



NCDR[®]

NATIONAL CARDIOVASCULAR DATA REGISTRY

CathPCI Registry[®]

V4 Data Quality Report (DQR) Companion Guide

The mission of the NCDR[®] is to improve the quality of cardiovascular patient CathPCI by providing information, knowledge and tools; implementing quality initiatives; and supporting research that improves patient CathPCI and outcomes.

The NCDR[®] is an initiative of the American College of Cardiology Foundation, with partnering support from the Society for Cardiovascular Angiography and Interventions for the CathPCI Registry.

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DQR Overview

The Data Quality Report—commonly referred to as the "DQR"—is a process for submitting data files to the NCDR®. Participants use their data collection tool software to create a submission file which is uploaded to the NCDR website. After uploading, the data in the file is automatically checked for errors and completeness. Passing the DQR ensures well-formed data and a statistically significant submission. Data that passes the DQR are used to create an Institutional Outcomes Report.

An Outcomes Report provides detailed analysis of a hospital's individual performance in relation to the entire registry population. This gives insight into care variations and quality improvement opportunities. Institutional reports afford an opportunity to compare your practice patterns to NCDR averages that represent peer groups and U.S. participants who submit data and pass our inclusion threshold.

This guide walks you through the DQR process. Uncorrected errors will prevent your data from appearing in an Outcomes Report.

Note: The DQR threshold limits are subject to change at any time to increase the effectiveness of the data collection process as the CathPCI Registry deems appropriate. This in turn renders any threshold limit temporary until the next release of the adjusted thresholds.

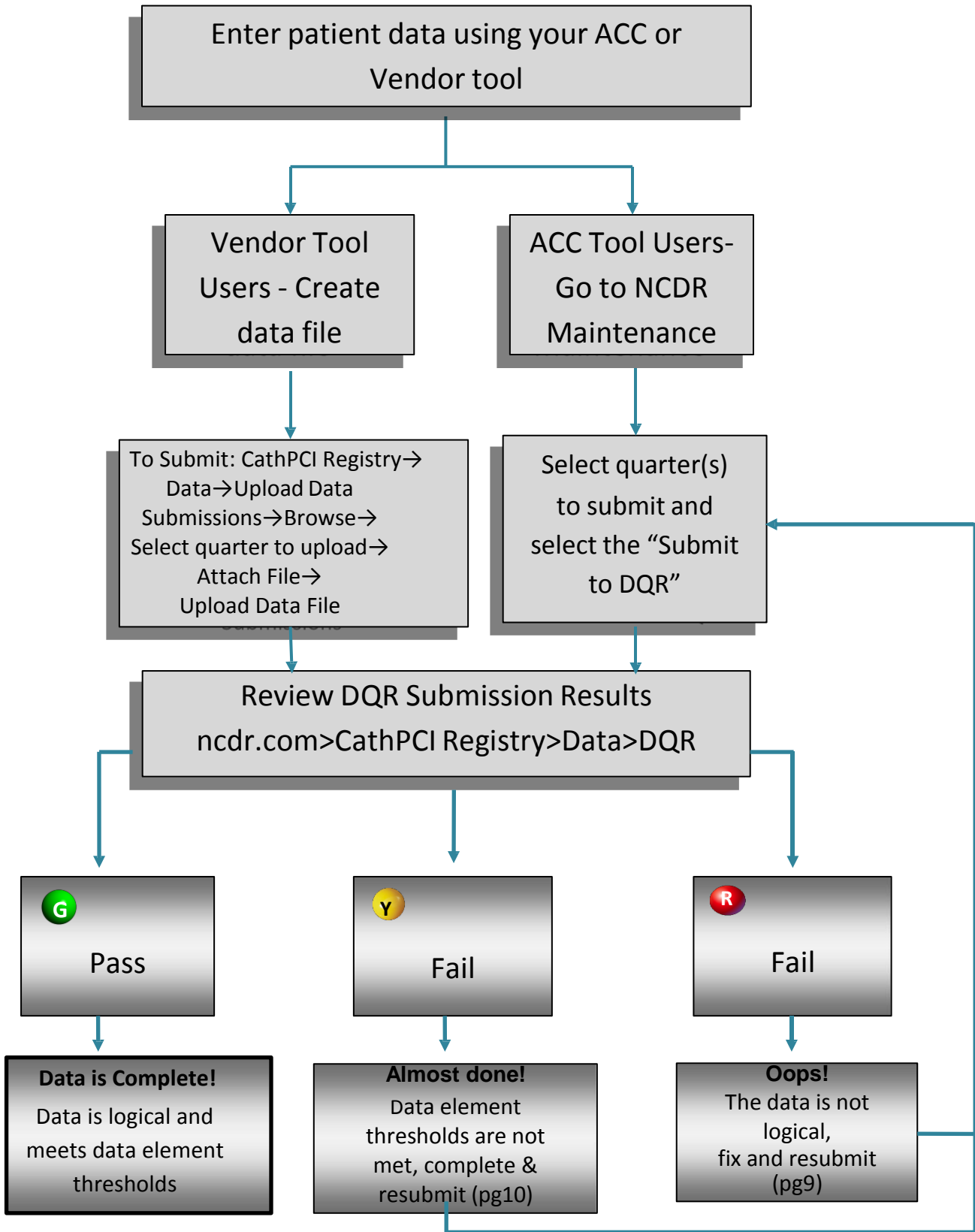


Figure 1: Major steps in the Data Submission Process

Step 1: One-time Setup (vendor tool)

Note: Data are not complete until they have been submitted to and passed the DQR. Note: This first step is necessary for successful data submission.

