RESOURCE AND PATIENT MANAGEMENT SYSTEM

iCare Population Management GUI

(BQI)

Panel Definition User Manual

Version 2.9 Patch 1
November 2021

Table of Contents

Preface

The purpose of this manual is to provide the user with the information needed to use the latest enhancements to the Panel Definition window in the iCare (BQI) population management application.

This manual contains reference information about iCare views, examples of its processes, and step-by-step procedures on how to perform activities related to the Panel Definition window in the latest version of the iCare application.

For more information about iCare basic functionality, iCare usage, or training for iCare, consult these resources:

- iCare – IHS OIT available at https://www.ihs.gov/icare/

- iCare Training available at https://www.ihs.gov/icare/training/

- Join the iCare listserv by sending an e-mail to icare@listserv.ihs.gov

1.0   Introduction

iCare is a Windows-based, client-server graphical user interface (GUI) to the IHS Resource and Patient Management System (RPMS). iCare retrieves key patient information from various components of the RPMS database and brings it together under a single, user-friendly interface. iCare is intended to help providers manage the care of their patients. The ability to create multiple panels of patients with common characteristics (e.g., age, diagnosis, community) allows users to personalize the way they view patient data.

The information included in this Panel Definition manual covers Panel Definition functionality in iCare Version 2.9. For more information about iCare basic functionality, iCare usage, or training for iCare, consult the resources listed above in the Preface.

1.1   Background

Along with the rest of the healthcare industry, IHS has already developed a set of chronic condition management (or register) applications, including for diabetes, asthma, and HIV. This type of application provides a way for healthcare providers to manage a specific group (register) of patients for a single disease state. Register management applications assist healthcare providers to identify high-risk patients, proactively track care reminders and health status of individuals or populations, provide more standardized and appropriate care by embedding evidence-based guidelines, and report outcomes.

Many patients, however, have more than one diagnosed disease. For instance, at the current time within the Indian Health System, a diabetic asthmatic woman could be a member of four RPMS registers (diabetes, asthma, women's health, and immunizations). This 'silo' approach to patient care could potentially result in fragmented care and could increase the risk of inadequate patient care management due to misidentification of the true level of risk.

1.2   iCare Graphical User Interface

The iCare GUI is intended to allow providers to see a more complete view of patients with multiple conditions, while maintaining the integrity of the user-defined, disease-specific registers.

iCare can help IHS providers by:

- Proactively identifying and managing different groups (populations) of patients who share user-defined characteristics.

- Providing an integrated view of a patient's conditions that would minimize "stove piped" care management.

- Providing an intuitive and integrated interface to the diverse patient data elements of the RPMS database.

- Facilitating providers a review of clinical quality of care measures for their own patients to enable improvement in the quality of healthcare delivery.

- Enabling views of traditional healthcare information from the perspectives of community, population, and public health.

- Providing the default tag selection as Proposed and Accepted. Change the tag selection for any record by selecting or de-selecting any check box.

- Clicking the **use AND?** check box when there are multiple tags selected. This option searches for patients who have *all* of the user-defined tags.

1.3   Who Should Use iCare?

Any provider who needs to identify a group of patients for long-term management or to create a temporary list should think about using iCare. Do you fit any of the following scenarios?

- I am a nurse at a facility that assigns a primary care provider to each patient. Every day, I want to create a list of scheduled patients for two different doctors in my clinic.

- I want to identify which of my patients are considered obese so I can recommend nutrition counseling.

- Because providers at our clinic have performance goals related to annual GPRA clinical measures, I want to identify which of my patients are missing key clinical data.

- Our Women's Health Clinic wants to focus on two clinical performance improvement initiatives this year. We want to identify the performance problem areas for female patients between the ages of 18 and 50.

- I am one of two part-time case managers for a group of children, and I want to create a patient list that we both can use.

2.0   Panel Definition

The **Panel Definition** window can be used to create or modify a panel of patients. A patient panel is a group of patients that needs to be managed collectively. Some users will have only one patient panel while others will have many.

A panel can be created and used for a day, a month, or permanently. iCare provides many pre-defined search options to populate panels or patients can be added individually.

The key categories of a pre-defined population search include:

- "My Patients" definition, with additional filters such as visit date range, sex, age, community, and diagnosis

- Surrogate Provider – a different provider

- By scheduled appointments, defined by date range and/or clinics

- From inpatient visits

- From ER visits

- From an existing QMan search template

- From a RPMS Register

- From an EHR personal list

- By any combination of patient data including age, sex, visit date range, primary visit provider, community, pre-defined diagnosis, etc.
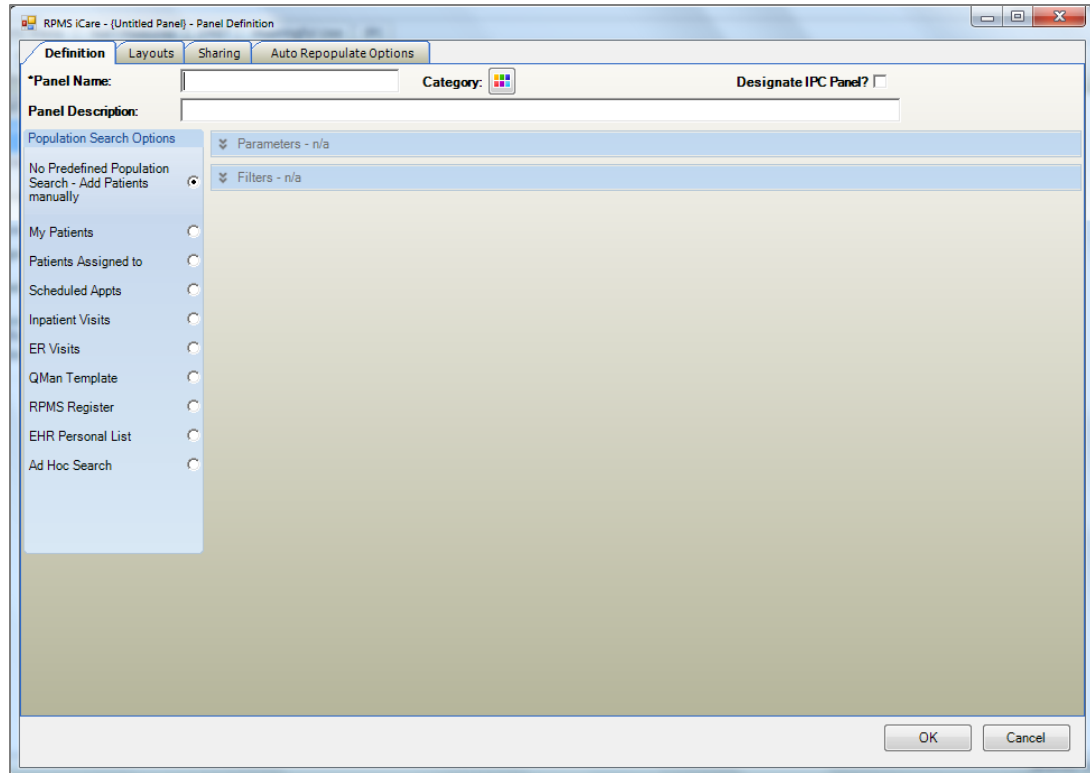
Figure 2-1: Initial **Panel Definition** window

Definition tab: Use to define or edit search criteria to populate the list of patient members for a patient panel.

Layouts tab: Use to customize user templates for defining the various layouts for the patient panel. In addition, the display can be reverted back to the system default layout.

Sharing tab: Use to share a panel with other RPMS users.

Auto Repopulate Options tab: Use to determine if the panel's contents should be dynamic, i.e., automatically refreshed.

3.0   Definition Tab

Use the **Panel Definition** window to create or modify a patient panel. A patient panel is a group of patients that needs to be managed collectively. Some users will have only one patient panel while others will have many.

To create a new patient panel on the Panel List window, do any of the following:

- Click the **New** button

- Select the **New** option on the context menu

- Select **File** | **Panel** | **New**

To modify a patient panel on the **Panel List** window, highlight the panel to be edited and then do any of the following:

- Click the **Modify** button

- Select the **Modify** option on the context menu

- Select **File** | **Panel** | **Modify**

In either case, the application displays the **Panel Definition** window with the focus on the **Definition** tab.
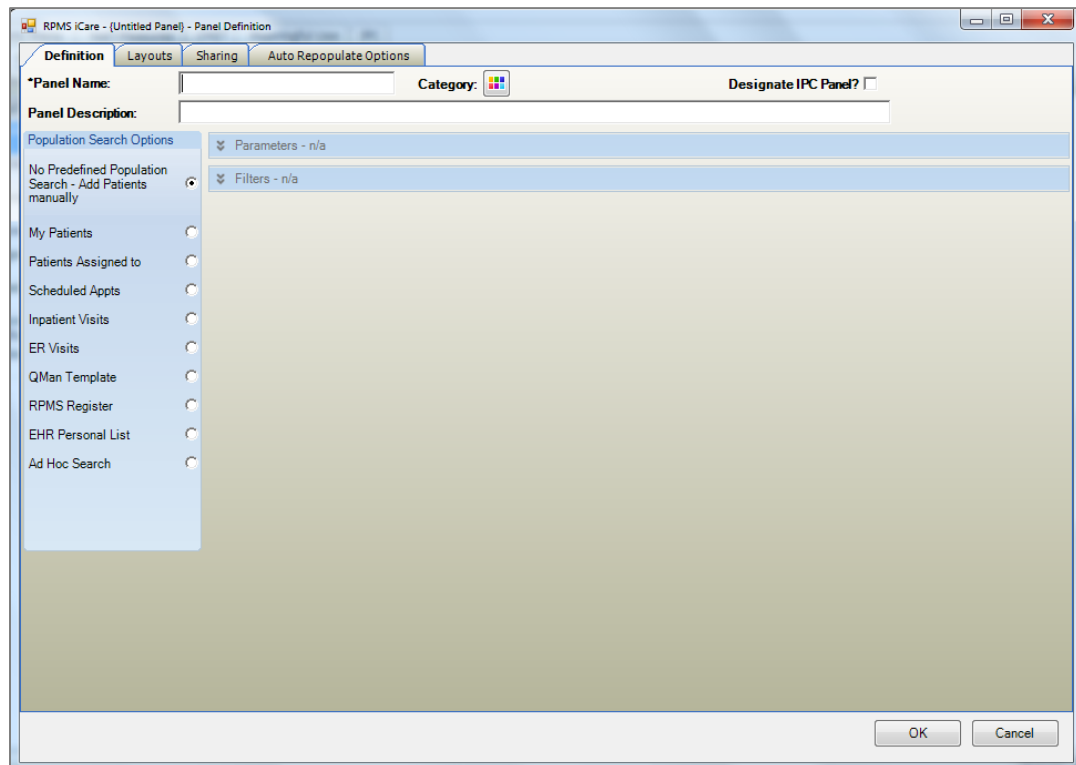

Figure 3-1: **Definition** tab

Follow these steps to complete the **Definition** tab:

1. Type the unique name of the panel in the required **Panel Name** field, limited to 120 characters.

   If the user enters a duplicate panel name, iCare displays a warning that states: **It appears that you already have a panel by this name. Please change the panel name so that it is unique.** The name must be unique in order to save.
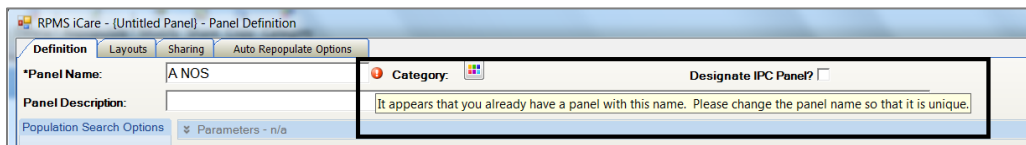

Figure 3-2: Sample **Warning** message

2. Use the **Category** option to group panels into a defined name and selectable color-coded category. After defining this option, the category name and selected color categories will be visible on the **Panel List** tab.

3. Click the **Category** button to display the **Category Picker** dialog (Figure 3-3).
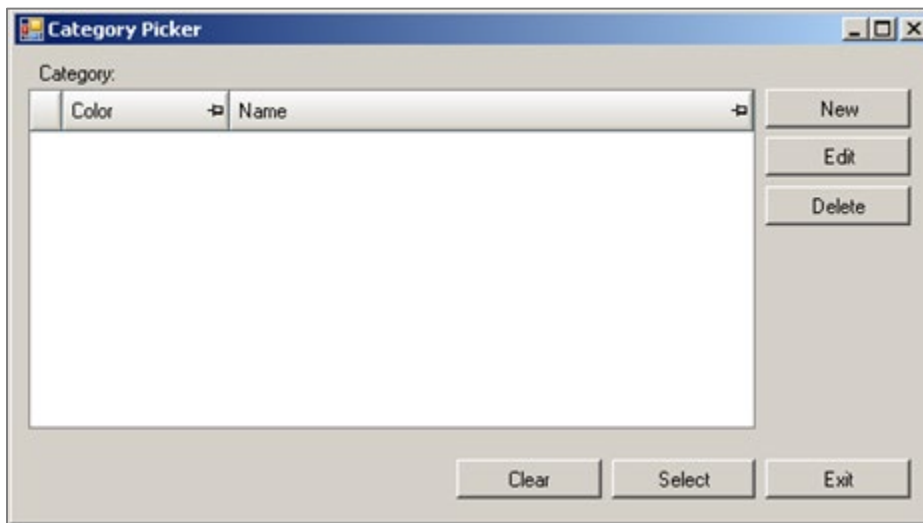

Figure 3-3: **Category Picker** dialog

   Use the controls at the bottom as follows:

   - Highlight a record in the grid and click **Clear** to remove that color from the **Category** field on the **Panel Definition** window.

   - Highlight a record in the grid and click **Select** to display that color by the **Category** field on the **Panel Definition** window.

   - Click **Exit** when the dialog is complete.

New:

1. Click **New** to create a new category color and name. The application displays the **New Category** dialog.
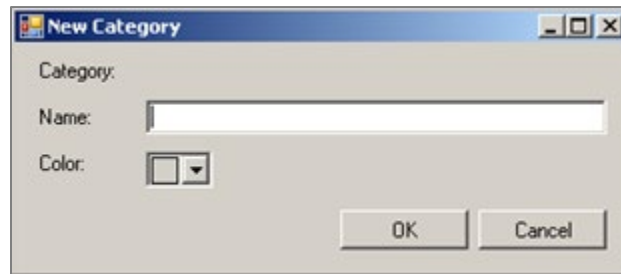
Figure 3-4: **New Category** dialog

2. Type the name of the new category in the **Name** Free Text field.

3. Click the **Color** list and pick a color to represent the new category.

4. When the dialog is complete, click **OK** and the new category will display in the grid on the **Category Picker** dialog. (Otherwise, click **Cancel**.)

Edit:

1. Select a record in the grid on the **Category Picker** dialog.

2. Click **Edit** to display the **Edit Category** dialog. See the **New** section above to edit either field.

Delete:

1. Select a record in the grid on the **Category Picker** dialog.

2. Click **Delete** to remove the record from the **Category Picker** dialog (there is no confirmation).

1. Select the **Designated IPC Panel?** check box to define a panel that will be displayed and can be selected on the IPC tab main view.

2. Type a description of the panel (limited to 250 characters) in the **Panel Definition** Free Text field. This is not a required field but is strongly recommended. The Panel Description displays as a tooltip for the **Panel** group box on the **Cover Sheet** tab of the **Patient Record** window.

3. Select one of the **Population Search Options** option buttons.

    *   No Predefined Population Search: Create a blank panel and add patients individually. This panel will not have any search logic associated with it and therefore all panel patient members will have to be added manually.

    *   My Patients: The panel will be based on the "My Patients" definition set in User Preferences.

- Patients Assigned to: The panel will be based on a definition for another provider or team of providers.

- Scheduled Appointments: The panel will be based on the RPMS Scheduling application. The available search criteria are an appointment date range and appointment locations.

- Inpatient Visits: The panel will be based on current inpatients or non-current inpatients using several parameter types.

- ER Visits: The panel will be based on parameters associated with ER visits.

- QMan Template: The panel will be based on any existing saved QMan template.

- RPMS Register: The panel will be based on any existing Register that was created with case management software, including the Diabetes Management System (BDM), the Case Management System (ACM), the Asthma Register System (BAT), the HIV Management System (BKM), the Immunization Package (BI) or Women's Health (BW). This option searches for patients who are members of these various register applications on the RPMS server.

- EHR Personal List: The panel will be based on a selected personal list from the RPMS-EHR application.

- Ad Hoc Search: The panel will be based on one or more data items.

4. If the panel definition is complete, the panel is ready to save. Skip to step 11 below. Otherwise, perform the following actions (steps 8–10) before saving the panel is saved.

5. To change the screen layout of the panel, click the **Layouts** tab.

6. To share the panel with others, click the **Sharing** tab.

7. To have the panel repopulated automatically (add or delete patients based on your panel logic), click the **Auto Repopulate Options** tab.

8. Click **OK** to save and close the panel or Cancel to discard the incomplete panel.

   After all of the tabs are complete, click **OK** on the **Panel Definition** dialog. The new patient panel will display on the **Panel List** window.

   If the decision is to *not* create a Patient Panel, click **Cancel** on the **Panel Definition** window. A warning message will display (Figure 3-5).
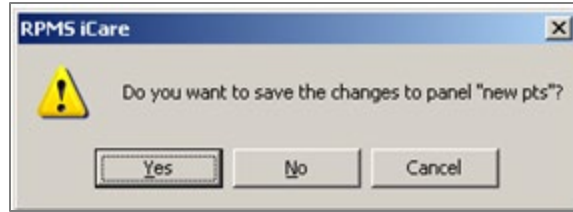
Figure 3-5: RPMS iCare warning message

- Click **Yes** to save the changes to the panel. Warnings will be displayed about any missing information, if any.

- Click **No** to exit the **Panel Definition** window.

- Click **Cancel** to return to the current panel and make additional panel updates.

After saving the panel, and later modifying it, the top part of the Definition tab will display the **Properties** label (far, right side).

Figure 3-6: Changing a patient panel with Properties on Definition tab

Hover the mouse over the Properties label to display information about the search criteria, as shown in Figure 3-7, for example.
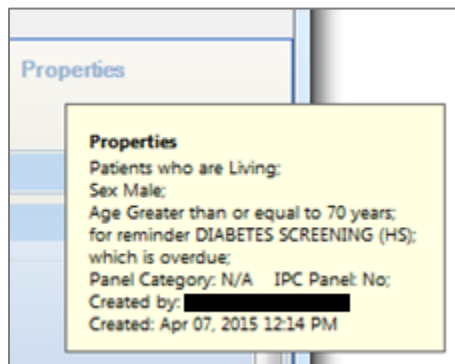

Figure 3-7: Sample **Properties** information

If any required information has been forgotten or not completed, the following warning message will display: **Complete the required information in the highlighted field(s).**

Click **OK** and the **Background populate?** information message will display. Click **OK** to populate the panel.
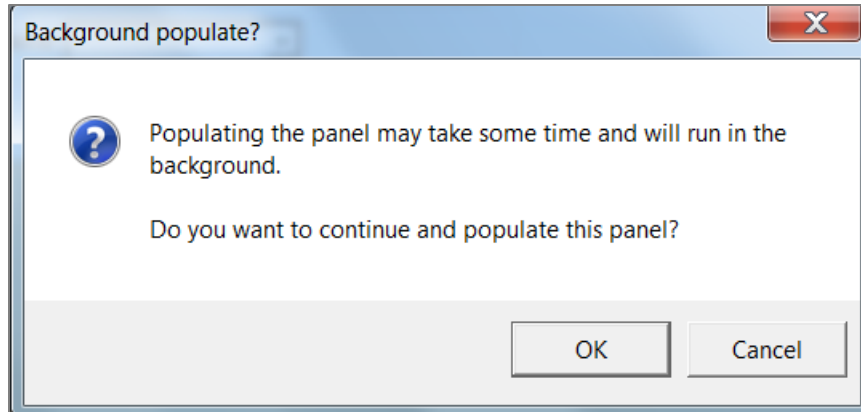
Figure 3-8: **Background populate** message

3.1　No Predefined Population Search

The default **No Predefined Population Search - Add Patients Manually** option creates an empty panel. Users can add patients to the panel using a search tool.

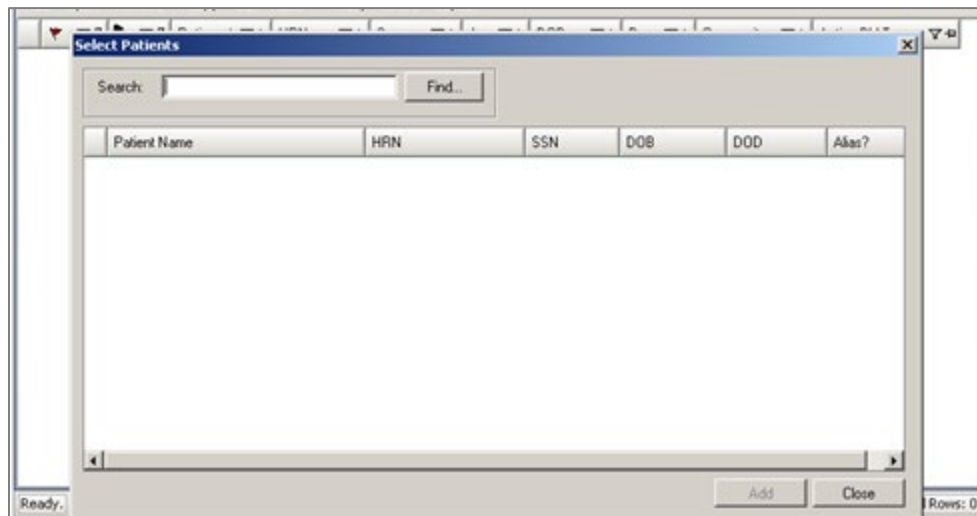The application displays the **Select Patients** dialog.

Figure 3-9: Empty New Panel with **Select Patients** dialog

Type the name, HRN, SSN, or DOB of the individual patient to be added to the panel in the Search field. Then click **Find**. There are two possible conditions:

- One or more matches are found.

- No matches are found

If one or more matches are found, they will display in the grid on the **Select Patients** dialog.
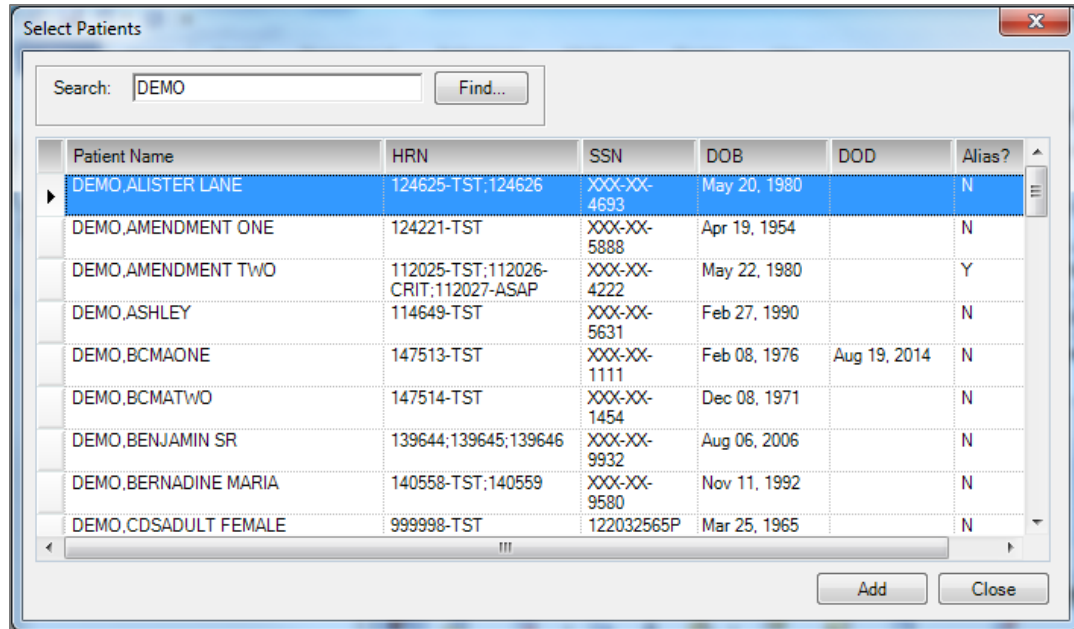
Figure 3-10: Sample populated **Select Patients** dialog

Highlight the patients and click **Add**. This adds the selected patients to the new panel. The **Search** field will be cleared of data.

If no matches are found, the following warning message will display: **No matching patients were found.** Click **OK** to dismiss the message. The program returns to the **Select Patients** dialog. Try other search criteria.

Search for additional patients by continuing to type the name, HRN, SSN, or DOB in the **Search** box. Continue to highlight and add patients.

Click **Add** when all patients have been selected and added. The **Select Patients** dialog will close, and the panel will display on the **Panel List** main window. (Otherwise, click **Close** to create a panel with no patients in it.)

