AACVPR Outpatient Cardiac Rehab Registry

General User Guide v1.1

Cissec Corporation

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Contents

User Guide v1.0

1. Preface

1.1. Application Overview

The AACVPR is a web based application which collects data on outcomes of cardiac rehabilitation to help establish performance measures; and to allow facilities to pull reports and compare their outcomes to others across the nation.

1.2. Intended Audience

This document is intended for individuals who have knowledge of Cardiac Rehabilitation processes and information. This document's intent is to help a general user understand the features and information that the registry application will provide.

1.3. Supported Browsers

The AACVPR registry application supports a wide variety of Web browsers. This includes Internet Explorer, Mozilla Firefox, Apple Safari, Chrome, and most other Web browsers on computers running UNIX, Apple Macintosh, or Windows. A list of support versions are indicated below.

- Chrome 3.0.195.27 and later versions

- Internet Explorer 7 and later versions

- Safari 3.2 and later versions

- Firefox 3.0.1 and later versions
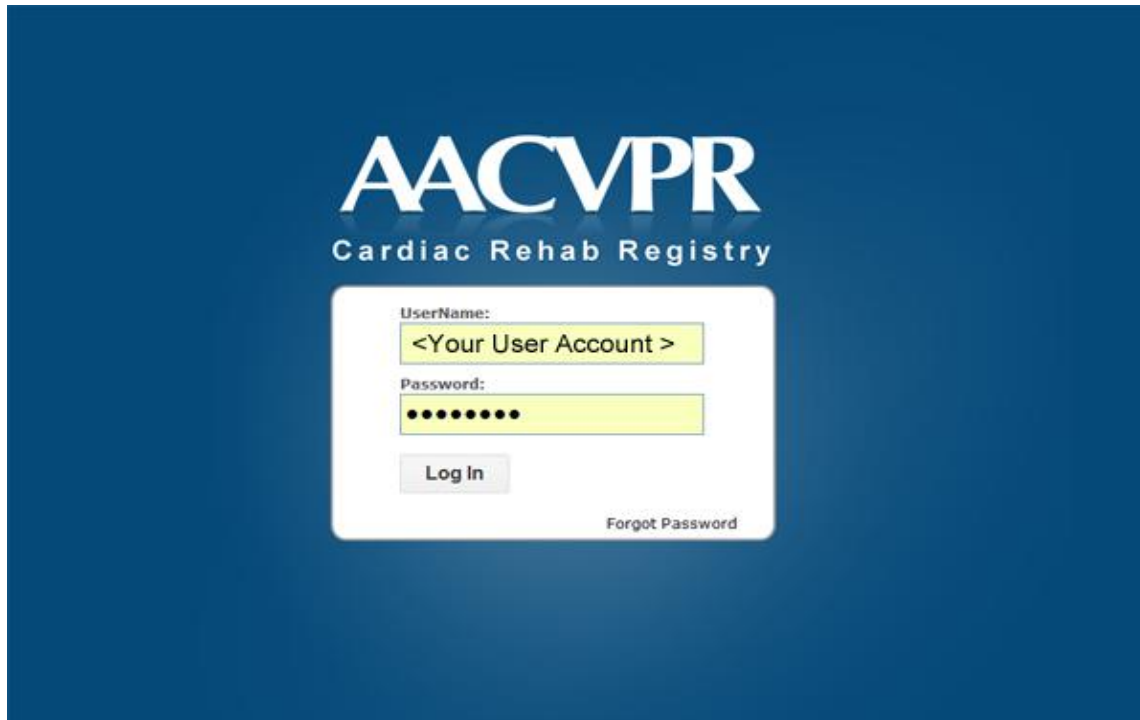
1.4. Support and Contact

- For general inquiries please contact aacvpr@aacvpr.org

- For general support please contact aacvpr@cissec.com

2. Getting Started

2.1. Launching

The AACVPR registry application is a fully online application so you may gain access simply by clicking on or entering the following web site URL into one of the support browsers. (Refer to section 1.3 above)

The AACVPR registry application is a secured web site thus is not open to the public domain. An account username and password must be provided to you by AACVPR or by your site's principle user. (Refer to section 1.4 to become a member of the AACVPR registry)


Click on or enter the following URL into your web browser.

https://registry.aacvpr.org/

To gain access to the application simply type your username and password into the provided fields then click the "Login" button

2.2. Password Recovery

If you have a registry account, and you are unable to login due to a password failure, the application contains a password recover feature located on the main Login page.
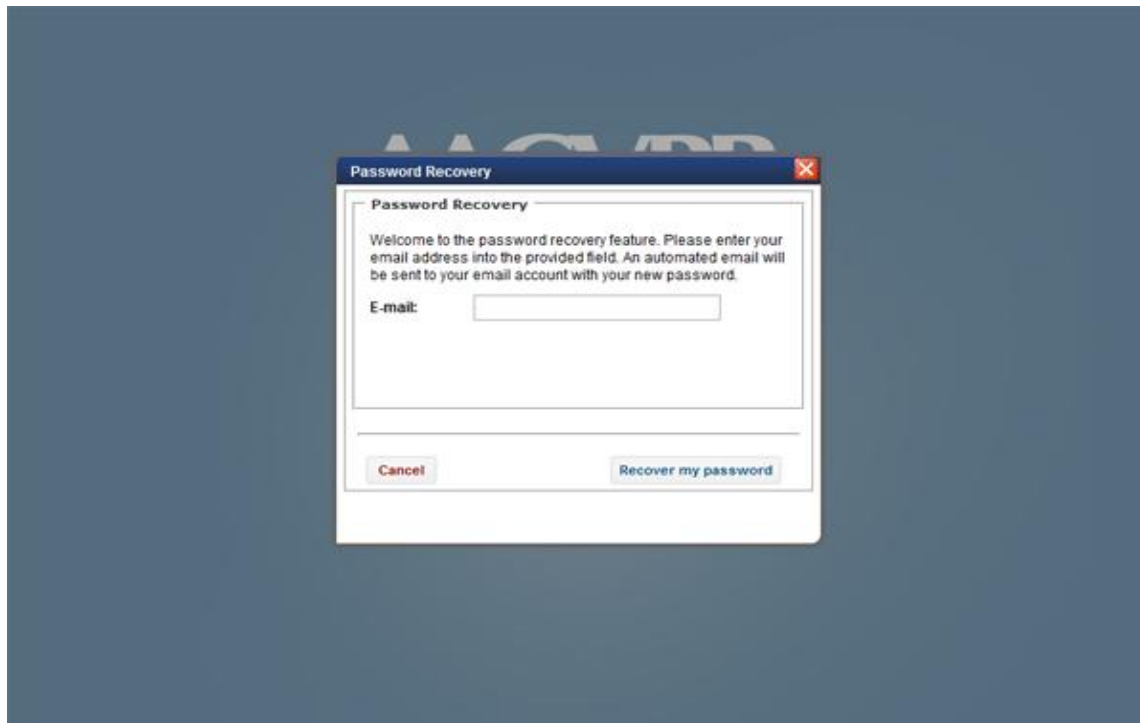
Click on the" forgot password" link located on the main login page. Enter the e-mail address that you used in the "My Profile" section of the system.

The registry application will automatically send an e-mail with a new password to the registered e-mail account.

If the issue remains please contact your site's principle user or the AACVPR support team. (Refer to section 1.4)

2.3. Setting up your profile

Once you have been provided with access to the registry application; it is highly recommended that you verify and/or complete your profile so that features such as "Password Recover" will be available.

