure 15 - Item Editor Dialog: Note Items

The User can also create an item that is a collection of other items (of any type). The User can select Collection as the item type. The User can then click on the 'Add Item' button to open the 'Item Selector' dialog to access a list of active items. The User can select an item from this list and add it as a component. The User can then click 'Add Item' again and repeat the process until all the desired items have been added as components.

## Collection Type Items

The User can create a Collection Type Item in which a set of items can be included as one single item in a Checklist. The User selects Collection as the type of item and then will be able to click on 'Add Item' to add items to the collection. When clicking 'Add Item' an item selector dialog appears and allows the User to select an item that should be included in the collection. The lookback time will remain 0 since the lookback time for each individual item can be different (and was already assigned when the particular item was created).

The screenshot shows the 'Item Editor' dialog box. At the top is a dark blue header with the text 'Item Editor'. Below the header is a section titled 'Item Fields' with a minus sign icon. The fields include: a checked 'Active' checkbox; a 'Type' dropdown menu set to 'Collection'; a 'Map ID (optional)' text box with a 'Map' button; a 'Group' dropdown menu set to 'OR Briefing'; a 'Label' text box containing 'Collection Identity Verification'; a 'Description' text box containing 'Collection of items that are related to verifying patient's identity (name and SS#)'; and a 'Lookback Time' text box set to '0' with 'Day(s)' next to it. Below these fields is a 'Collection Item(s)' section with an 'Add Item' button. A blue callout box with an arrow points to the 'Add Item' button, containing the text 'Click Add item to add items to Collection'. Below the 'Add Item' button is a table with two rows: 'Patient Name Verified' with 'Sort Order 1' and 'Patient SS# Verified' with 'Sort Order 2'. At the bottom of the dialog are 'Save' and 'Cancel' buttons.

Item	Sort Order
Patient Name Verified	1
Patient SS# Verified	2

Figure 16 – Item Editor Dialog: Collection Items

## Editing an Item

The User also has the ability to edit an existing item. The User can search for current items filtering by Item Label, Item Type, and Item Group. There are check boxes next to each filter to allow the User to select one or more filters for the search, and then select the relevant data from the drop down menus. After selecting the filters the User clicks 'Search'. A list will be displayed with all qualifying items. The User can click on the toggle button to collapse the filter area and include more of the search results in their screen. Once the User has found the item, the item needs to be selected by clicking on the item label. The User can now click on 'Edit' to open the Edit Item dialog.

**VA Pre-Procedure** Alpha 2.9.3 **Item Editor**

Home Multi-Procedure Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 09/23/2012 23:35 Log Off

**Toggle Button to collapse item Filters area**

☐ Enable Item Label Filter  
Item Label

☐ Enable Item Type Filter  
Item Type

☐ Enable Item Group Filter  
Item Group

Search

**Select Filter(s) and Criteria, then click 'Search'**

**Item(s)**

Label	Group	Description	Lookback Time	Active
Collection of Blood Count (red and white)	Collection	Collection of Blood Count (red and white)	0	Active
RED BLOOD COUNT	Laboratory	Mapped Lab Item... rbc	9999	Active
WHITE BLOOD COUNT	Laboratory	Mapped Lab Item... wbc	9999	Active
POTASSIUM	Laboratory	Mapped Lab Item... mapped to potassium	9999	Active
Non-mapped Lab	Laboratory	Group 1 Non-mapped Lab	20	Active
PLATELET COUNT	Laboratory	Mapped Lab Item... mapped to platelet count	9999	Active
TRIGLYCERIDE	Laboratory	Mapped Lab Item... mapped to triglyceride	9999	Active
Collection of Question Items	Collection	Collection of Question Items	0	Active
ATTENDING NOTE	Note Title	Mapped Note Title... mapped to attending note	365	Active
PRIMARY CARE GENERAL NOTE	Note Title	Mapped Note Title... Mapped to PRIMARY CARE GENERAL NOTE	9999	Active
HEMOGLOBIN A1C	Laboratory	Mapped Lab Item... mapped to hemo a1c	9999	Active
Collection of Mapped Labs	Collection	Collection Items includes: Potassium, Hemo A1C, LDL Cholesterol	0	Active
Name and location of closest VA clinic	Question Free Text	Please enter the name and the location of the closest VA clinic	365	Active
Please select which eye:	Question Select	Select if patient need procedure on both eyes or just one. I...	90	Active
LDL CHOLESTEROL	Laboratory	Mapped Lab Item... mapped to ldl cholesterol	9999	Active
ADVANCE DIRECTIVE	Note Title	Mapped Note Title... mapped to Advance Directive	9999	Active
Name of Physician	Question Free Text	Question Free Text... Ask patient for Name of Physician	9999	Active

**Select item from list and Click 'Edit'**

New Edit

Figure 17 - Item Editor Page

Clicking 'Edit' will cause the Item Editor dialog to appear populated with the selected item's information, allowing the User to make any relevant changes. Once the changes have been made, the User can click 'Save' to save them. The User can click 'Cancel' to exit the dialog when done.

**Item Editor**

**- Item Fields**

☒ Active

Type: Question Free Text

Map ID (optional):  Map

Group: Question Free Text Items

Label: Name and location of closest VA clinic

Description: Please enter the name and the location of the closest VA clinic with the appropriate facilities.

Lookback Time: 365 Day(s)

**Item Component(s)** Add Component

<input checked="" type="checkbox"/> Active	Component Label: Name	Sort Order: 1
<input checked="" type="checkbox"/> Active	Component Label: Location	Sort Order: 2

Save Cancel

Figure 18 - Pre-populated Item Editor Dialog

## Checklist Editor

The Checklist Editor page is where the User can create the checklists using the items and variables previously created. The User may add or edit checklists. The checklists can be designated as active or inactive.

The screenshot displays the 'Checklist Editor' interface within the 'VA Pre-Procedure Checklist Prototype Alpha 2.9.3' application. The top navigation bar includes links for Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. The user is logged in as 'ONE VEHU' on 09/24/2012 at 08:24, with a 'Log Off' button. The 'Checklist Options' section contains buttons for 'New', 'Load', 'Save', and 'Copy Checklist'. Below this, the 'Checklist Fields' section includes an 'Active' checkbox, a 'CheckList Label' text field, a 'Service' dropdown menu, a 'Description' text area, a 'Note Title' text field with a 'Map To Note Title' button, a 'Note Clinic' dropdown menu, and checkboxes for 'Viewable By', 'Read Only For', 'Closeable By', and 'TIU Note', each with options for Administrator, Doctor, and Nurse. The 'Checklist Item(s)' section features an 'Add Item' button and a large, empty text area for listing items.

Figure 19 - Checklist Editor

## Creating a New Checklist

To create a new Checklist the User enters the Checklist Editor and clicks on the ‘New’ button which enables all the fields. If the User has a checklist open already, the ‘New’ button can be clicked to clear the Checklist Editor fields and allow the User to enter new data. The User will enter a checklist label, service (the service category the list), and description. The User can map the Checklist to a Note Title (covered in the next section) and can assign it to a Note Clinic. The User will select whether the checklist is active or inactive. The User will also select which roles (Administrator, Doctor, or Nurse) will have the rights to view or close a checklist, or write a TIU note. The User can designate who will have ‘Read Only’ rights as well.

The screenshot displays the 'Checklist Editor' interface for 'VA Pre-Procedure Checklist Prototype Alpha 2.9.3'. The top navigation bar includes links for Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. A user login bar shows 'ONE VEHU, Logged In: 09/24/2012 08:24' and a 'Log Off' button. The main section is titled 'Checklist Options' and contains several buttons: 'New', 'Load', 'Save', and 'Copy Checklist'. Below these is a 'Checklist Fields' section with a minus icon. The fields include: a checked 'Active' checkbox; 'CheckList Label' set to 'Pre-Procedure 1'; 'Service' set to 'Service 1'; a 'Description' text area with the text 'Checklist for patients that are preparing for Procedure 1.'; 'Note Title' and 'Note Clinic' dropdown menus with a 'Map To Note Title' button; 'Viewable By' checkboxes for Administrator, Doctor, and Nurse (all checked); 'Read Only For' checkboxes for Administrator, Doctor, and Nurse (all unchecked); 'Closeable By' checkboxes for Administrator, Doctor, and Nurse (all checked); and 'TIU Note' checkboxes for Administrator, Doctor, and Nurse (all unchecked). At the bottom, there is a 'Checklist Item(s)' section with an 'Add Item' button and a large empty text area for listing items.

Figure 20 - Checklist Editor New Checklist

## Mapping Checklist to Note Title

The User can select the note title to which they wish for the TIU note to be written with the contents of the checklist. The User can click on the 'Map to Note Title' to open the dialog with the list of available VistA titles.

The screenshot shows the 'VA Pre-Procedure Checklist Prototype Alpha 2.9.3' interface. The 'Checklist Editor' tab is active. Under 'Checklist Options', there are buttons for 'New', 'Load', 'Save', and 'Copy Checklist'. Below this is the 'Checklist Fields' section, which includes a 'Checklist Label' (Pre-Procedure 1), a 'Service' dropdown (Service 1), a 'Description' text area (Checklist for patients that are preparing for Procedure 1.), a 'Note Title' text field, a 'Map To Note Title' button, a 'Note Clinic' dropdown, and several checkboxes for 'Viewable By', 'Read Only For', 'Closeable By', and 'TIU Note'. A blue callout box with an arrow points to the 'Map To Note Title' button, containing the text: 'Click to Access list of Note Titles for mapping'.

Figure 21 - Checklist Editor: Mapping to Note Title

The User can use the search function to search for the desired Note Title, or browse the list. The User can then click on the Note Title and click the Select button to assign that title.