3.2   My Patients

"My Patients" must be defined in the User Preferences (on the **Define My Patients** Tab). This search logic applies to any panel created using the **My Patients** option.
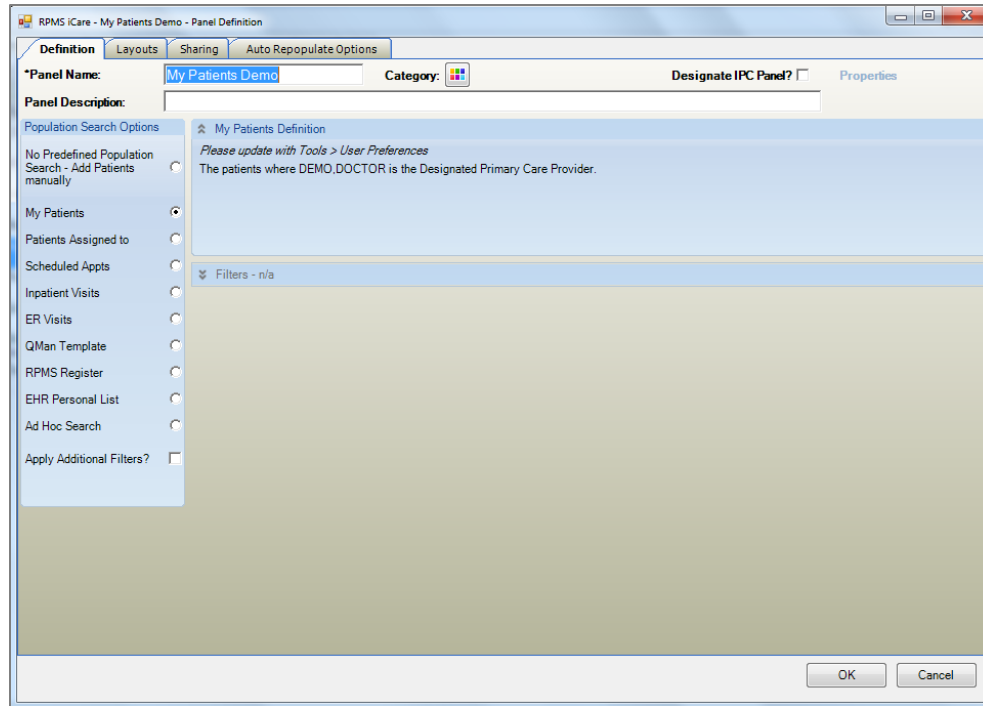
Figure 3-11: **My Patients Demo - Panel Definition**

If "My Patients" is *not* defined, click **Cancel** to cancel the Panel Definition and go to **Tools** | **User Preferences** to set up a definition for "My Patients." Select the **Apply Additional Filters** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

After the **Panel Definition** dialog is complete, click **OK** (otherwise, click **Cancel**). After clicking **OK**, the application displays the **Background populate?** information message. Click **OK** to populate the panel.

Here is an example of applying Additional Filters: The panel should contain female patients, ages 45–47 years for whom a provider is either the Designated Primary Care Provider or the Primary Visit Provider for at least three years in the past two years.
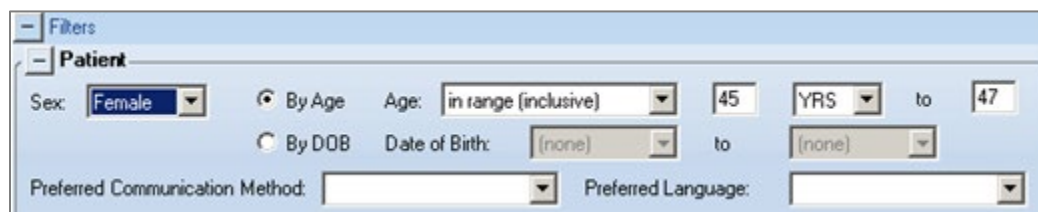

Figure 3-12: Sample **Panel Definition** with Sex and Age Filters

In this example, here are the steps to follow:

1. Make sure the "My Patients" definition has the following selections: The DPCP type and Primary Visit Provider type with three visits in the past two years. This can be confirmed by holding the mouse over **Current Definition**. If the "My Patient" definition needs to be modified, access it under **Tools** | **User Preferences**.

2. On the **Panel Definition** window, select **My Patients** and select the **Apply Additional Filters** check box.

3. For the **Sex** field, select **Female**.

4. Select the **in range (inclusive)** option for the **Age** field and enter the values **45** and **47**.

> **Note**:   This same search logic by using the **Patients Assigned To** search option and selecting the provider name and provider definition.

3.3   Patients Assigned To

The **Patients Assigned to** option is similar to the "My Patients" definition but does not become a permanent user preference. Select the provider's name and one or more provider types that best define the provider. Refer to **Define My Patients** Tab for a more detailed explanation of each provider name and timeframe option.
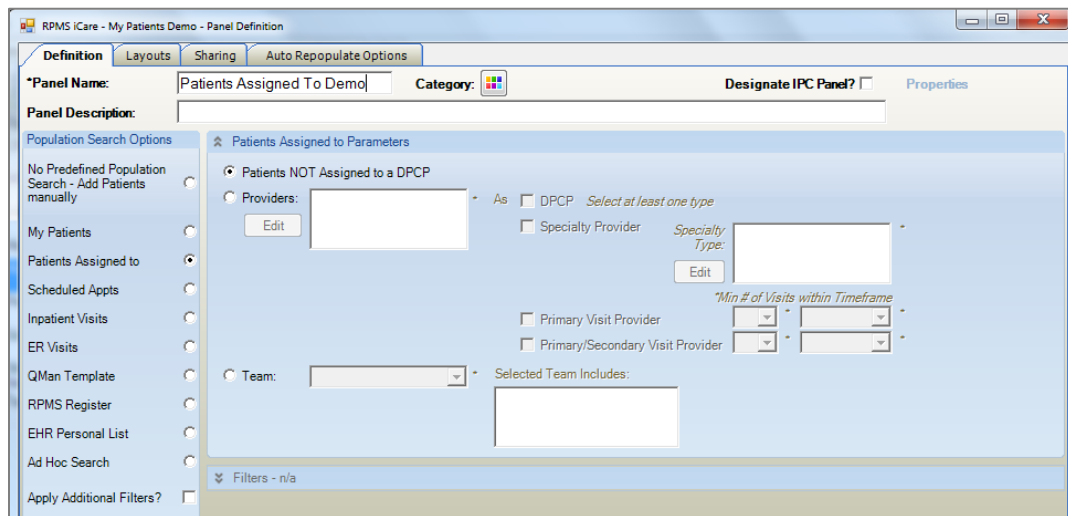

Figure 3-13: **Patients Assigned to Parameters** selected

This is a good option to use for multiple providers. For example, patients can be assigned a specific Designated Primary Care Provider (DPCP) only, or both a DPCP and primary visit provider can be used.

This is also a good option for nurses or case managers who are responsible for working with two or three individual physicians. Individual panels for each physician based on the physician's specific role can be quickly created

Patients NOT Assigned to a DPCP

Select the **Patient NOT Assigned to a DPCP** option button to help identify patients who have not yet been assigned a Primary Care Provider.

> **Note:** Creating a panel based on this selection could yield a very large number of patients. It will include all patients unless additional filters are applied, such as only 'Living' patients or patients in a specific community.

Providers

Select the **Providers** option button to filter the patients by particular providers.

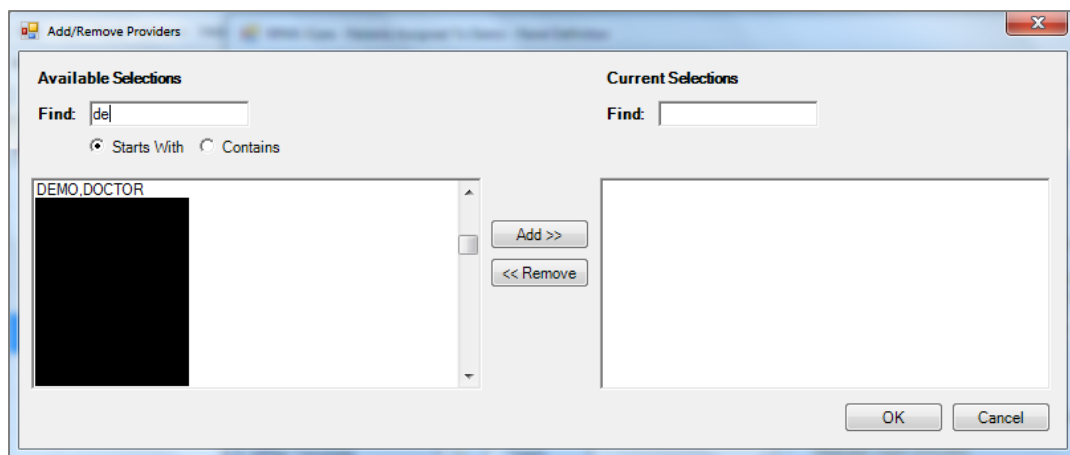Click **Edit** to access the **Add/Remove Providers** dialog.

Figure 3-14: **Add/Remove Providers** dialog

When the Add/Remove dialog is complete, click **OK** and the names that display in the **Current Selections** field will populate the **Providers** field. (Otherwise, click **Cancel**.)

After the **Providers** field is populated, indicate the type for the selected provider.
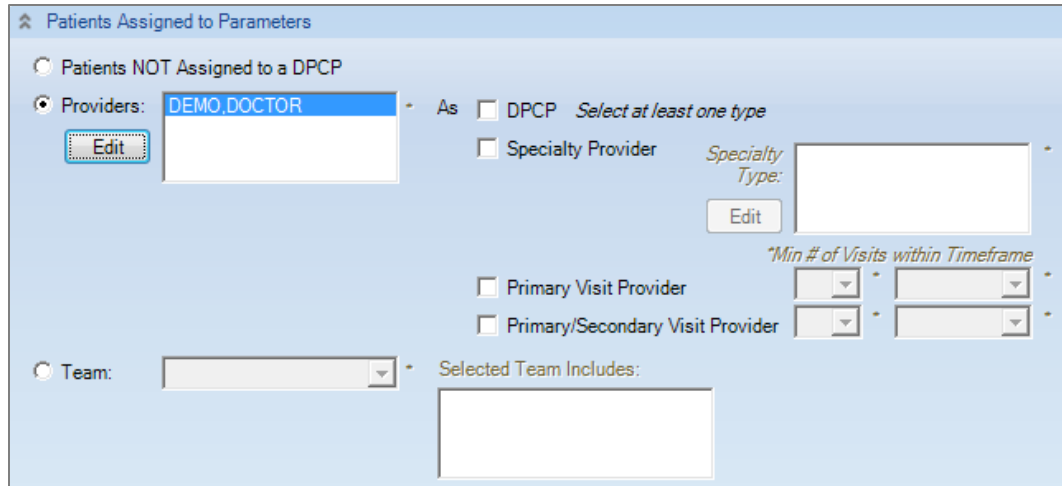
Figure 3-15: Populating the **Providers** option

The choices for the type of provider are as follows (at least one is required):

DPCP (Designated Primary Care Provider)

Any patient whose documented DPCP is the selected provider/surrogate. Use this option if the selected provider is using the **Designated Specialty Provider Management** (**DSPM**) option in the RPMS application.

If the selected provider is *not* running DSPM, then use the last two options, **Primary Visit Provider** or the **Primary/Secondary Visit Provider**.

Specialty Provider

Users are assigned as Specialty Providers to patients as defined in the Designated Specialty Provider Management (BDP) application.

After selecting the **Specialty Provider** option button, specify the specialty provider type(s). Click the **Edit** button to access the **Add/Remove Specialty Provider Types** dialog.
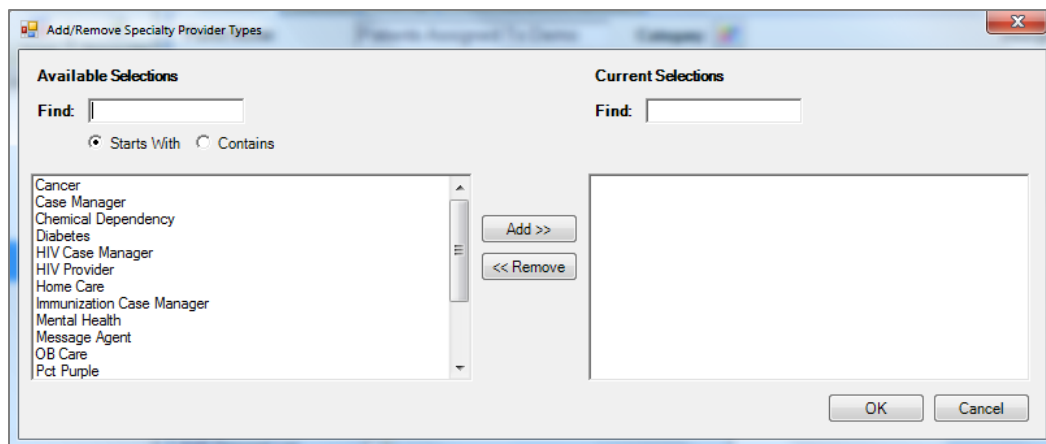

Figure 3-16: **Add/Remove Specialty Provider Types** dialog

When the **Add/Remove** dialog is complete, click **OK** and the provider types in the **Current Selections** group box of the dialog will populate the **Specialty Type** field. (Otherwise, click **Cancel**.)

Primary Visit Provider

Any patient whose Primary Visit Provider is the selected provider/surrogate for a user-defined number of visits within a user-defined timeframe, e.g., a patient where the selected provider/surrogate was the Primary Visit Provider at least two times in the past six months. The defaults for the user-defined values are two visits within the past year.

Primary/Secondary Visit Provider

Any patient whose Primary/Secondary Visit Provider is the selected provider/surrogate for a user-defined number of visits within a user-defined timeframe. The defaults for the user-defined values are two visits within the past year.

Minimum Visits

Select the minimum number of visits used in combination with a timeframe to define whether a patient "belongs" to a provider, e.g., two visits in the past year. Values are 1–9; select the value from the list. The **Minimum Visits** option is used with **Primary Visit** and **Primary/Secondary Visit** provider types only.

Minimum Visit Timeframe

Select the timeframe to be used in combination with the minimum number of visits to define whether a patient "belongs" to a provider, e.g., two visits in the past year. The values are 3 months, 6 months, 1 year, 18 months, 2 years, or 3 years. Select the value from the list. The **Minimum Visit Timeframe** option is used with **Primary Visit Provider** and **Primary/Secondary Visit Provider** types only.

If either the Primary Visit Provider or Primary/Secondary Visit Provider is selected, specify both a minimum number of visits and a timeframe (required).

Figure 3-17: **Primary** or **Primary/Secondary Visit Provider** options

Team

Use the Team parameter to filter the patients by a particular Team. The Team must contain at least one provider to whom patients are assigned.

Figure 3-18: **Team** group box

Select an option from the Team list. If there are pre-determined team members, their names will populate **the Selected Team Includes** field.

Select the **Apply Additional Filters?** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

3.4   Scheduled Appts

The **Scheduled Appointments** search option can be used to find the patients with scheduled appointments in a specified date range or timeframe for the panel (required).

This is a good option to use for pre-planning patient care for patients coming into the facility for appointments.
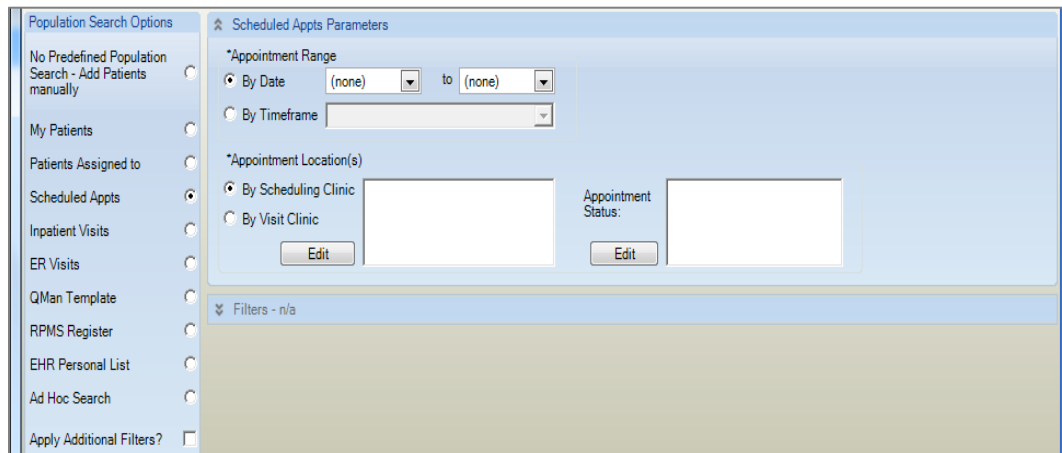

Figure 3-19: **Scheduled Appointments** selection parameters

Appointment Range

Use the **Appointment Range** group box to set either a date range or a timeframe. Select one of the option buttons.
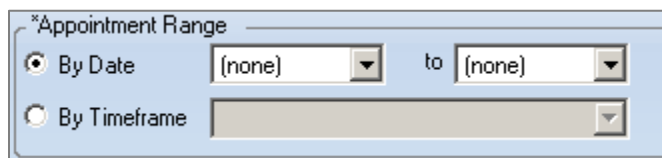

Figure 3-20: **Appointment Range** group box

By Date

Select the **By Date** option button for a specific date range for the scheduled appointments. If the appointments are for one day only, both the beginning and end dates must be the same. The default is today's date.

By Timeframe

Select the **By Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices display on the list.

After selecting the **By Timeframe** option on the **Appointment Range** and the specific timeframe value, click **OK**. The application displays the message that states: **This panel definition includes a Timeframe filter. It is recommended that this panel be set to Auto Populate. Do you agree?** Click **Yes**, **No**, or **Cancel**.

- Click **Yes** to set the panel to Auto Panel. The application displays the message that states: **Populating the panel may take some time and will run in the background. Do you want to continue and populate this panel?** Click **OK** to run in background. (Otherwise, click **Cancel**).

- Click **No** to *not* set the panel to Auto Populate.

- Click **Cancel** to return focus to the **Appointment Range** group box.

Appointment Locations

Use the **Appointment Locations** group box to select the appointment locations by which to search. One of the option buttons (**By Scheduling Clinic** or **Visit Clinic**) must be selected.

Figure 3-21: **Appointment Locations** group box

By Scheduling Clinic

A Scheduling Clinic is a clinic that is defined at each facility that identifies clinics for appointment scheduling. The names are unique to each facility.

Select the **By Scheduling Clinic** option button and then click **Edit** to access the **Add/Remove Scheduling Clinics** dialog.
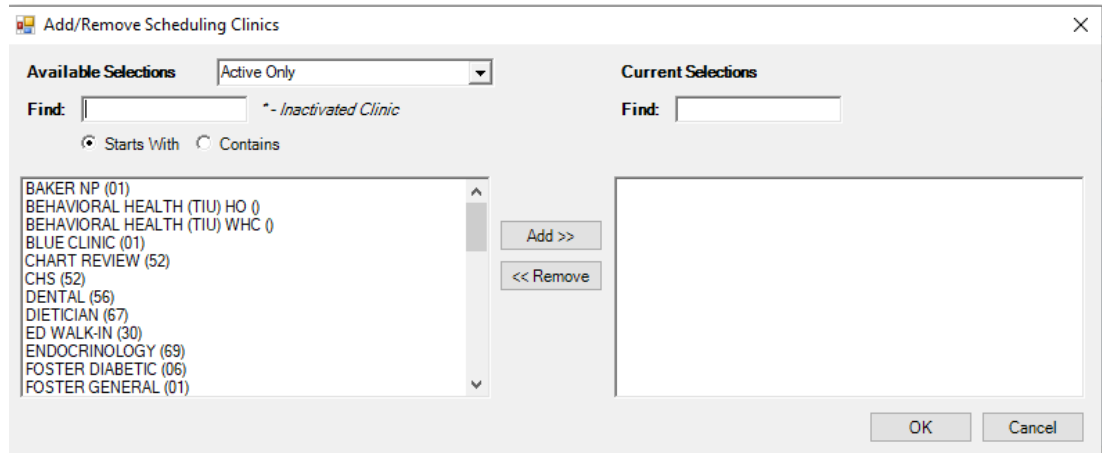
Figure 3-22: **Add/Remove Scheduling Clinics** dialog

Active Only is the default selection. Only active clinics will display in the Available Sections box.

Change to **All** in order to have the ability to add/remove inactive clinics as well. Inactive clinics will display at the end of the list of active clinics.
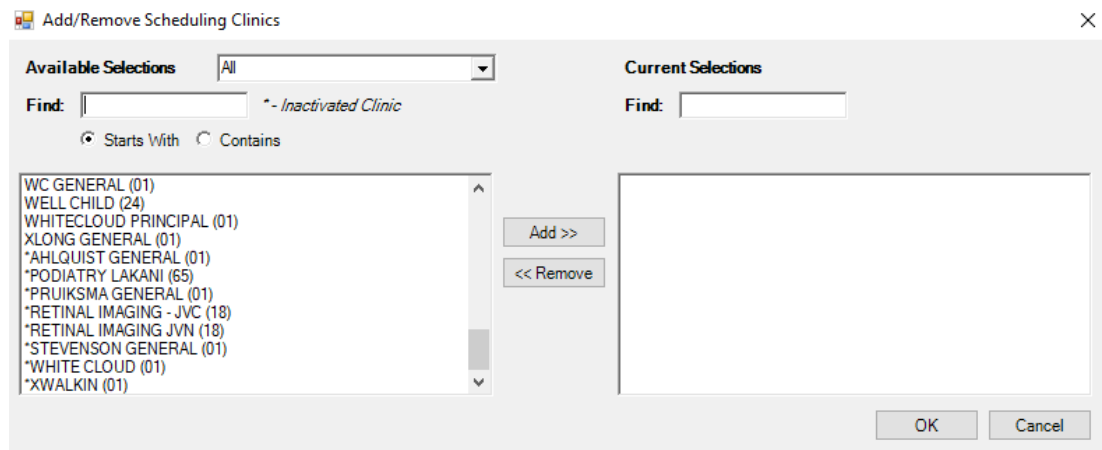

Figure 3-23: Inactive clinics displayed

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box populate the **By Scheduled Clinic** field on the **Panel Definition** window. iCare searches for the patients in the clinics in the **By Scheduled Clinic** field. (Otherwise, click **Cancel**.)

By Visit Clinic

A Visit Clinic is a way that Scheduling Clinics can be linked by the Clinic Code. A facility might have multiple Scheduling Clinics that happened to be defined as PEDIATRIC (20). Instead of selecting all Scheduling Clinics individually, select Visit Clinic of PEDIATRIC, and all Scheduling Clinics will be included.

Select the **By Visit Clinic** option button and then click **Edit** to access the **Add/Remove Visit Clinic** dialog.
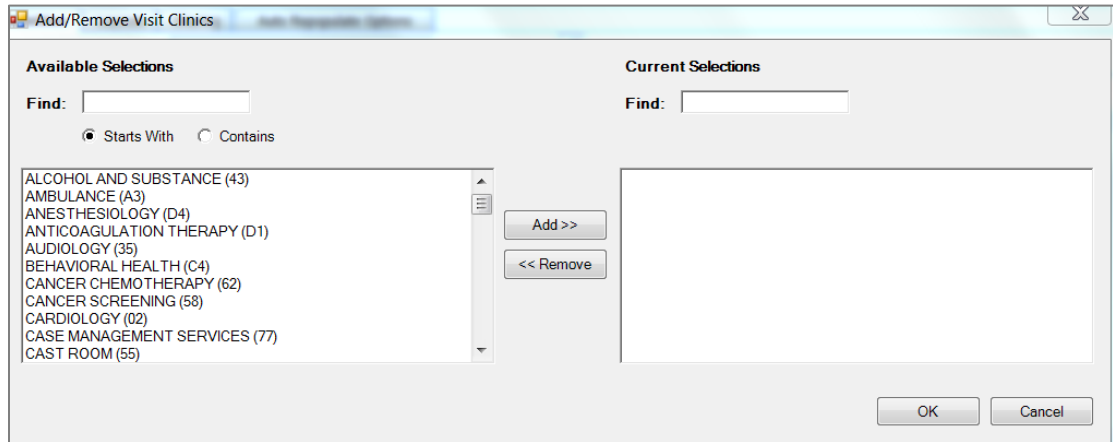

Figure 3-24: **Add/Remove Visit Clinics** dialog

When the **Add/Remove** dialog is complete, click **OK** and the visit clinics in the **Current Selections** group box will populate the **By Visit Clinic** field. iCare searches for the patients in the clinics displayed in the **By Scheduled Clinic** field. (Otherwise, click **Cancel**.)

Appointment Status

The **Appointment Status** field is populated by clicking the **Edit** button to access the **Add/Remove Appt Types** dialog. The function of this option is to define a panel once and have it auto populate every day without having to manually change the date range. If this option is used, the panel should be set to Auto Repopulate (refer to **Auto Repopulate Options** Tab for more information).
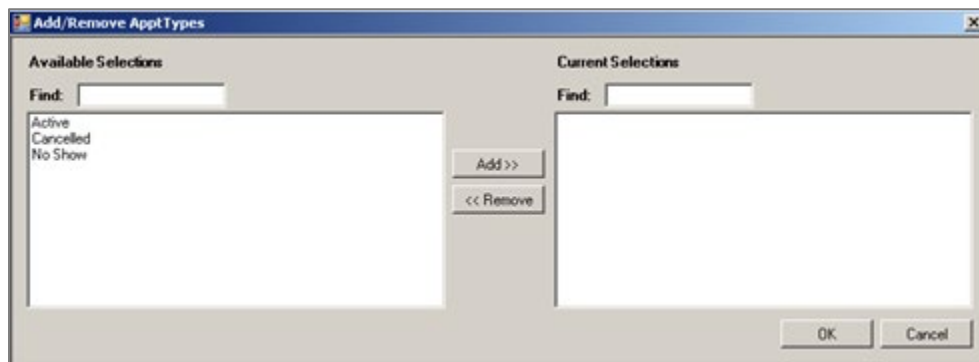

Figure 3-25: **Add/Remove Appt Types** dialog

When the **Add/Remove** dialog is complete, click **OK** and the appointment types in the **Current Selections** group box populate the **Appointment Status** field. (Otherwise, click **Cancel**.)