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To update your profile move your cursor over the "My Profile" option located on the main menu. A drop down of options will appear.

Click on the "Profile Management" item.

Please refer to Section 2.4 interacting with the software for more information.

A small window will appear with your basic user information.

Add or update the form as necessary to provide your most accurate information.

Please note that a number of fields are required. For example the "E-mail" field is required as it is the primary mechanism used in the above mentioned "Password recovery" feature.

When you have completed updating your profile simply click the "Save" button.

To change your password click on the "Change Password" item also located under the "My Profile" menu.

As with the "Profile Management" a small window will appear. Simply key in your old password in addition to your desired new password and validation into the appropriate fields.

Click the Change Password button. A confirmation message will appear indicating that your password has been successfully changed.

Please refer to Section 2.4 interacting with the software for more information.

2.4. Interacting with the software

General interaction with the software is done through the use of the primary menu system located at the top of the page.   In many places the menu has sub-items which can be revealed simply by mousing over the visible menu item. To select an item simply click on desired feature.

The menu system may change based on your identified role or if you are in pages specific to a patient. The fundamental "**Home**" feature is always present and allows you to return to the page you were initially presented with upon login.

In many areas of the application, the user is provided with a pop-up window to facilitate data entry.

While this pop-up is present all features that are currently available in the background are disabled until the pop-up is closed

Buttons located at the bottom of the pop-up indicate completion or cancellation of the information on the form. When clicked the form will perform the selected action then close.

Within a specific patient's file the primary menu changes to allow the user access to the clinical areas housed within the registry.

In addition a secondary navigation process is available to the user. The application provides a "Save and Next" option which will save the current information on the current page then automatically shift the user to the next page in the sequence.

This wizard-like implementation provides a consistent method for the user to access the patient's information while reducing the number of selections a user has to choose.

The "Save & Next" feature is simply an additional navigational tool; the user still has the ability to navigate the patient file by using the "Save" button in combination with the primary navigation menu.

The registry offers a convenient method to log out, which is located on all pages of the system. It is recommended that when users have finished with the application that they use the "Sign Out" feature.

3. Patient Features

The basic features regarding a patient such as Add, Find, Edit and Delete are all accessible from the "Patient list" component of the system. To navigate to the patient list, simply use the main navigation menu to select "Patient list".

3.1. Adding Patients

To add a new patient to the system, click on the "Add Patient" button located from the patient list page.

The user will be presented with the "Patient Add" screen.

The application requires a user to enter a unique "medical record identifier" in addition to selecting the associated "Cardiac Rehab Program".

Users are only permitted to add patients to programs they are associated with so in most cases the "Cardiac Rehab Program" will be preselected.

The "medical record number" may be any alpha-numeric combination less then 255 characters. It is important that this identifier be unique to a specific individual and relevant to the program so that others on your staff may locate this patient at a later time.

All other data fields on the form are optional; however, it is highly recommended that the patient's "date of birth" and "gender" are entered. These values are used in many calculations which will not be available if these data points are left incomplete.

> **NOTE:**
> The application will a provide warnings if a user tries to add a patient who is already in the system and who is currently in a Cardiac Rehab Program Cycle.
>
> Patients are permitted to flow through a Cardiac Rehab process cycle more then once as long as the dates of the process cycle do not intersect.

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3.2. Finding a Patient

Locating an existing patient within the system is a quick and easy process. The application provides two methods to find a patient contained in the system.

Method 1 – **Find a Patient**

This feature allows a user to search their catalogue of patients by last name or by specific Medical record number.

The user may simply enter in the appropriate information into the provided textboxes within the "Find a Patient" feature and click the Search button.

The patient list will automatically refresh to display all matches to the user's inquiry.

To clear the search criteria the user may simply click on the "Clear" button also located within the "Find a Patient" section.

> ***Note:***
> Any previously set filter options will be reset. A filter may not be applied to search criteria.

Method 2 – Apply a Filter

This feature allows a user to filter the list of patients to locate a specific and/or a subset of patients.

The user may apply the following filters to subset the data.

- CR Program (if permissions allow)
- Program Status (Completed, incomplete, etc..)
- Patient enrollment date range

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In addition, the patient list headers are selectable to allow the user to reorder the data as per the selected column. A single click on the column header will reorder the information ascending; a second click will reorder information descending.

3.3. Deleting a Patient

The registry's purpose is to gather data over time with respect to a wide variety of patients. The removal of a patient is not recommended for everyday usage or to minimize a CR Program's list of active patients. It is recommended that the remove patient feature be used only when duplicate data is identified or when invalid information is inadvertently added to the system.

To remove a patient from the system simply use one of the "Locate" patient features indicated in the above section 3.2.

Once a patient is located and is appearing in the patient list the user need simply click on the "Remove" icon located in the right most column of the grid.

Warnings will appear requiring the user to validate the removal of a patient.   This will prevent accidental or inadvertent removal of patients

At any time the user may click the cancel button to stop the remove patient process.

Note:
If the patient list does not contain a column entitled "Remove", then your account does not have appropriate permissions to remove patients from the system.

Please contact your site's principle user to have your account privileges increased or to request that the administrator remove the patient for you.

4. Cardiac Rehabilitation Information and Features

The following features are with respect to a specific patient's Cardiac Rehabilitation Program record. These features are only available when a specific patient has been selected or added from the patient list section. (Refer to section 3 above regarding adding or locating a patient.)

> The term **record** refers to the set of clinical information the registry captures for a specific patient during a specific cycle through a Cardiac Rehabilitation Program.

4.1. Patient Summary

The "Patient Summary" page is the initial page a user is shown once a patient has been selected for the patient list.

The purpose of this page is to provide the user with a brief overview of the patient's record; in addition to being a launching point for patient-specific reports.

4.2. Demographics

The "Demographics" page contains the same information as was present in the "Add Patient" section.

This section allows users to update information that was previously unavailable at the time of addition to the registry.

To assist in the data entry process, the registry application provides feedback to the user at the top of the page if information entered is invalid or required. (Refer to the example image adjacent.)
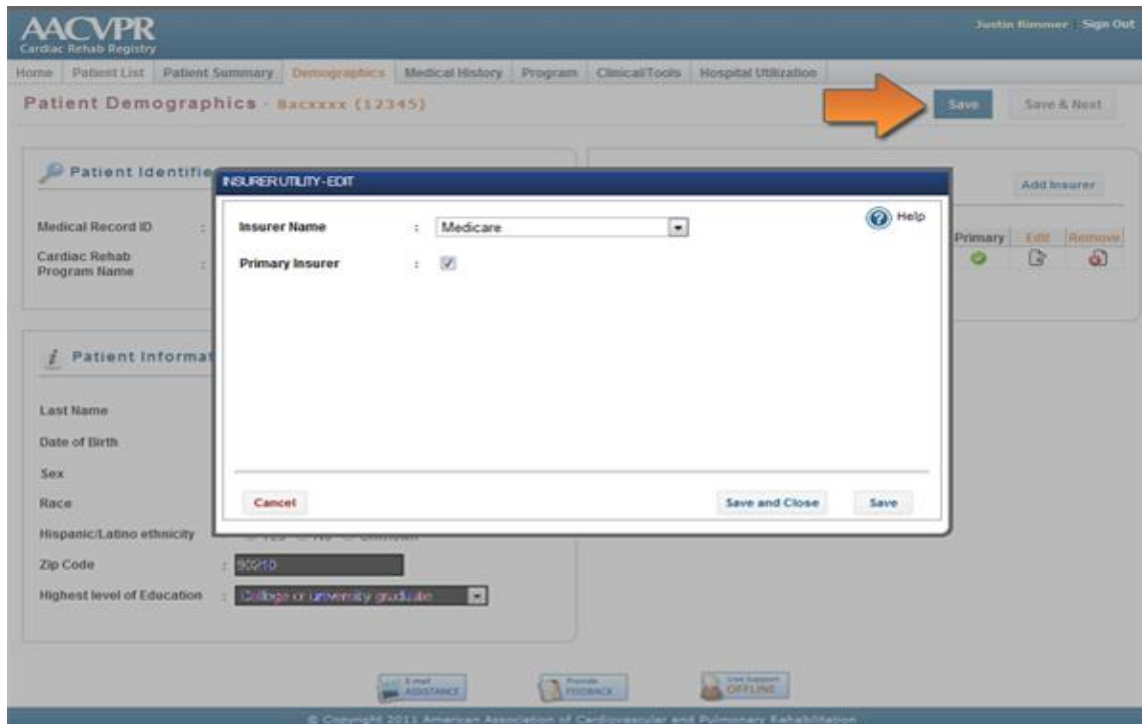
Also located on the Demographics page is the "Insurers Utility". This section allows a user to enter each of the patient's associated insurers.