The screenshot shows the 'Map Note Title' dialog box. It has a search bar at the top with the text 'general' and a 'Search' button. Below the search bar is a list of 'Note Title(s)' including: 'C GENERAL MEDICAL', 'C&P GENERAL MEDICAL', 'CARE [PRIMARY CARE GENERAL NOTE]', 'GENERAL [C GENERAL MEDICAL]', 'GENERAL [C&P GENERAL MEDICAL]', 'GENERAL [GENERAL SURGERY RESIDENT NOTE]', 'GENERAL [IMED GENERAL]', 'GENERAL [PRIMARY CARE GENERAL NOTE]', 'GENERAL [SCI GENERAL NOTE]', 'GENERAL SURGERY RESIDENT NOTE' (which is highlighted), 'IMED [IMED GENERAL]', 'IMED GENERAL', 'MEDICAL [C GENERAL MEDICAL]', 'MEDICAL [C&P GENERAL MEDICAL]', 'NOTE [GENERAL SURGERY RESIDENT NOTE]', 'NOTE [PRIMARY CARE GENERAL NOTE]', 'NOTE [SCI GENERAL NOTE]', 'PRIMARY [PRIMARY CARE GENERAL NOTE]', and 'PRIMARY CARE GENERAL NOTE'. At the bottom of the dialog are 'Select' and 'Cancel' buttons.

Figure 22 - List of Note Titles

To add items to the Checklist, the User can save the checklist and then click on 'Add Item' which will cause the Item Selector dialog to appear.



The Item Selector dialog is used by the Checklist Editor page to add an existing item to checklist. A User may filter by all, some or none of the filter options in the dialog for a subset of items from the complete item list. The User can click on the label of the desired item and click 'Select' to add the item to the checklist.

**Item Selector**

**Item Filters**

☐ Enable Item Label Filter  
Item Label

☐ Enable Item Type Filter  
Item Type

☐ Enable Item Group Filter  
Item Group

**Item(s)**

Label	Type	Group	Description	Lookback Time	Active
Collection of Blood Count (red and white)	Collection	Collection Items	Collection of Blood Count (red and white)	0	Active
Hemoglobin A1C	Laboratory	Mapped Lab Item	mapped to hemo a1c	9999	Active
Collection of Mapped Labs	Laboratory	Mapped Lab Item	mapped to potassium	9999	Active
Collection of Mapped Labs	Laboratory	Mapped Lab Item	mapped to platelet count	9999	Active
Collection of Mapped Labs	Laboratory	Mapped Lab Item	mapped to triglyceride	9999	Active
Collection of Question Items	Collection	Collection Items	Collection of Question Items	0	Active
ATTENDING NOTE	Note Title	Mapped Note Title	mapped to attending note	365	Active
PRIMARY CARE GENERAL NOTE	Note Title	Mapped Note Title	Mapped to PRIMARY CARE GENERAL NOTE	9999	Active
HEMOGLOBIN A1C	Laboratory	Mapped Lab Item	mapped to hemo a1c	9999	Active
Collection of Mapped Labs	Collection	Collection Items	includes: Potassium, Hemo A1C, LDL Cholesterol	0	Active
Name and location of closest V...	Question Free Text	Question Free Text	Please enter the name and the location of the c...	365	Active
Please select which eye:	Question Selection	Question Selection	Select if patient need procedure on both eyes...	90	Active

Figure 23 - Item Selector Dialog

After selecting an item, the item information will populate in the item section of the Checklist Editor page.

VA Pre-Procedure Checklist Prototype Alpha 2.9.7 Checklist Editor

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 10/22/2012 17:41 Log Off

**Checklist Options**

New Load Save Copy Checklist

**Checklist Fields**

☒ Active

CheckList Label: Pre-P 1

Service: Service 1

Description: Checklist 1

Note Title: ATTENDING NOTE Map To Note Title

Note Clinic: AUDIOLOGY

Viewable By: ☒ Administrator ☒ Doctor ☒ Nurse

Read Only For: ☒ Administrator ☐ Doctor ☐ Nurse

Closeable By: ☐ Administrator ☒ Doctor ☐ Nurse

TIU Note: ☐ Administrator ☒ Doctor ☒ Nurse

**Checklist Item(s)** Add Item

**item(s) Box**

☒ Active LDL CHOLESTEROL Temporal State Time Period: 9999 Time Period Units: Day(s) Sort Order: 1

States and Logic

Decision State Changeable By: ☐ Administrator ☒ Doctor ☐ Nurse

☒ Active ADVANCE DIRECTIVE Temporal State Time Period: 9999 Time Period Units: Day(s) Sort Order: 2

States and Logic

**User selects/enters relevant information for item**

Figure 24 - Checklist Editor with Item

The User will also select which roles (Administrator, Doctor, or Nurse) will have the rights to modify the Temporal, Outcome, and Decision states for the item. The User will also assign a Temporal State Time Period (the period of time within which the item must have been previously completed in order for results to be valid). The User will enter the number and units (days, hours etc) for the Temporal State Time Period. The User can enter the sort order in which they wish for the items to show up in the patient's checklist.

The User can click on the toggle button to collapse the checklist fields and increase the viewing area for the list of items. The User can click 'Save' to save this information after it has been filled out. The 'States and Logic' button becomes enabled after saving an item to a checklist.

The screenshot displays the 'VA Pre-Procedure Checklist Prototype Alpha 2.9.7' interface. At the top, a navigation bar includes links for Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. A user login status 'ONE VEHU, Logged In: 10/22/2012 17:41' and a 'Log Off' button are also present. Below the navigation bar, the 'Checklist Options' section contains buttons for New, Load, Save, and Copy Checklist. A '+ Checklist Fields' button is highlighted with a blue box and an arrow pointing to it, with a label 'Toggle Button' next to it. Below this, a 'Checklist Item(s)' section shows a list of items. The first item, 'CHOLESTEROL', is expanded, showing fields for 'Decision State Changeable By' (Administrator, Doctor, Nurse), 'Active' (checked), 'ADVANCE DIRECTIVE', 'Temporal State Time Period' (9999), 'Time Period Units' (Day(s)), and 'Sort Order' (1). Below the expanded item, there are five more items, each with a 'States and Logic' button. The items are: 'Name of Physician' (Sort Order 2), 'Name of Physician' (Sort Order 4), 'ABCD E sharp' (Sort Order 3), 'Name and location of closest VA clinic' (Sort Order 5), and an empty item (Sort Order 5). Each item has a 'States and Logic' button.

Figure 25 - Checklist Editor Collapsed Checklist Fields

## States and Logic Editor

Once enabled, the User can click on the ‘States and Logic’ button to add Temporal, Outcome, and Decision State variables to a checklist (in addition to the default variables) or to add custom logic.

**VA Pre-Procedure Checklist Prototype Alpha 2.9.7** **Checklist Editor**

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 10/22/2012 17:41 Log Off

**Checklist Options**

New Load Save Copy Checklist

**Checklist Fields**

☒ Active

CheckList Label: Pre-P 1

Service: Service 1

Description: Checklist 1

Note Title: ATTENDING NOTE Map To Note Title

Note Clinic: AUDIOLOGY

Viewable By: ☒ Administrator ☒ Doctor ☒ Nurse

Read Only For: ☒ Administrator ☐ Doctor ☐ Nurse

Closeable By: ☐ Administrator ☒ Doctor ☐ Nurse

TIU Note: ☐ Administrator ☒ Doctor ☒ Nurse

**Checklist Item(s)** Add Item

<input checked="" type="checkbox"/> Active	LDL CHOLESTEROL	Temporal State	Time Period: 9999	Time Period Units: Day(s)	Sort Order: 1
<b>States and Logic</b>					
Decision State Changeable By:					
<input checked="" type="checkbox"/> Active	ADVANCE DIREC	Temporal State	Time Period: 9999	Time Period Units: Day(s)	Sort Order: 2
<b>States and Logic</b>					

**Click 'States and Logic' button to open 'State/Logic Editor'**

Figure 26 - Accessing State/Logic Editor

When the State/Logic Editor dialog appears, it displays the State Editor (the ‘State’ radio button is selected as a default). Here the User can add Temporal, Outcome, and Decision State variables to a checklist. There is a set of default variables that cannot be removed, but the User can place a checkmark beside any additional Temporal, Outcome, or Decision State variables they wish to include in the Checklist (or remove the check if they wish to remove the state from that Checklist). The User can click ‘Save’ when done.

**State/Logic Editor**

☒ State ☐ Logic

**Temporal States**

Label	Definition
<input type="checkbox"/> asdf	Completed
<input checked="" type="checkbox"/> Completed	Completed
<input type="checkbox"/> In Process	Not Completed
<input checked="" type="checkbox"/> Not Completed	Not Completed
<input type="checkbox"/> Test2	Unknown
<input checked="" type="checkbox"/> Unknown	Unknown

**Outcome States**

Label	Definition
<input checked="" type="checkbox"/> Abnormal	Abnormal
<input type="checkbox"/> asdf	Abnormal
<input type="checkbox"/> High	Abnormal
<input type="checkbox"/> Low	Abnormal
<input checked="" type="checkbox"/> Normal	Normal
<input type="checkbox"/> Normal for Specific Condition	Normal
<input type="checkbox"/> Test2	Abnormal
<input checked="" type="checkbox"/> Unknown	Unknown

**Decision States**

Label	Definition
<input type="checkbox"/> asdf	Go
<input checked="" type="checkbox"/> Go	Go
<input checked="" type="checkbox"/> NoGo	NoGo
<input checked="" type="checkbox"/> Unknown	Unknown

**Item Logic**

Figure 27 - Checklist State/Logic Editor Dialog

The default variables are automatically selected and added to all checklists. When a User is done creating a checklist they can click the ‘Save’ button on the Checklist Editor Page.

*Logic editor*

In the State/Logic Editor the User can click on the ‘Logic’ radio button to access the logic builder tool.

The screenshot shows the 'State/Logic Editor' window. At the top, there are two radio buttons: 'State' (selected) and 'Logic' (unselected). A blue box with an arrow points to the 'Logic' button, containing the text 'Click 'Logic' radio button'. Below the radio buttons, there are two tables: 'Outcome States' and 'Decision States'.