Select the **Apply Additional Filters?** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

3.5   Inpatient Visits

The Inpatient Visits search option can be used to restrict the search to current inpatient visits or to non-current inpatient visits where particular characteristics of the visit can be defined.

Figure 3-26: **Inpatient Visits** parameters

Current Inpatient?

Select the **Current Inpatient?** check box to restrict the search to only current inpatients. This action causes the fields in the lower panel to become active and the fields in the Discharge Range to become inactive.

To search for inpatients in the past, do not select the **Current Inpatient?** check box. The search can then be defined to a specified admit date range and a specified discharge date range.

Admit Range Group Box

Use the **Admit Range** group box to restrict the search for patients in a particular admit date range.

Figure 3-27: **Admit Range** group box

By Date

Select the **By Date** option button to enter the date range for the admit dates. If the range is for only one day, both the beginning and end dates must be the same.

By Timeframe

If **By Timeframe** is selected, the panel should be set to automatically Auto Repopulate (refer to **Auto Repopulate Options** Tab for more information).

Select the **By Timeframe** option button to select the timeframe for with the admit date range (cannot be blank). Valid choices display on the list.

The various fields on the lower group box define the restrictions for the search for current inpatients by admit type, attending provider, specialty, and ward.

Discharge Range Group Box

Use the **Discharge Range** group box to restrict the search to patients in a specified discharge date range. The **By Date** and **By Timeframe** option buttons function like those for the **Admit Range** group box (above).

The lower group box is active when the **Discharge Range** check box is selected and either the **By Date** or **By Timeframe** option button is selected.

Figure 3-28: Lower section for **Inpatient Visits** parameters

The fields on the lower group box define the restrictions for the search for discharged inpatients by Admit Type, Attending Provider, Specialty, Ward, Nurse, and Disposition Type. They all operate in the same manner. See the following for information on how to use the **Admit Type** restriction.

Admit Type

Use **Admit Type** to restrict the search for inpatients to particular admit types. Click **Edit** to access the **Add/Remove Inpatient Admit Types** dialog.
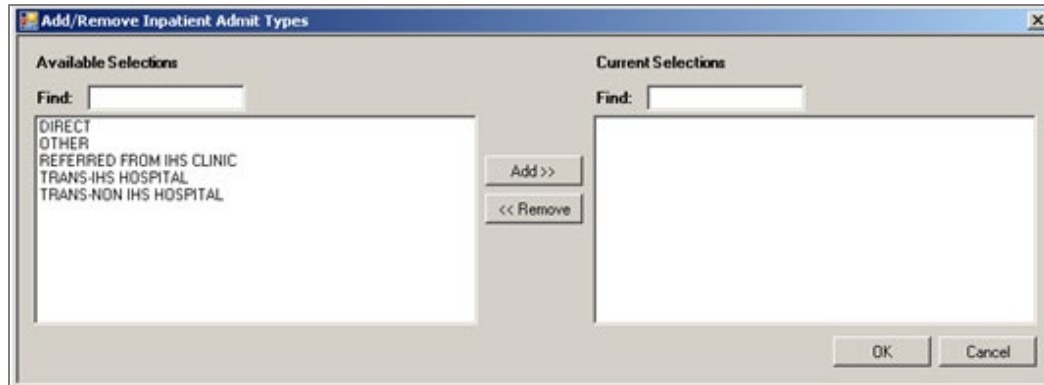
Figure 3-29: **Add/Remove Inpatient Admit Types** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the Current Selections group box populate the **Admit Type** field. (Otherwise, click **Cancel**.)

3.6   ER Visits

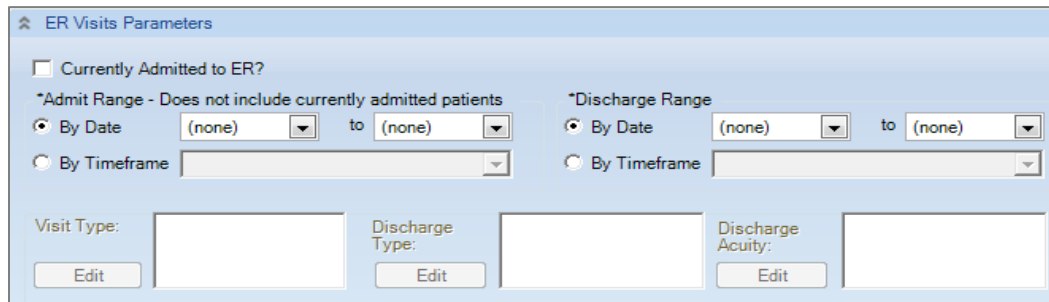Use the **ER Visits** search option to restrict the search for patients with ER visits.

Figure 3-30: **ER Visits Parameters**

Populate the **Admit Range** or **Discharge Range** group box and the fields in the lower group box become active.

The group boxes on the ER Visits work like those for **Inpatient Visits**.

3.7   QMan Template

Use the **QMan Template** option to populate a panel with the patients identified in a specified QMan search template.

This is a good option to use if time has already been spent time creating QMan searches. For the expert user, QMan can produce highly complex searches.

Figure 3-31: Sample **QMan Template** list

Search for a template by doing one of the following:

- Search for a template by typing a few characters in the **Template Name** field; the list will scroll to the first instance of the name containing those characters.

- Use the scroll bar to browse through the list.

Highlight the template name. Please note the following about the Template Type:

- The **P** in the Template Type column means it is a patient-centric QMan search.

- The **V** in the Template Type column means it is a visit-centric QMan search.

Select the **Apply Additional Filters?** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

> **Note:** Only one QMan template can be selected for each panel. To create a panel containing multiple templates, create one panel for each template, and then copy all patients out of each panel into one combined panel. Duplicate patients will not be included.

Please note that if the QMan template is removed from the database and users attempt to modify that panel (using the template), the **Template Name** field will be empty. In this case, close the **Panel Definition** window and create a new panel and copy the patients to the new panel.

3.8   RPMS Register

Use the **RPMS Register** option to populate a panel with patients who are already on a Register for any existing RPMS case-management system. Examples of case-management systems are Diabetes Management System (BDM), Case Management (ACM), the Asthma Register System (BAT), the HIV Management System (BKM), Women's Health (BW), and Immunizations (BI). Currently, only the Case Management System has multiple Registers.

> **Note**: Any Register created within the Diabetes Management System that is *not* the "official" IHS Diabetes Register can be located by selecting the **Case Management System** option, then scrolling to the named diabetes sub-registers.
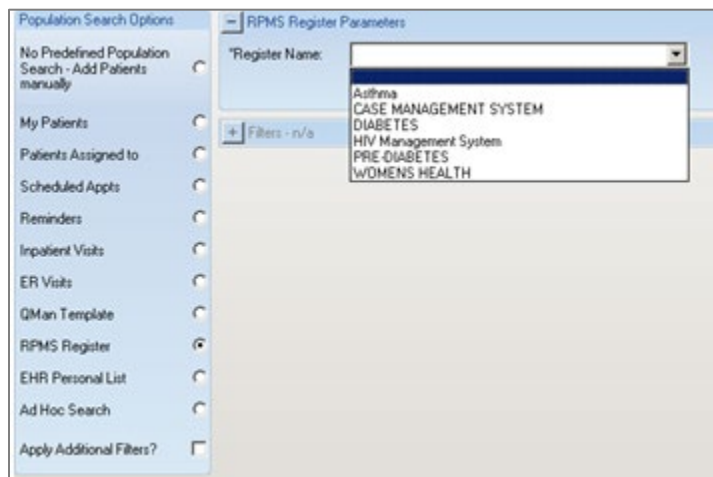

Figure 3-32: Sample **RPMS Register Name** list

Type the name of the Register in the **Register Name** field and the list will scroll to the first occurrence of the typed letters. Highlight the selection.

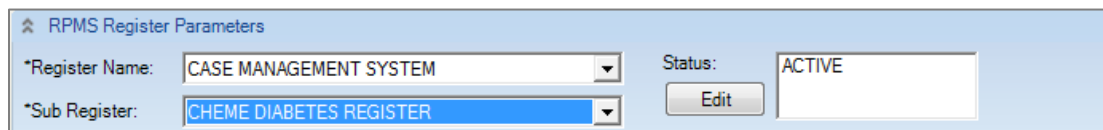The Case Management System selection requires secondary data about a specific register.

Figure 3-33: Sample **Sub Register** options

A sub-register must be selected from the list.

The default Status is **ACTIVE** (for any of the Register options). To change the Status, click **Edit** to access the **Add/Remove Register Statuses** dialog.
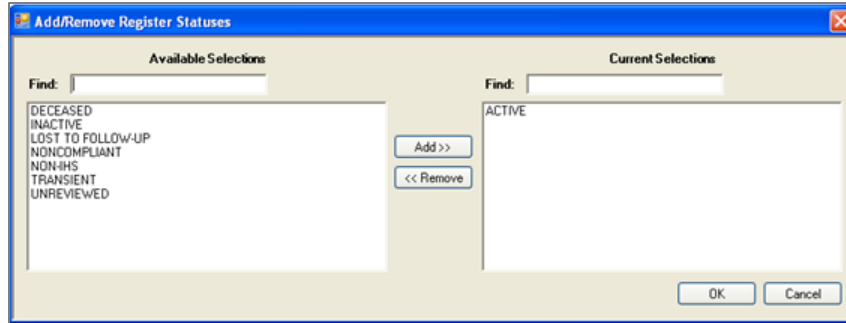
Figure 3-34: **Add/Remove Register Statuses** dialog

The **Status** field displays for all Register Names except for Women's Health.

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box populate the **Status** field on the RPMS Register Parameters area. (Otherwise, click **Cancel**.) If there is more than one status, the **Status** field on the **RPMS Register Parameters** group box will have a scroll bar.

Select the **Apply Additional Filters?** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

3.9   EHR Personal List

Use the **EHR Personal List** option to use an existing defined personal list from the RPMS-EHR application.

If this option is selected and there is no existing personal list, the application displays a message that reads: **There are no EHR Personal Lists for selection**. Click **OK** to dismiss the message.
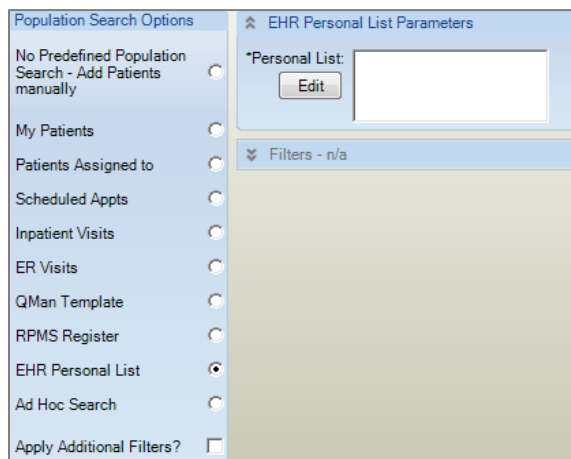

Figure 3-35: **EHR Personal List** selection

Click the **Edit** button associated with the **Personal List** field to access the **Add/Remove EHR Personal Lists** dialog. One or more EHR Personal List can be selected. When the **Add/Remove** dialog is complete, click **OK** and the personal list names in the **Current Selections** group box populate the **Personal List** field. (Otherwise, click **Cancel**.)

Select the **Apply Additional Filters?** check box to display additional data that can be used to refine the search. These are the same fields that display when the **Ad Hoc Search** option button is selected.

3.10 Ad Hoc Search

Use the **Ad Hoc Search** option to combine one or more common search criteria, such as age, gender, community, or visit date range, to define the patient population that wanted.

Figure 3-36: **Ad Hoc Search** filters
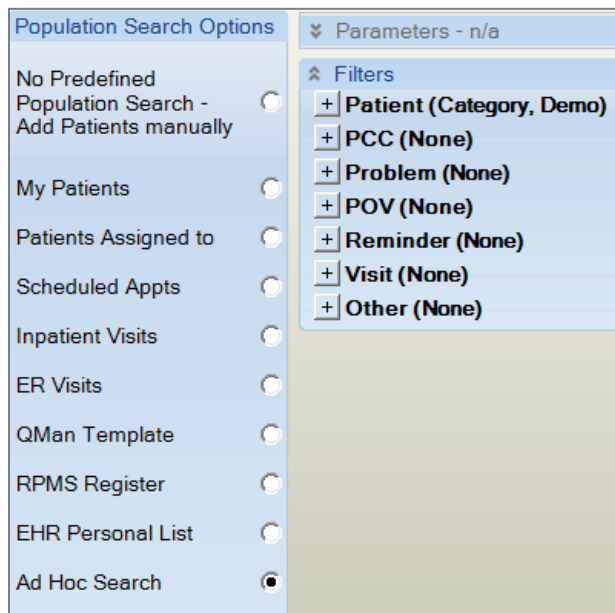
After completing the filter options, click **OK** to use the filter options in creating a new patient panel. (Otherwise, click **Cancel**).

3.10.1 Patient (Category, Demo) Filter

Expand the **Patient (Category, Demo)** filter to display the criteria that you can select. Likewise, expand any of the filters by clicking on the plus (+) under the Patient filter to use them in the search.
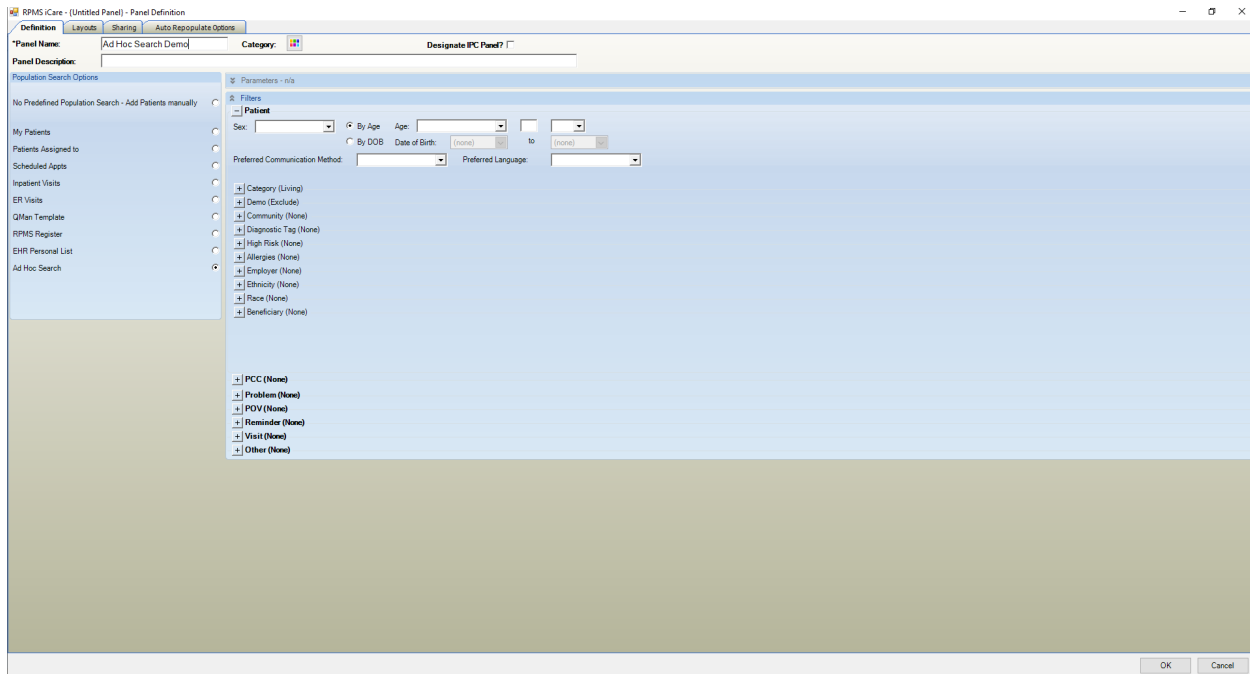
Figure 3-37 **Ad Hoc Search** selections

- **Patient Group Box:** Filter the patients in the panel by using the fields in the **Patient** group box.
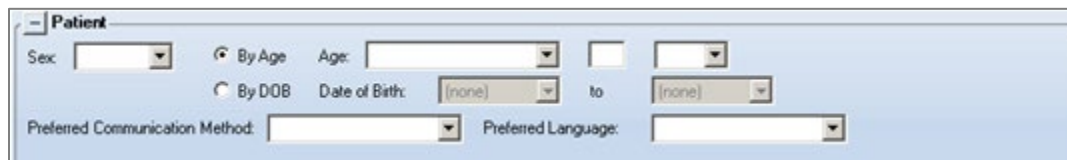

Figure 3-38: **Patient** group box options

- **Sex:** Select the sex filter (male or female) from the list.

- **By Age:** Enter a filter by age by using a criteria statement and age. Click to display the list for the first field and select the criteria statement.

  - Less than, e.g., a panel of children could be defined as ages less than 19.

  - Less than or equal to, e.g., the same panel of children in the previous example could be defined as ages less than or equal to 18.

  - Equal to, e.g., create a panel of patients aged 50 to identify those who should have a colorectal exam.

  - Greater than or equal to, e.g., a panel of adults could be defined as ages greater than or equal to age 19.

  - Greater than, e.g., the same panel of adults in the previous example could be defined as ages greater than age 18.

  - In range (inclusive), e.g., create a panel of women ages 45 through 60 with this option.

- Out of range (exclusive), e.g., 20–25, exclusive means ages 21, 22, 23, 24.

There will be an age range for Age if the following criteria statements were selected: (1) in range (inclusive) or (2) out of range (exclusive). For example: 20-25, inclusive means 20, 21, 22, 23, 24, 25 whereas 20–25, exclusive means 21, 22, 23, 24.

Type the age to be used in the search in the middle field (limited to three characters).

The list for the last field for the Age criteria defines the units of measure for the age: YRS (for years), MOS (for months), or DYS (for days).

- **By DOB:** Filter by DOB by specifying a date range using the **Date of Birth** and **to** fields.

- **Preferred Communication Method:** Select a filter for the **Preferred Communication Method** field by selecting an option from the list.

- **Preferred Language:** Select a filter for the **Preferred Language** field by selecting an option from the list.

3.10.1.1 Category Filter


Figure 3-39: **Category** Filter options

Use the **Category** group box to restrict the search to any of the following:

- **Living:** Living patients are patients for whom at least one HRN (health record number) is active through registration.

- **Inactive:** Inactive patients are patients for whom all HRNs (health record numbers) have been inactivated through registration. If anyone HRN is still active, the patient is not considered to be Inactive.

- **Deceased:** Select Deceased to specify a Date of Death date range. If no date of death date range is entered, the application will search for all deceased patients the database

- **Causes of Death:** Use the Cause of Death to search for reasons (only active when Deceased is selected). Click **Edit** to access the **Add/Remove Causes of Death** dialog.
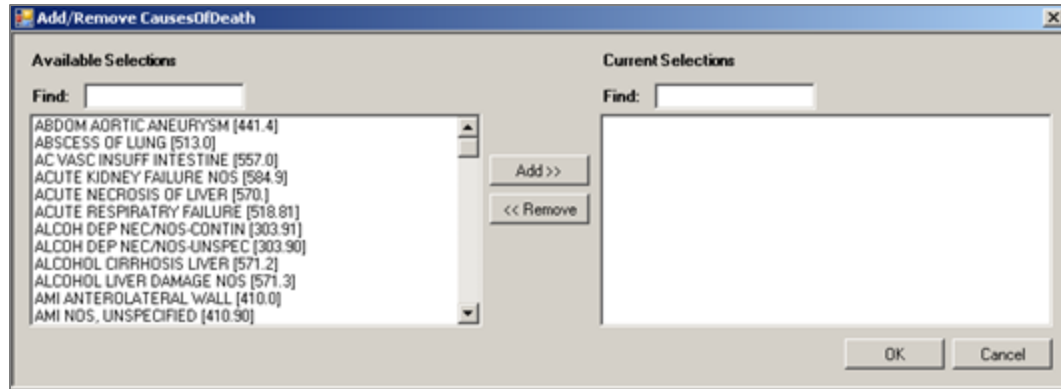
Figure 3-40: **Add/Remove Causes of Death** dialog

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box will populate the **Causes of Death** field. (Otherwise, click **Cancel**.)

3.10.1.2 Demo Filter
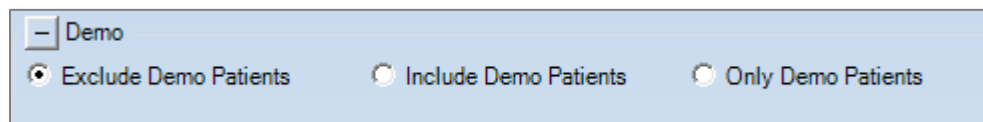
Figure 3-41: **Demo** Filter options

Demo patients can be found in a specific search template that can only be found and used if the user holds the APCLZ UPDATE DEMO TEMPLATE security key. The menu option can be reached from **PCC Management Reports** | **Other PCC Management Reports/Options** | **Update the Demo/Test Patient Search Template**.

```
CREATE/UPDATE "DEMO" PATIENT LIST

This option is used to update a patient search template (list) that
contains the names of all of the "demo" or "test" patients in your
database.  This template will be used to exclude these patients from
all PCC Management reports.

Do you wish to continue? Y//

PCC DEMO PAT TEMPLATE          Jul 13, 2016 06:35:27         Page:    1 of
5
DEMO/TEST PATIENTS TO EXCLUDE FROM PCC MANAGEMENT REPORTS
* Patients currently included in the RPMS DEMO PATIENT NAMES list
       Patient Name                       HRN

1)   DEMO,SAM                            103250
2)   DEMO,FLOYD SR                       103940
3)   DEMO,SABINA L                       104348
4)   DEMO,FAIRIETTA DANNETTE             106596
5)   DEMO,PERRY RAY                      108897
6)   DEMO,AMENDMENT TWO                  112025
7)   DEMO,ASHLEY                         114649
8)   DEMO,DEJON                          115569
```

```
 9)   DEMO,SEATTLE ANN                    118176
10)   DEMO,AMENDMENT ONE                  124221
+          Enter ?? for more actions
AP   Add Patient to Template           Q    Quit
RP   Remove Patient from Template
Select Action:+//
```

Figure 3-42: Sample Demo patients from RPMS PCC

Additionally, any patient name or alias that contains the text "DEMO,PATIENT" will also be included as a demo patient.

Use the **Demo** group box to restrict the panel search to any of the following:

Exclude Demo Patients

Exclude any patients in the panel that are identified as a DEMO patient in PCC. Please note that this is the default value for this filter for all Ad Hoc Search panels or when applying additional filters to existing Panel Populations such as Scheduled Appointments.

Include Demo Patients

Include patients in the panel that are identified as a DEMO patient in PCC.

Only Demo Patients

Include only patients in the panel that are identified as a DEMO patient in PCC.

3.10.1.3 Community Filter

Use the **Community** group box to restrict the search to patients defined in a community either by taxonomy or by name. This option uses the Active patients in the database for each associated Community of Residence.

Figure 3-43: **Community** group box

By Taxonomy

To define the community by taxonomy, select the **By Taxonomy** option button.

Click **Edit** to access the **Add/Remove Community Taxonomies** dialog.
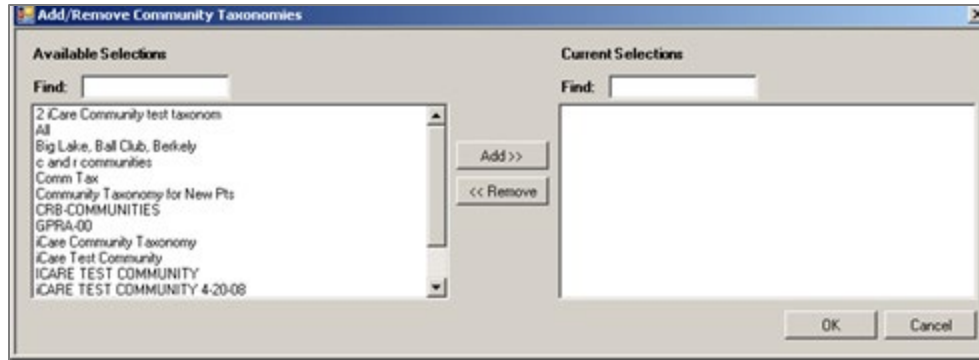
Figure 3-44: Sample **Add/Remove Community Taxonomies**

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selection** group box will populate the **Selected Taxonomy Includes** field. (Otherwise, click **Cancel**.)

By Name

To define the community by name, select the **By Name** option button. Select an option from the **By Name** field list; the selection determines the number of patients in the community (least one or all); the **With At Least One Patient** option is the default.

Use the **Edit** button to determine which communities to use in the search. Click **Edit** to access the **Add/Remove Communities** dialog.
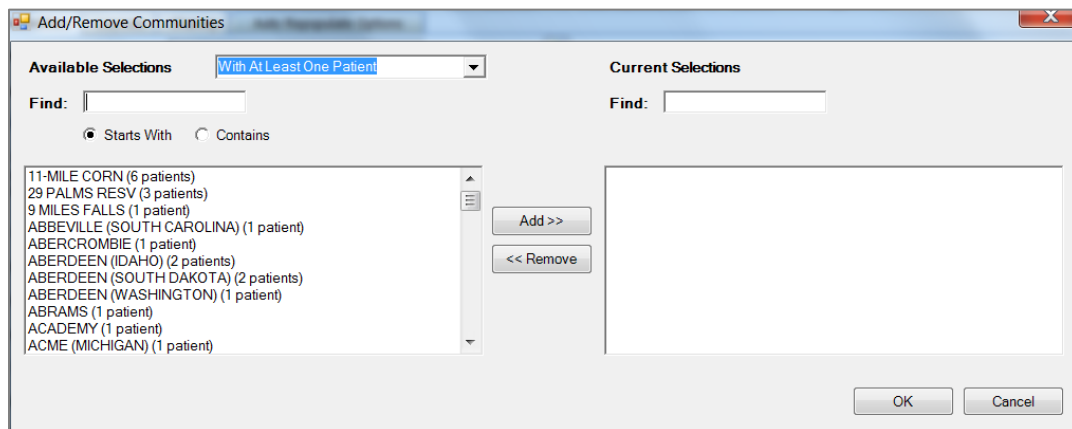

Figure 3-45: Sample **Add/Remove Communities** dialog

The list of available communities is controlled by selecting an option from the **Available Selections** field, with either the **With At Least One Patient** or **All** option. The number of patients found with that community is in the parentheses at the end of the community name. For example, 11-MILE CORN has six (6) patients.