Add Insurers

To add new insurers simply click on the "Add Insurers" button from the demographics page.

The "Insurers Add Utility" will appear allowing the user to select each insurer in turn. Once an insurer is selected the user may click on the "Save and Close" button to return to the demographics page.

The user may, otherwise, select the "Save" button which will add the insurer, then clear the form to allow the user to add additional insurers without the need to close the utility.

Once the "Insurer add utility" is closed the demographics screen will update accordingly.

Edit Insurers

To edit Insurers simply click on the "Edit" button located to the right of the specific insurer listed. The "Insurers Edit Utility" will appear allowing the user to modify the insurer information. To save the revised information simply click on the "Update" button provided.

Remove Insurers

To remove insurers click on the "Remove" button located to the right of the specific insurer listed. A warning will appear requiring the user to confirm the removal of the insurer. Once confirmed the item will be removed from the list.

4.3. Medical History

The "Medical History" page contains information regarding the patient's admission event, general comorbidities, and risk factors.

The admission event section is an important segment within the AACVPR registry. This section allows users to define the primary event and date which triggered the referral to Cardiac Rehabilitation.

The primary event date is a significant indicator in the patient's overall timeline of care.
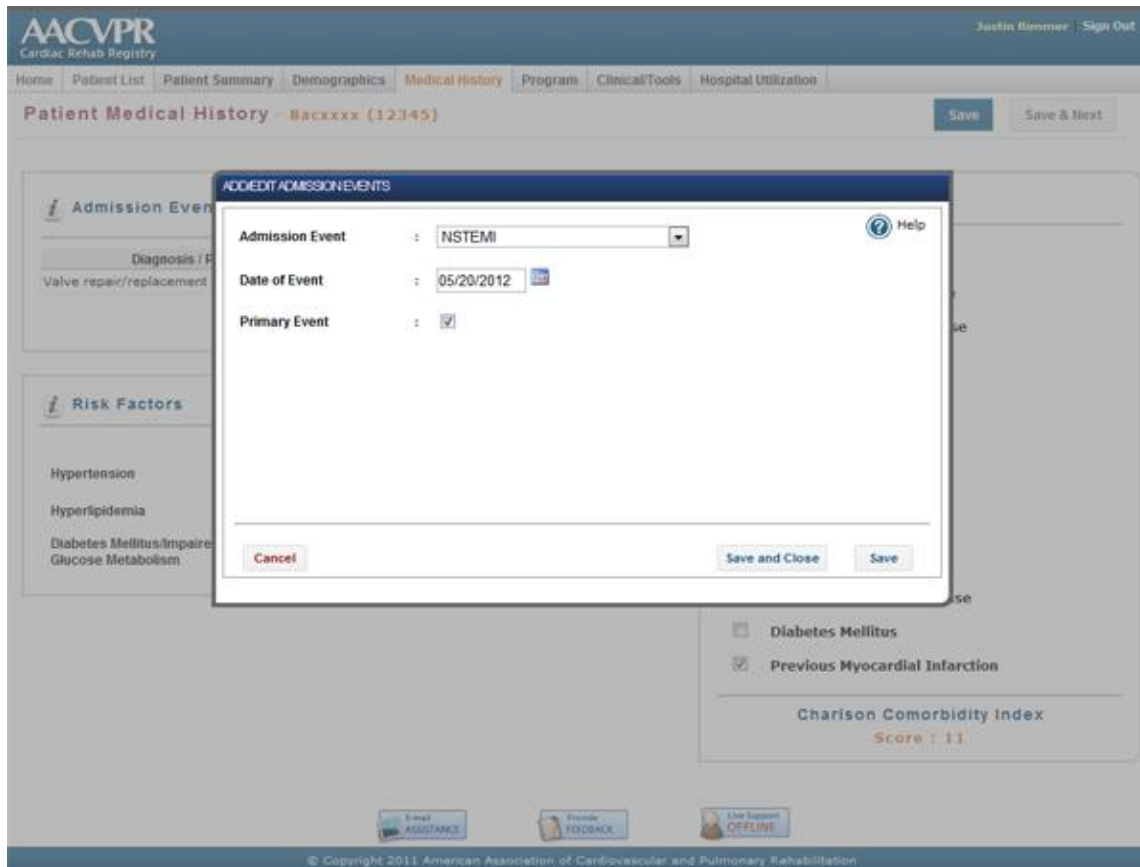
Add Admission Events

To add a new Admission Event simply click on the "Add Admission Events" button from the "Past Medical History" page.

The "Admission Events Add Utility" will appear allowing the user to complete each Admission Event in turn. Once an Admission Event is completed the user may click on the "Save and Close" button to return to the past medical history page.

The user may, otherwise, select the "Save" button which will add the Admission Event then clear the form to allow the user to add subsequent Admission Events without the need to close the utility.

Once the "Admission Event add utility" is closed the past medical history screen will update accordingly.

Edit Admission Events

To edit admission events simply click on the "Edit" button located to the right of the specific Admission Event listed. The "Admission Events Edit Utility" will appear allowing the user to modify the Admission Event information. To save the revised information simply click on the "Update" button provided.

Remove Admission Events

To remove Admission Events click on the "Remove" button located to the right of the specific Admission Event listed. A warning will appear requiring the user to confirm the removal of the Admission Event. Once confirmed the item will be removed from the list.

Add / Update Comorbidities

To add and/or update a patient's comorbidities check or uncheck the provided checkbox associated with the comorbid item.

When finished use the "Save" or "Save and Next" buttons located at the top of the page to commit the modification.

Note

As you check or uncheck a comorbidity item you'll notice the standard **Charlson Comobidity Index** will automatically recalculate based on your selections.

4.4. Program

The "Program" page contains information regarding the patient's flow through the Cardiac Rehabilitation process.

Each of the three fundamental stages is indicated on this page.

- Intake
- Discharge
- Follow-up

Note

In many places throughout the registry the dates supplied on the Program form are used for validation of data in other areas.

For example: The system will prevent a referral date that is before the primary admission event date.