Outcome States	
Label	Definition
<input checked="" type="checkbox"/> Abnormal	Abnormal
<input type="checkbox"/> asdf	Abnormal

Decision States	
Label	Definition
<input type="checkbox"/> asdf	Go
<input checked="" type="checkbox"/> Go	Go

Figure 28 - State/Logic Editor

This builder aids the process of creating custom logic to designate relationships between the different states in addition to the default relationships, or to override them.

The User can select from Operators, Patient (demographics), Patient Items (items and corresponding Component attributes), Static data, and Actions they wish to take (Cancel a Checklist, Disable an Item, Set a Temporal, Outcome or Decision State).

The screenshot shows the 'State/Logic Editor: Operators' window. At the top, there are two radio buttons: 'State' (selected) and 'Logic' (unselected). Below them, there are two more radio buttons: 'Operator' (selected) and 'Patient' (unselected). Below these, there are five more radio buttons: 'Patient Item' (unselected), 'Static' (unselected), and 'Action' (unselected). A blue box with an arrow points to the 'Operator' button, containing the text 'Click on radio button to select'. Below the radio buttons, there is a list of 'Operator Categories': Arithmetic, Boolean, Else, If, Semicolon, and Then. Below the list, there is an 'Add' button. Below the 'Add' button, there is a section for 'Item Logic' with a 'Validate' button. At the bottom, there are 'Save' and 'Cancel' buttons.

Figure 29 - State/Logic Editor: Operators

The User can make a selection in the boxes on top and click 'Add' to add it to the box on the below. The last radio button includes the Actions that can result from meeting the conditions in the logic expression. In this example we will set the Decision State for this item to Go if the patient is female. The Operators (if, =, then) can be typed or added from the Operator radio button.

**State/Logic Editor**

**POTASSIUM**

Selector Category ☐ State ☒ Logic

Logic Category ☐ Operator ☒ Patient ☐ Patient Item ☐ Static ☐ Action

Patient Place Holder(s)

Age  
Sex

Add

**Click on 'Add' to add selection to item Logic Box**

Item Logic Validate

if {Patient.Sex}

Save Cancel

Figure 30 - Selecting that Patient Sex is a Parameter

**State/Logic Editor**

**POTASSIUM**

Selector Category ☐ State ☒ Logic

Logic Category ☐ Operator ☐ Patient ☐ Patient Item ☒ Static ☐ Action

Static Place Holder(s)

Static Categories	Static Place Holder(s)
Sex	Female
Source	Male
State	
Value	

Add

Item Logic

```
if {Patient.Sex} = {Sex.Female}
```

When relevant new boxes with subgroups will appear for User to make a selection

Figure 31 - Selecting that Patient Sex must be Female



The Actions that are available are to Cancel the Checklist, Disable an item, or Set one of the States to a value. When done, the User can click the Validate button to see if there are any errors in the Logic expression.

**State/Logic Editor**

**POTASSIUM**

Selector Category ☐ State ☒ Logic

Logic Category ☐ Operator ☐ Patient ☐ Patient Item ☐ Static ☒ Action

Actions	Specifier(s)	Action Place Holder(s)
Cancel	Decision State	Go
Disable	Outcome State	NoGo
Set	Temporal State	Unknown

Add

Item Logic

**Click here to Validate code**

```
if {Patient.Sex} = {Sex.Female} then DecisionState.Set(Go)
```

Save Cancel

Figure 32 - Selecting the Action is to set the Decision State to Go

## Editing a Checklist

If the User would like to load a previously saved checklist for viewing or editing they can to click the ‘Load’ Button, which will prompt the ‘Checklist Selector’ dialog to appear.

VA Pre-Procedure Checklist Prototype Alpha 2.9.3 Checklist Editor

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 09/24/2012 09:56 Log Off

Checklist Options

New Load Save Copy Checklist

Checklist Fields

☒ Active

Click 'Load' to pull up previously created checklist

Note Title GENERAL SURGERY RESIDENT Map To Note Title

Note Clinic GENERAL SURGERY

Viewable By ☒ Administrator ☒ Doctor ☒ Nurse

Read Only For ☒ Administrator ☐ Doctor ☐ Nurse

Closeable By ☐ Administrator ☒ Doctor ☐ Nurse

TIU Note ☐ Administrator ☒ Doctor ☒ Nurse

Checklist Item(s) Add Item

<input checked="" type="checkbox"/> Active	HEMOGLOBIN A1C	Temporal State Time Period 9999	Time Period Units Day(s)	Weight 2	States and Logic
Decision State Changeable By <input type="checkbox"/> Administrator <input checked="" type="checkbox"/> Doctor <input checked="" type="checkbox"/> Nurse					
<input checked="" type="checkbox"/> Active	Name and location of closest VA clinic	Temporal State Time Period 90	Time Period Units Day(s)	Weight 3	States and Logic
Decision State Changeable By <input type="checkbox"/> Administrator <input checked="" type="checkbox"/> Doctor <input checked="" type="checkbox"/> Nurse					
<input checked="" type="checkbox"/> Active	PLATELET COUNT	Temporal State Time Period 9999	Time Period Units Day(s)	Weight 1	States and Logic

Figure 33 - Checklist Editor Saving/Loading

The Checklist Selector dialog is used by the Checklist Editor page to load an existing checklist into the page for editing. A User may filter by all, some or none of the filter options in the dialog for a subset of checklist from the complete checklist list. The User can select the desired checklist and click “Select”. The information for the selected checklist will load in the Checklist Editor page.

Checklist(s)	Service
<a href="#">Pre-P 6</a>	Service 2
<a href="#">asdffdsa</a>	Service 1
<a href="#">Checklist with one Collection item</a>	Service 1
<a href="#">Pre-P 1</a>	Service 1
<a href="#">Pre-P 10</a>	Service 1
<a href="#">Pre-P 11</a>	Service 1
<a href="#">Pre-P 12</a>	Service 2
<a href="#">Pre-P 13 One of each kind of item</a>	Service 1
<a href="#">Pre-P 14 One non-mapped lab item</a>	Service 2
<a href="#">Pre-P 15- to test note titles</a>	Service 1
<a href="#">Pre-P 16</a>	Service 10
<a href="#">Pre-P 17</a>	Service 10
<a href="#">Pre-P 18 w/Collection mapped lab</a>	Service 10
<a href="#">Pre-P 2 with Variables</a>	Service 1
<a href="#">Pre-P 3</a>	Service 1

Figure 34 - Checklist Selector Dialog

After editing the checklist the User can save the changes to that checklist by clicking the Save button. If the User wishes to create a copy of a checklist, the User can load the checklist and click on the Copy Checklist button. This will cause the 'Save Checklist as New Checklist' dialog to open. The User can enter the desired label for the new checklist, and click Save. The new checklist is now saved.

Copy: Procedure 1

As

**Note:** The entire checklist including committed changes will be copied. Any changes made to the checklist that were not saved prior to opening this dialog will be lost.

Figure 35 - Save Checklist as New Checklist dialog

## Assign Checklist

The User can click on Assign Checklist in the navigation toolbar to go to the page where checklists can be assigned to patients.

VA Pre-Procedure Checklist Prototype Alpha 3.4.6 Assign Checklist

Home Multi Patient Patient Lookup **Assign Checklist** Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 01/22/2013 08:20 Log Off

**Checklist**  
Checklist To Assign  Select

**- Patient Filters**

☐ Enable Procedure Date Filter  
From Date  To Date

☐ Enable Last Name Filter  
Last Name

☐ Enable LSSN Filter  
LSSN

☐ Enable Checklist Filter  
Checklist  Select

☐ Enable Checklist Status Filter  
Checklist Status

☐ Enable Service Filter  
Service

Search My Patients

**Patient(s)** Check All

Please search with one or more filters.

Assign Checklist

**Additional Filter Categories**  
☒ None ☐ Providers ☐ Teams ☐ Specialties ☐ Clinics ☐ Wards

Search Category Result(s)  Search

Category Result(s)

Figure 36 - Assign Checklist page

The User can click on the 'Select' button next to the 'Checklist to Assign' field to open the Checklist Selector dialog. Here the User can filter by checklist name or service category and then click the 'Search' button to see a list of Checklists that meet the filter criteria. The User can then click on the desired checklist label and click 'Select' to select that checklist.

Checklist	Service
<a href="#">Pre-P 6</a>	Service 2
<a href="#">asdffdsa</a>	Service 1
<a href="#">Checklist with one Collection item</a>	Service 1
<a href="#">Pre-P 1</a>	Service 1
<a href="#">Pre-P 10</a>	Service 1
<a href="#">Pre-P 11</a>	Service 1
<a href="#">Pre-P 12</a>	Service 2
<a href="#">Pre-P 13 One of each kind of item</a>	Service 1
<a href="#">Pre-P 14 One non-mapped lab item</a>	Service 2
<a href="#">Pre-P 15- to test note titles</a>	Service 1
<a href="#">Pre-P 16</a>	Service 10
<a href="#">Pre-P 17</a>	Service 10
<a href="#">Pre-P 18 w/Collection mapped lab</a>	Service 10
<a href="#">Pre-P 2 with Variables</a>	Service 1
<a href="#">Pre-P 3</a>	Service 1

Figure 37 - Checklist Selector Dialog

The User can search for patients using filters such as Last Name, LSSN (first initial of last name and last four numbers of their social security number), previously assigned checklists, and statuses of current checklists. To select a filter the User can place checkmarks in the boxes beside the desired filters and then enter the parameters. The User can also filter by the Vista parameters of Providers, Teams, Specialties, and Wards. To filter by Provider, the User clicks on the Provider radio button, enters the last name of the Provider whose patients they wish to look-up, and click search. A list of providers that match the search criteria will show up. To filter by the other criteria the User clicks on the radio button of the desired criterion and then a list will populate in the box below. The User can then click on the desired Team, Specialty, or Ward. The User can click 'Search' and the patients that match the parameters will be displayed in a list.