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box will populate the field by the **Edit** button. (Otherwise, click **Cancel**.)

Selecting more than one community will activate the **Create Taxonomy** button.
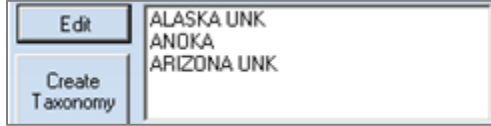

Figure 3-46: Example of more than one community selected

The user must have either the iCare Editor (BQIZCMED) or iCare Package Manager (BQIZMGR) security key in order to use the **Create Taxonomy** button.

Clicking the **Create Taxonomy** button saves the selected communities as a Community taxonomy. This action will change the panel definition from a list of communities to the new Community taxonomy name. Section 7.2 provides information about creating a Community taxonomy. Users can edit the Community Taxonomies that they create.

3.10.1.4 Diagnostic Tag Filter

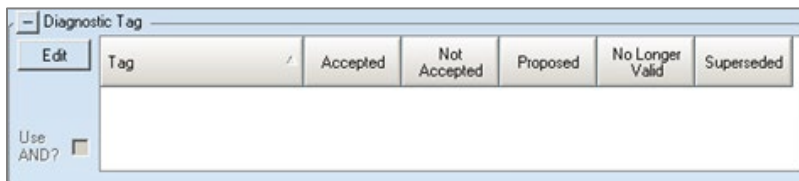Use this option to restrict the search to patients with one or more of the predefined diagnostic tags.

Figure 3-47: **Diagnostic Tag** group box

Click **Edit** to select the diagnostic tags.

The **Add/Remove Diagnostic Tags** dialog displays. Slide the scroll bar down to see all the Diagnostic Tags available for selection. The four CVD tags have been inactivated (marked with an asterisk [*]) but can still be used to search for patients who had that tag in the past using **No Longer Valid**.
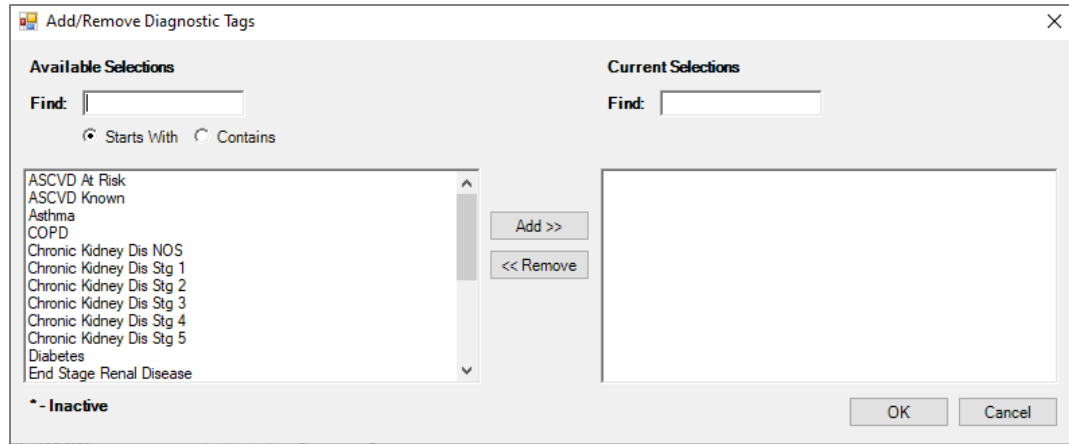
Figure 3-48: **Add/Remove Diagnostic Tags** dialog

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box will populate the **Diagnostic Tag** group box. (Otherwise, click **Cancel**.)
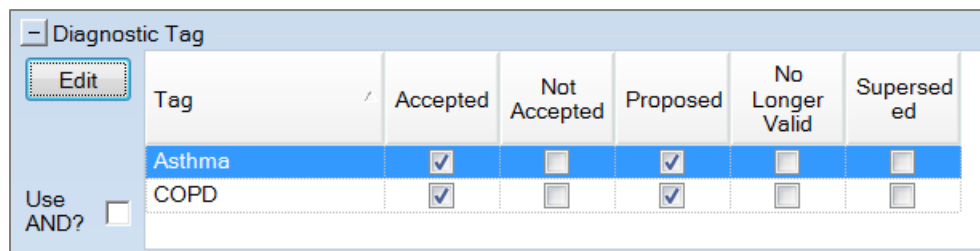

Figure 3-49: **Diagnostic Tag** group box populated

The default tag status selection will be **Proposed** and **Accepted**. The tag status selection can be changed for any record by selecting or de-selecting any check box.

Select the **Use AND?** check box when there are multiple tags selected. This option searches for patients who have *all* of the user-defined tags. For example, not selecting **Use AND?** will return a list of all patients with Asthma *or* COPD. Selecting **Use AND?** will return a list of all patients with both Asthma *and* COPD.

3.10.1.5 High Risk\Immunocompromised Conditions Filter

Use this option to find patients with multiple high risk conditions, with specific high risk conditions or specific Immunocompromised conditions.

Maximum # of High Risk Conditions *value*

This is the maximum number of high risk conditions that one or more patients in your RPMS database has.

Figure 3-50: **Maximum # of High Risk Conditions**

High Risk Conditions

Finds patients who meet the selected criteria for the number of high risk conditions.

Figure 3-51: **# High Risk Conditions** drop-down selection

Click to display the list for the # of High Risk Conditions and select the criteria statement.

- **Less than**, e.g., a panel of patients who have less than the entered number of High Risk Conditions, could be defined as number less than the Maximum # of High Risk Conditions (less than 8).

- **Less than or equal to**, e.g., the same panel of patients in the previous example could be defined as having a number of High Risk Conditions less than or equal to 8.

- **Equal to**, e.g., create a panel of patients who have exactly 5 High Risk Conditions.

- **Greater than or equal to**, e.g., a panel of patients who have 3 or more High Risk Conditions.

- **Greater than**, e.g., the same panel of patients in the previous example who have more than 3 High Risk Conditions.

- **In range (inclusive)**, e.g., create a panel of patients who have 3 through 5 High Risk Conditions with this option.

- **Out of range (exclusive)**, e.g., 3-5, exclusive means patients who have 1-2 and 6 or more (up to maximum number of 8) High Risk Conditions.

By High Risk Name: Finds patients who have the selected high risk conditions

Select the **Use AND?** check box when there are multiple high risk conditions selected. This option searches for patients who have *all* of the selected high risk conditions.

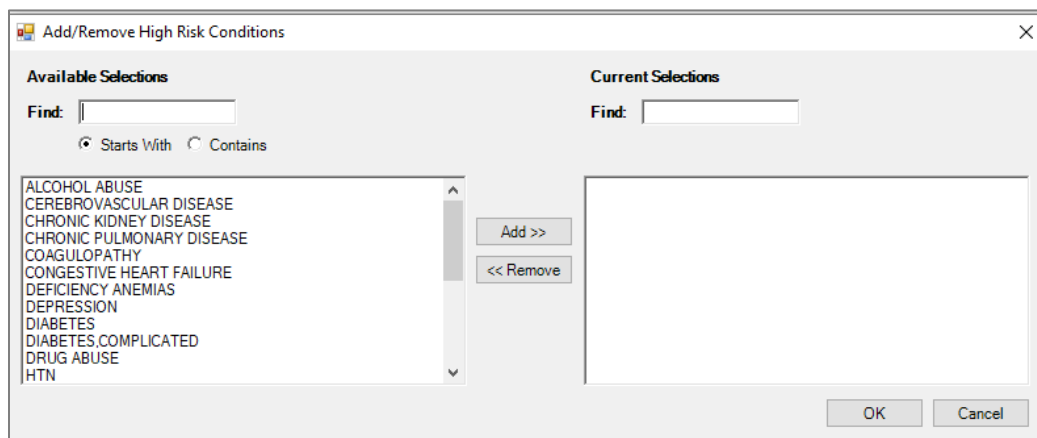Click **Edit** to access the **Add/Remove High Risk Conditions** dialog.

Figure 3-52: **Add/Remove High Risk Conditions** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the field by the **Edit** button on the **High Risk Name** group box. (Otherwise, click **Cancel**.)

By Immunocompromised Name: Finds patients who have the selected Immunocompromised conditions

Click **Edit** to access the **Add/Remove High Risk\Immunocompromised** dialog.
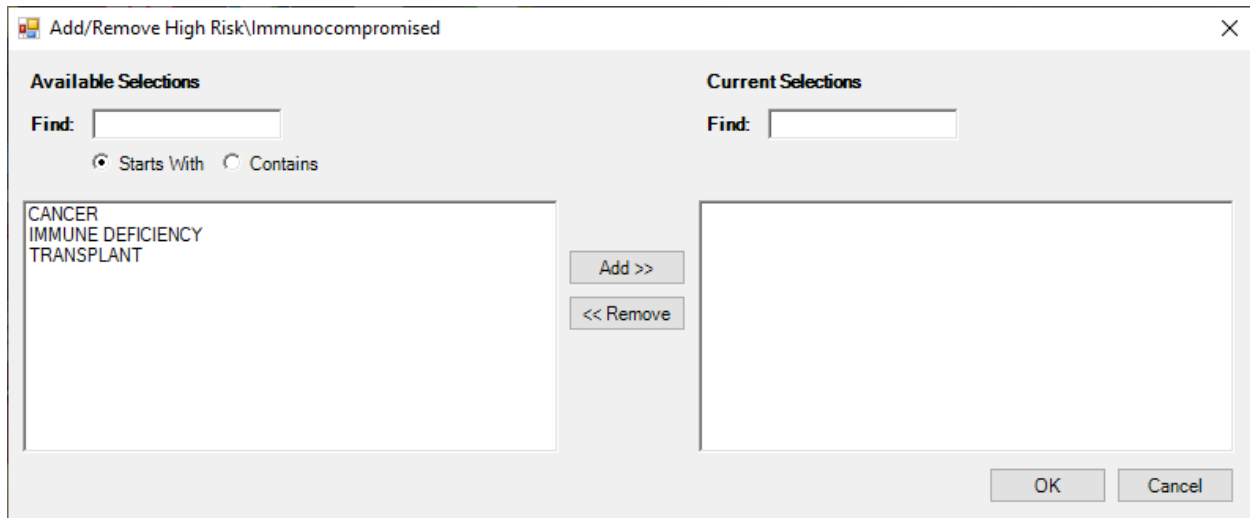
Figure 3-53: **Add/Remove High Risk\Immunocompromised** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the field by the **Edit** button on the **Immunocompromised Name** group box. (Otherwise, click **Cancel**.)

3.10.1.6 Allergies Filter

No Allergy Assessment

Select the **No Allergy Assessment** check box to restrict the search to patients without an allergy assessment. This action causes the **No Known Allergies** check box and the **Edit** button to become inactive.

No Known Allergies

Select the **No Known Allergies** check box to restrict the search to patients without an allergy assessment. This action causes the **No Allergy Assessment** check box and the **Edit** button to become inactive.

Use the **Allergies** group box to filter patients by one or more allergies.
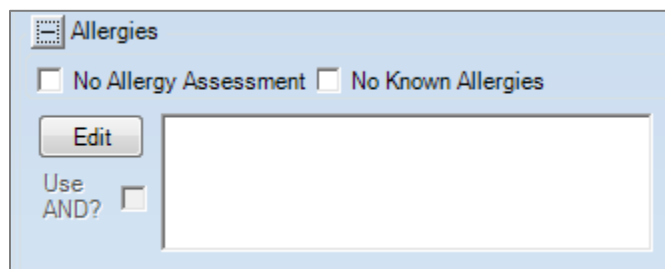

Figure 3-54: **Allergies** group box

Select the **Use AND?** check box when there are multiple allergies selected. This option searches for patients who have *all* of the selected allergies.

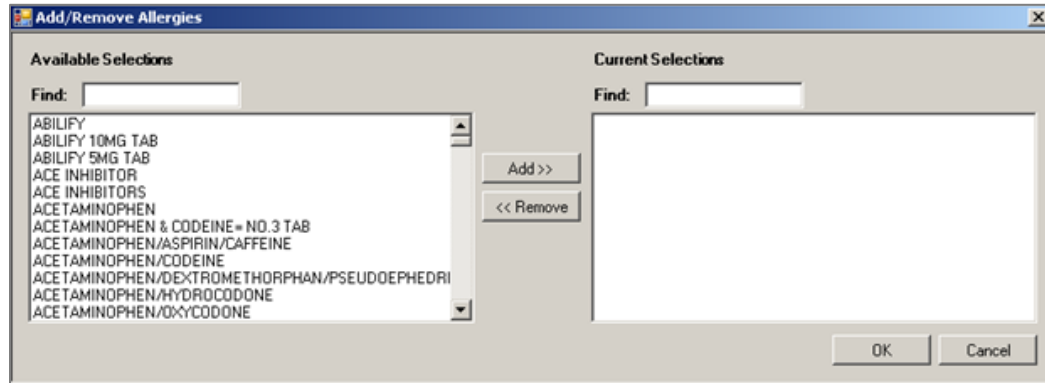Click **Edit** to access the **Add/Remove Allergies** dialog.

Figure 3-55: Sample **Add/Remove Allergies** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the field by the **Edit** button on the **Allergies** group box. (Otherwise, click **Cancel**.)

3.10.1.7 Employer Filter

Users assigned the proper Employer Group security key will see an Employer selection in the Optional Filters portion of Panel Definition. Use the Employer selection to filter the patients by the list of employers defined in the iCare Site Parameters.
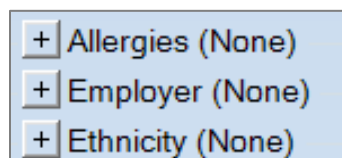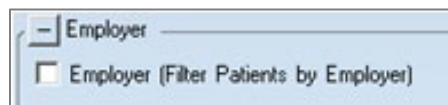

Figure 3-56: Optional filters with Employer option

Figure 3-57: **Employer** group box

Select the **Employer** check box to filter the patients by employer.

If you are changing a shared panel and this check box is selected, the application displays an error message that states: **Panel is already shared. Checking the employer filter is not permitted**.

3.10.1.8 Ethnicity Filter

Use the **Ethnicity** group box to filter the patients by ethnicity.
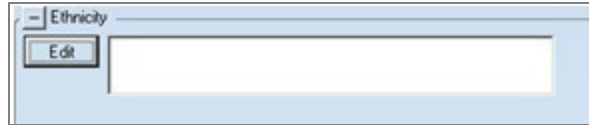
Figure 3-58: **Ethnicity** group box

Click **Edit** to access the **Add/Remove Ethnicities** dialog.
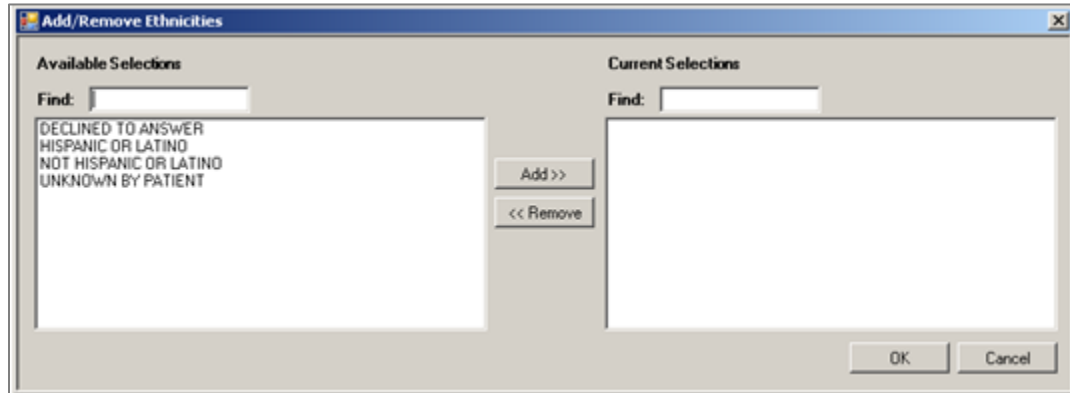
Figure 3-59: **Add/Remove Ethnicities** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the field by the **Edit** button on the **Ethnicity** group box. (Otherwise, click **Cancel**.)

3.10.1.9   Race Filter

Use the **Race** group box to filter patients by race.

Figure 3-60: **Race** group box

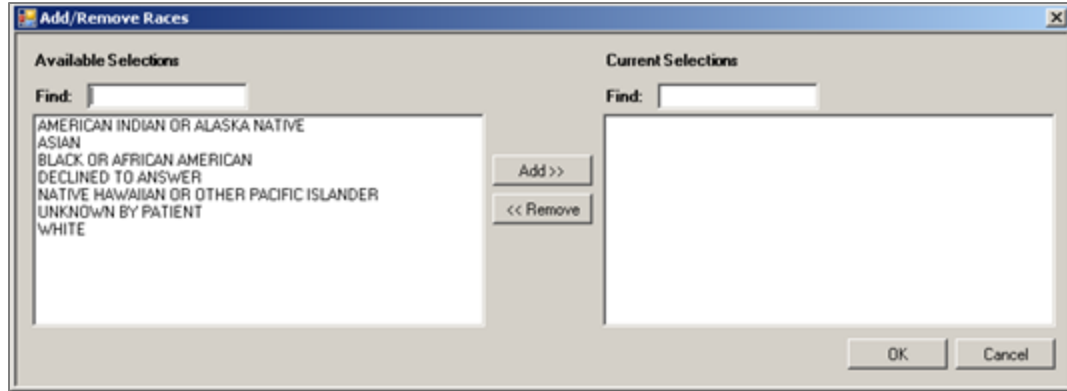Click **Edit** to access the **Add/Remove Race** dialog.

Figure 3-61: **Add/Remove Races** dialog

When the Add/Remove dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the field by the **Edit** button on the **Race** group box. (Otherwise, click **Cancel**.)

3.10.1.10 Beneficiary Filter

Figure 3-62: **Beneficiary** filter
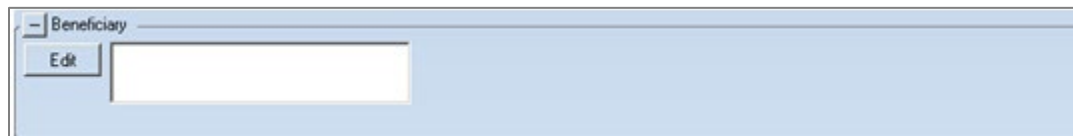
Use the **Beneficiary** filter to search for either AI/AN or non-AI/AN Classification/Beneficiary patient categories. This is similar to the CRS reports where users can select a patient population based on the Classification/Beneficiary categories in Patient Reg.

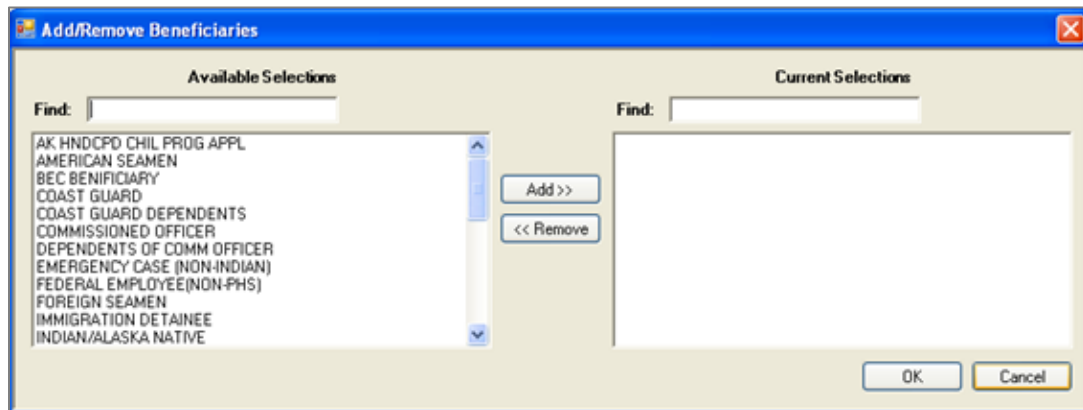Click **Edit** to access the **Add/Remove Beneficiaries** dialog.

Figure 3-63: **Add/Remove Beneficiaries** dialog

When the **Add/Remove** dialog is complete, click **OK** and the options in the **Current Selections** group box will populate the **Beneficiary** field in the **Patient** group box. (Otherwise, click **Cancel**.)

3.10.2   PCC

Use the **PCC** filter to filter the patients by CPTs, Exams, Lab Tests, Measurements, Medications, and Patient Education.

Figure 3-64: **PCC Filter**

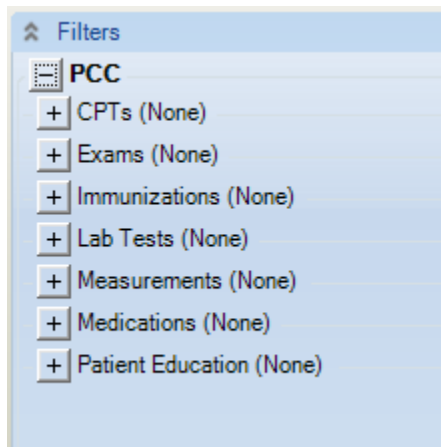### 3.10.2.1   CPTs Filter

Use the **CPTs** group box to filter the population by CPTs. This can be done by date range or for patients who did not have CPTs during the selected range.
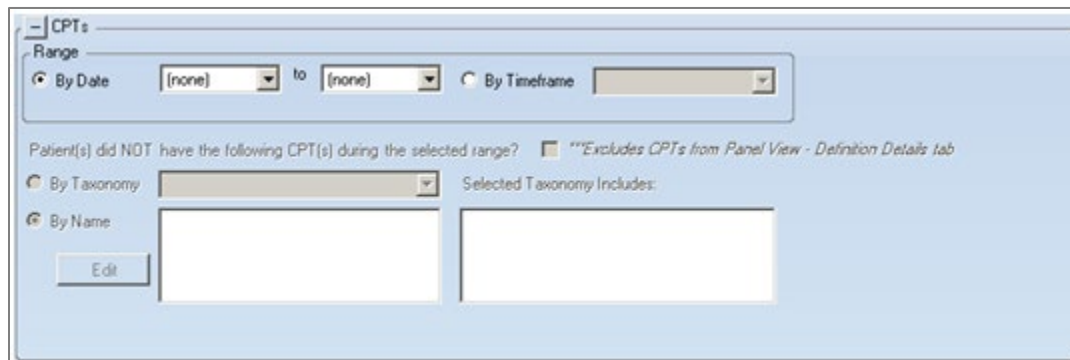

Figure 3-65: **CPTs** filter options

Range – By Date

Click the **By Date** option button to enter the date range for the lab tests. For one day only, both the beginning and end dates must be the same.

Range – By Timeframe

If **By Timeframe** is selected, the panel can be set to automatically Auto Repopulate. Section 6.0 provides information about this function.

Select the **Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices are on the list.

After populating the date range or the timeframe, the bottom part of the group box becomes active.

If the patients did not have certain CPTs during the selected range, check the **Patient(s) did NOT have the following CPT(s) during the selected range** check box.

Use either of the option buttons to define the CPTs by taxonomy or by name.

By Taxonomy

To define patients with CPTs by taxonomy, select the **By Taxonomy** option button and select an option from the **By Taxonomy** list. If the selected Taxonomy includes certain items, those items display in the field below the **Selected Taxonomy Includes** label.

By Name

To define the patients with CPTs by name, select the **By Name** option button and then click the **Edit** button to access the **Add/Remove CPTs** dialog.
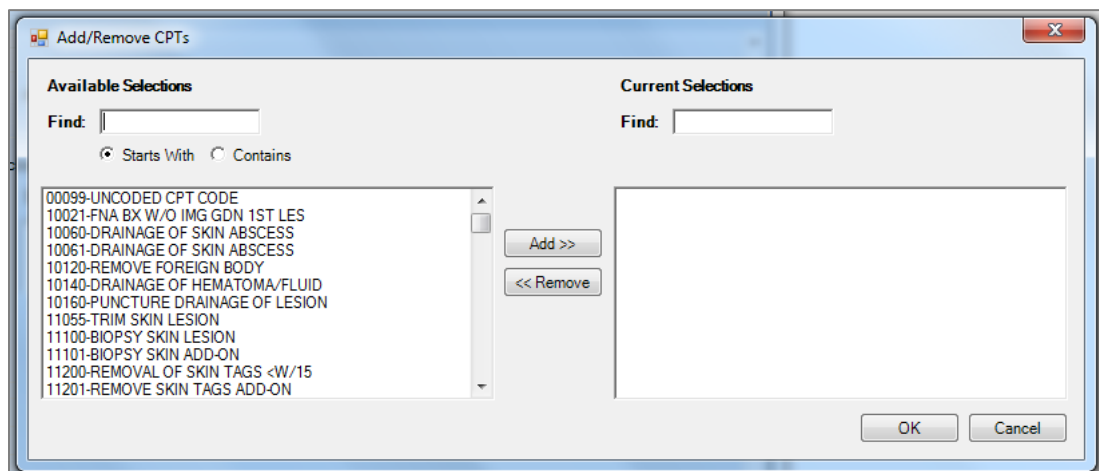

Figure 3-66: Sample **Add/Remove CPTs** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selection** field will populate the **By Name** field. (Otherwise, click **Cancel**.)