When complete use the "Save" or "Save and Next" buttons located at the top of the page to commit the modification.

4.5. Clinical / Tools

Overview

The clinical tools section refers to the medical-based set of information that is obtained throughout the patient's Cardiac Rehabilitation cycle. The information set is partitioned into ten distinct areas:

1. Lipids
2. Glucose
3. Blood Pressure
4. Dietary
5. Medications
6. Tobacco Usage
7. Anthropometric
8. Functional Assessments
9. Psychosocial

Each area provides a mechanism for users to enter information at each of the three primary stages of the Cardiac Rehabilitation program (i.e. Intake, Discharge, and Follow-up). Percent change calculations will automatically occur based on the user entry.

The AACVPR application not only calculates the percent change but also provides visual feedback to the user regarding the patient progress in the specific data item. The application automatically determines if the given item results in an improvement or a worsening through the use of visual indicators. A legend of the icon meaning is provided on each page for the user's reference as well as below.

Icon Legend

✅	Value entered is within defined range
❌	Valued entered is outside of defined range, however is still accepted by the system
☐ ❌	Value entered is outside of defined limits. The value must be corrected before the system will allow a save.
↗	The % change value indicates an improvement. *(Note : Improvement is based on a change toward the norm rather then a physical increase/decrease in a value over time)*
↙	The % change value indicates a worsening or decline. *(Note : Worsening/Decline is based on a change away from the norm rather then a physical increase/decrease in a value over time)*

The AACVPR application also provides a mechanism for the user to review the percent change value for either

- Intake to Follow-up

  OR
- Discharge to Follow-up

By default the Discharge to Follow-up is pre-selected. The user may modify displayed percent change simply by clicking the down arrow from the column heading and selecting the desired range from the presented menu.

Lipids and Glucose Measurements

The user is provided with a means to enter the patient-specific values into the appropriate data field as well as timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

Note:
Dates for Lipid Panel, Fasting Blood Glucose, and Hemoglobin A1C validate against dates entered within the Program tab.

Blood Pressure and Dietary

The user is provided with a means to enter in the patient-specific values into the appropriate data field and timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

Medications and Tobacco Usage

The user is provided with a means to enter in the patient-specific values into the appropriate data field and timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

Anthropomorphic

The user is provided with a means to enter in the patient-specific values into the appropriate data field and timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

Functional Assessments

The user is provided with a means to enter in the patient-specific values into the appropriate data field and timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

Psychosocial

The user is provided with a means to enter in the patient-specific values into the appropriate data field and timeframe.

The application will validate the legitimacy of the entered value and calculate the percent change value if applicable.

(Refer to the icon key in section 4.5 for a description of specific icons.)

4.6. Hospital Utilization

The "Hospital Utilization" page contains supporting information regarding a patient's events that may have occurred during the Cardiac Rehabilitation Program.

The supporting information is categorized into three sections.

- Unexpected Event(s)

- Adverse Event(s)

- Hospital Readmission(s)
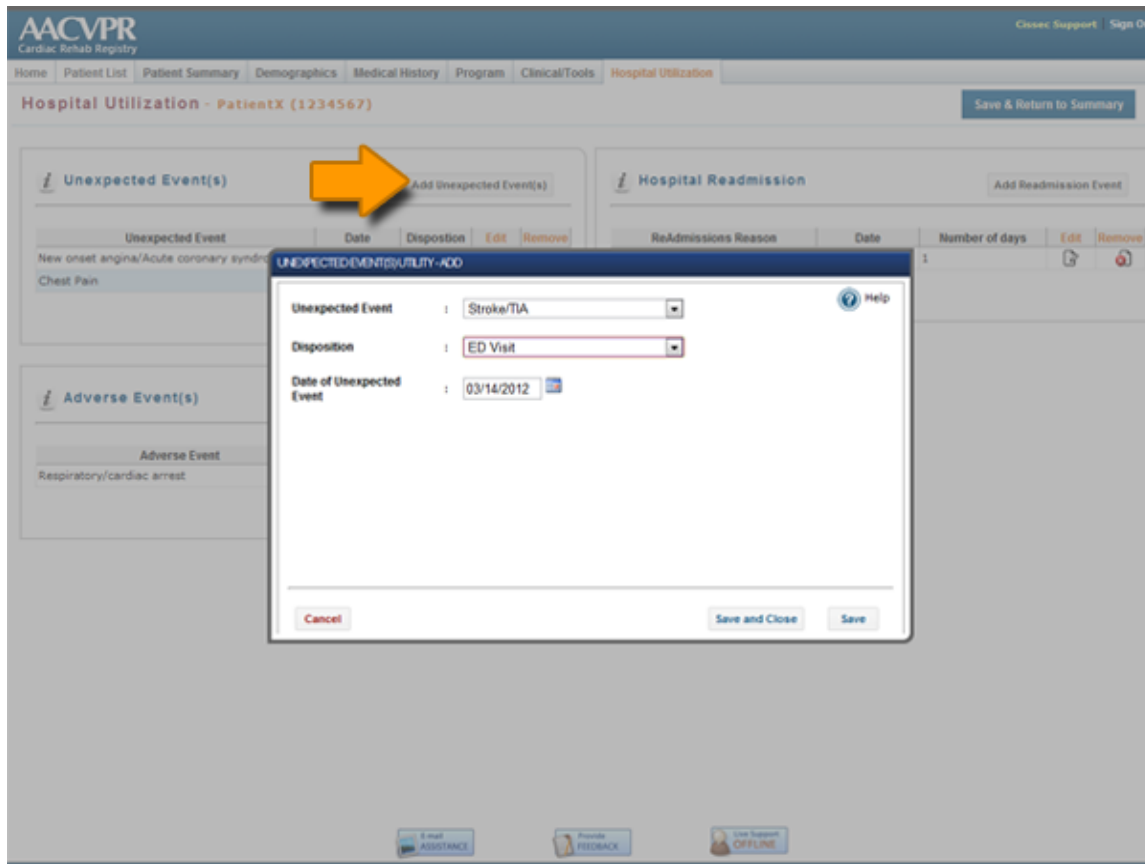
Add Unexpected Events

To add a new Unexpected Event simply click on the "Add Unexpected Events" button from the "Hospital Utilization" page.

The "Unexpected Events Add Utility" will appear allowing the user to complete each Unexpected Event in turn. Once an Unexpected Event is completed, the user may click on the "Save and Close" button to return to the Hospital Utilization page.

The user may otherwise select the "Save" button which will add the Unexpected Event then clear the form to allow the user to add additional Unexpected Events without the need to close the utility.

Once the "Unexpected Event utility" is closed, the Hospital Utilization screen will update accordingly.

Edit Unexpected Events

To edit Unexpected Events, simply click on the "Edit" button located to the right of the specific Unexpected Event listed. The "Unexpected Events Edit Utility" will appear allowing the user to modify the Unexpected Event information. To save the revised information, simply click on the "Update" button provided.