**VA Pre-Procedure Checklist Prototype Alpha 3.4.6** **Assign Checklist**

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 01/22/2013 08:20 **Log Off**

**Checklist**  
Checklist To Assign:  **Select**

**Patient Filters**

☐ Enable Procedure Date Filter  
From Date:  To Date:

☒ Enable Last Name Filter  
Last Name:

☐ Enable LSSN Filter  
LSSN:

☐ Enable Checklist Filter  
Checklist:  **Select**

☐ Enable Checklist Status Filter  
Checklist Status:

☐ Enable Service Filter  
Service:

**Additional Filter Categories**  
☐ None ☐ Providers ☐ Teams ☒ Specialties ☐ Clinics ☐ Wards

Search Category Result(s):  **Search**

Category Result(s)

- GENERAL SURGERY**
- GRECC-GEM-REHAB
- GRECC-MED
- HIGH INTENSITY GEN PSYCH INPAT
- HOSPICE FOR ACUTE CARE
- LONG STAY GRECC-NHCU
- MEDICAL ICU
- MEDICAL OBSERVATION
- MEDICAL STEP DOWN
- NEUROLOGY OBSERVATION

**Search** **My Patients**

**Patient(s)** **Check All**

<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Last 4</u>	<u>Age</u>	<u>Sex</u>
<input type="checkbox"/> FORTY	INPATIENT		0840		U
<input type="checkbox"/> FORTYEIGHT	INPATIENT		0848		U
<input type="checkbox"/> FORTYFIVE	INPATIENT		0845		U
<input type="checkbox"/> FORTYFOUR	INPATIENT		0844		U
<input type="checkbox"/> FORTYNINE	INPATIENT		0849		U

**Assign Checklist**

Figure 38 - Assign Checklist: Patient Selected

The User can also click on 'My Patients' to pull up a list of patients assigned to the User that is logged in that meet the parameters that have been selected (this button can be used without selecting any filters and will provide a full list of patients assigned to the User that is logged in). User can place a checkmark in the boxes corresponding to the patients to whom they wish to assign the checklist. The User can also click on 'Check All' to select all patients in the search results. The User can then click on the 'Assign Checklist' button and the checklist will be assigned to the selected patients.

If the User attempts to assign a checklist to a patient that already has that checklist assigned to him, the User will get a window with a message letting them know this is the case and asking if they want to assign the checklist again. If the User wants to assign it again to all patient listed they just need to click 'Yes', if not, the User can click 'No'. The User can assign it to only some of the patients on the list by removing the checkmark from the first column for the patients to whom they do not want to reassign the checklist, and then clicking 'Yes'. Only the patients with the checkmark by their name will be reassigned the checklist.

<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Last 4</u>	<u>Assignment Date</u>	<u>Procedure Date</u>
<input checked="" type="checkbox"/> FORTYEIGHT	INPATIENT		0848	9/11/2012 5:09:47 PM	NA
<input checked="" type="checkbox"/> FORTYFIVE	INPATIENT		0845	9/11/2012 5:10:05 PM	NA

Figure 39 - Warning Message Duplicate Checklists

A dialog will appear telling the User how many records remain for processing. If the User wishes to cancel processing the request, they can click on the 'Cancel Processing' button.

Processing Progress

Processing...

77 records remaining.

Cancel Processing

Figure 40 - Cancel Processing

## Patient Lookup

The User can click on Patient Lookup on the navigation toolbar to look up an individual patient and access the Single Patient View page.

VA Pre-Procedure Checklist Prototype Alpha 3.4.6 Patient Lookup

Home Multi Patient **Patient Lookup** Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 01/22/2013 08:20 Log Off

**Patient Filters**

☐ Enable Procedure Date Filter  
From Date  To Date

☐ Enable Last Name Filter  
Last Name

☐ Enable LSSN Filter  
LSSN

☐ Enable Checklist Filter  
Checklist

☐ Enable Checklist Status Filter  
Checklist Status

☐ Enable Service Filter  
Service

**Additional Filter Categories**  
☒ None ☐ Providers ☐ Teams ☐ Specialties ☐ Clinics ☐ Wards

Search Category Result(s)

Category Result(s)

**Patient(s)**  
Please search with one or more filters.

Figure 41 - Patient Lookup Page

The User can search for patients using filters such as Last Name, LSSN (first initial of last name and last four numbers of their social security number), previously assigned checklists, and statuses of current checklists. To select a filter the User can place checkmarks in the boxes beside the desired filters and then enter the parameters. The User can also filter by Teams, Specialties, and Wards. To filter by Provider, the User clicks on the Provider radio button, enters the last name of the Provider whose patients they wish to look-up, and click search. A list of providers that match the search criteria will show up. To filter by the other criteria, the User clicks on the radio button of the desired criterion and then a list will populate in the box below. The User can then click on the desired Team, Specialty, or Ward.



The User can click 'Search' and the patients that match the parameters will be displayed in a list. The User can also click on 'My Patients' to pull up a list of patients assigned to the User that is logged in that meet the parameters that have been selected (this button can be used without selecting any filters and will provide a full list of patients assigned to the User that is logged in). The User can click on the patient to select them. The patient name will then be highlighted. The User can now click on the 'Lookup Patient' button to open the Single Patient View for that patient.

**VA Pre-Procedure Checklist Prototype Alpha 3.4.6** **Patient Lookup**

Home Multi Patient **Patient Lookup** Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 01/22/2013 08:20 [Log Off](#)

**Patient Filters**

☐ Enable Procedure Date Filter  
From Date  To Date

☒ Enable Last Name Filter  
Last Name

☐ Enable LSSN Filter  
LSSN

☐ Enable Checklist Filter  
Checklist  [Select](#)

☐ Enable Checklist Status Filter  
Checklist Status

☐ Enable Service Filter  
Service

[Search](#) [My Patients](#)

Additional Filter Categories  
☐ None ☐ Providers ☐ Teams ☒ Specialties ☐ Clinics ☐ Wards

Search Category Result(s)  [Search](#)

Category Result(s)

- MEDICAL ICU
- MEDICAL OBSERVATION
- MEDICAL STEP DOWN
- NEUROLOGY OBSERVATION
- NH HOSPICE
- NH LONG STAY DEMENTIA CARE
- NH LONG STAY SPINAL CORD INJ
- NH LONG-STAY CONTINUING CARE
- NH LONG-STAY MH RECOVERY
- NH RESPITE CARE (NHCU)

**Patient(s)**

Last Name	First Name	MI	Last 4	Age	Sex
<a href="#">EIGHTY</a>	INPATIENT		0880		U
<a href="#">EIGHTYEIGHT</a>	INPATIENT		0888		U
<a href="#">EIGHTYFIVE</a>	INPATIENT		0885		U
<a href="#">EIGHTYFOUR</a>	INPATIENT		0884		U
<a href="#">EIGHTYNINE</a>	INPATIENT		0889		U
<a href="#">EIGHTYONE</a>	INPATIENT		0881		U
<a href="#">EIGHTYSEVEN</a>	INPATIENT		0887		U
<a href="#">EIGHTYSIX</a>	INPATIENT		0886		U
<a href="#">EIGHTYTHREE</a>	INPATIENT		0883		U
<a href="#">EIGHTYTWO</a>	INPATIENT		0882		U

[Lookup Patient](#)

Figure 42 - Patient Lookup: Patient Selected

## Single Patient View

The Single Patient View is the view where the User may see the current status of a checklist for a patient. A User may change the refresh time of the data or force a refresh at any time. A summary of the patient's information is displayed at the top. The User can assign a checklist to the patient by clicking on the 'Assign New Checklist' button.

The screenshot displays the 'Single Patient View' interface of the 'VA Pre-Procedure Checklist Prototype Alpha 2.3.5'. The top navigation bar includes links for Home, Multi Patient, Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. The user is logged in as 'ONE VEHU' at '11/19/2012 16:15'. The main section is titled 'Patient Checklist Options' and shows the patient as 'PATIENT FIFTYONE 0051, 0 yo Unknown'. It features buttons for 'Save', 'Assign New Checklist', and 'TIU Note'. The 'Last' update is '11/19/2012 5:09:22 PM' and the 'Next' is '11/19/2012 5:14:22 PM'. The 'Interval' is set to '5 Min(s)' with a 'Refresh Now' button. Below this, there are input fields for 'Patient Checklist' (with an 'Apply New Version' button), 'Checklist State', and 'Procedure Date' (with HH, MM, and SS dropdowns). The bottom section, 'Checklist Item(s)', is a large empty box with a scrollbar.

Figure 43 - Single Patient View

If the User wants to view a patient's checklist they can go to the 'Patient Checklist' dropdown menu which will display all checklists that have been assigned to the patient. Next to each checklist in the drop down menu the User will be able to see if the checklist is open, closed, or cancelled. Once the User clicks on the checklist name, the checklist items will populate the Checklist item(s) window. The Checklist Status and Procedure date and time will be enabled so the User can make changes in these fields. Override button is denoted by Ovr, update by Upd, and trend by Trd.