3.10.2.2 Exams Filter

Use the **Exams** group box to filter the population by Exams. This can be done by date range or for patients who did not have Exams during the selected range.

Figure 3-67: **Exams** Filter options

The **Range** group box operates like the **Range** group box on CPTs. See the **CPTs Filter** section for more information.

After populating the date range or the timeframe fields, the bottom part of the group box becomes active.

If the patients did not have certain exams during the selected range, select the **Patient(s) did NOT have the following Exams(s) during the selected range** check box.

Select the **Use AND?** check box when there are multiple exams. This option searches for patients who have *all* the exams.

If there are exams ending in (S) for Set of Codes, the **Filter on Exam Values** check box becomes active.

Filter on Exam Values

Select the **Filter on Exam Values** check box to identify the exam values to be used in the filter.
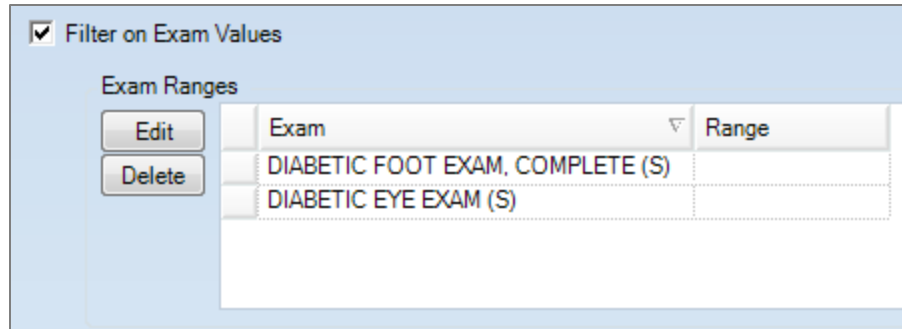
Figure 3-68: Sample **Filter on Exam Values** selections

Edit

Select a name under the Exam column to edit and then click **Edit**. The application displays the **Exam Detail** dialog.
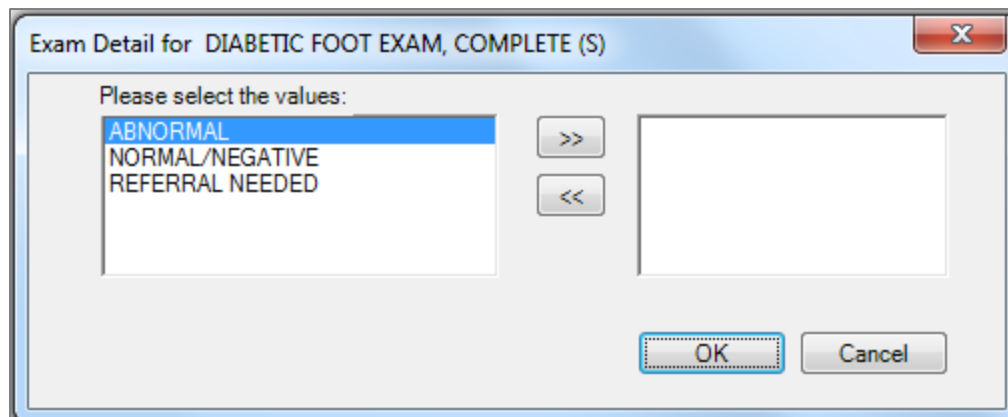
Figure 3-69: Sample **Exam Detail** values dialog

Click the arrow (>> or <<) buttons to select the values on which to filter. After the dialog is complete, click **OK** and the Range value will populate on the **Exam Ranges** group box. (Otherwise, click **Cancel**.)

Delete

Use the Delete function to delete a selected row in the grid. Select the row to delete and then click **Delete** to access the Delete Row information message that states: **Choose Yes to delete the row or No to exit**. Click **Yes** to delete the row (otherwise, click **No**.)

3.10.2.3 Immunizations Filter

Use the **Immunizations** group box to filter the population by immunizations. This can be by date range or for patients who did not have immunizations during the selected range to filter by Taxonomy, Vaccine Group or by Name. For example, patients with High Risk Conditions who have not had a COVID-19 immunization.
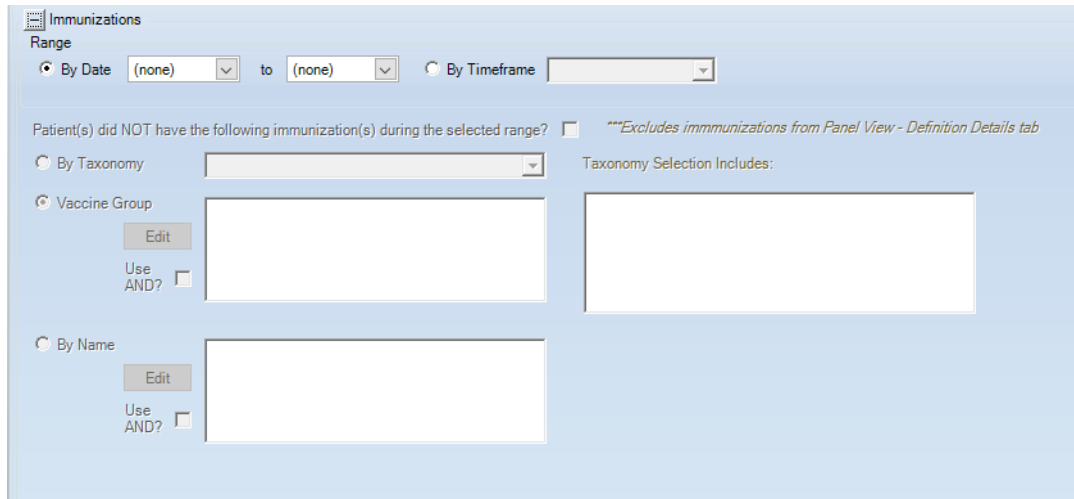
Figure 3-70: Lab Test Filter options

Range – By Date

Click the **By Date** option button to enter the date range for the lab tests. For one day only, both the beginning and end dates must be the same.

Range – By Timeframe

If **By Timeframe** is selected, the panel could be set to automatically Auto Repopulate. Section 6.0 provides information about this function.

Select the **Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices are on the list.

After populating the date range or the timeframe, the bottom part where selection of immunizations By Taxonomy, Vaccine Group or By Name becomes active.
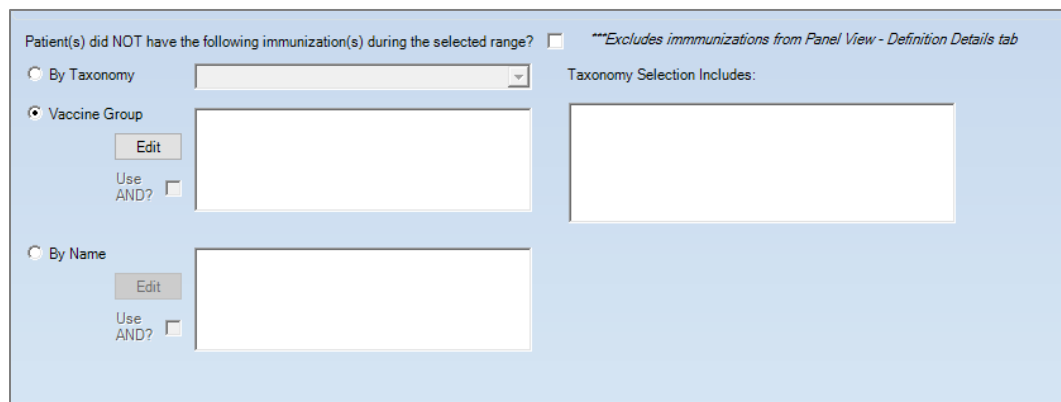
Figure 3-71: Active immunizations By Taxonomy, Vaccine Group or By Name

If the patients did not have the following immunizations during the selected range, select the **Patient(s) did NOT have the following immunizations(s) during the selected range** check box. Use any one of the option buttons to define by taxonomy, by vaccine group or by name.

By Taxonomy

To find patients with certain immunizations by taxonomy, select the **By Taxonomy** option button and select an option from the **By Taxonomy** list. Taxonomies for immunizations contain CVX codes. If the selected taxonomy includes certain items, those items display in the field below the **Taxonomy Selection Includes** label.
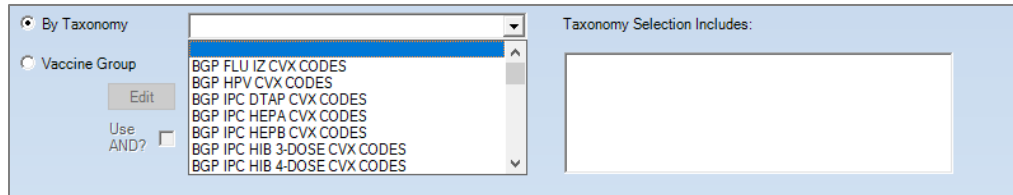
Figure 3-72: **By Taxonomy** selection

Vaccine Group

To find patients with certain immunizations by vaccine group, select **Vaccine Group** option button and click the **Edit** button to access the **Add/Remove Vaccine Group** dialog.
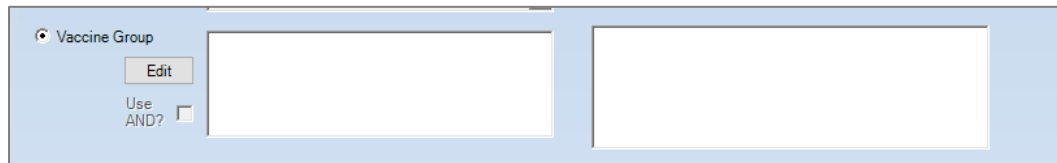
Figure 3-73: **Vaccine** Group selection
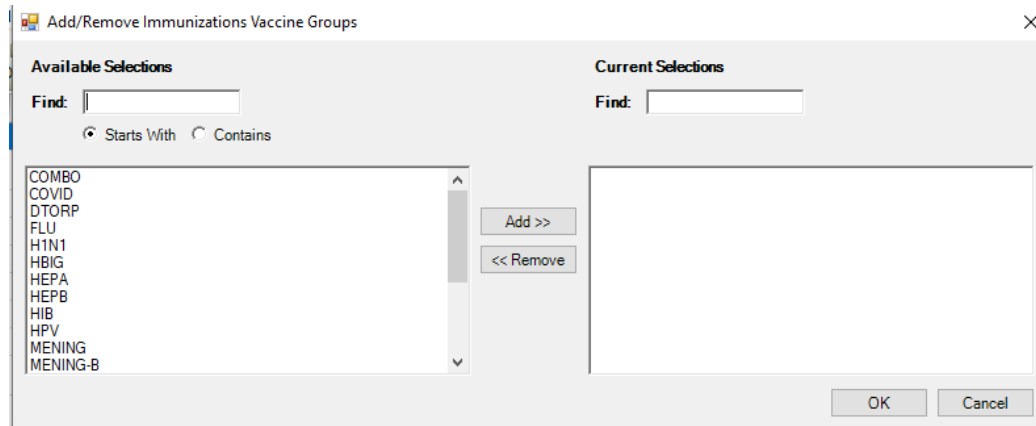
Figure 3-74: **Add/Remove Vaccine Group** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selection** field will populate the **Vaccine Group** field. (Otherwise, click **Cancel**.)

Select the **Use AND?** check box when there are multiple Immunizations. This option searches for patients who have *all* the immunizations in the selected vaccine group(s).

By Name

To define the patients without lab tests by name, select the **By Name** option button and click the **Edit** button to access the **Add/Remove Immunizations** dialog.

Figure 3-75: **By Name** selection

Figure 3-76: **Add/Remove Immunizations** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selection** field will populate the **By Name** field. (Otherwise, click **Cancel**.)

Select the **Use AND?** check box when there are multiple Immunizations. This option searches for patients who have *all* the selected immunizations.

3.10.2.4   Lab Tests Filter

Use the **Lab Test** group box to filter the population by lab tests. This can be by date range or for patients who did not have lab tests during the selected range to filter by Taxonomy or by Name. For example, patients with the pregnancy tag who have not had an HIV screening.
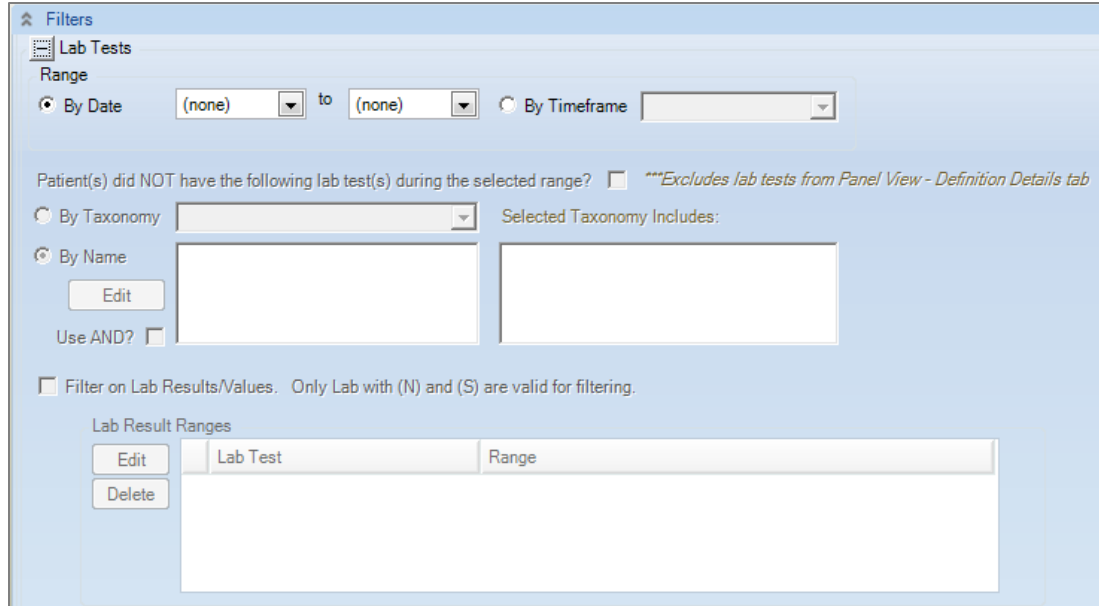
Figure 3-77: **Lab Tests** Filter options

Range – By Date

Click the **By Date** option button to enter the date range for the lab tests. For one day only, both the beginning and end dates must be the same.

Range – By Timeframe

If **By Timeframe** is selected, the panel could be set to automatically Auto Repopulate. Section 6.0 provides information about this function.

Select the **Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices are on the list.

After populating the date range or the timeframe, the bottom part of the group box becomes active.
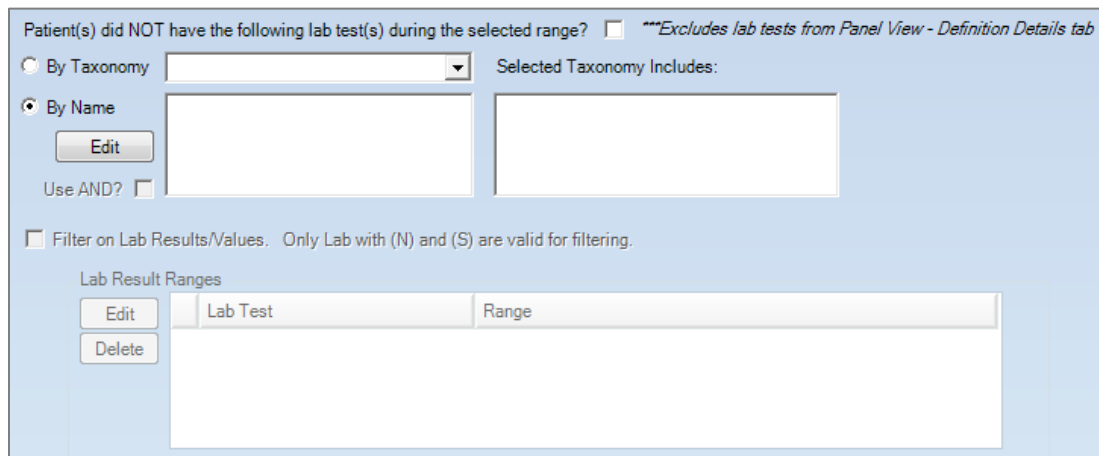
Figure 3-78: Bottom part of **Lab Tests** group box

If the patients did not have the following lab tests during the selected range, select the **Patient(s) did NOT have the following lab test(s) during the selected range** check box. Use either of the option buttons to define by taxonomy or by name, for example, patients with an asthma tag who do not have a controller medication.

By Taxonomy

To define patient without lab test by taxonomy, select the **By Taxonomy** option button and select an option from the **By Taxonomy** list. If the selected taxonomy includes certain items, those items display in the field below the **Selected Taxonomy Includes** label.

Selecting a taxonomy activates the **Filter on Lab Results/Values** area.

By Name

To define the patients without lab tests by name, select the **By Name** option button and click the **Edit** button to access the **Add/Remove Lab Tests** dialog.
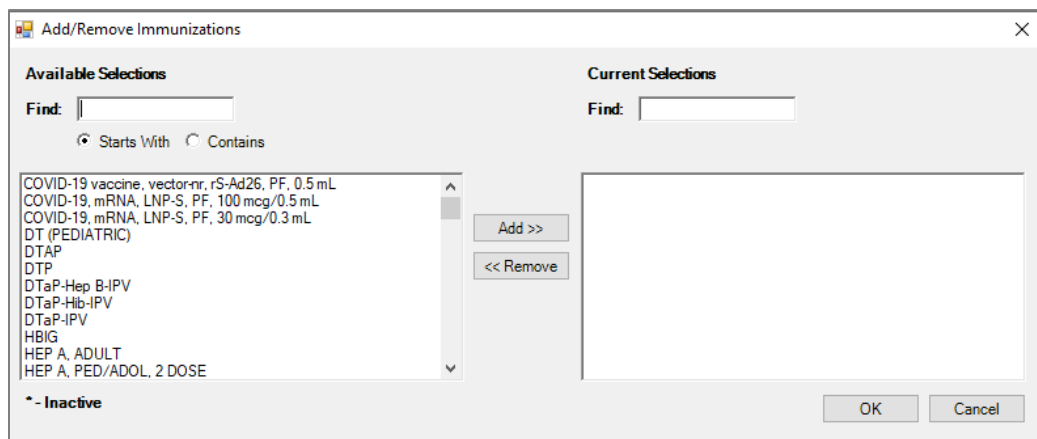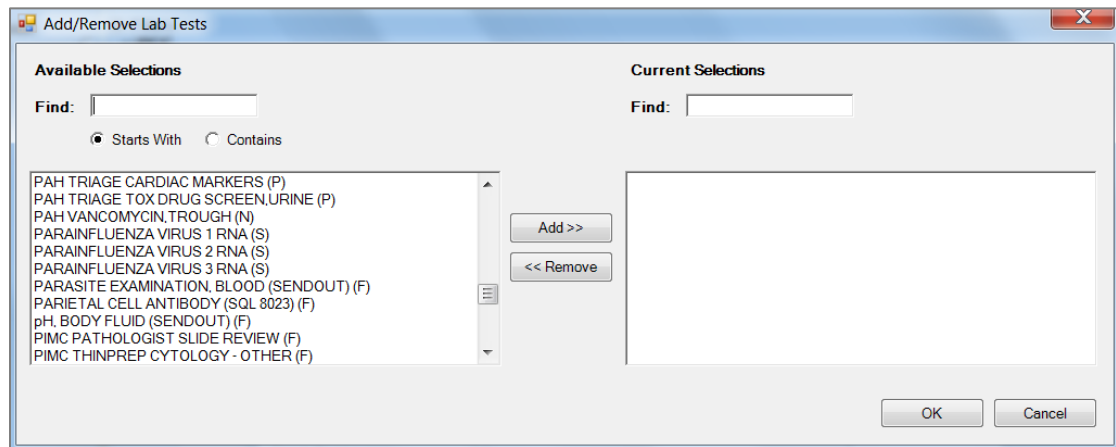

Figure 3-79: Sample **Add/Remove Lab Tests** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selection** field will populate the **By Name** field. (Otherwise, click **Cancel**.)

Select the **Use AND?** check box when there are multiple Lab Tests. This option searches for patients who have *all* the lab tests.

At the end of each lab test name is the definition of the result for that lab test in parentheses. **P** means it is a defined as a Panel of lab tests, and panels do not have typically have results. **N** means Numeric, and numeric results can be further filtered. **S** means Set of Codes, and those types of results can also be further filtered. **F** means Free Text, and free text cannot be searched.

After selecting the **By Name** lab tests with a lab test of **(N)** or **(S)**, the Filter on Lab Results/Values becomes active.

Filter on Lab Results/Values

Select the **Filter on Results/Value** check box to identify the lab result ranges to be used in the filter. The application populates the appropriate taxonomy name(s).
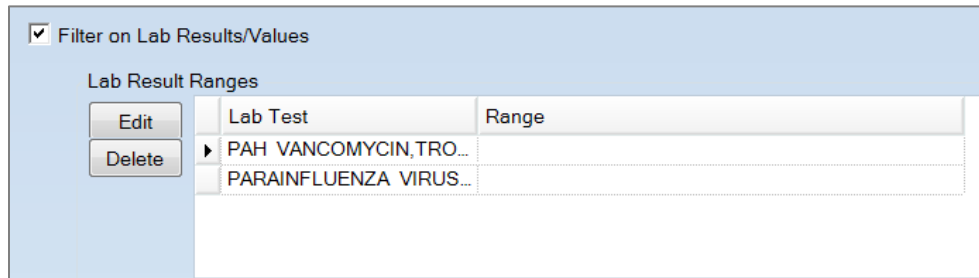
Figure 3-80: Sample **Filter on Lab Results/Values** selections

Edit

Select a name under the Lab Test column to edit and click **Edit**. The application displays the **Lab Result Detail** dialog.
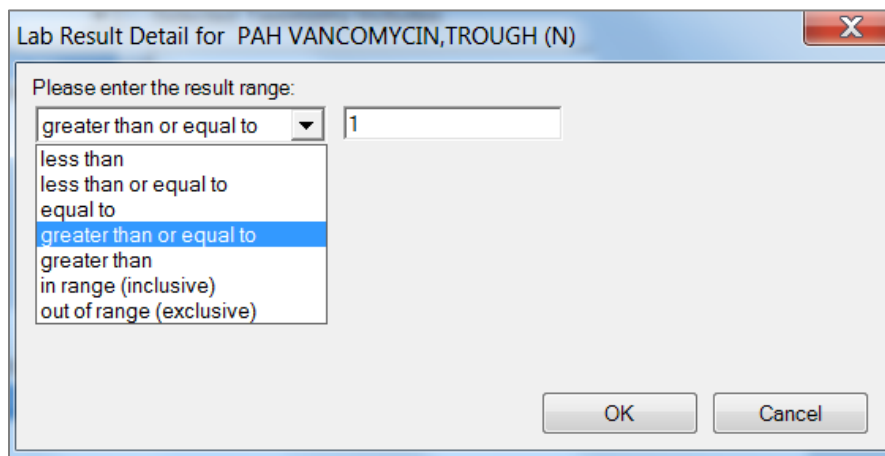
Figure 3-81: Sample Numeric **Lab Result Detail** dialog

Select an option from the list and populate the second field with the result number. After the dialog is complete, click **OK** and the Range value populates on the **Lab Result Ranges** group box. (Otherwise, click **Cancel**.)
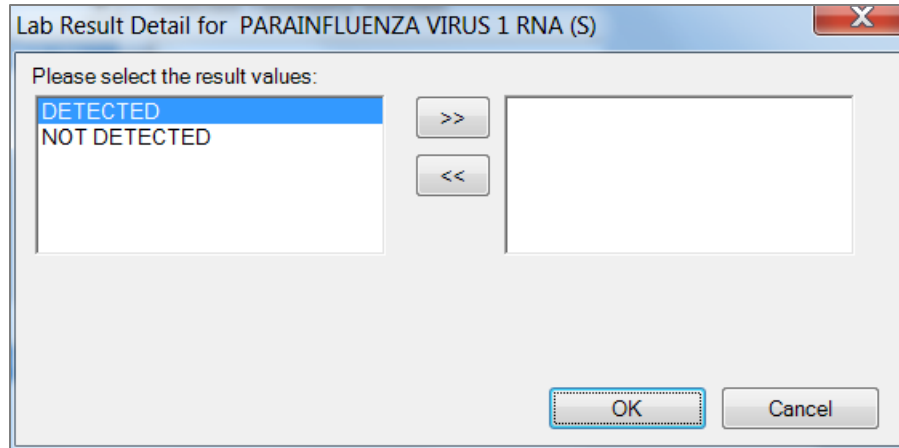
Figure 3-82: Sample Set of Codes **Lab Result Detail** dialog

Delete

Use the Delete function to delete a selected row in the grid. Select the row to delete and click **Delete** to access the **Delete Row** information message that states: **Choose Yes to delete the row or No to exit**. Click **Yes** to delete the row (otherwise, click **No.**)

3.10.2.5   Measurements Filter

Use the **Measurements** group box to filter by measurement (vital signs).
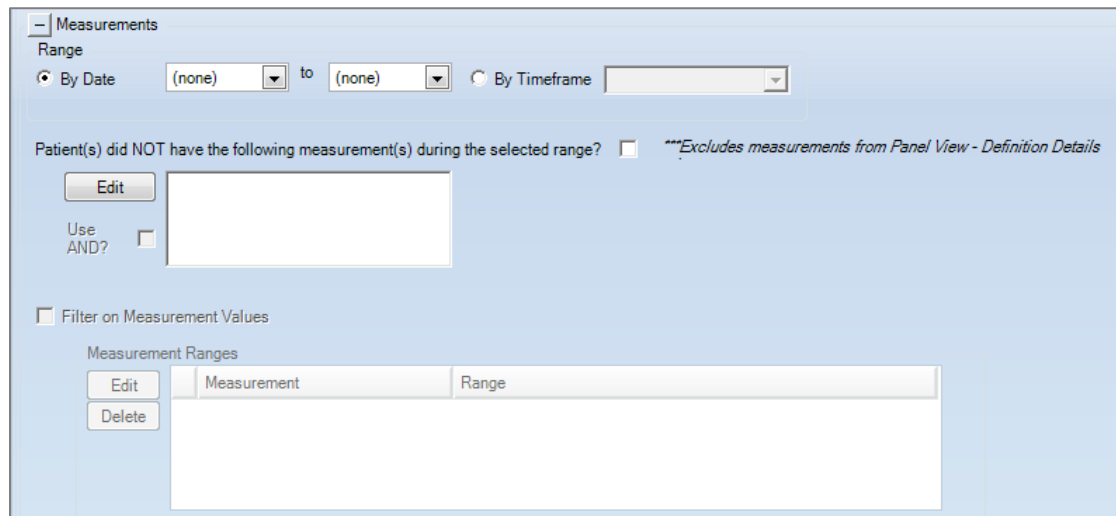
Figure 3-83: Sample **Measurements** group box

Range – By Date

Click the **By Date** option button where the date range for the measurements is entered. If the range is one day only, both the beginning and end dates must be the same.