Remove Unexpected Events

To remove Unexpected Events, click on the "Remove" button located to the right of the specific Unexpected Event listed. A warning will appear requiring the user to confirm the removal of the Unexpected Event. If confirmed the item will be removed from the list.
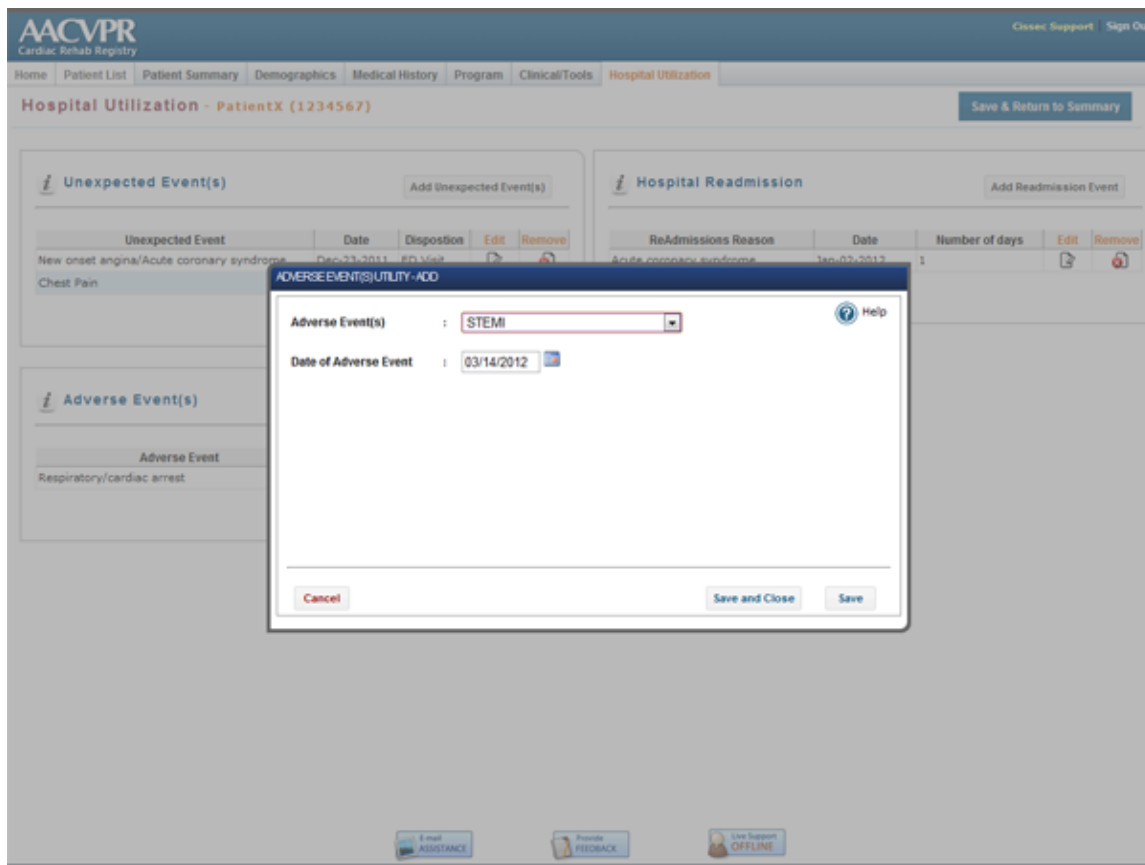
Add Adverse Events

To add a new Adverse Event, simply click on the "Add Adverse Events" button from the "Hospital Utilization" page.

The "Adverse Events Add Utility" will appear allowing the user to complete each Adverse Event information in turn. Once an Adverse Event form is completed the user may click on the "Save and Close" button to return to the Hospital Utilization page.

The user may otherwise select the "Save" button which will add the Adverse Event then clear the form to allow the user to add in additional Adverse Events without the need to close the utility.

Once the "Adverse Event utility" is closed, the Hospital Utilization screen will update accordingly.

Edit Adverse Events

To edit Adverse Events, simply click on the "Edit" button located to the right of the specific Adverse Event listed. The "Adverse Events Edit Utility" will appear allowing the user to modify the Adverse Event information. To save the revised information, simply click on the "Update" button provided.

Remove Adverse Events

To remove Adverse Events, click on the "Remove" button located to the right of the specific Adverse Event listed. A warning will appear requiring the user to confirm the
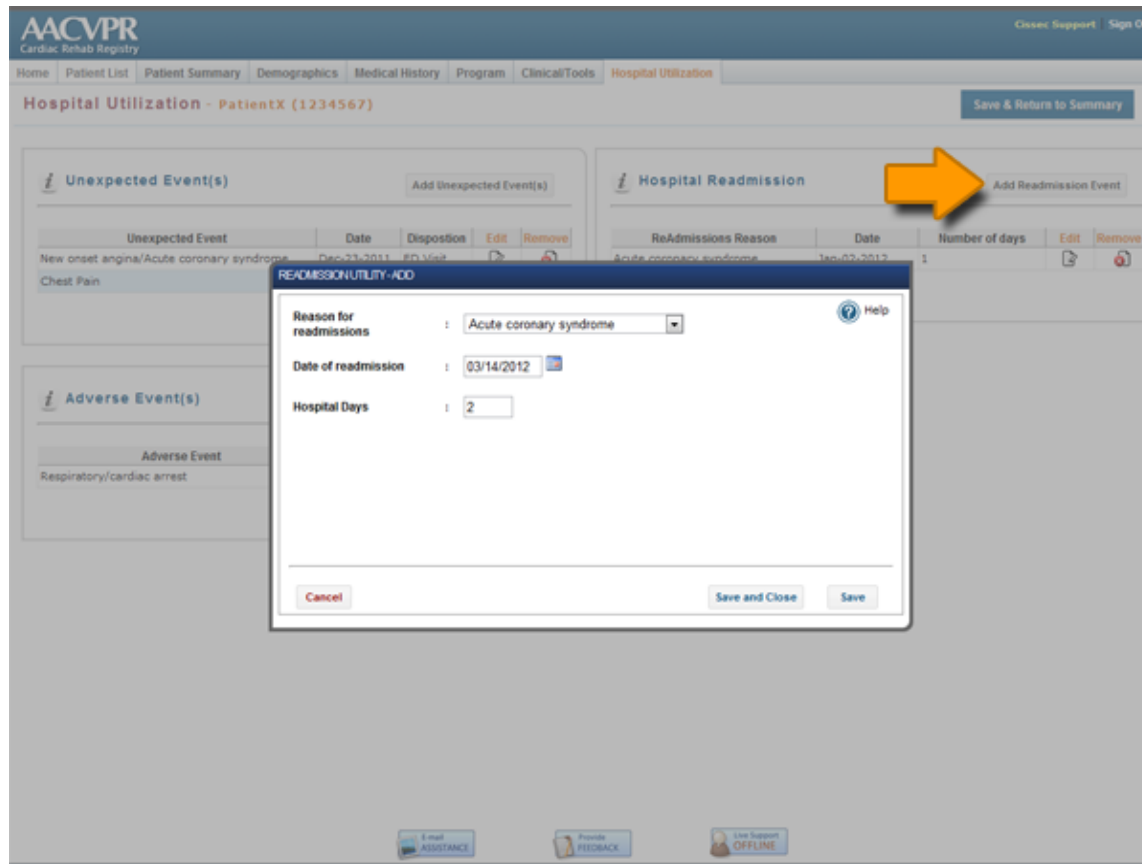
removal of the Adverse Event. If confirmed, the item will be removed from the list.

Add Hospital Readmissions

To add a new Hospital Readmission, simply click on the "Add Readmissions Event" button from the "Hospital Utilization" page.

The "Hospital Readmissions Add Utility" will appear allowing the user to complete each Hospital Readmission in turn. Once a Hospital Readmission form is completed, the user may click on the "Save and Close" button to return to the Hospital Utilization page.