**VA Pre-Procedure Checklist Prototype Alpha 3.7.2** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 02/19/2013 18:11 Log Off

**Patient Checklist Options** Last: 2/19/2013 6:21:18 PM Next: 2/19/2013 6:31:18 PM

Save Assign New Checklist TIU Note Interval 10 Min(s) Refresh Now

PATIENT TWELVE 0012, 0 yo Unknown for OR Briefing / Time Out / Debriefing

Patient Checklist OR Briefing/ Time Out/ Debriefing - Open Version is Current

Open

HH 00 MM 00

**Currently Assigned Checklist List**

Summary State

**Toggle Button**

**Checklist Item(s)**

Row State	Item	Values	TS	OS	DS	Options
◆	Patient Allergies	NA	Not Completed	Unknown	NoGo	Ovr Upd Trd
◆	OR Briefing: Surgical Items	View Value(s) +	Completed	Abnormal	NoGo	Ovr Upd Trd
●	OR Briefing: Anesthetic Mana...	View Value(s) +	Completed	Normal	Go	Ovr Upd Trd
◆	Time Out	View Value(s) +	Not Completed	Unknown	NoGo	Ovr Upd Trd
◆	OR Debriefing	View Value(s) +	Not Completed	Unknown	NoGo	Ovr Upd Trd

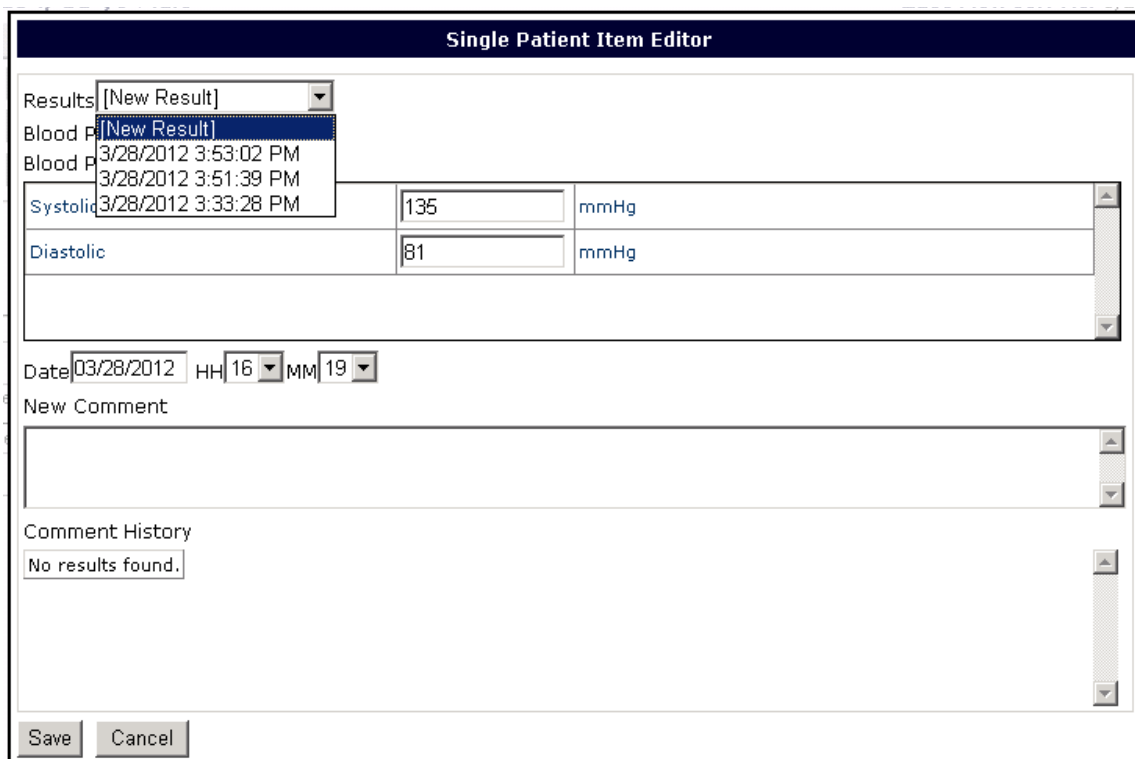
**Override, Update, and Trend buttons**

Figure 44 - Single Patient View with Open Checklist

The User can set a refresh interval for the checklist and the application will automatically check the local database for any new data periodically at that rate. If the User clicks the "Refresh Now" button at any time, the application will contact MDWS and retrieve from VistA the latest data for the currently open checklist. The User can click on the toggle button beside the patient name to hide the checklist name, state, and date fields in order to have a larger viewing area.

## Updating Items

To update any checklist item the User can click on the 'Update' button for than item. This will cause the Single Patient Item Editor dialog to appear. In this dialog the User can enter the data for the component when relevant or view and add comments to data that has been imported from VistA. The User can set the date and time for the entry of this data and they can enter a comment. The User can also view previous values for that component by clicking on the 'Results' drop down menu and selecting a date/time. Once the User is done entering information they can click 'Save'.



The image shows a software dialog box titled "Single Patient Item Editor". It contains several input fields and a list of results. At the top, there is a "Results" dropdown menu currently set to "[New Result]". Below it, a "Blood P" dropdown menu is also set to "[New Result]". A list of three previous results is visible: "3/28/2012 3:53:02 PM", "3/28/2012 3:51:39 PM", and "3/28/2012 3:33:28 PM". The "Systolic" blood pressure field is set to "135" mmHg, and the "Diastolic" blood pressure field is set to "81" mmHg. Below these fields, there is a "Date" field set to "03/28/2012", and "HH" and "MM" dropdown menus set to "16" and "19" respectively. A "New Comment" text area is present, followed by a "Comment History" section showing "No results found.". At the bottom, there are "Save" and "Cancel" buttons.

Results	Systolic	Diastolic
[New Result]	135	81
3/28/2012 3:53:02 PM		
3/28/2012 3:51:39 PM		
3/28/2012 3:33:28 PM		

Date: 03/28/2012 HH: 16 MM: 19

New Comment: [Text Area]

Comment History: No results found.

Save Cancel

Figure 45 - Single Patient Item Editor

The User can click on the 'Trd' (trend) button to view the historical trend of the item.

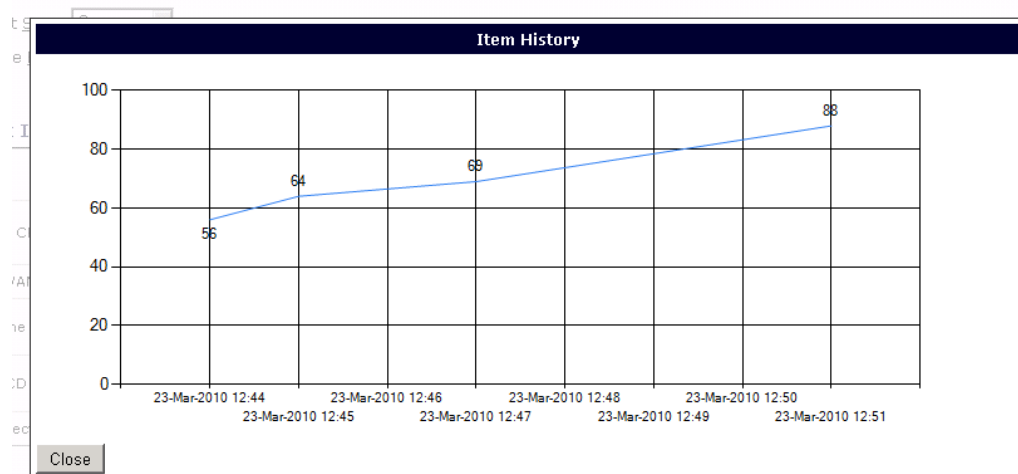


Figure 46 - Data Historical Trend

## Collection Items

A User can Update Collection Items one of two ways. After clicking Upd, the User can either select an item to update from the 'Collection Items(s):' drop-down menu or the User can click on 'Quick Entry' to access a view where all the items in that collection can be updated.

**Single Patient Item Editor**

**Collection:** OR Briefing: Anesthetic Management Items - Collection: OR Briefing Anesthetic management Items

**Collection Item(s):** [Dropdown menu]

Please choose from the following:

- Quick Entry
- Allergies Confirmation
- IV antibiotics
- Re-dose IV antibiotics
- Enter ASA Classification #
- Special precautions (HIV, HCV, MRSA, etc)
- DVT Prophylaxis
- Beta Blockade
- Pertinent lab results (e.g. Cr/BUN/eGFR wnl; Na/K+, etc.)
- Glycemic Control
- IV Access Adequate
- Type & cross or screen
- Blood Availability
- Special (cell-saver, Jehovah's witness, etc.)
- Post-op disposition/ Bed availability

Save Cancel

Figure 47 - Collection Item Quick Entry

The User can then enter updates for all the items in the Collection by scrolling through the items and making corresponding selections. Quick Entry is for Collections with Question Selection and Free Text Question Items.

**Single Patient Item Editor**

Collection: OR Briefing: Anesthetic Management Items - Collection: OR Briefing Anesthetic management Items

Collection Item(s): Quick Entry

Result Date: 02/15/2013 HH 09 MM 13

Item Component(s)

**Allergies Confirmation: Confirm Patient Allergies**

☐ NKA

☒ Confirmed

☐ Deferred

**IV antibiotics: Select yes or NA**

☒ Yes

☐ NA

☐ Deferred

**Re-dose IV antibiotics: Select Yes or NA**

**New Comment**

**Comment History**

Save Cancel

Figure 48 - Entering Updates Quick Entry

The User can view the values for the Collection Item by clicking on the 'View Value(s)' button in the Values column of the Checklist.

**VA Pre-Procedure Checklist Prototype Alpha 3.7.2** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 02/19/2013 18:11 Log Off

**Patient Checklist Options** Last: 2/19/2013 6:21:18 PM Next: 2/19/2013 6:31:18 PM

Save Assign New Checklist TIU Note Interval 10 Min(s) Refresh Now

**PATIENT TWELVE 0012, 0 yo Unknown for OR Briefing/ Time Out/ Debriefing**

Patient Checklist: OR Briefing/ Time Out/ Debriefing - Ope Version is Current. Apply New Version

Checklist State: Open

Procedure Date: HH 00 MM 00

**Summary State**

Row State	Item	Values	TS	OS	DS	Options
Not Completed	Patient Allergies	NA	Not Completed	Unknown	NoGo	Ovr Upd Trd
Completed	OR Briefing: Surgical Items	View Value(s) +	Completed	Abnormal	NoGo	Ovr Upd Trd
Completed	OR Briefing: Anesthetic Mana...	View Value(s) +	Completed	Normal	Go	Ovr Upd Trd

Click to View item Values

Figure 49 - Checklist with Collection Items

A dialog will appear displaying the item labels and their most recent value. The User can utilize the scroll bar on the right of the dialog to view all items in the dialog.