1. Ensure you have the most recent CathPCI Registry Intracoronary Devices, Closure Devices, and Medications File in your vendor software.
 - a. From the NCDR website, navigate to the CathPCI Registry homepage.
 - b. Select **Resources**.
 - c. Scroll to the **Technology Downloads** section.
 - d. Click the link marked **Download** for the list you wish to download.

	Master File Downloads	Last Updated	Sorted by ID*	Sorted by Name	Sorted by Category
Version 4	v4 Intracoronary Devices	09/04/09	Download View	Download View	Download View
	v4 Closure Devices	09/04/09	Download View	Download View	n/a
	v4 Medications	09/04/09	Download View	Download View	Download View

- e. Use the **Last Updated** date column to help you determine if you need to update your files.
 - f. Save the file to your computer or network, and upload to your software based on your vendor's instructions.
2. Ensure you have your CathPCI Registry -specific encryption key in the NCDR Maintenance section of your vendor software.
 - a. To copy/paste your encryption key, click on **Administration** from the top navigation bar.
 - b. Select **Site Profile** from the left navigation.

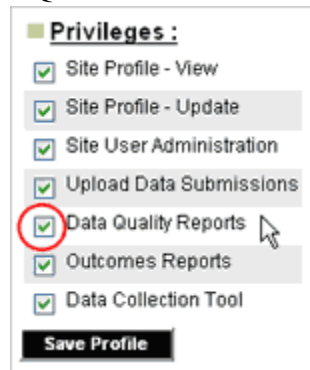
Encryption Key: @msgfuta=onc\$p6vkj0x
Contract Date: 12/31/2010
Last Updated Date: 1/5/2009 10:58:20 AM

- c. Copy the encryption key. Be sure that there are no extra characters in your copy.
 - d. Follow your vendor instructions for specific location to enter key.
 - e. For security purposes, each registry uses a unique **Encryption Key**. If you are also an ICD Registry™ or CARE Registry® participant, you must use the registry-specific encryption key.
 - f. Prepare your data for submission (complete records, verify accuracy, etc).

Step 1: One-time Setup (ACC tool)

Note: This first step is necessary for successful data submission.

1. Set privileges to ensure access to the DQR:
Your Registry Site Manager must check the box next to the **Data Quality Report** privilege within the **Site User Administration** menu for each user who interacts with the DQR feature.



The screenshot shows a 'Privileges' window with a list of checkboxes. The 'Data Quality Reports' checkbox is circled in red and has a mouse cursor pointing to it. The other checkboxes are also checked. At the bottom of the window is a 'Save Profile' button.

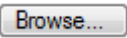


Privilege	Checked
Site Profile - View	Yes
Site Profile - Update	Yes
Site User Administration	Yes
Upload Data Submissions	Yes
Data Quality Reports	Yes
Outcomes Reports	Yes
Data Collection Tool	Yes

2. Optional: Set **Email Preferences** to receive the automated DQR notification.
 - a. Click **Individual Profile** from the **Administration** menu.
 - b. Check the box next to the privilege marked "Email me when any data submission file has been processed."
 - c. This ensures you will receive an email when your DQR is processed.

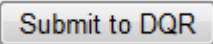


Are you ready to upload your quarterly data? Go to Step 2: Submit Data to the DQR.

Step 2: Submit Data to the DQR (vendor software)

1. Create the export file(s) for the quarter(s) you will submit within your vendor application. Follow your vendor-specific instructions for location of this function.
Note: When creating the export file, be sure to note where you saved the file. Ensure you are sending the most recent extracted file and not repeating submitting the same file twice.
2. Log into the **CathPCI Registry** in **www.ncdr.com**.
3. Click **Data** in top menu.
4. Select **Upload Data (v4.0)**.
5. Click , and select all the export file(s) you wish to submit.
6. Click .
7. Repeat steps 5 and 6 if you have more quarters to upload.
8. Agree to the statement, “By clicking on the submit button, I hereby represent ...”
9. Click .
10. The file(s) are sent to the DQR for processing, this may take several minutes.

Step 2: Submit Data to the DQR (ACC software)




1. Log into the **CathPCI Registry** in **www.ncdr.com**.
2. Click **Data** in top menu.
3. Select **Data Collection Tool (v4.0)**.
4. Select **NCDR Maintenance**.
5. Select the quarter(s) you wish to submit.
6. Agree to the statement, “By clicking on the submit button, I hereby represent ...”
7. Click .
8. The file(s) are sent to the DQR for processing, this may take several minutes.