The user may, otherwise, select the "Save" button which will add the Readmission then clear the form to allow the user to add in additional Readmissions without the need to close the utility.

Once the "Hospital Readmission utility" has closed the Hospital Utilization screen will update accordingly.

Edit Hospital Readmissions

To edit Hospital Readmissions simply click on the "Edit" button located to the right of the specific Hospital Readmission listed. The "Hospital Readmissions Edit Utility" will appear allowing the user to modify the Hospital Readmission information. To save the revised information, simply click on the "Update" button provided.

Remove Hospital Readmissions

To remove Hospital Readmissions, click on the "Remove"

button located to the right of the specific Hospital Readmission listed. A warning will appear requiring the user to confirm the removal of the Hospital Readmission. If confirmed the item will be removed from the list.

5. Reporting Features

5.1.   Understanding reports

The AACVPR application offers predefined reports for general review and usage. An in depth overview of each predefined reports is outlined in the below sections. (Sections 5.2 and 5.3)

In general the reports are designed with a minimalistic presentation approach. The reports will only display data to the user where information actually exists in the system.   For example, if the patient health survey SF-36 is not used in a particular CR program, then the reports will never display the SF-36 rows. This approach prevents the reports from displaying data which is irrelevant to the user and allows them to focus on the more relevant information.

In addition, the reporting also shows the percentage change and associated improvement/decline icons from the clinical tools dataset.   Refer to section 4.5 for an overview of the icon meanings.   It is again important to note that the icons which describe the percent change are determined based on an improvement toward or away from the baseline.   The physical number decreasing or increasing over time in partnership with the predefined AACVPR baseline target range is used to dynamically calculate an improvement /decline.

5.2.   Individual reports

The individual report is specific to a patient and cardiac rehabilitation program cycle. This report indicates changes in a specific patient's information during the course of the cardiac rehabilitation program, in addition to providing a general outcomes overview of the patient performance.

To access a specific patient's individual report, open the desired patient's record. (refer to section 3)

From the "Patient Summary" page, click on the button "Individual Report". A new window will appear with the patient's individual report.

Example : Individual report

Testing Cardiac Program
Individual Report

Name/Registry ID : Bacxxxx [12345]		**DOB** : 02/09/1960 [52 yrs]	
AACVPR Risk Level : Low		**Sex** : Female	
Diagnoses : Valve Repair/Replacement Surgery [05/27/2012]			
Risk Factors : Hypertension			
Insurance : HMO			

CATEGORY	Initial	DC	I-DC % Chg	FU	I-FU % Chg	DC-FU % Chg	Goal	Performance
Enrollment Date	06/04/2012	06/24/2012		04/03/2013				
Sessions								
# Prescribed: 5		5						
Assessment Tools								
Systolic BP	120	125		124				
Diastolic BP	92	86		85				
Waist Circumference (cm)	114.30	106.68	↗ 7					
Weight (kg)	136.1	122.5	↗ 10					
Height (cm)	165.10							
BMI	49.90	44.90	↗ 10					
% Sat. Fat Intake	8	9	↙ 13	10	↙ 25	↙ 11		
Daily Fruit/Vegetable Servings	3	2	↙ 33	3		↗ 50		
Lipid Profile Date	04/05/2012	-		-				
Lipid Units	mmol/L							
Total Cholesterol	3.11	3.11						
Triglycerides	1.14	1.13	↗ 1					
HDL-Cholesterol	2.59	2.07	↙ 20					
LDL-Cholesterol	1.35	1.48	↙ 10					
NonHDL-Cholesterol	0.52	1.04	↙ 100					
Depression								
CESD Score	5							
PHQ9 Score	7							
MACNEW								
Emotional	7.00	7.00						
Physical	7.00	7.00						
Social	7.00							

5.3.   Program Reports

The AACVPR application contains two separate program reports for review; the "Program Outcomes Summary" and the "Program Comparison" report.

To access the program reports use the primary navigation to select "Reports" from the "Reports and Data" menu. .
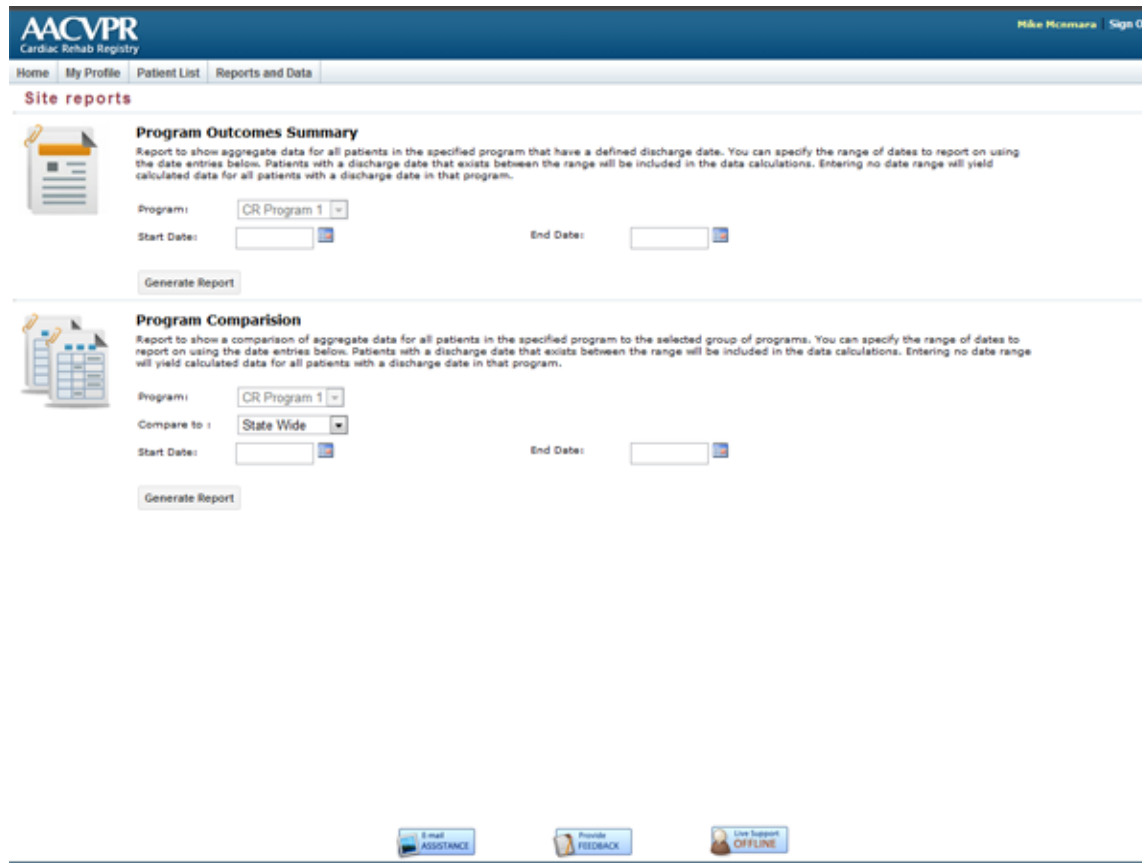
CR Program 1
Program Outcomes Summary

Date Range	: -
Patient Count	: 10

% Gender		Mean Age	Range			
Male	60	47	24 - 81			
Female	40	54	33 - 76			
UnSpecified	0					
% Race						
American Indian or Alaskan Native	30					
Asian	10					
Black or African-American	20					
Native Hawaiian or Pacific Islander	0					
Non-white Hispanic or Latino ethnicity	0					
White	10					
Ethnic category not listed	10					
Ethnic category unknown or not given	10					
% Diagnostic categories						