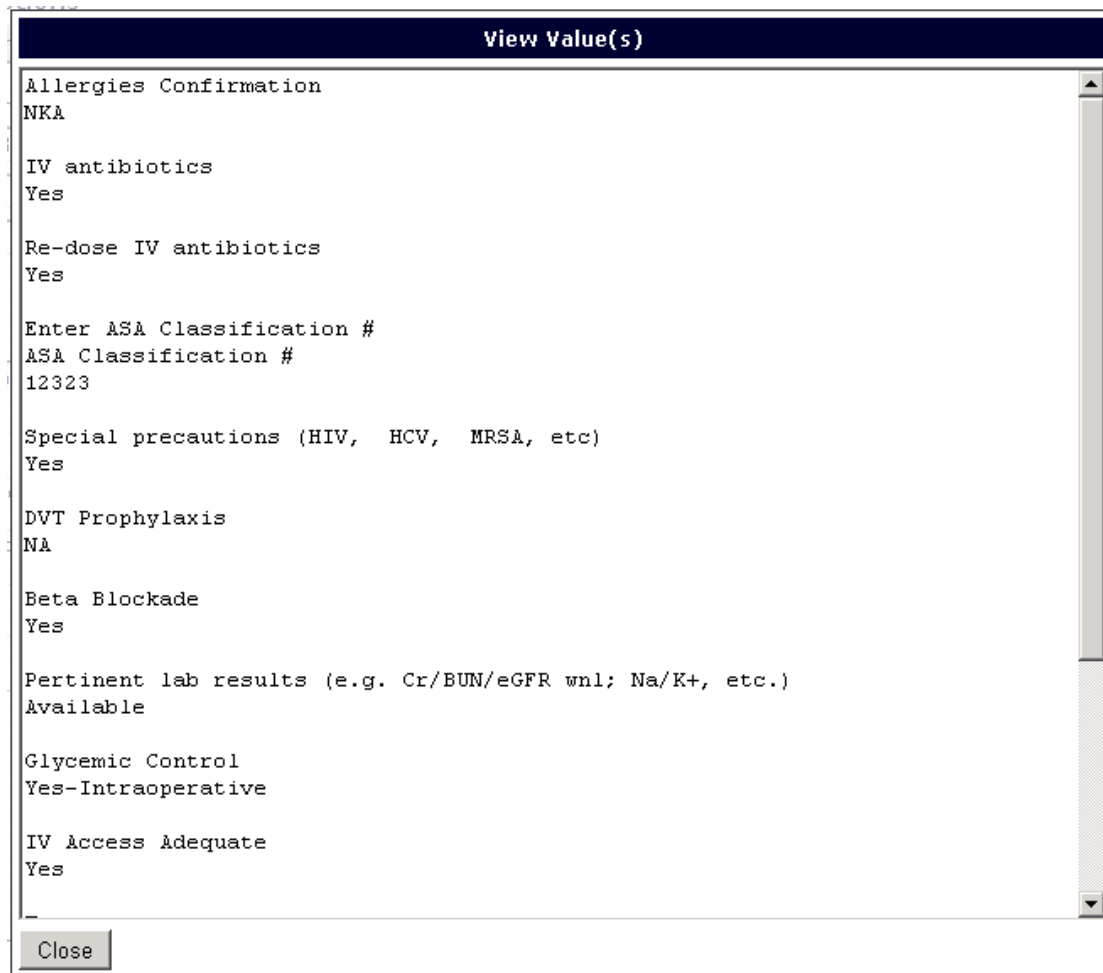


Figure 50 - View Values

The User can view at a glance the status of the Decision State for all items in the Collection by clicking on the '+' sign next to the 'View Value(s)' button. The User will be able to see the list of items and a symbol beside the item that corresponds to the item's Decision State. A red diamond means the Decision State is set to NoGo, a green circle means the Decision State is set to Go, and a yellow triangle means the Decision State is set to Unknown.

**VA Pre-Procedure Checklist Prototype Alpha 3.7.2** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 02/19/2013 18:11 Log Off

**Patient Checklist Options** Last: 2/19/2013 6:17:10 PM Next: 2/19/2013 6:27:10 PM


Save Assign New Checklist TIU Note Interval 10 Min(s) Refresh Now

**PATIENT TWELVE 0012, 0 yo Unknown for OR Briefing/ Time Out/ Debriefing**

Patient Checklist: OR Briefing/ Time Out/ Debriefing - Ope Version is Current Apply New Version

Checklist State: Open

Procedure Date: HH 00 MM 00

**Summary State** 

**Checklist Item(s)**



















Row State	Item	Values	TS	OS	DS	Options
	Patient Allergies	NA	Not Completed	Unknown	NoGo	Ovr Upd Trd
	OR Briefing: Surgical Items	View Value(s) +	Completed	Abnormal	NoGo	Ovr Upd Trd
	OR Briefing: Anesthetic Mana...	View Value(s) - <ul style="list-style-type: none"> <li> Allergies Confirmation</li> <li> IV antibiotics</li> <li> Re-dose IV antibiotics</li> <li> Enter ASA Classification #</li> <li> Special precautions (HIV, H...</li> <li> DVT Prophylaxis</li> <li> Beta Blockade</li> <li> Pertinent lab results (e.g. ...</li> <li> Glycemic Control</li> <li> IV Access Adequate</li> <li> Type &amp; cross or screen</li> <li> Blood Availability</li> <li> Special (cell-saver, Jehovah...</li> <li> Post-op disposition/ Bed ava...</li> </ul>	Completed	Unknown	NoGo	Ovr Upd Trd
	Time Out	View Value(s) +	Not Completed	Unknown	NoGo	Ovr Upd Trd

Figure 51 - Collection item Values View



## Overriding Decision State

In order to manually override the Decision State for an item, the User can click on the ‘Ovr’ button in the item’s row. The ‘Override Patient Checklist Item State’ dialog opens and the User can select a different Decision State for the item. In order to save a variable override the User will be required to enter a comment in the comment section.

**Override Patient Checklist Item**

**Item:**  
CHOLESTEROL

**Item Description:**  
Mapped to CHOLESTEROL

**Last Result**  
Value: 153 units  
(Legal Min: 1 Low: 150 Critical Low: 100 High: 200 Critical High: 300 Legal Max: 400)

Temporal State: Completed  
Outcome State: Normal  
Decision State: Go

**Required Comment**  
Go  
NoGo  
Unknown

**Comment History**

Save Cancel

Figure 52 - Override Patient Checklist Item State

After saving this information, the User will be taken back to the Single Patient View where they can see the status of the checklist.

The Temporal State (TS), Outcome State (OS), and Decision State (DS) columns each have visual indicators that display the overall state of the columns. If there is at least one incomplete/abnormal/NoGo state in the column, a red diamond will be displayed at the top of the column. If there is at least one unknown state, but no abnormal states, then the overall state will be unknown and a yellow triangle will be displayed at the top of the column. If all states are normal, the overall state will be normal and a green circle will be displayed.

**VA Pre-Procedure Checklist Prototype Alpha 2.3.5** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 11/19/2012 16:15 Log Off

**Patient Checklist Options** Last: 11/19/2012 5:04:52 PM Next: 11/19/2012 5:09:52 PM


Save Assign New Checklist TIU Note Interval 5 Min(s) Refresh Now

**PATIENT FIFTYONE 0051, 0 yo Unknown for Pre-P 12 code for free text**

Patient Checklist: Pre-P 12 code for free text - Open Version is Current Apply New Version

Checklist State: Open

Procedure Date: HH 00 MM 00

**Summary State** 

**Indicator Summarizes State of Checklist**

**Checklist Item(s)**




Row State	Item	Values	TS	OS	DS	Options
	Name and location of closest...	NA	Not Completed	Unknown	NoGo	Ovr Upd Trd
	TRIGLYCERIDE	Value: 162	Completed	Normal	Go	Ovr Upd Trd
	POTASSIUM	Value: 4.9	Completed	Normal	Go	Ovr Upd Trd

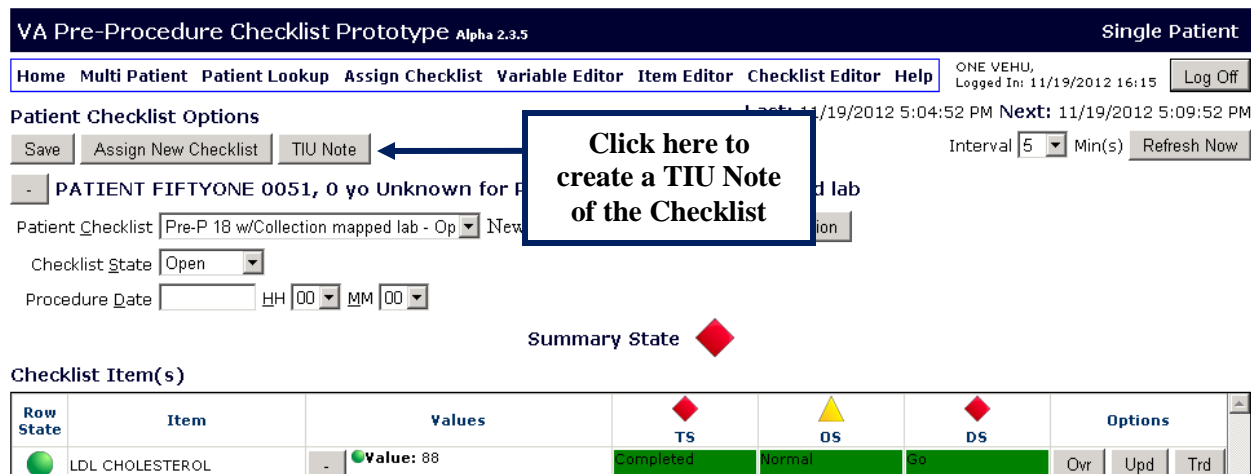
Figure 53 - Single Patient View with Open Checklist

Similarly, the overall state of each item is displayed at the beginning of each row. The Temporal State, Outcome State, and Decision State for the item in that row are aggregated and the visual indicator allows the User to know the overall state of the item. Any abnormal results for an item component will be displayed in the 'Values' column for that item. The User can click on the + button in a row to view all the data for the different components of an item.