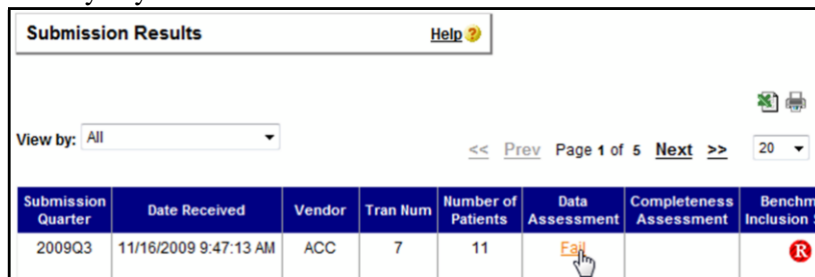



Ready to review the DQR? Go to Step 3: Review Results

Step 3: Review Results

If you submitted or uploaded more than one quarter, you will need to review all submitted quarters to see that they pass the DQR. Each quarter is independent and will not affect other quarters' DQR status. **Note: If you are only submitting DDS elements, then you will be assessed for only those elements.**


1. Navigate to the Submissions Results page to review your DQR.
 - a. After submitting, Click  from the **Upload Data Submission** section
 - b. Or click **ncdr.com > CathPCI > Data > DQR (v4.0)**.
2. If you receive a Benchmark Inclusion Status of , congratulations, your submission has passed both **Data Assessment** and **Completeness Assessment**.
 - a. You may receive this status even with some missing data elements. Even with these few missing elements, your submission meets the data quality standards. We hope you can provide the most complete record possible, and encourage you to resubmit to the DQR if you can provide these missing elements.
3. Do you have **Data Assessment** errors? 
 - a. Click on the Fail hyperlink in the **Data Assessment** column for your submission to identify any **Data Assessment** errors.

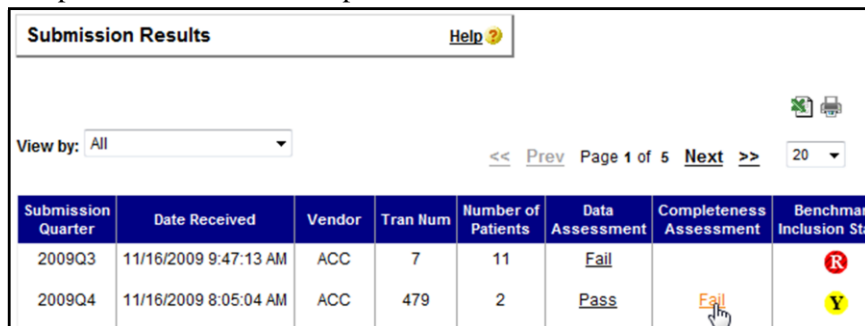




Submission Quarter	Date Received	Vendor	Tran Num	Number of Patients	Data Assessment	Completeness Assessment	Benchmark Inclusion Sta
2009Q3	11/16/2009 9:47:13 AM	ACC	7	11	Fail		



See the below section on **"Correcting Data Assessment Errors"** for details.

4. Do you have **Completeness Assessment** errors? 
 - a. Click on the Fail hyperlink in the **Completeness Assessment** column for your submission to view each composite and identify the elements within each composite that need to be completed/coded in order to pass.



Submission Quarter	Date Received	Vendor	Tran Num	Number of Patients	Data Assessment	Completeness Assessment	Benchmark Inclusion Sta
2009Q3	11/16/2009 9:47:13 AM	ACC	7	11	Fail		
2009Q4	11/16/2009 8:05:04 AM	ACC	479	2	Pass	Fail	



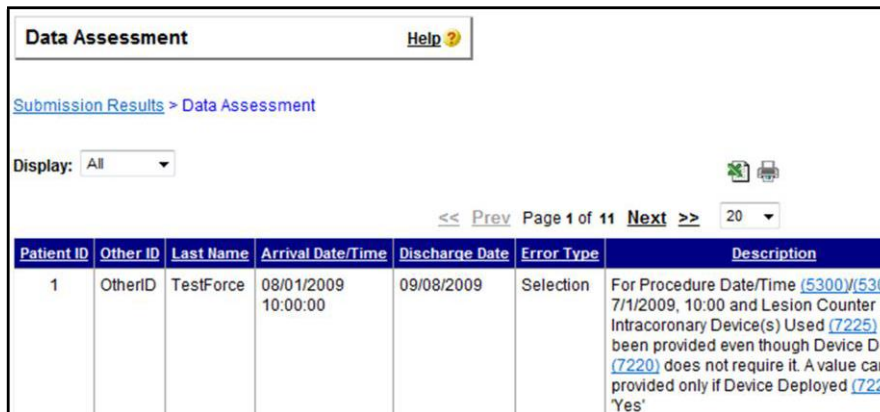
See below the **"Completeness Assessment Errors"** section for details on correcting

Note: Be sure to re-harvest and then re-submit the data after making corrections, and re-review your validation levels.

Step 3: Review Results: Correcting Data Assessment Errors


You must pass **Data Assessment** before you can reach **Completeness Assessment**.

1. After clicking on **Fail** from the **Data Assessment** column on the **Submission Results** page, your Data Assessment errors are displayed.