CATEGORY	Initial	DC	FU	I-DC % Chg	I-FU % Chg	DC-FU % Chg
Clinical						
SBP	116	104	77	10	34	26
DBP	77	72	45	6	42	38
Waist Circumference						
Male	109.2	99.1		9		
Female	99.1	91.4	88.9	8	10	3
BMI						
Male	38.1	33.0		13		
Female	34.4	32.9	32.9	4	4	
Lipids						
Total Cholesterol	125	120	98	4	22	18
Triglycerides	106	132	87	25	18	34
HDL-Cholesterol	53	54		2		
LDL-Cholesterol	75	80		7		
Non-HDL Cholesterol	71	65		8		
FBG	113	114		1		
A1C (DM only)	7	5		29		
Medications (%)						
Aspirin	30.0	10.0	0.0			
ACE/ARB	20.0	10.0	0.0			
Beta-Blocker	20.0	10.0	0.0			
Statin	0.0	0.0	0.0			
% Influenza Vaccine	10					
% Pneumonia Vaccine	0					
GXT METs	11.7	6.0		49		
DASI METs	4.0	4.1		3		
MET-mins/week (IPAQ)	22					
Steps/day	550	800		45		
% Saturated Fat Intake	9	7	2	22	78	71
F/V servings/day (% 4 or more)	0.00	33.33	16.67	100	100	50
# Untoward Events	4					
# Adverse Events	11					
% Readmissions	50.00					

Meets or exceeds goal
Short of goal and moving in the wrong direction

Report 1 – Program Outcomes Summary

The program outcomes summary report is a program specific aggregate report consisting of all patients in the program that have a defined discharge date within the user defined time frame.

This report indicates general statistics and overall performance of patients within the specified time frame.

To generate this report, simply select the desired program (if applicable) and date range. Click the "Generate" button.

Note
To select all data regardless of timeframe, simply leave the date selections blank.

Report 2 – Program Comparison

The program comparison report shows a comparison of the aggregate data for all patients in the specified program to the selected group of programs. The select set of patients for both the program and the group of programs will have a defined discharge date within the user defined time frame.

This report indicates general statistics and overall performance of patients within the specified time frame for each of the two distinct sets of data.

The group of programs always includes the comparing program. Thus, as a minimum the report will generate a comparison to itself.

To generate this report select the desired program (if applicable), comparing group and date range. Click the "Generate" button.

Note
To select all data regardless of timeframe simply leave the date selections blank.

Comparision Report

Program Name :	CR Program 1	Comparing to :		Entire Registry [608 program(s)]	
Program Patient Count :	10	Comparing Patient Count :		244	

Category	Selected Program			Selected Group		
% Gender		Mean Age	Range		Mean Age	Range
Male	60	47	24 - 81	49.2	56	24 - 82
Female	40	54	33 - 76	50.8	57	32 - 82
UnSpecified	0			0		
% Race						
American Indian or Alaskan Native	30			25.8		
Asian	10			18.9		
Black or African-American	20			8.6		
Native Hawaiian or Pacific Islander	0			7		
Non-white Hispanic or Latino ethnicity	0			7.4		
White	10			9.8		
Ethnic category not listed	10			11.1		
Ethnic category unknown or not given	10			11.1		
% Diagnostic categories						
MI	0			10.9		
PCI	28.6			10.7		
Angina	14.3			10.3		
CABS	0			8.4		
Valve repair/replacement surgery	0			8.2		
Cardiac transplant	14.3			8.8		
Heart failure	0			11.6		
Peripheral Arterial Disease	28.6			10.1		
Hyperlipidemia	0			10.7		
Diabetes Type 1	0			9.9		
Diabetes Type 2	14.3			0.2		
Hypertension	0			0		
Other	0			0		
% Comorbities						
AIDS	0			0		
Cerebrovascular Disease	40			50		
Connective Tissue Disease	0			0		
Dementia	20			16.7		
Liver Disease	20			16.7		
Malignancy	40			33.3		
Metastatic Cancer	0			0		
Pulmonary Disease	20			16.7		
Renal Disease	0			16.7		
Ulcer Disease	20			33.3		
Peripheral Arterial Disease	60			50		
Diabetes Mellitus	140			116.7		
Previous Myocardial Infarction	40			33.3		
% Metabolic Syndrome						
% Metabolic Syndrome	200			250		
% Risk Levels						
Low	57.1			23.7		
Intermediate	42.9			34		
High	0			24.9		
Unknown	0			17.4		
# Mean completed session						
# Mean completed session	2			4		
% Tobacco Status (Intake)						

6. Extracting Your Data

6.1.   Data manager

The AACVPR application provides a unique and innovative means for users to extract information from the registry. The data manager section will allow users to make predefined requests to retrieve data or to create custom requests for their needs. Since many complex data routines are server intensive the download manager was created to help manage the requested data without negatively impacting the server and/or running application. As such, data requests are buffered until such time as the application determines it is safe to perform the extraction.

The primary screen of the data manager module is merely a viewing portal to previously extracted information in addition to a listing of currently pending data requests that the application is presently buffering.

The extraction history panel provides users a quick reference to the date of the request, a description of the information contained, and who initially created the dataset.

To download a newly completed or previously processed dataset simply click on the icon next to the desire extraction.

To create a new data extraction for download, click on the "New Data Set Request" button from the Data Manager page.

A modal window will appear allowing the user to select from an existing dataset or to create a new dataset.

Predefined datasets are not specific to a timeframe nor a specific organization. Essentially the predefined datasets are a template of information to be extracted. A user will be required to indicate the timeframe and the desired CR Program in order to request information from the application.

Through the use of the dataset templates, a user may create distinct data extractions over time and/or for distinct CR Programs. This concept will provide a consistent and know structure for ease in analysis.

For example: A user may define a specific dataset template regarding "Adverse Event(s)". They may then create data requests on a quarterly basis. The output will provide them with ongoing analysis of "Adverse Event(s)" monitoring for the desired CR Program.