The Summary State of the checklist will allow the User to know at a glance the overall state of the checklist. If at least one state in the checklist is incomplete/abnormal/NoGo, the Summary State indicator will display the red diamond. If all states are complete/normal/go, the Summary State indicator will display a green circle.

## Writing Checklist Contents to TIU Note

The User can write the contents of the Checklist to a TIU note by clicking on the TIU note button. The contents of the Checklist will be written to a note under the VistA Note Title that was previously selected in the Checklist Editor. The contents can be written while the Checklist is still open and/or while closing the Checklist.



**VA Pre-Procedure Checklist Prototype Alpha 2.3.5** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 11/19/2012 16:15 Log Off

Patient Checklist Options

Save Assign New Checklist **TIU Note** ← Click here to create a TIU Note of the Checklist

PATIENT FIFTYONE 0051, 0 yo Unknown for P

Patient Checklist Pre-P 18 w/Collection mapped lab - Op New

Checklist State Open

Procedure Date HH 00 MM 00

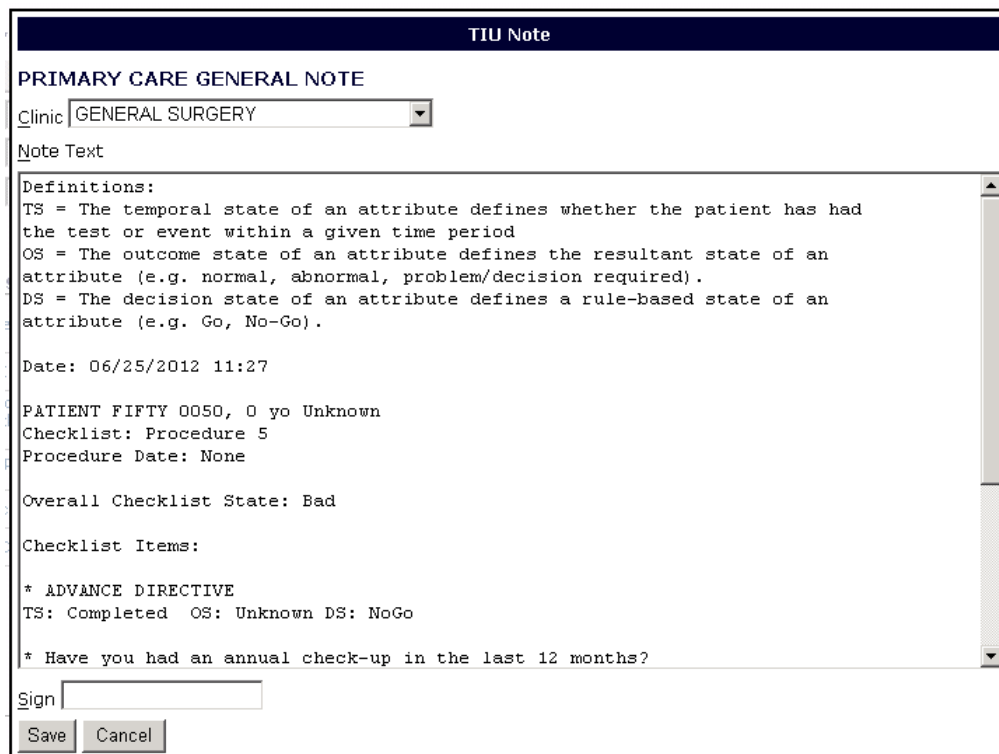
Interval 5 Min(s) Refresh Now

Summary State

Checklist Item(s)

Row State	Item	Values	TS	OS	DS	Options
●	LDL CHOLESTEROL	Value: 88	Completed	Normal	Go	Ovr Upd Trd

Figure 54 - Single Patient View TIU Note



**TIU Note**

**PRIMARY CARE GENERAL NOTE**

Clinic GENERAL SURGERY

Note Text

Definitions:  
 TS = The temporal state of an attribute defines whether the patient has had the test or event within a given time period  
 OS = The outcome state of an attribute defines the resultant state of an attribute (e.g. normal, abnormal, problem/decision required).  
 DS = The decision state of an attribute defines a rule-based state of an attribute (e.g. Go, No-Go).

Date: 06/25/2012 11:27

PATIENT FIFTY 0050, 0 yo Unknown  
 Checklist: Procedure 5  
 Procedure Date: None

Overall Checklist State: Bad

Checklist Items:

\* ADVANCE DIRECTIVE  
 TS: Completed OS: Unknown DS: NoGo

\* Have you had an annual check-up in the last 12 months?

Sign

Save Cancel

Figure 55 - Sample TIU Note

## New Version Available

If a newer version of a checklist that has already been assigned to the patient becomes available a 'New Version Available!' message will appear beside the patient checklist name and the User can click on 'Apply New Version' to update the patient's checklist. If an item had been overridden and has not changed from one version to the other, it will remain overridden. If an item has changed, the states will display based on the logic assigned to the item (default logic or custom).

**VA Pre-Procedure Checklist Prototype Alpha 2.3.5** Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 11/19/2012 16:15 Log Off

**Patient Checklist Options** Last: 11/19/2012 5:04:52 PM Next: 11/19/2012 5:09:52 PM

Save Assign New Checklist TIU Note Interval 5 Min(s) Refresh Now

**PATIENT FIFTYONE 0051, 0 yo Unknown for Pre-P 18 w/Collection mapped lab**

Patient Checklist: Pre-P 18 w/Collection mapped lab - Op New Version Available! Apply New Version

Checklist State: Open

Procedure Date: HH 00 MM 00

**Summary State**

**Checklist Item(s)**

Row State	Item	Values	TS	OS	DS	Options
	LDL CHOLESTEROL	Value: 88	Completed	Normal	Go	Ovr Upd Trd

Figure 56 - New Version Available

If the User clicks on 'Apply New Version' a dialog will appear, letting the User know the dates of the current and new versions. The User can place a checkmark beside the checklist if they wish to update the checklist and click 'Apply New Version.'

**Update Checklist Version**

Update	Checklist	Current Version	New Version
<input type="checkbox"/>	Pre-P 18 w/Collection mapped lab	10/18/2012 10:21:09 AM	10/19/2012 10:19:24 AM

Apply New Version(s) Cancel

Figure 57 - Update Version Dialog

If the checklist being used is the newest available, the message beside the title of the checklist will be ‘Version is Current.’ The ‘Apply New Version’ button will be disabled.

VA Pre-Procedure Checklist Prototype Alpha 2.3.5 Single Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 11/19/2012 16:15 [Log Off](#)

**Patient Checklist Options** Last: 11/19/2012 5:04:52 PM Next: 11/19/2012 5:09:52 PM


Save Assign New Checklist TIU Note Interval 5 Min(s) [Refresh Now](#)

**PATIENT FIFTYONE 0051, 0 yo Unknown for Pre-P 12 code for free text**

Patient Checklist Pre-P 12 code for free text - Open Version is Current. [Apply New Version](#)

Checklist State Open

Procedure Date HH 00 MM 00

Summary State 

**Checklist Item(s)**



Row State	Item	Values	TS	OS	DS	Options
	Name and location of closest...	NA	Not Completed	Unknown	NoGo	Ovr Upd Trd
	TRIGLYCERIDE	Value: 162	Completed	Normal	Go	Ovr Upd Trd

Figure 58 - Version is Current

## Multi Patient View

The Multi Patient View is the view where a User may look at checklist summaries for multiple patients. The User may filter by all, some or none of the filter options in the view for a subset of patients from the complete patient list.

The screenshot displays the 'Multi Patient' view of the 'VA Pre-Procedure Checklist Prototype Alpha 3.4.6'. The interface includes a top navigation bar with links: Home, Multi Patient (active), Patient Lookup, Assign Checklist, Variable Editor, Item Editor, Checklist Editor, and Help. On the right of the navigation bar, it shows 'ONE VEHU, Logged In: 01/22/2013 08:20' and a 'Log Off' button. Below the navigation bar, the 'Patient Checklist Filters' section contains several filter options: 'Enable Procedure Date Filter' with 'From Date' and 'To Date' input fields; 'Enable Checklist Filter' with a 'Checklist' dropdown and a 'Select' button; 'Enable Checklist Status Filter' with a 'Checklist Status' dropdown; and 'Enable Service Filter' with a 'Service' dropdown. There are also 'Search' and 'Apply New Version' buttons. To the right of the filters, it displays 'Last: 1/22/2013 8:44:28 AM Next: 1/22/2013 8:54:28 AM' and an 'Interval' dropdown set to '10' with a 'Min(s)' label and a 'Refresh Now' button. Below the filters, the 'Patient(s)' section shows a large empty area with the text 'Please search with zero or more filters.' and a scrollbar. An 'Edit' button is located at the bottom left of the patient list area.

Figure 59 - Multi Patient View

The states of the items in the patient's checklist are aggregated underneath the groups they were assigned to. The rows and columns of the checklist grid are aggregated into the visual indicators at the end of the rows and columns. If nine out of ten items are complete and one is abnormal the aggregation will display abnormal. If ten out of ten items are complete the aggregation will display complete.