The screenshot shows a web interface titled "Data Assessment" with a "Help" icon. Below the title is a breadcrumb "Submission Results > Data Assessment" and a "Display:" dropdown menu set to "All". There are icons for printing and a page navigation bar showing "Page 1 of 11" with "Prev" and "Next" buttons, and a page size selector set to "20". The main content is a table with the following data:

Patient ID	Other ID	Last Name	Arrival Date/Time	Discharge Date	Error Type	Description
1	OtherID	TestForce	08/01/2009 10:00:00	09/08/2009	Selection	For Procedure Date/Time (5300/5307/1/2009, 10:00 and Lesion Counter 1, Intracoronary Device(s) Used (7225) has been provided even though Device Deployment (7220) does not require it. A value can be provided only if Device Deployed (7220) is "Yes"

2. Read the **Description** column to determine the cause of each error.
3. Use this list in conjunction with your software, to verify or correct, then re-submit to the DQR.
 - a. Sort the list by column by clicking the column headers.
 - b. Each data element listed in the Description column is linked to its description in the data dictionary.
 - c. Use the **Display:** dropdown menu to sort by Error Types to better manage the list.
4. Optional: Download an error report as an XLS file.
 - a. Click the  icon in the upper right of the DQR screen.
 - b. Select **Save** or **Open** from the **File Download** box.



Don't forget to re-harvest and then re-submit the data after making corrections and re-review your DQR.



If you are using the ACC Data Collection Tool, use the "Quality Check" function before submitting to the DQR.

Step 3: Review Results: Correcting Completeness Assessment Errors

You must pass **Data Assessment** before you can reach **Completeness Assessment**.

1. After clicking on Fail from the **Submission Results** page, your **Completeness Assessment** errors will be displayed.

Completeness Assessment (Summary) [Help ?](#)

[Submission Results](#) > [Completeness Assessment \(Summary\)](#)

Benchmark Inclusion Status: Y

Composites	Composite Threshold	Status	Resolution
Core	100%	Fail	You need to meet the individual element threshold for 35 more element(s)
Supporting	80%	Fail	You need to meet the individual element threshold for 20 more element(s)
Minimum	100%	Fail	You need to meet the individual element threshold for 23 more element(s)

Benchmark Inclusion Details

Element View Patient View

Composite: All Status: Fail
 << [Prev](#) Page 1 of 5 [Next](#) >> 20

SeqNum	Composite	Element Name	Element Threshold	# Elements Assessed	Actual	Missing	Remaining	Element Status
4025	Core	Prior Heart Failure	90	1	0	1	1	Fail

2. **Benchmark Inclusion Status** is given in the first table.
 - a. The Resolution column for each composite tells you how many elements are causing the submission to fail.
 - b. You will need to complete enough data elements to pass both the **Core** and **Supporting** composites.
3. **Benchmark Inclusion Details** is the second table and is an element-by-element breakdown of the fields that are causing the Completeness Assessment errors.
4. View the data in a way that is most convenient for you.
 - a. Click the Fail column header to determine how many patients are missing an individual element.
OR...
 - b. Click the Missing column header to determine which elements are the most “incomplete.”
5. Optional: Download an error report as an XLS file. This list can make searching for and correcting errors easier.
 - a. Click the icon in the upper right of the **DQR** screen.
 - b. Select **Save** or **Open** from the File Download box.



Don't forget to re-harvest and then re-submit the data after making corrections and re-review your DQR.

Appendix: Data Quality Report Terminology

The Data Quality Report is a process for quality checking submitted patient data. It is a series of error checks and completeness thresholds, called "validation levels," and is accessed through the CathPCI Registry website. Passing the DQR ensures well-formed data and statistical significance of the submission.

Major steps in the DQR process:

1. Collect patient data for all patients appropriate for inclusion in the registry.
2. Submit quarterly data to the registry.
3. Review your resulting validation levels.
4. Correct any errors and/or complete any missing fields.
5. Re-harvest your data.
6. Resubmit your data.
7. Review your new validation levels.
8. Continue to correct data and/or resubmit until you have passed all validation levels (passed the DQR).

Note: Your Institutional Outcomes report (received the quarter following the Call for Data period) will contain the most recent four quarters of data. This is known as "Rolling Four Quarters." For this reason, we encourage you to resubmit previous quarters if the data are more complete and/or more accurate.

Terms used in the DQR:

Core verifies the integrity of the submitted zip file. Items that are checked include file naming conventions, missing files, or incorrect passwords.

Supporting verifies the validity of the data elements within each submitted records. These include duplicate records, orphan records, missing medications, invalid data, etc.

Minimum verifies the "completeness" of the submitted records and ensures statistical significance of the submission. Composites and "thresholds" are often used interchangeably.




Changing Views

 Element View Patient View

Element View: Organizes errors by element first. Clicking on the Element Name will display the patients with the error.

Patient View: Organizes errors by patient first. Clicking on the Element Name will display the patients with the error.

Appendix: Symbols



Symbol	Definition
	Print the page contents.
	Create excel output of page contents.
	Display popup window of specific help content.
	Green light: Passing the DQR. Go for green!
	Yellow light: Failing Completeness Assessment and passing Data Assessment.
	Red light: DQR submission failing Data Assessment. Completeness Assessment is not checked until the submission is able to pass Data Assessment.

Appendix: Submission Status

Status	Data Assessment	Completeness Assessment
<u>Fail</u>	Your data have been assessed and does not pass the NCDR checks.	You have not provided enough data per patient to pass the NCDR checks.
<u>Pass</u>	Your data have been assessed and passes the NCDR checks, but some Outliers have been identified. These are for your information only and do not stop your progress through the DQR process.	Your data have been assessed and pass the NCDR checks, but some missing elements have been identified. These are for your information only and do not stop you progressing through the DQR process.
Pass	Your data have been assessed for quality and pass the NCDR checks.	Your Data have been assessed for completeness and pass the NCDR checks and have no missing elements.