NOTE:
Users only have access to extract data for CR Programs they currently have privileges to. Access to information regarding CR Programs outside of their defined privileges is strictly prohibited by the AACVPR application.
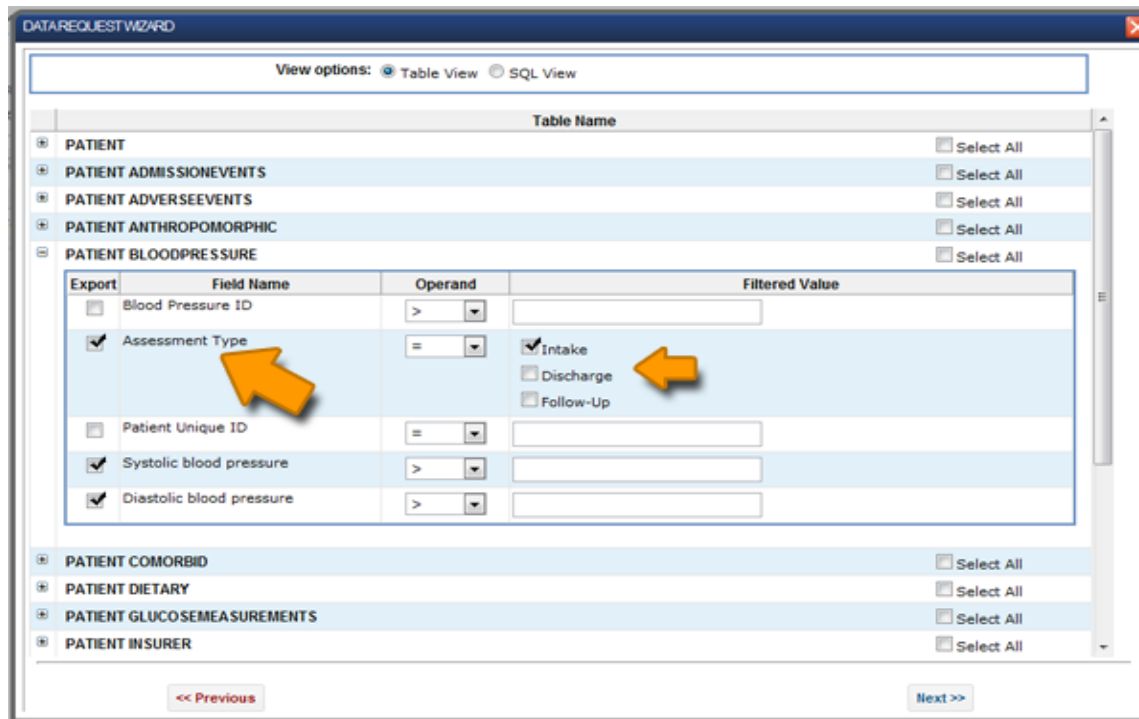
To create a new dataset template simply click on the "New" button from the Data Request Wizard page. (See above instructions)

The data request wizard will provide the user with a tree-like view of information that exists within the AACVPR registry.

The user may select the [+] icon located to the left of each category to view the subset of data variables within that category.
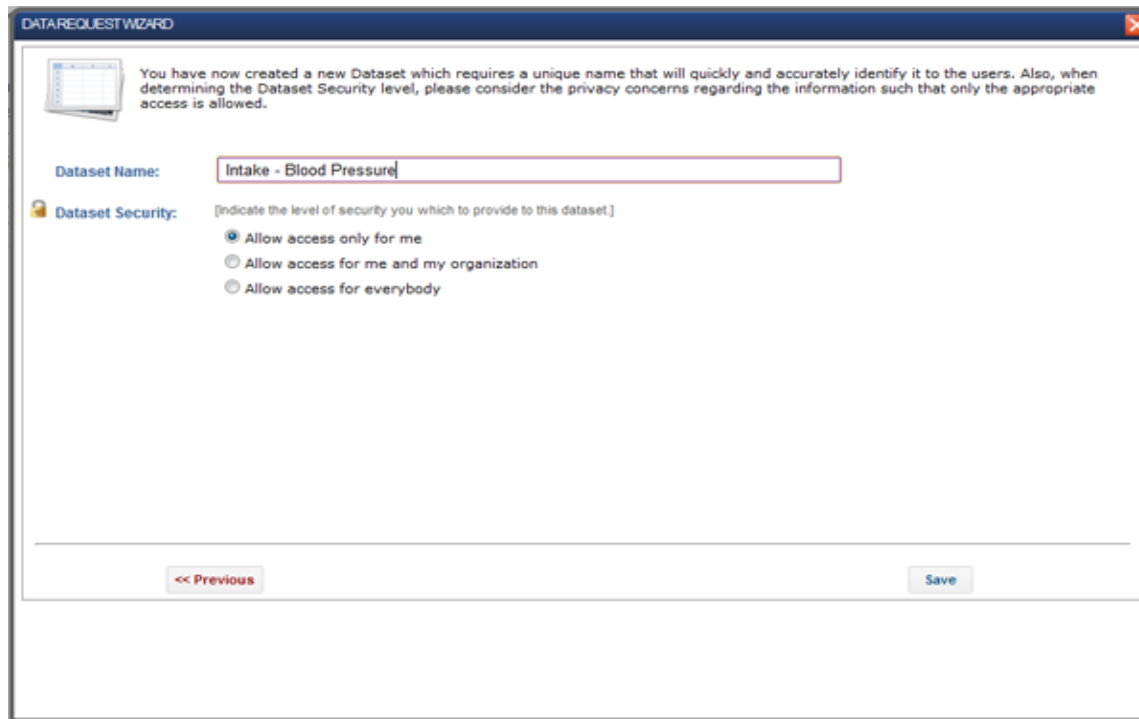
The user then selects the associated checkbox next to the desired data element they wish to include in their dataset template. In addition, the user may filter each selected data item by selecting or entering the desired filter criteria into the "Operand" and "Filtered Value" columns.

Example: The image to the left indicates that a user wants to extract data regarding patient's Blood Pressure. The user has revealed the subset of Blood Pressure information by selecting the [+] icon next to the Blood Pressure heading. The user has also selected
- Systolic blood pressure
- Diastolic Blood pressure
- Assessment Type

variables to be included in the extraction.

In addition, the example indicates that the user has requested a filter to be applied to the extraction where only values at *Assessment Type - Intake* be included.

DATA REQUEST WIZARD

You have now created a new Dataset which requires a unique name that will quickly and accurately identify it to the users. Also, when determining the Dataset Security level, please consider the privacy concerns regarding the information such that only the appropriate access is allowed.

Dataset Name: Intake - Blood Pressure

Dataset Security: [Indicate the level of security you which to provide to this dataset.]

○ Allow access only for me
○ Allow access for me and my organization
○ Allow access for everybody

<< Previous   Save

Continued from above

The user may traverse the entire set of available information and create a fully custom extraction to their current needs.

Once the dataset template variables have been defined the user may select next in the wizard where they will be required to provide a name for their newly created data set template. Upon "Save" of the template the user will be presented with the Dataset Request Wizard where their newly created dataset template name will appear in the predefined dataset dropdown.

Refer above the above documentation on how to extract specific data from a dataset template.

7. Security

7.1. Application Security

The AACVPR application is safeguarded by a number of security protocols. Primarily the application is secured under the standard 128 bit encryption Secure Socket Layer protocol (SSL). Thus all data transmitted to the registry will be in an encrypted state.

Additionally, the application is a closed access system, which requires a primary individual to register and administrate users to the system.   The AACVPR registry does not allow users to self register thus limiting access to known and controlled user sets.

The application requires registered users to sign in using a two factor authentication process. The authentication process will limit the users privileges based on the users defined role. Users are generally limited to accessing a single CR Program. The application strictly prohibits users from accessing information which is external to their defined CR Programs.

Lastly the application is fully HIPAA compliant providing administrative, physical and technical safeguards to the system in addition to providing a complete audit trail of information modifications. For more information regarding the application security and safeguards please contact AACVPR. (Refer to section 1.4)

7.2. Privacy

Protecting your privacy

AACVPR values your privacy and the information you provide to us. To that end, we have created a Privacy Policy to address any questions or concerns that you may have, and to assure you that we treat all of your information with the utmost sensitivity and care.

This AACVPR registry application is intended for professionals involved in Cardiovascular and Pulmonary Rehabilitation. This policy states how data information is collected from our intended users and how it is used.

The information we collect

AACVPR registry collects information that you, the user, provide through online forms/applications such as de-identified clinical information, etc. The information you provide is kept confidential and is not available for public use. Some information may be used in an aggregate format, however, not direct one to one comparisons are available.