Range – By Timeframe

If this option is selected, the panel should be set to automatically Auto Repopulate at first login. Section 6.0 provides information about this function.

Select the **Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices are on the list.

After populating the date range or the timeframe, the bottom part of the group box becomes active.

Figure 3-84: Bottom portion of the **Measurements** filter options

If the patients did not have the following measurements during the selected range, select the **Patient(s) did NOT have the following measurement(s) during the selected range** check box.

There are no taxonomies for Measurements, so the only selection is by individual measurement types. Click the **Edit** button for the list of measurements.

Figure 3-85: Sample **Add/Remove Measurements** dialog

At the end of each measurement name is the definition of the result for that measurement in parentheses. **N** means Numeric, and numeric results can be further filtered. **S** means Set of Codes, and these types of results can also be further filtered. **F** means Free Text, and free text cannot be searched.

After selecting any measurement with (N) or (S), the Filter on Measurement Values section becomes active.

Filter on Measurement Values

Select the **Filter on Measurements Value** check box to identify the measurements to be used in the filter.

Figure 3-86: Sample **Filter on Measurement Values** selections

Select the **Use AND?** check box when there are multiple measurements. This option searches for patients who have *all* the measurements. For example, not selecting the **Use AND?** returns a result of all patients with Presentation *or* Station (Pregnancy). Checking **Use AND?** returns a result of all patients with both a Presentation measurement *and* a Station (Pregnancy) measurement.

Edit

Select a name under the Measurement column to edit and click **Edit**. The application displays the **Measurement Detail** dialog.
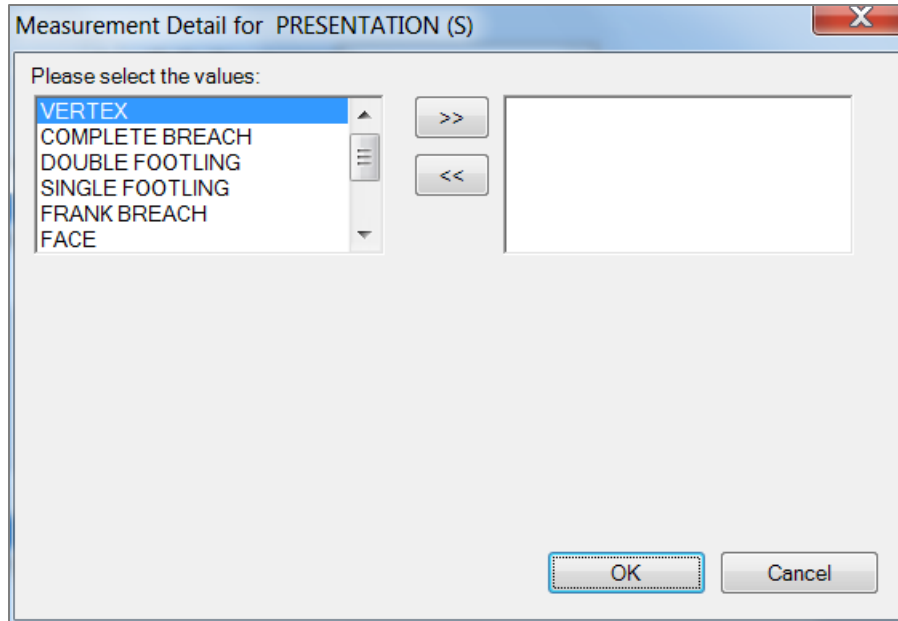
Figure 3-87: **Measurement Detail** dialog for Set of Codes values
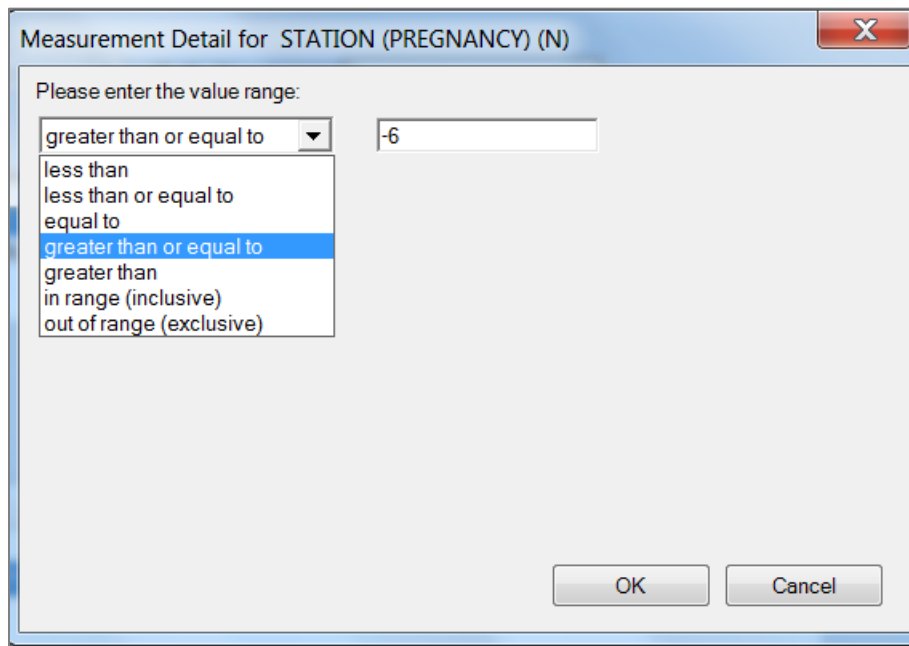
Figure 3-88: **Measurement Detail** dialog for numeric values

Delete

Use the Delete function to delete a selected row in the grid. Select the row to delete and then click **Delete** to access the **Delete Row** information message that states: **Choose Yes to delete the row or No to exit**. Click **Yes** to delete the row (otherwise, click **No**.)

3.10.2.6 Medications Filter

Use the **Medications** group box to filter by medications.

Figure 3-89: Sample **Medications** filter options

Select any of the check boxes at the top and this will cause all the remaining fields to become in active.

No Documented Medications

Select this check box if the patient's medications were not documented. This action causes the **No Active Medications** check box to become inactive, but the **Medication List Not Reviewed** check box stays active.

No Active Medications

Select this check box if the patient has no active medications. This action causes the **No Documented Medications** check box to become inactive, but the **Medication List Not Reviewed** check box stays active.

Medication List Not Reviewed

Select this check box if the patient's medication list has not been reviewed.

The **Range** group box operates like the **CPT** group box. See the **CPTs Filter** section for more information.

After populating the date range or the timeframe, the bottom part of the group box becomes active.

If the patient did not have the particular medications during the selected range, select the **Patient(s) did NOT have the following medications during the selected range** check box.

Use either of the option buttons to define the medications by taxonomy or by name. These operate like those in CPTs. See the **CPTs Filter** section for more information about these option buttons.

3.10.2.7   Patient Education Filter

Use the **Patient Education** group box to filter by patient education given to the patients.

Figure 3-90: **Patient Education** group box

The **Range** group box operates the **Range** group box for CPTs. Section **CPTs Filter** provides information about this group box.

After populating the date range or the timeframe, the bottom part of the group box becomes active.

If the patients did not attend patient education classes during the selected range, select the **Patient(s) did NOT attend the following education classes during the selected range**.

Figure 3-91: Lower group box for **Patient Education** filter

By Name

To define patients not attending patient education classes by name, select the **By Name** option button.
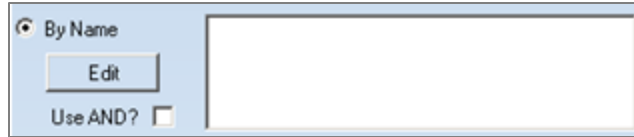
Figure 3-92: **By Name** selections

Click **Edit** to access the **Add/Remove PatEd** dialog.
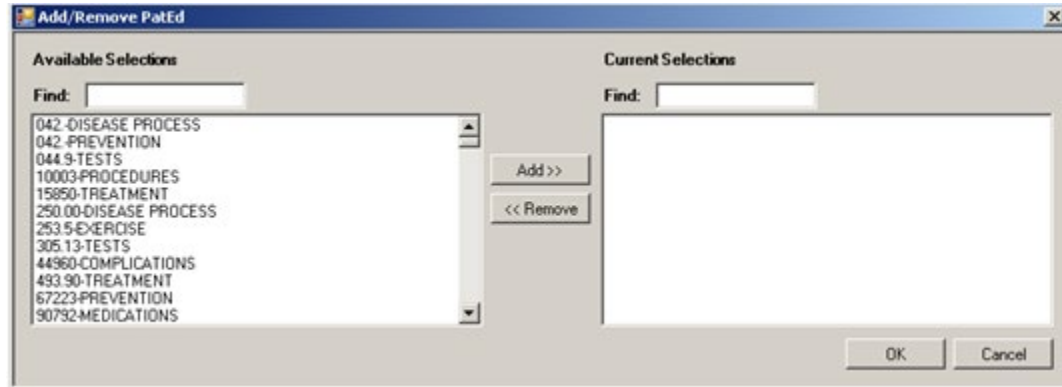
Figure 3-93: Sample **Add/Remove PatEd** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box will populate the **By Name** field by the **Edit** button. (Otherwise, click **Cancel**.)

Select the **Use AND?** check box when there are multiple patient education classes. This option searches for patients who have *all* the classes.

The **By EHR Pick List**, **By Topic**, and **By Taxonomy** option buttons all operate in the same manner. See the example below using the EHR pick list.

By EHR Pick List

To define patients not attending patient education classes by EHR Pick List, select the **By EHR Pick List** option button.
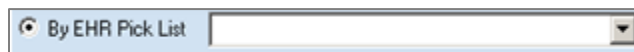
Figure 3-94: **By EHR Pick List** option button

Select an option from the list. The selection populates the **Selection Includes** field.
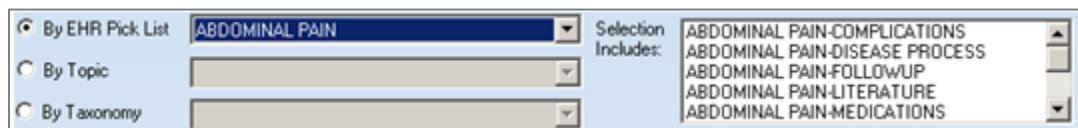
Figure 3-95: Populated **By EHR Pick List**

3.10.3   Problems Filter

Use the **Problem** group box to filter the population by patient problems.

Figure 3-96: **Problem** section

No Documented Problems

Select this check box if the patient's problem list is not documented. This action causes the **No Active Problems** check box to become inactive, but the **Problem List Not Reviewed** check box stays active.

No Active Problems

Select this check box if the patient has no active problems. This action causes the **No Documented Problems** check box to become inactive, but the **Problem List Not Reviewed** check box stays active.

Problem List Not Reviewed in Last 365 Days

Select this check box if the patient's problem list has not been reviewed in the last 365 days.

Range

The **Range** group box operates like the **CPTs** group box. See the **CPTs Filter** section for information about the CPTs group box.

After populating the **By Date** or **By Timeframe** option, the bottom part of the group box becomes active.

Figure 3-97: Lower part of the **Problem** filter section

Use either of the option buttons to define the problems by taxonomy or by name. These operate like those in **CPTs** group box. The **CPTs Filter** section provides information about these option buttons.

Status

After using either the **By Taxonomy** or **By Name** option button, the **Status** field becomes active. This allows the user to filter the patient problems by statuses. Click **Edit** to access the **Add/Remove Problem Statuses** dialog.
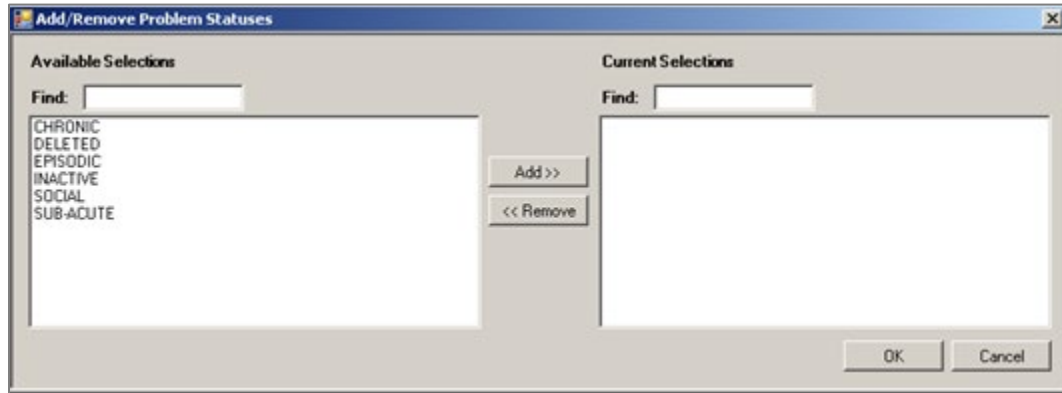
Figure 3-98: **Add/Remove Problem Statuses** dialog

When the **Add/Remove** dialog is complete, click **OK** and the items in the **Current Selections** group box populate the **Status** field by the **Edit** button.

3.10.4   POV Filter

Use the **POV** group box to filter the population by patient POV (purpose of visit).
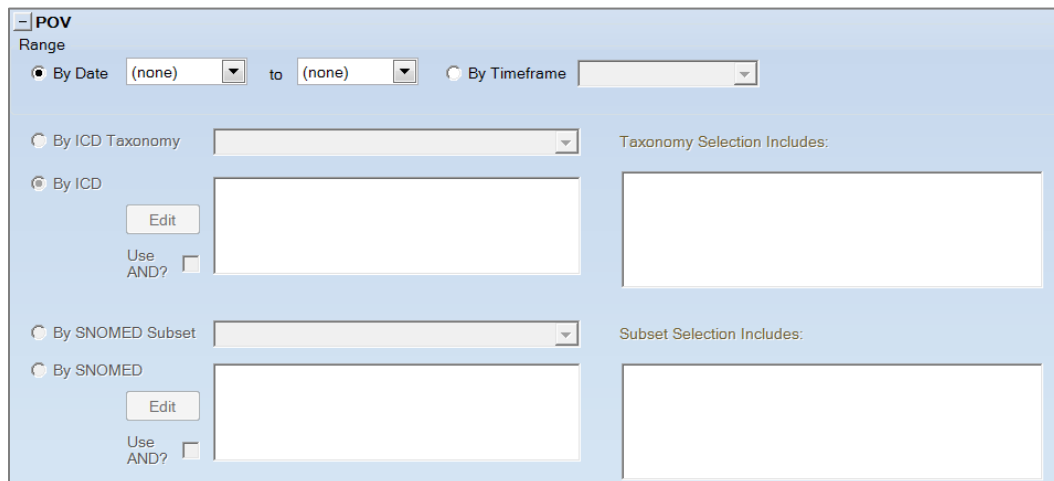
Figure 3-99: **POV** filter section

Range

The **Range** group box operates like the **CPT** group box. Section **CPTs Filter** provides information about the CPT group box.

After populating the **By Date** or **By Timeframe** option, the bottom part of the group box becomes active.

Figure 3-100: Lower part of the **POV** filter section

By ICD Taxonomy

To define patients by taxonomy, select the **By Taxonomy** option button and select an option from the **By Taxonomy** list. If the selected taxonomy includes certain items, those items display in the field below the **Selected Taxonomy Includes** label. With a taxonomy selection, it is more difficult to determine how many patients might be found.

Figure 3-101: **ICD Taxonomy** selection

By ICD

To find the patients with a specific POV, select the **By ICD** option button and then click the **Edit** button to access the **Add/Remove POV ICDs** dialog.
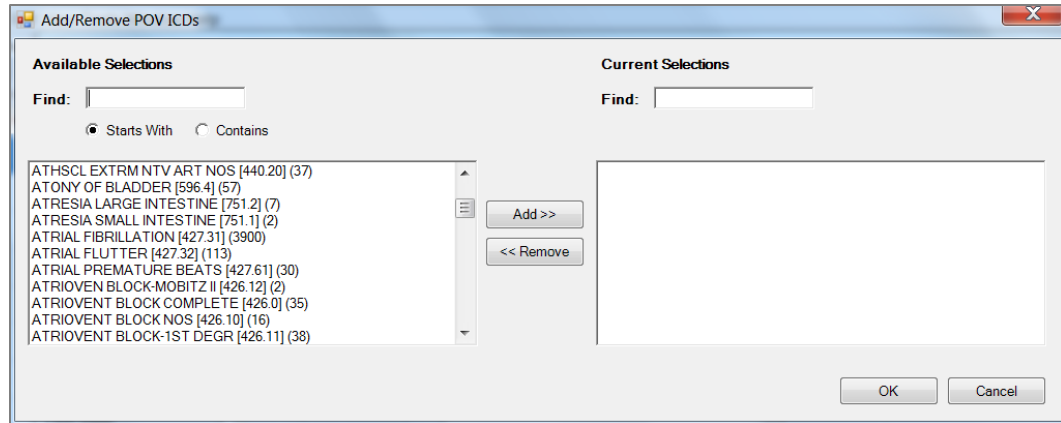
Figure 3-102: Sample **Add/Remove POV ICDs** dialog

The POV ICDs selection gives the actual ICD code in brackets, e.g., [427.31] and a count of patients with that ICD in parentheses, e.g., (3900)

By SNOMED Subset

Since the implementation of the Integrated Problem List (IPL), SNOMED codes have become a part of RPMS. New functionality to select the **By SNOMED Subset** and **By SNOMED** option buttons has been added to the POV search.

SNOMED subsets are very similar to taxonomies. Subsets contain a list of SNOMED IDs associated with a particular topic and can be used for searches in the same manner as taxonomies.
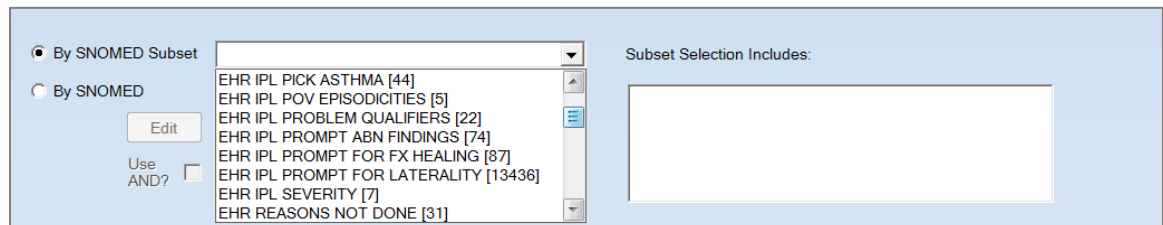
Figure 3-103: **By SNOMED Subset** option button

Some subsets are very large and should be used sparingly. The number of SNOMED IDs contained in a subset can be found in the brackets after the subset name.

By SNOMED

To find the patients with a specific POV SNOMED, select the **By SNOMED** option button and click the **Edit** button to access the **Add/Remove POV SNOMEDs** dialog.
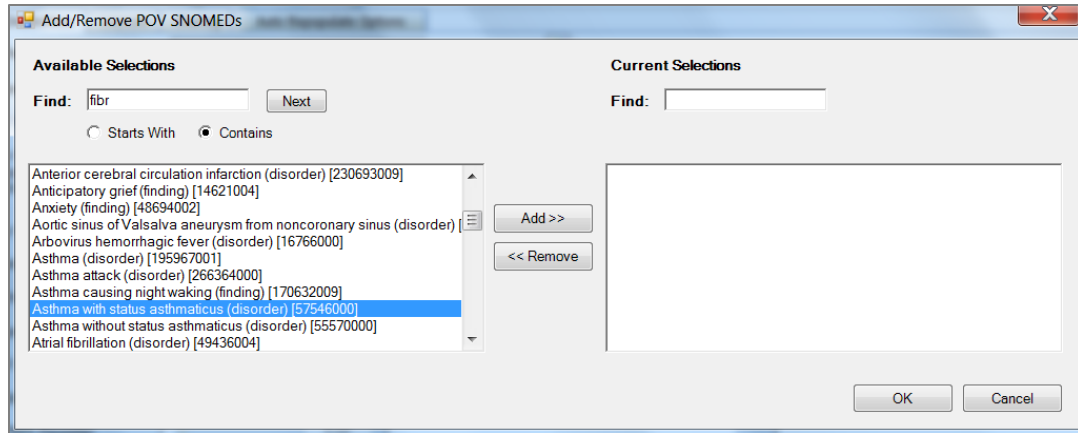
Figure 3-104: Sample **Add/Remove POV SNOMEDs** dialog

3.10.5   Reminders Filter

Use the **Reminder** group box to filter the population by patient reminders.
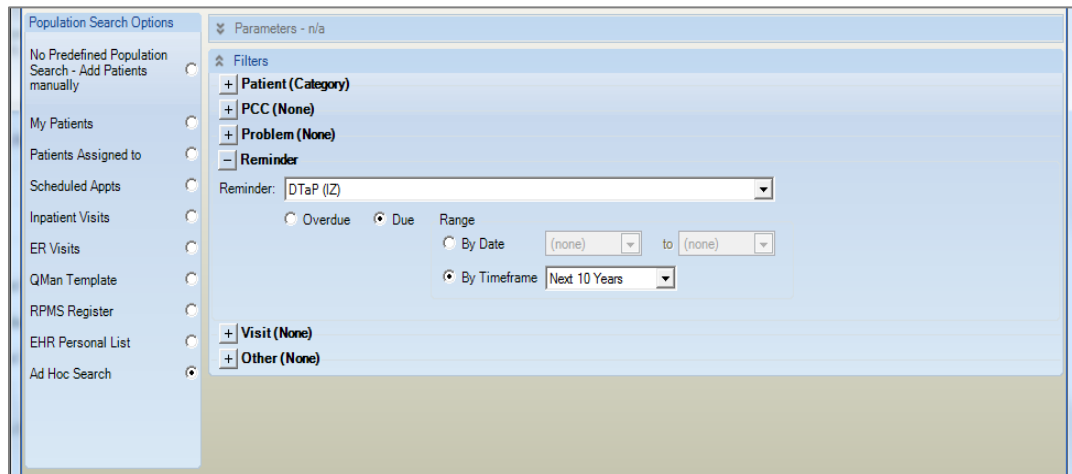
Figure 3-105: **Reminders** filter options

Reminder

Select a reminder from the list to restrict the search to a particular reminder.
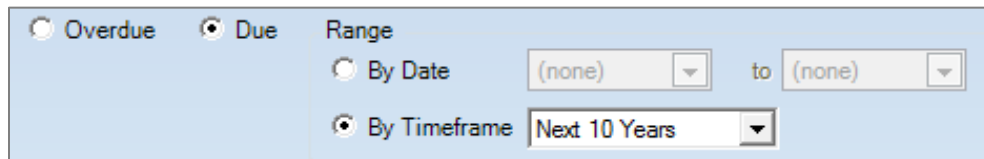
Figure 3-106: **Overdue/Due** option buttons and **Range** group box

Overdue/Due

Determine the status of the reminder by selecting either the **Due** or **Overdue** option button. Selecting **Due** will activate the **Range** group box controls.

Range

By Date

Select the **By Date** option button to enter the date range for the minimum number of visits with the provider. If the range is one day only, both the beginning and ending dates must be the same.

By Timeframe

If this option is selected, the panel should be set to automatically Auto Repopulate at first login (refer to Auto Repopulate Options Tab for more information).

Select the **By Timeframe** option button to select the timeframe associated with the date range (cannot be blank). Valid choices are on the list.

3.10.6   Visit Filter

The **Visit** group box consists of defining the visit filter by Visit Range and by Visit Detail.

Figure 3-107: **Visit** filter options

Visit Range

Use the **Visit Range** option to filter the patients to particular visits by date range or by timeframe.

Figure 3-108: **Visit Range** group box

Enter a filter by using the fields in the **Visit** group box for either **By Date** or **By Timeframe** (not both).

By Date

Select the **By Date** option button where you enter the date range for the visit filter. If you want one day only, both the beginning and end dates must be the same. The function of this feature is to define a panel once and have it auto populate every day without having to manually change the date range.

By Timeframe

Use this feature to define a panel once and have it auto populate every day without having to manually change the date range. After clicking the **By Timeframe** option button, select an option from the list.