Appendix: On-Screen Column Definitions

The Submission Results Table guide

Submission Quarter	Submitting multiple quarters at a time will still show results by individual quarter.
Date Received	This can be a helpful reference for old submissions or help identify if your recent submission has been successfully processed by the DQR.
Vendor	If using a vendor tool, this will display the name. If using the ACC online tool instead of a vendor tool, this will simply say "ACC."
Tran Num	Your vendor tool or ACC tool (depending on which you use to submit) will automatically assign a Transmission Number. These can be helpful as references when trouble-shooting.
Number of Patients	Provided as a general check to confirm the submission is accurately submitting the correct number of patients.
Data Assessment	Either "Fail" or "Pass."
Completeness Assessment	Either "Fail" or "Pass."
Benchmark Inclusion Status	One of three symbols.    . Go for green.
Population Status	Either "PCI Only" or "All Patients."

Data Assessment Table guide

Clicking table headers will organize the contents alphabetically by that column.

Patient ID	Displays the unique Patient ID ²⁰⁴⁰ .
Other ID	Displays if the Other ID ²⁰⁴⁵ field was entered for this patient.
Arrival Date/Time	Arrival Date/Time ^{3000/3001} of patient.
Discharge Date	Discharge Date ⁹⁰³⁵ of patient.
Error Type	<p>There are four data error types.</p> <p>List: Missing data in the Medications or Devices lists.</p> <p>Outlier: Data exceed the possible limits. For example: 1,000mm length lesion.</p> <p>Schema: The data are not well formed. Often a vendor related issue.</p> <p>Selection: Can be a parent/child errors where a field requests more data.</p>
Description	Click the sequence number link for data Dictionary information on that element.

Benchmark Inclusion Status

Clicking table headers will organize the content alphabetically by that column.

Composites	There are 3 Composite types. Core: All core elements are required to meet the threshold. Supporting: Some of the data elements need to meet the threshold, but not all data elements. Minimum: All elements must meet a minimum completion percent.
Composites Threshold	Displays the percent of passing elements for that composite.
Status	Either Fail or Pass. All composites need to be passing.
Resolution	Displays the <i>minimal</i> number of elements to be fixed in order for the threshold to be considered passing.

Benchmark Inclusion Details

SeqNum	Click the number to display the Data Dictionary information of that Sequence Number.
Composite	Core, Supporting, or Minimum.
Element Name	Click the Element Name to display all patients with errors for that element.
Element Threshold	Percentage of elements in the submission that need to pass.
#Elements Assessed	Total number of possible elements that could be checked in the submission.
Actual	Total available elements that are in the submission.
Missing	The difference between the #Elements Assessed column and the Actual column.
Remaining	Number of elements that need to be corrected.
Element Status	Either Pass or Fail.

Composite Detail

Patient ID	Displays the unique Patient ID ²⁰⁴⁰ .
Other ID	Displays the unique Patient ID ²⁰⁴⁰ .
Composite	There are 3 Composite types. Core: All core elements are required. Supporting: Some of the data elements need to meet the threshold, but not all data elements. Minimum: All elements must meet a minimum completion percent.
Arrival Date	Patient's hospital arrival date.
Discharge Date	Patient's hospital discharge date.
Additional Info	Any additional information regarding the error.
SeqNum	Click the number to display the Data Dictionary information of that Sequence Number.
Element Name	Click the Element Name to display all patients with errors for that element.
Element Status	Either Pass or Fail.

Appendix: Composite Thresholds

Sequence Number	Element Name	Composite Core is 100% Supporting is 80% Minimum is 10%	Individual Element Threshold
1000	Participant ID	NA	None
1010	Participant Name	NA	None
1016	Participant NPI	NA	None
1020	Time Frame of Data Submission	NA	None
1040	Transmission Number	NA	None
1050	Vendor Identifier	NA	None
1060	Vendor Software Version	NA	None
1070	Registry Identifier	NA	None
1080	Registry Version	NA	None
1200	Auxiliary 0	NA	None
2000	Last Name	NA	None
2010	First Name	NA	None
2020	Middle Name	NA	None
2030	SSN	NA	None
2031	SSN N/A	NA	None
2040	Patient ID	NA	None
2045	Other ID	NA	None
2050	Birth Date	Core	100%
2060	Sex	Core	100%
1900	RaceCalc	Minimum	10%
1900	RaceCalc	Supporting	80%
2070	Race - White	NA	None
2071	Race - Black or African American	NA	None
2072	Race - Asian	NA	None
2073	Race - American Indian or Alaskan Native	NA	None
2074	Race - Native Hawaiian or Pacific Islander	NA	None
2076	Hispanic or Latino Ethnicity	Core	80%
2500	Auxiliary 1	NA	None
2501	Auxiliary 2	NA	None
3000	Arrival Date	NA	None
3001	Arrival Time	Core	90%
3005	Patient Zip Code	Minimum	10%
3005	Patient Zip Code	Supporting	70%
3006	Zip Code N/A	NA	None
3010	Admit Source	Core	90%
1901	InsuranceCalc	Minimum	10%
1901	InsuranceCalc	Supporting	80%
3020	Insurance Payors - Private Health Insurance	NA	None
3021	Insurance Payors - Medicare	NA	None
3022	Insurance Payors - Medicaid	NA	None
3023	Insurance Payors - Military Health Care	NA	None
3024	Insurance Payors - State-Specific Plan	NA	None
3025	Insurance Payors - Indian Health Service	NA	None
3026	Insurance Payors - Non-US Insurance	NA	None