**VA Pre-Procedure Checklist Prototype Alpha 3.4.6** **Multi Patient**

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 01/22/2013 08:20 [Log Off](#)

**- Patient Checklist Filters** Last: 1/22/2013 8:50:43 AM Next: 1/22/2013 9:00:43 AM

☐ Enable Procedure Date Filter Interval  Min(s) [Refresh Now](#)

From Date  To Date

☒ Enable Checklist Filter

Checklist  [Select](#)

☐ Enable Checklist Status Filter

Checklist Status

☐ Enable Service Filter

Service

[Search](#) [Apply New Version](#)

**Patient(s)**

◆ <a href="#">FIFTY</a>	INPATIENT	0850	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">FIFTYFOUR</a>	OUTPATIENT	0654	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">ONEHUNDREDFIFTYNINE</a>	PATIENT	0159	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">ONEHUNDREDFIFTYEIGHT</a>	PATIENT	0158	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">FIFTY</a>	OUTPATIENT	0650	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">ONEHUNDREDFIFTYONE</a>	PATIENT	0151	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">FIFTYFIVE</a>	OUTPATIENT	0655	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">ONEHUNDREDFIFTYSEVEN</a>	PATIENT	0157	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">FIFTY</a>	PATIENT	0050	Pre-Surgery 201	Bad	Good	Bad
◆ <a href="#">FIFTYFIVE</a>	PATIENT	0055	Pre-Surgery 201	Bad	Good	Bad
◆ <a href="#">FIFTYONE</a>	INPATIENT	0851	Pre-Surgery 201	Bad	Bad	Bad
◆ <a href="#">FIFTYTHREE</a>	PATIENT	0053	Pre-Surgery 201	Bad	Good	Bad

[Edit](#)

Figure 60 - Search Results Multi Patient View

## Multi Patient View Refresh

The Multi Patient view will automatically refresh locally at an interval that can be set by the User. The User can see the date and time of the last automatic refresh, labeled 'Last:' and the date and time for which the next automatic refresh is scheduled, labeled 'Next:'. The User can select the interval from the dropdown menu. There is a 'Refresh Now' button that allows the User to refresh the data to include the most recent data that has been entered both locally and from VistA.

VA Pre-Procedure Checklist Prototype Alpha 3.4.6 Multi Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 01/22/2013 08:20 Log Off

Patient Checklist Filters

☐ Enable Procedure Date Filter

From Date  To Date

☒ Enable Checklist Filter

Checklist  Select

☐ Enable Checklist Status Filter

Checklist Status

☐ Enable Service Filter

Service

Search Apply New Version

Refresh Information

Last: 1/22/2013 8:50:43 AM Next: 1/22/2013 9:00:43 AM

Interval 10 Min(s) Refresh Now

Patient(s)

FIFTY	INPATIENT	0850	Pre-Surgery 201	Bad	Bad	Bad
FIFTYFOUR	OUTPATIENT	0654	Pre-Surgery 201	Bad	Bad	Bad
ONEHUNDREDFIFTYNINE	PATIENT	0159	Pre-Surgery 201	Bad	Bad	Bad
ONEHUNDREDFIFTYEIGHT	PATIENT	0158	Pre-Surgery 201	Bad	Bad	Bad
FIFTY	OUTPATIENT	0650	Pre-Surgery 201	Bad	Bad	Bad
ONEHUNDREDFIFTYONE	PATIENT	0151	Pre-Surgery 201	Bad	Bad	Bad
FIFTYFIVE	OUTPATIENT	0655	Pre-Surgery 201	Bad	Bad	Bad
ONEHUNDREDFIFTYSEVEN	PATIENT	0157	Pre-Surgery 201	Bad	Bad	Bad
FIFTY	PATIENT	0050	Pre-Surgery 201	Bad	Good	Bad
FIFTYFIVE	PATIENT	0055	Pre-Surgery 201	Bad	Good	Bad
FIFTYONE	INPATIENT	0851	Pre-Surgery 201	Bad	Bad	Bad
FIFTYTHREE	PATIENT	0053	Pre-Surgery 201	Bad	Good	Bad

Edit

Figure 61 - Data Refresh

After the User clicks 'Search' a dialog will appear telling the User how many records remain for processing. If the User wishes to cancel processing the request, they can click on the 'Cancel Processing' button.

Patient(s) Apply New Version

Please search with zero or more filters.

Processing Progress

Processing...

189 records remaining.

Cancel Processing

Figure 62 - Cancel Processing



The User can click on the toggle button by the 'Patient Checklist Filters' title to hide all of the filters and increase the viewing area. Clicking the toggle button again will allow the User to view the filters again.

VA Pre-Procedure Checklist Prototype Alpha 2.3.5 Multi Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU,  
Logged In: 11/19/2012 22:09 Log Off

**+ Patient Checklist Filters** Last: 11/19/2012 10:18:18 PM Next: 11/19/2012 10:23:18 PM

Interval  Min(s) Refresh Now

**Toggle Button** Apply New Version

Row State	LAST NAME	FIRST NAME	LAST 4	CHECKLIST LABEL	MAPPED NOTE TITLE ITEMS	QUESTION FREE TEXT ITEMS	QUESTION SELECTION ITEMS	COLLECTION ITEMS	MAPPED LAB ITEMS
◆	THIRTYNINE	INPATIENT	0839	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	THIRTYONE	PATIENT	0031	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Good
◆	FIFTYSIX	INPATIENT	0856	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	FIFTYEIGHT	INPATIENT	0858	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	FIFTYONE	INPATIENT	0851	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	FIFTYONE	PATIENT	0051	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Good
◆	THIRTYNINE	PATIENT	0039	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Good
◆	THIRTYSEVEN	INPATIENT	0837	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	FIFTYNINE	OUTPATIENT	0659	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Bad
◆	THIRTYEIGHT	PATIENT	0038	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Good
◆	FIFTYFIVE	PATIENT	0055	Pre-P 13 One of each kind of item	Bad	Bad	Bad	Bad	Good
◆	FIFTY	INPATIENT			em Bad	Bad	Bad	Bad	Bad
◆	FIFTY	PATIENT			em Bad	Bad	Good	Bad	Bad
◆	FIFTYNINE	PATIENT			em Bad	Bad	Bad	Bad	Good
◆	FIFTYSIX	PATIENT			em Bad	Bad	Bad	Bad	Good
◆	FORTYSIX	PATIENT			em Bad	Bad	Bad	Bad	Good

**Select a Patient and Click 'Edit' to edit a patient's checklist**

Edit

Figure 63 - View After Collapsing Filters

A User may edit the checklist of a patient by clicking on the patient's last name to select the patient and clicking on the 'Edit' button.

## Apply New Checklist Version to Multiple Patients

The User can click on ‘Apply New Version’ to view if any of the patients in the search results have a new version of their checklist available.

VA Pre-Procedure Checklist Prototype Alpha 3.4.6 Multi Patient

Home Multi Patient Patient Lookup Assign Checklist Variable Editor Item Editor Checklist Editor Help ONE VEHU, Logged In: 01/22/2013 10:48 Log Off

Patient Checklist Filters Last: 1/22/2013 11:05:20 AM Next: 1/22/2013 11:15:20 AM Interval 10 Min(s) Refresh Now

☐ Enable Procedure Date Filter From Date To Date

☒ Enable Checklist Filter Checklist Pre-Op Checklist Surgical Items Select

☐ Enable Checklist Status Filter Checklist Status

☐ Enable Service Filter Service

Search Apply New Version

Patient(s)

Icon	Checklist Name	Status	Current Version	New Version
Red Diamond	FIFTYSEVEN	INPATIENT	0857 Pre-Op Checklist Surgical Items	Bad
Green Circle	FIFTYSIX	INPATIENT	0856 Pre-Op Checklist Surgical Items	Bad
Red Diamond	FIFTYEIGHT	INPATIENT	0858 Pre-Op Checklist Surgical Items	Bad
Red Diamond	FIVEHUNDREDFITYEIGHT	PATIENT	0558 Pre-Op Checklist Surgical Items	Bad
Green Circle	ONEHUNDREDFIFTYONE	PATIENT	0151 Pre-Op Checklist Surgical Items	Bad

Figure 64 - Apply New Version

In the ‘Update Checklist Version’ dialog the User can place a checkmark beside any of the patients whose checklist the User wishes to update.

Update Checklist Version

Update	Last Name	First Name	Checklist	Current Version	New Version
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTY	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTYONE	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTYTWO	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTYTHREE	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTYFOUR	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input checked="" type="checkbox"/>	ONEHUNDREDFIFTYFIVE	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input type="checkbox"/>	ONEHUNDREDFIFTYSIX	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input type="checkbox"/>	ONEHUNDREDFIFTYSEVEN	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input type="checkbox"/>	ONEHUNDREDFIFTYEIGHT	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM
<input type="checkbox"/>	ONEHUNDREDFIFTYNINE	PATIENT	Pre-Op Checklist Surgical Items	1/22/2013 10:54:00 AM	1/22/2013 11:05:15 AM

Apply New Version(s) Cancel

Figure 65 - Apply New Version: Select Patients

## Single Patient Editor

Once the User clicks on the 'Edit' button for a patient, the Single Patient Editor opens for this patient. Here the User is able to view more details about the patient's status. The User can click on the 'Update' button to update values for a patient's item, or on the Override button to override the decision state for a patient's item.

**Single Patient Editor**

**Patient Checklist Options**

**Last:** 11/19/2012 10:09:16 PM **Next:** 11/19/2012 10:14:16 PM  
Interval  Min(s)

**INPATIENT THIRTYNINE 0839, 0 y/o Unknown for Pre-P 13 One of each kind of item**

Patient Checklist:

Checklist State:

Procedure Date:  HH  MM

**Summary State** ◆

**Checklist Item(s)**

Row State	Item	Values	TS	OS	DS	Options		
◆	LDL CHOLESTEROL	- NA	Not Completed	Unknown	NoGo	<input type="button" value="Ovr"/>	<input type="button" value="Upd"/>	<input type="button" value="Trd"/>
◆	ADVANCE DIRECTIVE	<input type="button" value="View Value(s)"/>	Not Completed	Unknown	NoGo	<input type="button" value="Ovr"/>	<input type="button" value="Upd"/>	<input type="button" value="Trd"/>
◆	Name of Physician	- NA	Not Completed	Unknown	NoGo	<input type="button" value="Ovr"/>	<input type="button" value="Upd"/>	<input type="button" value="Trd"/>
◆	ABCD E sharp	- NA	Not Completed	Unknown	NoGo	<input type="button" value="Ovr"/>	<input type="button" value="Upd"/>	<input type="button" value="Trd"/>
◆	Collection of Blood Count (re...	<input type="button" value="View Value(s)"/>	Not Completed	Unknown	NoGo	<input type="button" value="Ovr"/>	<input type="button" value="Upd"/>	<input type="button" value="Trd"/>

Figure 66 - Single Patient Editor accessed from Multi Patient View