Visit Detail Group Box

After populating either option button in the **Visit Range** group box, the bottom part of the Visit filter becomes active.
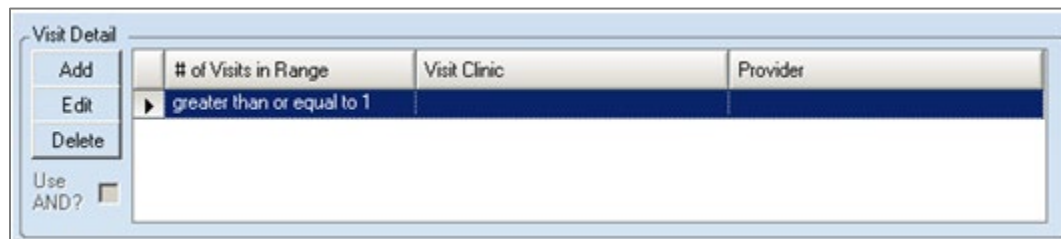
Figure 3-109: Sample **Visit Detail** selections

Use this group box to create a panel based on the number of visits and/or to a specific provider or clinic.

Use AND?

Select this check box to include *all* the visit details in the search.

Add

Click the **Add** button to add a row to the Visit Detail grid. This creates a panel based on a specific provider. After clicking **Add**, access to the **Visit Detail** dialog will display.
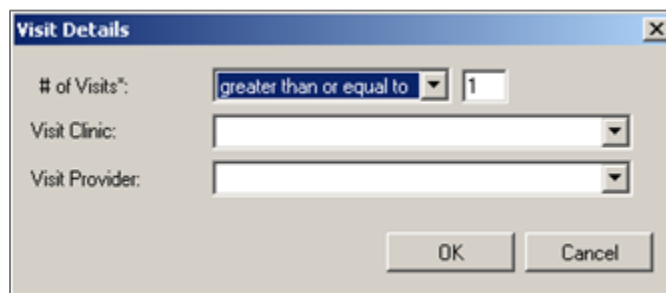
Figure 3-110: **Visit Details** dialog

# of Visits

Specify the additional filter for the number of visits within the date range. Populate this field by selecting an option from the list (required). The modifier options (in the first field) are the same as those of age (less than, less than or equal to, equal to, greater than, greater than or equal to, in range, out of range). The purpose of the second field is to allow the user to create panels of patients who have had so many visits within a user-defined timeframe. The default value is 1. Use any value 1–99.

Visit Clinic

Select an option from the list to restrict the visit to a particular visit clinic.

Visit Provider

Select an option from the list to restrict the visit to a particular provider.

When the **Visit Details** dialog is complete, click **OK** and the application updates the **Visit Detail** group box. (Otherwise, click **Cancel**.)

Edit

Select a row in the grid and click **Edit** to access the **Visit Details** dialog to change any data on the dialog.

Delete

Select a row in the grid and click **Delete** to access the **Delete Row** information message that states: **Choose Yes to delete the row or No to exit**. Click **Yes** to delete the row from the grid (otherwise, click **No**).

3.10.7   Other Filter

A panel can be created based on other panel definitions. This restricts the search to those patients who are members of a panel (one or more panels can be selected).
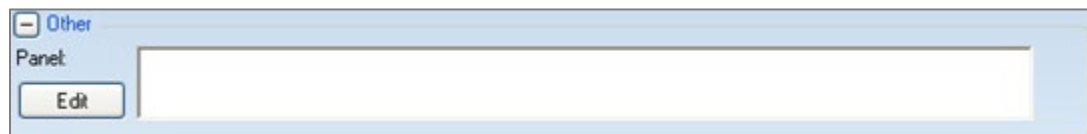
Figure 3-111: **Other** group box

To search by Panels, click **Edit** to access the **Add/Remove Panels** dialog.
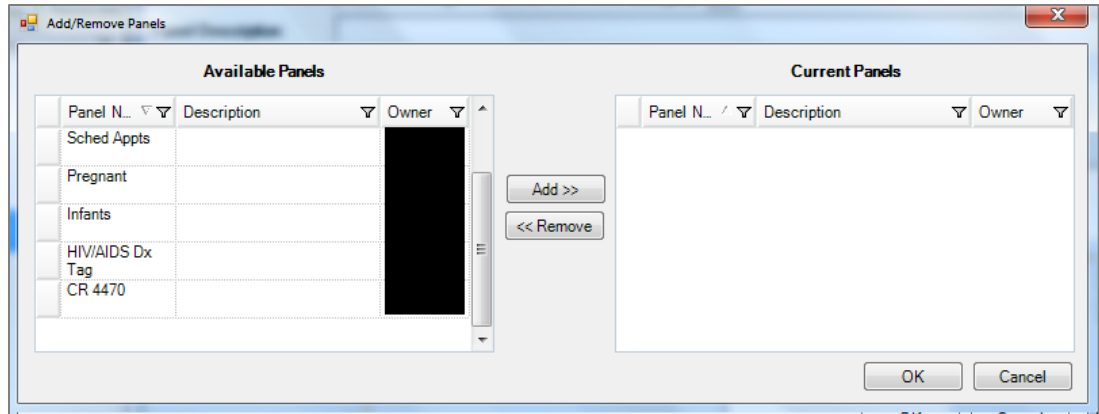
Figure 3-112: **Add/Remove Panels** dialog

When the **Add/Remove** dialog is complete, click **OK** and the panels in the Current Panels area populate the **Panel** field in the **Other** group box. (Otherwise, click **Cancel**.)

4.0   Layouts Tab

Use the **Layouts** tab to customize a template for defining the Patient List, Reminders, Natl Measures, Asthma, HIV/AIDS, Events, Tracked Events, Follow-up Events, etc., layouts for patient panels. In addition, they can all be reverted back to use the system default layout for any of them.
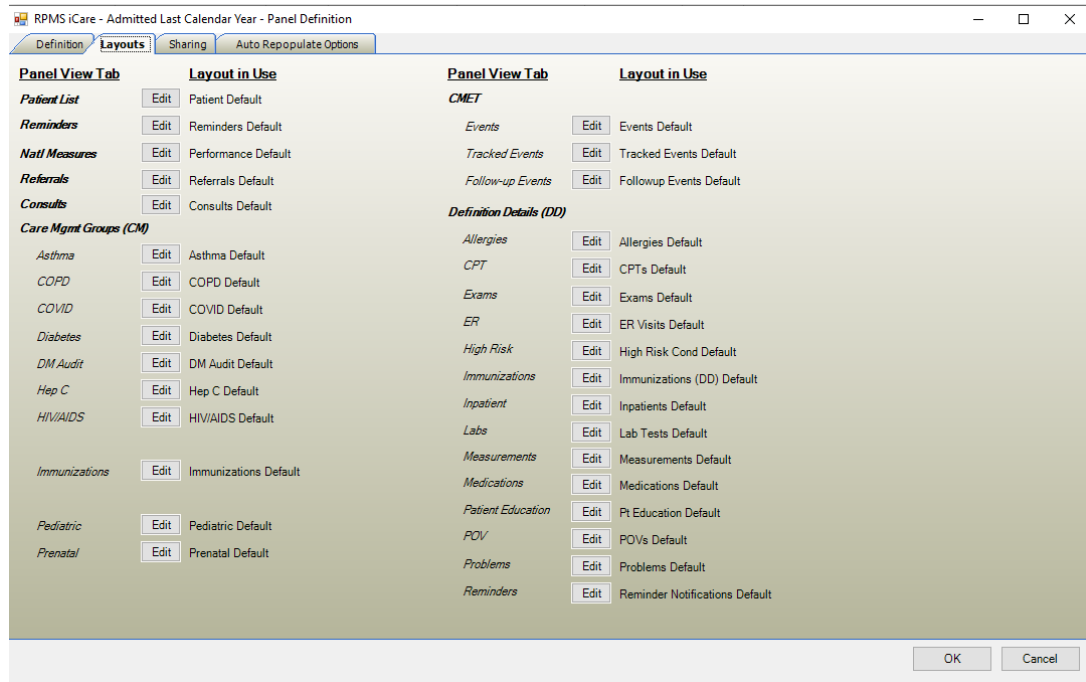
Figure 4-1: **Layouts** tab

Each button functions similarly. The Edit Patient List Layout will be used as an example.

Each layout determines the columns for the particular topic. These layouts will have the following areas: Available Columns (all column names will be listed), Display Columns (these are the columns to display), Available Sorts (the sorts that are available for the column), and the Sort Columns (the columns to sort by).

4.1   Panel Definition Layouts Functionality

Click the **Edit** button by the Patient List on the Layouts tab to display the **Patient List Layout** dialog. (This will be the example used in this section.)
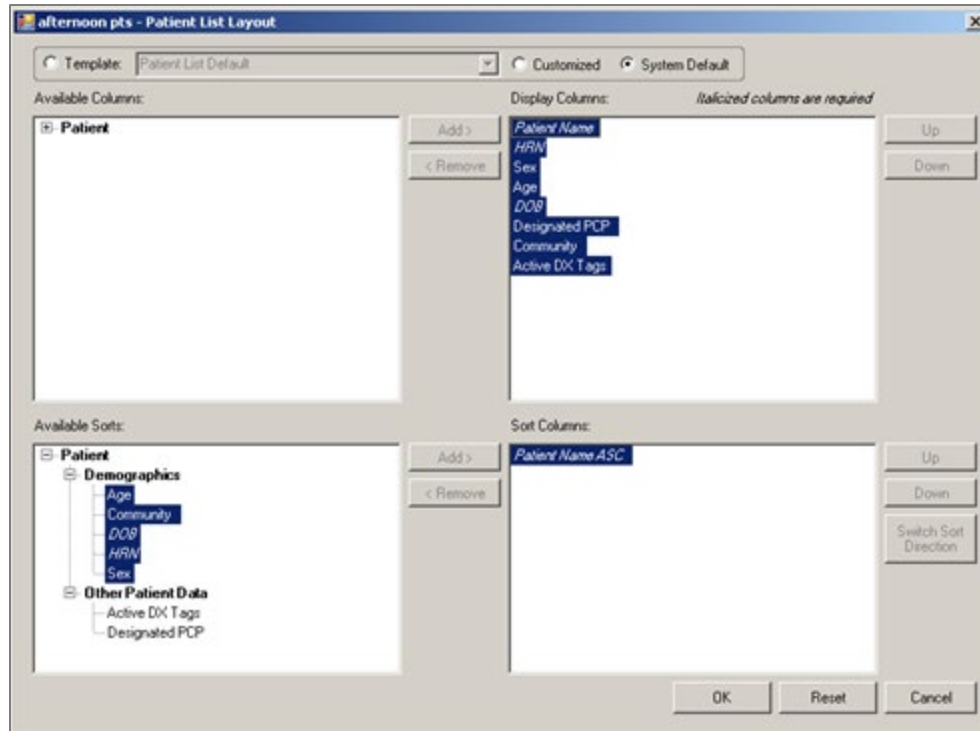
Figure 4-2: **Patient List Layout** dialog

4.2 Template Group Box

The application displays the template for this particular panel.
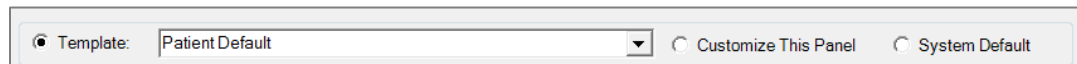
Figure 4-3: **Template** group box for Panel Definition

- If the **System Default** option button is selected, the application reverts back to the system default columns released with iCare. In this case, the **Add** and **Remove** buttons are not active (and you cannot change anything) on the **Patient List Layout** dialog. Change the column layout for the default template by using the **Layouts** tab on the **User Preferences** dialog.

- If the **Customized** option button is selected, the application allows the changing of the columns (the **Add** and **Remove** buttons become active, for example). Anything customized in the layout dialog can only be used for this panel.

- Additional Templates can be updated in Manage Templates. Select the appropriate Template from the name list.

4.3 Display and Available Columns

Use the Display Columns to determine what columns to display for the particular window or tab.
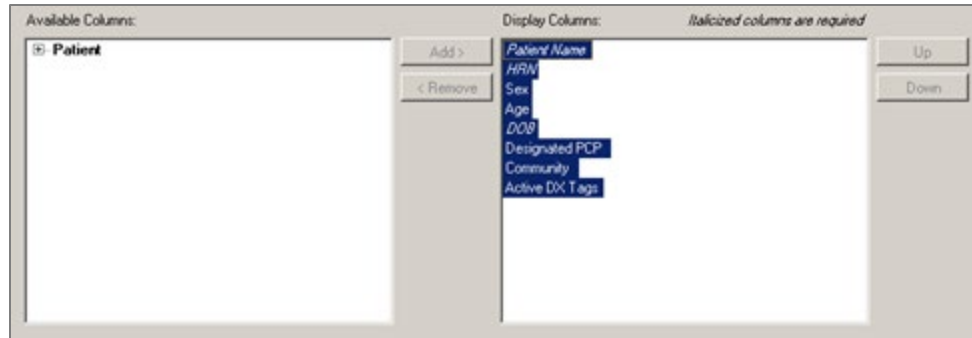
Figure 4-4: **Display** and **Available** columns

The listing in the Display Columns area shows the columns that will display for the panel population. The column names in italics are required and cannot be removed.

To move a Column name in the Available Columns area to the list in the Display Columns area, highlight the column name in the Available Columns area and click **Add**. This moves the column name from the left panel to right panel.

Likewise, a column name can be removed by highlighting the column name (in the Display Columns area) and clicking **Remove**. This moves the column name from the right panel to the left panel.

> **Note**:   Column names in italics cannot be removed.

Determine the order the columns display in the Display Columns area by using the **Up** and **Down** buttons. Highlight a column name and click the appropriate button. The button may need to be clicked more than once to move it to the desired location.

4.4   Columns to Sort

Sorting a column means the items are arranged in the column in alpha-numeric order.
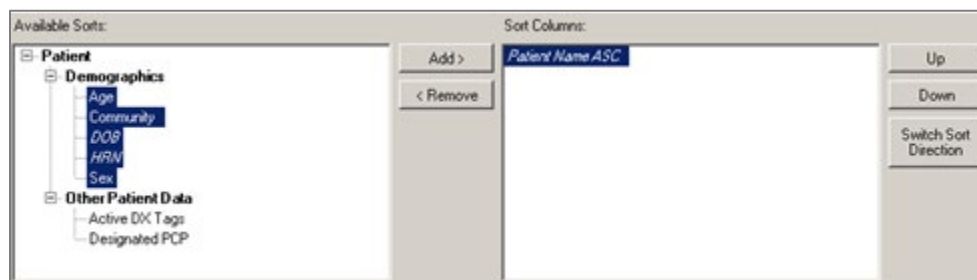
Figure 4-5: **Available Sorts** and **Sort Columns** area

To move a highlighted Column name in the Available Sorts area to the list in the Sort Columns area, click **Add**. This moves the column name from the left panel to right panel.

Likewise, a highlighted column can be removed in the Sort Columns area and move it to the Available Sorts area and clicking **Remove**. This moves the column name from the right panel to the left panel.

> **Note**: Column names in italics cannot be removed.

4.4.1   Column Sort Order

Use the Sort Columns area to determine what columns are to be sorted for the particular window or tab.

Determine which order the columns are sorted in the Sort Columns area by using the **Up** and **Down** buttons. Highlight a column name and click the appropriate button. The button may need to be clicked more than once to move it to the desired location. For example, if columns Gender, Patient Name, and Diagnosis Tags are in the right column, the Gender sort is applied first then the Patient Name and then the Diagnosis Tags.

4.4.2   Switch Sort Direction

The names of columns in the Sort Columns area show **ASC** appended to the name, for example, **Patient Name ASC**. The sort order for a selected column can be switched by clicking the **Switch Sort Direction** button. In the example, the name changes to **Patient Name DESC**. The action to switch sort direction can be performed on more than one column.

5.0 Sharing Tab

A panel can be shared with other RPMS users. Select the **Sharing** tab on the **Panel Definition** window to perform this action. One or more users can be selected to share a panel. Different access rights can be assigned to each user.

When a panel is shared, the shared user will receive a notification about the shared panel.

The **Sharing** tab will not be available if the **Share** button is inactive on the Panel List view for the patient list.
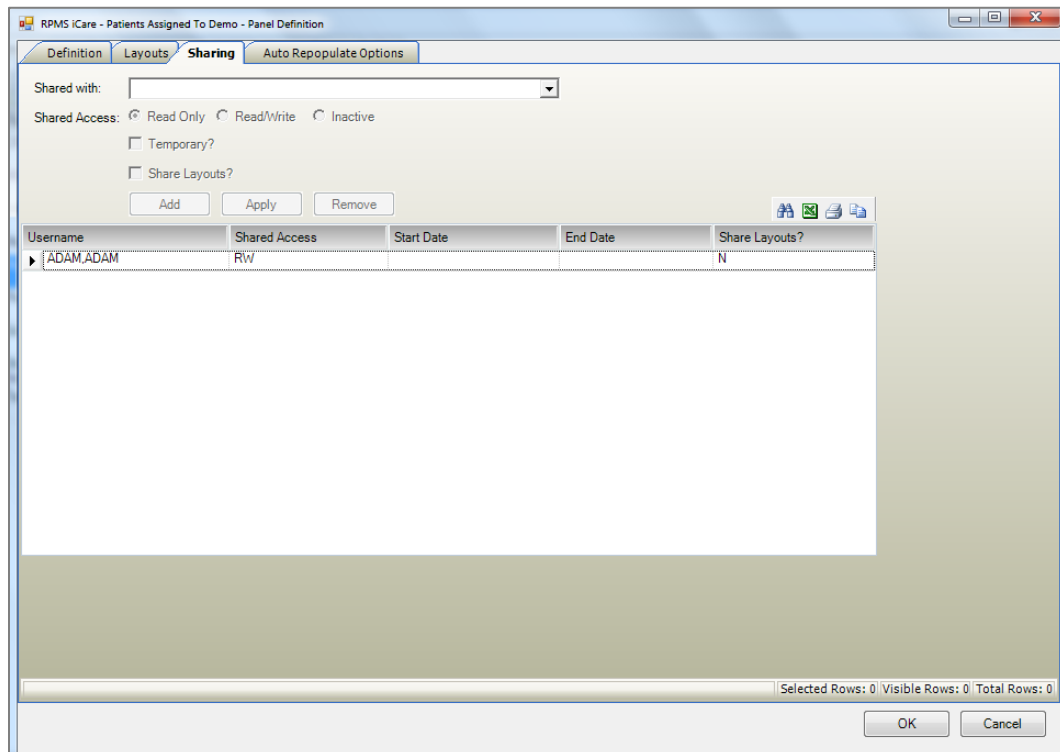
Figure 5-1: **Sharing** tab

5.1 Fields on Sharing Tab

The following information describes the fields on the Sharing tab.

Shared with: The selection from the list is the person with whom this panel will be shared.

Shared Access: The option buttons become active after the **Shared with** field is populated.
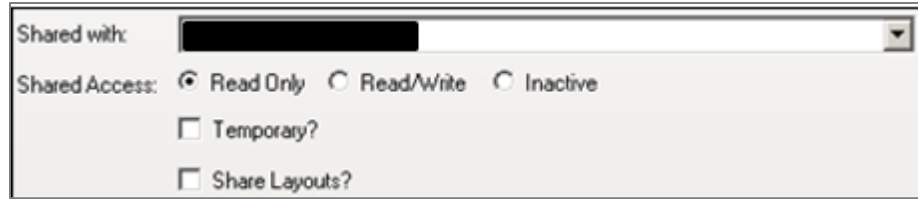
Figure 5-2: Shared with and Shared Access parameters

- **Read Only**: Use this option button to allow the person sharing this panel to only view this panel. The shared user can change the layout of a panel but nothing else.

- **Read/Write**: Use this option button to allow the person sharing this panel to view and change the panel (for example, add or delete patients).

- **Inactive**: Use this option button to assign the person sharing the panel inactive access rights.

Temporary: Select the **Temporary** check box to display a date range for the temporary status of the shared user. The access rights will only apply during the specified data range and will automatically expire once the specified date range has passed.
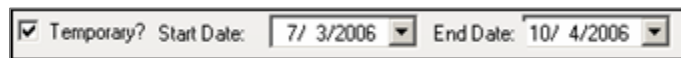
Figure 5-3: **Temporary** parameters

A date range must be selected when using the Temporary status.

Shared Layouts?: Select the **Shared Layouts?** check box if the layouts of this panel will be moved to the shared user. The shared user will see the same layout modifications made by the creator as customized views.

- This causes the **Shared Layouts** cell (in the grid) to contain **Y** (for yes).

- The shared user will continue to be able to make modifications to the layouts of that shared panel. These modifications will not affect the creator's layouts since they are the shared user's customized view.

5.2   Grid on Sharing Tab

The grid shows a history of the users (that have not been removed/deleted) with whom this panel has been shared.

Figure 5-4: Shared user information in lower grid

Add: Click this button to add the information in the Shared with, Shared Access, Temporary, and Shared Layouts fields to the grid.

Apply: Click this button to change the Shared Access and/or Temporary status of a selected user in the grid. The shared access rights can be changed, for example, from Read Only to Read/Write.

> Example: Highlight a user in the grid. The current access right (Read Only, Red/Write, Inactive) shows in the Shared Access area. Change the selected user's Read Only access right to **Read/Write**. Select the **Read/Write** option button. Then click the **Apply** button to reflect the changes in the grid.

Remove: Highlight one or more names in the grid and click this button to remove the name(s) from the grid. It might be more useful to inactivate the user instead of removing the user. After clicking the **Remove** button, the **Delete Row** information message displays, asking if you want to delete the selected names. Click **Yes** to delete (otherwise, click **No**).

6.0   Auto Repopulate Options Tab

Use the **Auto Repopulate Options** if you want the contents of your panel to be dynamic, i.e., *automatically* refreshed. This is a good option to use if you have defined panels by ages or by visit dates; patients will be automatically added or deleted based on the search logic.

> **Note**:   Manually repopulate a panel at any time by selecting the panel from the Panel List and clicking the **Repopulate** button.
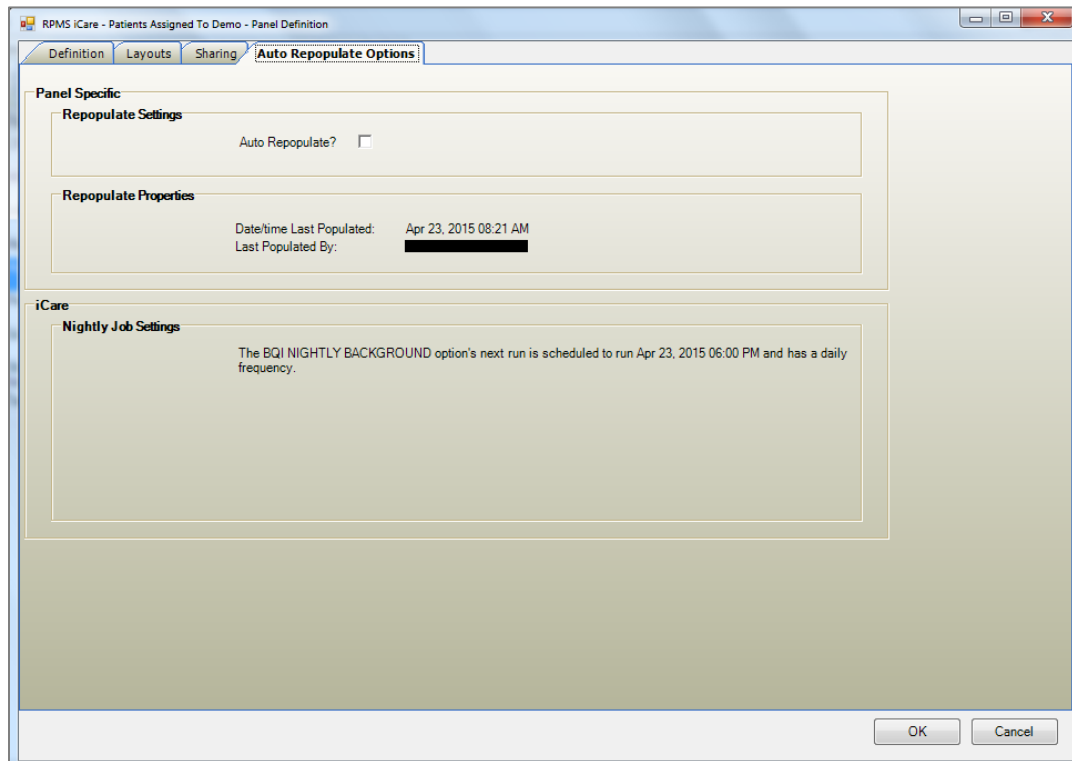
Figure 6-1: **Auto Repopulate Options** tab

The only group box that is active on this tab is **Repopulate Settings**. (This option is not active if the panel definition was based on No Predefined Population Search.)
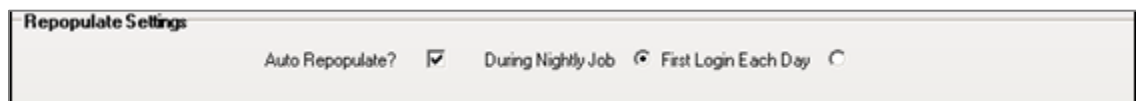
Figure 6-2: **Repopulate Settings** group box

Check the **Auto Repopulate** check box to specify that you want the panel to automatically refresh the patient list based on the panel's defined search criteria.

Select the option button for when the panel should re-populate, either **During Nightly Job** or **First Login Each Day**.

> **Note**:   A large panel (over 1,000 records) might take a lot of time to repopulate. It is recommended that you select the **During Nightly Job** option for larger panels.

Also check the Background jobs to ensure that the nightly Panel Auto populate will not go over into the workday.

Figure 6-3: **Background Jobs** view

7.0　　iCare Features Used by Panel Definition

This section focuses on the iCare features that are used by the Panel Definition. This focus is on those things that influence the functionality of the **Panel Definition** window.