3027	Insurance Payors – None	NA	None
3030	Health Insurance Claim Number	NA	NA
4000	Current/Recent Smoker (w/in 1 year)	Minimum	10%
4000	Current/Recent Smoker (w/in 1 year)	Supporting	90%
4005	Hypertension	Minimum	10%
4005	Hypertension	Supporting	90%
4010	Dyslipidemia	Minimum	10%
4010	Dyslipidemia	Supporting	90%
4015	Family History of Premature CAD	Minimum	10%
4015	Family History of Premature CAD	Supporting	90%
4020	Prior MI	Minimum	10%
4020	Prior MI	Supporting	90%
4025	Prior Heart Failure	Core	90%
4030	Prior Valve Surgery/Procedure	Core	90%
4035	Prior PCI	Core	90%
4040	Most Recent PCI Date	Minimum	10%
4040	Most Recent PCI Date	Supporting	90%
4045	Prior CABG	Minimum	10%
4045	Prior CABG	Supporting	90%
4050	Most Recent CABG Date	Minimum	10%
4050	Most Recent CABG Date	Supporting	90%
4055	Height	Core	90%
4060	Weight	Core	90%
4065	Currently on Dialysis	Core	90%
4070	Cerebrovascular Disease	Core	90%
4075	Peripheral Arterial Disease	Core	90%
4080	Chronic Lung Disease	Core	90%
4085	Diabetes Mellitus	Core	90%
4090	Diabetes Therapy	Core	90%
5000	CAD Presentation	Core	90%
5005	Symptom Onset Date	Minimum	10%
5005	Symptom Onset Date	Supporting	80%
5006	Symptom Onset Time	Minimum	10%
5006	Symptom Onset Time	Supporting	50%
5007	Symptom Onset Time Estimated	Minimum	10%
5007	Symptom Onset Time Estimated	Supporting	50%
5008	Symptom Onset Time Not Available	Minimum	10%
5008	Symptom Onset Time Not Available	Supporting	50%
5010	Thrombolytics	Minimum	10%
5010	Thrombolytics	Supporting	80%
5015	Thrombolytic Therapy Date	Minimum	10%
5015	Thrombolytic Therapy Date	Supporting	80%
5016	Thrombolytic Therapy Time	Minimum	10%
5016	Thrombolytic Therapy Time	Supporting	80%
5020	Anginal Classification w/in 2 Weeks	Minimum	10%
5020	Anginal Classification w/in 2 Weeks	Supporting	80%
5025	Anti-Anginal Medication w/in 2 Weeks	Minimum	10%
5025	Anti-Anginal Medication w/in 2 Weeks	Supporting	80%
1902	AAmeds Cal	Minimum	10%

1902	AAmeds Calc	Supporting	80%
5026	Beta Blockers	NA	None
5026	Beta Blockers	NA	None
5027	Calcium Channel Blockers	NA	None
5027	Calcium Channel Blockers	NA	None
5028	Long Acting Nitrates	NA	None
5028	Long Acting Nitrates	NA	None
5029	Ranolazine	NA	None
5029	Ranolazine	NA	None
5030	Other Anti-Anginal Agent	NA	None
5030	Other Anti-Anginal Agent	NA	None
5040	Heart Failure w/in 2 Weeks	Minimum	10%
5040	Heart Failure w/in 2 Weeks	Supporting	80%
5045	NYHA Class w/in 2 Weeks	Minimum	10%
5045	NYHA Class w/in 2 Weeks	Supporting	80%
5050	Cardiomyopathy or Left Ventricular Systolic Dysfunction	Minimum	10%
5050	Cardiomyopathy or Left Ventricular Systolic Dysfunction	Supporting	80%
5055	Pre-operative Evaluation Before Non-Cardiac Surgery	Minimum	10%
5055	Pre-operative Evaluation Before Non-Cardiac Surgery	Supporting	80%
5060	Cardiogenic Shock w/in 24 Hours	Core	90%
5065	Cardiac Arrest w/in 24 Hours	Minimum	10%
5065	Cardiac Arrest w/in 24 Hours	Supporting	80%
5100	Stress or Imaging Studies	Core	90%
5200	Standard Exercise Stress Test	Core	80%
5201	Stress Test Results	Core	80%
5202	Risk/Extent of Ischemia (Stress Test)	Core	80%
5210	Stress Echocardiogram	Core	80%
5211	Stress Echo Imaging Results	Core	80%
5212	Risk/Extent of Ischemia (Stress Echo)	Core	80%
5220	Stress Testing with SPECT MPI	Core	80%
5221	SPECT MPI Imaging Results	Core	80%
5222	Risk/Extent of Ischemia (SPECT MPI)	Core	80%
5230	Stress Test with CMR	Core	80%
5231	CMR Imaging Results	Core	80%
5232	Risk/Extent of Ischemia (Stress Test with CMR)	Core	80%
5240	Cardiac CTA	Core	80%
5241	Cardiac CTA Results	Core	80%
5250	Coronary Calcium Score	Core	80%
5251	Calcium Score	Core	80%
5300	Date of Procedure	NA	None
5301	Time of Procedure	NA	None
5305	PCI	NA	None
5310	Diagnostic Cath	NA	None
5315	Other Procedure (in conj w/Dx Cath or PCI)	Minimum	10%
5315	Other Procedure (in conj w/Dx Cath or PCI)	Supporting	60%
5320	Fluoroscopy Time	NA	None
5321	Fluoroscopy Dose	NA	None
1903	FluroCalc	Supporting	80%
1903	FluroCalc	Minimum	10%
5325	Contrast Volume	Minimum	10%
5325	Contrast Volume	Supporting	80%

5330	IABP	Core	90%
5335	IABP Timing	Core	90%
5340	Other Mechanical Ventricular Support	Core	90%
5345	Other Mechanical Ventricular Support Timing	Core	90%
5350	Arterial Access Site	Minimum	10%
5350	Arterial Access Site	Supporting	80%
5355	Arterial Access Closure Method	Minimum	10%
5355	Arterial Access Closure Method	Supporting	80%
5356	Closure Method Not Documented	Core	100%
5360	Closure Device Counter	NA	None
5400	Auxiliary 3	NA	None
5405	Auxiliary 4	NA	None
6000	Diagnostic Cath Operator Last Name	Core	90%
6005	Diagnostic Cath Operator First Name	Core	90%
6010	Diagnostic Cath Operator Middle Name	Minimum	0%
6010	Diagnostic Cath Operator Middle Name	Supporting	0%
6015	Diagnostic Cath Operator NPI	Core	90%
6020	Diagnostic Coronary Angiography Procedure	Minimum	10%
6020	Diagnostic Coronary Angiography Procedure	Supporting	80%
6025	Left Heart Cath Procedure	Minimum	10%
6025	Left Heart Cath Procedure	Supporting	80%
6030	Cardiac Transplant Evaluation	Core	80%
6035	Cardiac Transplant Type	Core	80%
6040	Diagnostic Cath Status	Minimum	10%
6040	Diagnostic Cath Status	Supporting	80%
6045	Rx Recommendation	Minimum	10%
6045	Rx Recommendation	Supporting	80%
6100	Dominance	Minimum	10%
6100	Dominance	Supporting	60%
6110	Left Main Stenosis Percent	Core	90%
6111	Left Main Not Available	NA	None
6120	Proximal LAD Stenosis Percent	Core	90%
6121	Proximal LAD Not Available	NA	None
6130	Mid/Distal LAD, Diag Branches Stenosis Percent	Core	90%
6131	Mid/Distal LAD, Diagonals Stenosis Not Available	NA	None
6140	CIRC, OMs, LPDA, LPL Branches Stenosis Percent	Core	90%
6141	CIRC, OMs, LPDL, LPL Branches Stenosis Not Available	NA	None
6150	RCA, RPDA, RPL, AM Branches Stenosis Percent	Core	90%
6151	RCA, RPDA, RPL, AM Branches Stenosis Not Available	NA	None
6160	Ramus Stenosis Percent	Core	90%
6161	Ramus Stenosis Not Available	NA	None
6170	Proximal LAD Graft Stenosis Percent	Core	90%
6171	Proximal LAD Graft Stenosis Not Available	NA	None
6180	Mid/Distal LAD, Diag Branches Graft Stenosis Percent	Core	90%
6181	Mid/Distal LAD, Diag Branches Graft Stenosis Not Available	NA	None
6190	CIRC, OMs, LPDA, LPL Branches Graft Stenosis Percent	Core	90%
6191	CIRC, OMs, LPDA, LPL Branches Graft Stenosis Not Available	NA	None
6200	RCA, RPDA, RPL, AM Branches Graft Stenosis Percent	Core	90%
6201	RCA, RPDA, RPL, AM Branches Graft Stenosis Not Available	NA	None
6210	Ramus Graft Stenosis Percent	Core	90%