7.1　　User Preferences

The following provides information about the user-preference settings that affect the Panel Definition window.
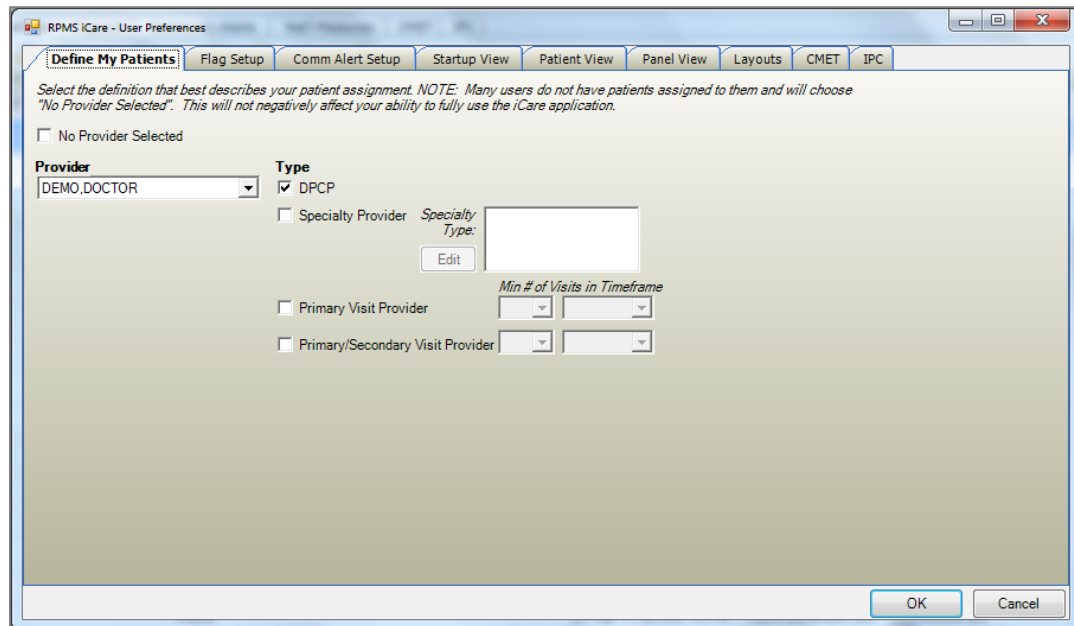
Figure 7-1: **User Preferences** window

After the User Preferences window is complete, click **OK** and the user preferences will be in effect for the operation of the iCare application. (Otherwise, click **Cancel**.)

7.1.1　　Define My Patients Tab

"My Patients" is a way to easily identify a group of patients assigned to a person as a provider. Selecting a "My Patients" definition during panel definition will cause iCare to create a default My Patients panel.

Figure 7-2: **Define My Patients** tab

Select the definition that best describes your patient assignment.

> **Note**: Many users do not have patients assigned to them and will choose the **No Provider Selected** check box. This will not negatively affect your ability to fully use the iCare application.

You can select your own name (the default) or set up a definition for another provider (surrogate) by selecting the other name.

For example, if your site empanels patients (assigns each patient to a specific primary care provider), you will use the **DPCP** (designated primary care provider) provider type check box to create a core list of patients assigned to you.

If your site does not use the DPCP designation, you might consider "your" patients to be anyone you saw at least twice in the past year as a primary provider.

No Provider Selected

Select the **No Provider Selected** check box if you do *not* want to define patients by selecting any provider. If this is the option you use, the default "My Patients" panel will *not* be created. In this case, the remaining fields will then be inactive. This means iCare will *not* create the default "My Patient" panel. You can later change the User Preferences to a provider and create panels based on "My Patients" definition.

If you plan to define "My Patient" panel, do the following:

Provider

Select a provider name from the Provider list. The default name displayed will be the user's name. All RPMS providers are available on the list.

Type

Click the appropriate check boxes to select one or more Provider Types from the list.

- **DPCP** (designated primary care provider): Sites can assign a primary care provider to an individual patient through the Patient file or by using the RPMS Designated Specialty Provider Management (DSPM) application. Selecting the **DPCP** option will provide a list of patients assigned to you, regardless of when their last visits were.

- **Specialty Provider**: Users are assigned as Specialty Providers to patients as defined in the Designated Specialty Provider Management (BDP) application. Selecting the **Specialty Provider** option activates the **Specialty Type** field. Click **Edit** to access the **Add/Remove Specialty Provider Types** dialog.
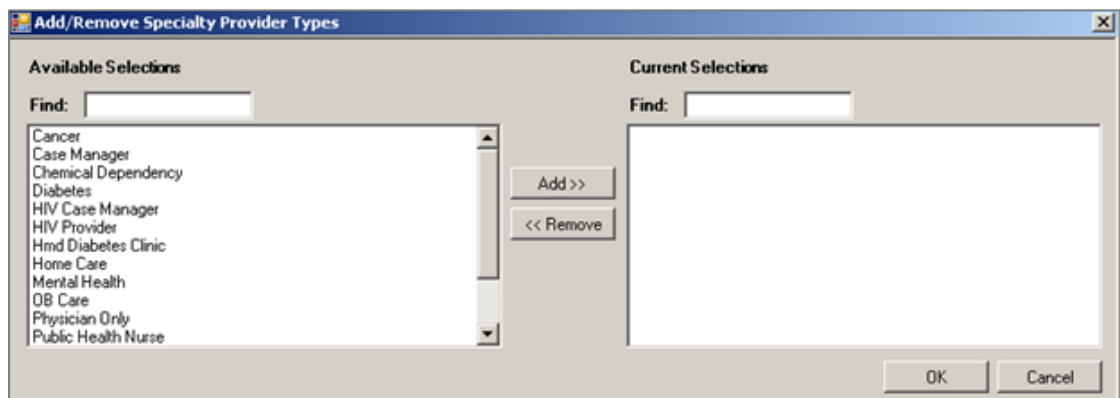
Figure 7-3: **Add/Remove Specialty Provider Types** dialog

When the **Add/Remove** dialog is complete, click **OK** and the provider types shown in the Current Selections area will populate the **Specialty Type** field. (Otherwise, click **Cancel**.)

- **Primary Visit Provider**: The provider name documented as the primary provider for a specific patient visit. Selecting this Provider Type also requires you to indicate the number of visits and a timeframe. For example, you might consider "your" patients to be anyone you have seen as a primary provider at least three times in the past two years; you would select three visits and two years. The default value is twice in the past year.

- **Primary/Secondary Visit Provider**: The provider name documented as either the primary or secondary provider for a specific patient visit. Selecting this Provider Type also requires you to indicate the number of visits and a timeframe. For example, you might consider "your" patients to be anyone you have seen at least three times in the past two years; you would select three visits and two years. The default value is twice in the past year.

Below are descriptions of Minimum Visits and Timeframes.

Minimum Visits: You can select the minimum number of visits to use in combination with a timeframe to define whether a patient "belongs" to a provider, e.g., two (2) visits in the past year. Values are 1 through 9; the default value is 2. The **Minimum Visits** option is used with the **Primary Visit** and **Primary/Secondary Visit** provider types only.

Minimum Visit Timeframe: A timeframe can be selected to be used in combination with the minimum number of visits to define whether a patient "belongs" to a provider, e.g., using the **Last 3 months** option as the timeframe. The **Minimum Visit Timeframe** option is used with the **Primary Visit Provider** and **Primary/Secondary Visit Provider** types only. The values are Last 3 months, Last 6 months, Last year, or Last 2 years.

7.2   Creating a Community Taxonomy

The **Community Taxonomy** function can be accessed in the panel definition process, under the Ad Hoc search.
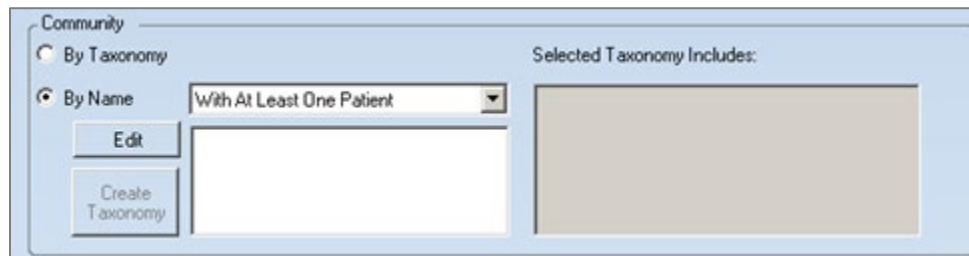
Figure 7-4: **Community** group box using By Name

A taxonomy can be created by selecting the **By Name** option button.

Click the **Edit** button to access the **Add/Remove Communities** dialog.
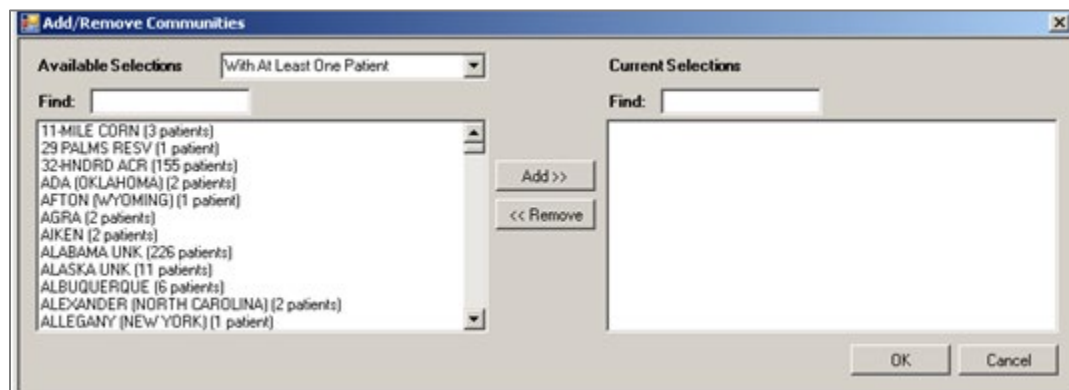
Figure 7-5: **Add/Remove Communities** dialog

Available Selections

Highlight a community or multiple communities and click **ADD.**

After selecting the communities, click **OK** (Otherwise, click **Cancel**.)**.** The selected communities will populate the **Community** group box.
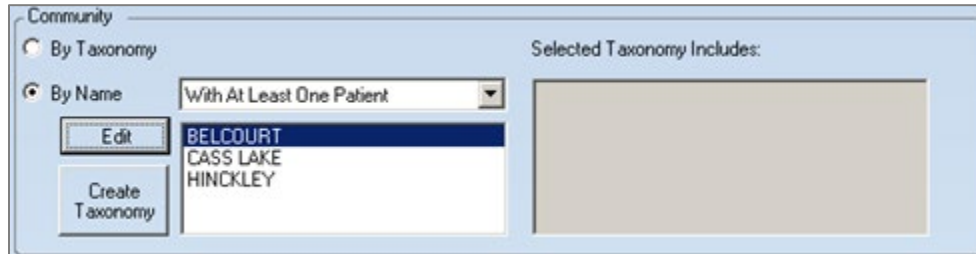
Figure 7-6: **Community** group box with **By Name** list box populated

If the By Name list box contains two or more names, the **Create Taxonomy** button become active.

Click the **Create Taxonomy** button to access the **Create/Update Community Taxonomy** dialog.

Figure 7-7: **Create/Update Community Taxonomy** dialog

Populate the fields on the dialog. The **Community Taxonomy Name** field is required. After the dialog is complete, click **OK** (otherwise, click **Cancel**).

After clicking **OK** and if the taxonomy name is a duplicate taxonomy name to a previous taxonomy created by you, iCare will provide a warning that the user might be overwriting the user's taxonomy. The user can overwrite (Yes), save as another name (No), or cancel (to return to the **Create/Update Community Taxonomy** dialog).

After clicking **OK** and if the name is a unique name, the application confirms saving the data to the RPMS server.
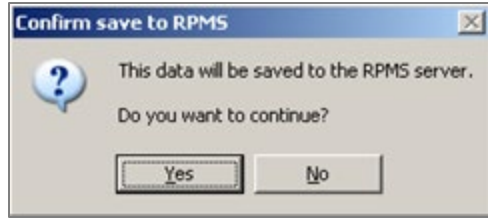
Figure 7-8: **Confirm save to RPMS** information message

Click **Yes** to save the data. (Otherwise, click **No**.)

If Yes is selected, the application displays the following message:

Figure 7-9: **Community Taxonomy Created** message

After clicking **OK**, the **Community** group box will change, showing the taxonomy name and what the taxonomy includes.
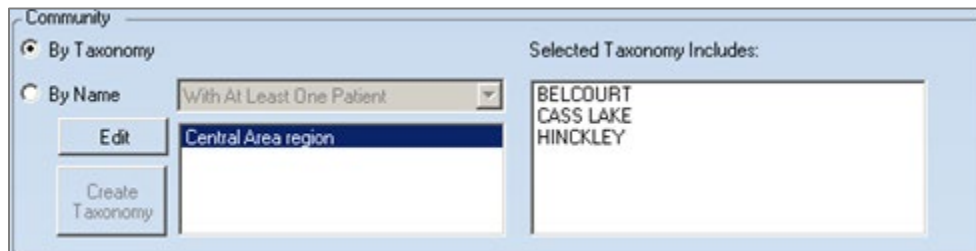
Figure 7-10: **Community** group box with By Taxonomy selected

The taxonomy0-creating function is independent of the panel-save function; that is, the taxonomy will be saved to the server once the user selects the Taxonomy Save function. The user has the potential for creating multiple community taxonomies within the Panel Definition function and can create a community taxonomy without actually creating a panel.

The iCare application will observe the underlying business rules for taxonomy creation: a user can only edit the user's created taxonomy. iCare will not allow a duplicate taxonomy name if the user is not the owner of the original taxonomy.

7.3   Add/Remove Functionality

There are several **Add/Remove** dialogs used in iCare.
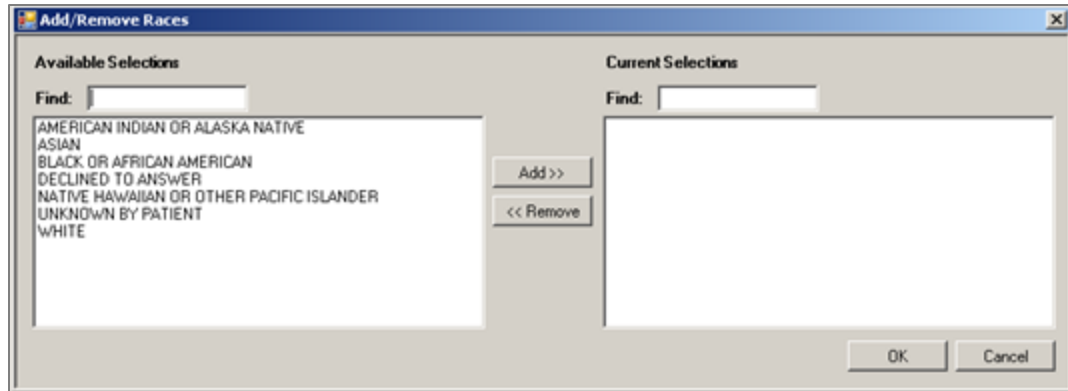
Figure 7-11: **Add/Remove Races** dialog

Use the **Add/Remove** dialog in the following manner:

- Type a few characters in the **Find** field to filter the list to those options containing those characters.

- Click **Add** to move a highlighted selection from the Available Selections area to the Current Selections area.

- Click **Remove** to move a highlighted selection from the Current Selections area to the Available Selections area.

When the dialog is complete, click **OK** to populate the appropriate field with the data in the Current Selections area. (Otherwise, click **Cancel**).

Appendix A   Definition Details Layouts

Table A-1: Allergies

Column Name	Type
Causative Agent	Default
Severity	Default
Signs/symptoms	Default
Origination Date	Default

Table A-2: CPT

Column Name	Type
Date	Default
CPT	Default
Modifier 1	Default
Modifier 2	Default
Quantity	Default
Provider	Optional
Provider Narrative	Optional

Table A-3: Exams

Column Name	Type
Date	Default
Exam	Default
Result	Default
Date/Time Last Modified	Optional
Encounter Provider	Optional
Entered By	Optional
Modified By	Optional

Table A-4: ER

Column Name	Type
Admit Date	Default
Discharge Date	Default
Discharge Acuity	Default
Discharge Type	Default
Primary Diagnosis	Default

Column Name	Type
DX Narrative	Default
Admitting Provider	Optional
Discharge Nurse	Optional
Discharge Provider	Optional
Presenting Complaint	Optional
Transferred To	Optional
Transport Mode	Optional
Triage Nurse	Optional
Visit Type	Optional

Table A-5: High Risk Conditions

Column Name	Type
High Risk Condition	Default
Condition Code	Default
Onset Date	Default
Found In	Default

Table A-6: Immunizations

Column Name	Type
Visit Date	Default
Vaccination	Default
Vaccination Group	Default
Vaccine Short Name	Default
Admin Notes	Optional
Date Entered	Optional
Date/Time Last Modified	Optional
Encounter Provider	Optional
Event Date/Time	Optional
Injection Site	Optional
Last Modified By	Optional
Location	Optional
Lot #	Optional
Series	Optional
Service Category	Optional
Vaccine Eligibility	Optional
Who Entered	Optional

85

Table A-7: Inpatients

Column Name	Type
Admission Date	Default
Admit Type	Default
Attending Provider	Default
Ward	Default
Specialty	Default
Discharge Date	Default
Discharge Type	Default
Diagnosis	Optional
Nurse	Optional
Transfer Facility	Optional

Table A-8: Lab Tests

Column Name	Type
Date	Default
Lab Test	Default
Lab Result	Default
Normal/Abnormal	Default
Ordering Physician	Default
Accession #	Optional
Collection Date/Time	Optional
Comment	Optional
Location	Optional
Result Date/Time	Optional
Status	Optional

Table A-9: Measurements

Column Name	Type
Date	Default
Measurement	Default
Result	Default
Date/Time Last Modified	Optional
Encounter Provider	Optional
Entered By	Optional
Modified By	Optional

Column Name	Type
Percentile	Optional
Qualifier(s)	Optional
Supplemental O2	Optional
VC/VU Numerator	Optional

Table A-10: Medications

Column Name	Type
Date	Default
Medication	Default
Instructions	Default
Days	Default
Quantity	Default
Ordering Physician	Default
# of Refills	Optional
Last Dispensed Date	Optional
Prescription Status	Optional

Table A-11: Pt Education

Column Name	Type
Date	Default
Topic	Default
Time Spent	Default
Level of Understanding	Default
Provider	Default
Comments	Default
Learning Readiness	Optional
Setting	Optional

Table A-12: POV

Column Name	Type
Date	Default
Purpose of Visit	Default
Primary/Secondary	Default
First/Revisit	Default
Encounter Provider	Default
SNOMED Description	Default

Column Name	Type
Provider Narrative	Default
SNOMED Concept ID	Default
Cause of DX	Optional
Date Entered	Optional
Entered By	Optional
External Cause	Optional
Last Modified	Optional
Laterality Qualifier	Optional
Modified By	Optional
Modifier	Optional
Place of Accident	Optional
Place of Occurrence	Optional
Present on Admission	Optional

Table A-33: Problems

Column Name	Type
Problem	Default
Date of Onset	Default
Status	Default
Provider Narrative	Default
Facility	Default
Date Last Modified	Optional
Problem ID	Optional
Problem Notes	Optional
User Last Modified	Optional

Table A-14: Reminder Notifications

Column Name	Type
Reminder Due	Required
Notification Date	Default
Notification Method	Default
Completion Date	Optional
Creator	Optional
Eligible Provider	Optional

Appendix B   Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is ***FOR OFFICIAL USE ONLY***. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (ROB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).

- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS website: https://home.ihs.gov/security/index.cfm.

> **Note**:   Users must be logged on to the IHS D1 Intranet to access these documents.

The ROB listed in the following sections are specific to RPMS.

B.1   All RPMS Users

In addition to these rules, each application may include additional ROBs that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

B.1.1   Access

RPMS users shall:

- Only use data for which you have been granted authorization.

- Only give information to personnel who have access authority and have a need to know.

- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.

- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not:

- Retrieve information for someone who does not have authority to access the information.

- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.

- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.

- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

B.1.2   Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall:

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.

- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

B.1.3   Accountability

RPMS users shall:

- Behave in an ethical, technically proficient, informed, and trustworthy manner.

- Log out of the system whenever they leave the vicinity of their personal computers (PCs).

- Be alert to threats and vulnerabilities in the security of the system.

- Report all security incidents to their local Information System Security Officer (ISSO)

- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.

- Protect all sensitive data entrusted to them as part of their government employment.

- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

B.1.4   Confidentiality

RPMS users shall:

- Be aware of the sensitivity of electronic and hard copy information and protect it accordingly.

- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.

- Erase sensitive data on storage media prior to reusing or disposing of the media.

- Protect all RPMS terminals from public viewing at all times.

- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not:

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.

- Store sensitive files on a portable device or media without encrypting.

B.1.5   Integrity

RPMS users shall:

- Protect their systems against viruses and similar malicious programs.

- Observe all software license agreements.

- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.

- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not:

- Violate federal copyright laws.

- Install or use unauthorized software within the system libraries or folders.

- Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

B.1.6   System Logon

RPMS users shall:

- Have a unique User Identification/Account name and password.

- Be granted access based on authenticating the account name and password entered.

- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

B.1.7   Passwords

RPMS users shall:

- Change passwords a minimum of every 90 days.

- Create passwords with a minimum of eight characters.

- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.

- Change vendor-supplied passwords immediately.

- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).

- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.

- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not:

- Use common words found in any dictionary as a password.

- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).

- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.

- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.

- Post passwords.

- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.

- Give a password out over the phone.

B.1.8   Backups

RPMS users shall:

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.

- Make backups of systems and files on a regular, defined basis.

- If possible, store backups away from the system in a secure environment.

B.1.9   Reporting

RPMS users shall:

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.

- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not:

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

B.1.10   Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall:

- Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

B.1.11   Hardware

RPMS users shall:

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).

- Keep an inventory of all system equipment.

- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not:

- Eat or drink near system equipment.

B.1.12 Awareness

RPMS users shall:

- Participate in organization-wide security training as required.

- Read and adhere to security information pertaining to system hardware and software.

- Take the annual information security awareness.

- Read all applicable RPMS manuals for the applications used in their jobs.

B.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that:

- Are in writing.

- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.

- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.

- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.

- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall:

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not:

- Disable any encryption established for network, internet, and Web browser communications.

B.2 RPMS Developers

RPMS developers shall:

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.

- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.

- Only access information or code within the namespaces for which they have been assigned as part of their duties.

- Remember that all RPMS code is the property of the U.S. Government, not the developer.

- Not access live production systems without obtaining appropriate written access and shall only retain that access for the shortest period possible to accomplish the task that requires the access.

- Observe separation of duties policies and procedures to the fullest extent possible.

- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.

- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.

- Follow industry best standards for systems they are assigned to develop or maintain and abide by all Department and Agency policies and procedures.

- Document and implement security processes whenever available.

RPMS developers shall not:

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.

- Grant any user or system administrator access to RPMS unless proper documentation is provided.

- Release any sensitive agency or patient information.

B.3   Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall:

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.

- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.

- Advise the system owner on matters concerning information technology security.

- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.

- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.

- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.

- Verify that users have received appropriate security training before allowing access to RPMS.

- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.

- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.

- Protect the supervisor, superuser, or system administrator passwords.

- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).

- Watch for unscheduled, unusual, and unauthorized programs.

- Help train system users on the appropriate use and security of the system.

- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.

- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.

- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords and delete or reassign related active and backup files.

- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.

- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.

- Shall follow industry best standards for systems they are assigned to and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not:

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties

- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

Glossary

Context Menu

The menu of options when you right-click on an entity.

Designated Primary Care Provider

In RPMS, the provider name that is assigned as the primary care physician for a patient or group of patients at a specific facility. This is not a required function.

Free Text Field

A field where the user can type text, just like typing a note to someone.

iCare Package Manager

The designated person with authority to manage all information settings for iCare.

Panel Definition

The membership criteria used to create a panel of patients.

Patient Panel

A list of patients defined in iCare by the user.

Providers

Any staff member in an I/T/U facility who provides direct healthcare to patients, e.g. general practice or specialty physicians, registered nurses, social workers, physician assistants, etc.

Within RPMS, the term "provider" has different specific meanings. See definitions for Designated Primary Care Provider (DPCP); Primary Provider; Visit Providers.

Taxonomy

In RPMS, a grouping of functionally related data elements, such as ICD codes, that are created and maintained within the RPMS Taxonomy Setup application. Taxonomies will be used as definitions for diagnoses, procedures, lab tests, medications, and other clinical data types.

If you need a change or addition to an existing taxonomy, please see your CRS coordinator.

Tooltip

A common GUI element used to provide additional information to users. To display a Tooltip, hover the mouse pointer, without clicking, over a column heading or field.

Acronym List

Acronym	Term Definitions
CPT	Current Procedural Terminology
CRS	Clinical Reporting System
DOB	Date of Birth
DPCP	Designated Primary Care Provider
EHR	Electronic Health Record
ER	Emergency Room
GPRA	Government Performance and Results Act
GUI	Graphical User Interface
HHS	Health and Human Services
HRN	Health Record Number
ICD	International Classification of Diseases
IHS	Indian Health Service
IPC	Improving Patient Care
I/T/U	Indian Health Service, or Tribal or Urban Indian health programs
OIT	Office of Information Technology
PCC	Patient Care Component
POV	Purpose of Visit
RPMS	Resource and Patient Management System
SNOMED	Systematized Nomenclature of Medicine
SSN	Social Security Number

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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