6211	Ramus Graft Stenosis Not Available	NA	None
7000	PCI Operator Last Name	Core	90%
7005	PCI Operator First Name	Core	90%
7010	PCI Operator Middle Name	Minimum	0%
7010	PCI Operator Middle Name	Supporting	0%
7015	PCI Operator NPI	Core	90%
7020	PCI Status	Core	90%
7025	Pre-PCI Left Ventricular Ejection Fraction	Core	90%
7026	Pre-PCI Left Ventricular Ejection Fraction Not Assessed	NA	None
7030	Cardiogenic Shock at Start of PCI	Core	90%
7035	PCI Indication	Core	90%
7040	STEMI or STEMI Equivalent First Noted	Core	90%
7045	Subsequent ECG with STEMI or STEMI Equivalent Date	Core	90%
7046	Subsequent ECG with STEMI or STEMI Equivalent Time	Core	90%
7050	First Device Activation Date	Core	90%
7051	First Device Activation Time	Core	90%
7055	Patient Transferred in for Immediate PCI for STEMI	Core	90%
7060	Emergency Department Presentation at Referring Facility Date	Core	80%
7061	Emergency Department Presentation at Referring Facility Time	Core	50%
7065	Non-system Reason for Delay in PCI	Core	90%
7100	Lesion Counter	NA	None
7105	Segment Number	Minimum	10%
7105	Segment Number	Supporting	80%
7110	Culprit Lesion	Minimum	10%
7110	Culprit Lesion	Supporting	70%
7115	Stenosis Immediately Prior to Rx	Core	90%
7120	Chronic Total Occlusion	Core	80%
7125	IVUS	Minimum	10%
7125	IVUS	Supporting	70%
7130	Fractional Flow Reserve	Minimum	10%
7130	Fractional Flow Reserve	Supporting	70%
7135	Fractional Flow Reserve Ratio	Minimum	10%
7135	Fractional Flow Reserve Ratio	Supporting	70%
7140	Pre-Procedure TIMI Flow	Core	90%
7145	Previously Treated Lesion	Core	90%
7150	Previously Treated Lesion Timeframe	Core	90%
7155	Treated with Stent	Core	90%
7160	In-stent Restenosis	Minimum	10%
7160	In-stent Restenosis	Supporting	80%
7165	In-stent Thrombosis	Core	90%
7170	Stent Type	Minimum	10%
7170	Stent Type	Supporting	80%
7175	Lesion In Graft	Minimum	10%
7175	Lesion In Graft	Supporting	80%
7180	Location in Graft	Minimum	10%
7180	Location in Graft	Supporting	80%
7185	Lesion Complexity	Core	90%
7190	Lesion Length	Minimum	10%
7190	Lesion Length	Supporting	80%
7195	Thrombus Present	Minimum	10%

7195	Thrombus Present	Supporting	80%
7200	Bifurcation Lesion	Minimum	10%
7200	Bifurcation Lesion	Supporting	80%
7205	Guidewire Across Lesion	Core	90%
7210	Stenosis Post-Procedure	Core	90%
7215	Post-Procedure TIMI Flow	Minimum	10%
7215	Post-Procedure TIMI Flow	Supporting	80%
7220	Device Deployed	Minimum	10%
7220	Device Deployed	Supporting	80%
7225	Intracoronary Device(s) Used	Minimum	10%
7225	Intracoronary Device(s) Used	Supporting	80%
7230	Intracoronary Device Counter	NA	None
7235	Device Diameter	Minimum	10%
7235	Device Diameter	Supporting	70%
7240	Device Length	Minimum	10%
7240	Device Length	Supporting	70%
7245	Significant Dissection	Minimum	10%
7245	Significant Dissection	Supporting	80%
7250	Perforation	Minimum	10%
7250	Perforation	Supporting	80%
7255	Auxiliary 5	NA	None
7260	Auxiliary 6	NA	None
7300	CK-MB Pre-Procedure	Core	90%
7301	CK Pre-Procedure Not Applicable	NA	None
7302	CK Pre-Procedure Drawn and Normal	Core	90%
7305	Troponin I Pre-Procedure	Core	90%
7306	Troponin I Pre-Procedure Not Drawn	NA	None
7310	Troponin T Pre-Procedure	Core	90%
7311	Troponin T Pre-Procedure Not Drawn	NA	None
7315	Pre-Procedure Creatinine	Core	90%
7316	Pre-Procedure Creatinine Not Drawn	NA	None
7320	Pre-Procedure Hemoglobin	Core	90%
7321	Pre-Procedure Hemoglobin Not Drawn	NA	None
7325	CK-MB Post-Procedure	Core	90%
7326	CK Post-Procedure Not Applicable	NA	None
7327	CK Post-Procedure Drawn and Normal	Core	90%
7330	Troponin I Post-Procedure	Core	90%
7331	Troponin I Post-Procedure Not Drawn	NA	None
7335	Troponin T Post-Procedure	Core	90%
7336	Troponin T Post-Procedure Not Drawn	NA	None
7340	Post-Procedure Creatinine	Core	90%
7341	Post-Procedure Creatinine Not Drawn	NA	None
7345	Post-Procedure Hemoglobin	Core	90%
7346	Post-Procedure Hemoglobin Not Drawn	NA	None
8000	Myocardial Infarction (Biomarker Positive)	Core	90%
8005	Cardiogenic Shock	Core	90%
8010	Heart Failure	Core	90%
8015	CVA/Stroke	Core	90%
8021	Hemorrhagic Stroke	Core	90%

8025	Tamponade	Core	90%
8030	New Requirement for Dialysis	Core	90%
8035	Other Vascular Complications Requiring Treatment	Core	80%
8040	RBC/Whole Blood Transfusion	Core	90%
8041	Hemoglobin Prior to Transfusion	Minimum	10%
8041	Hemoglobin Prior to Transfusion	Supporting	70%
8050	Bleeding Event w/in 72 Hours	Core	95%
8055	Bleeding at Access Site	Core	90%
8060	Hematoma at Access Site	Core	90%
8061	Hematoma Size	Core	80%
8070	Retroperitoneal Bleeding	Core	90%
8080	Gastrointestinal Bleeding	Core	90%
8090	Genital-Urinary Bleeding	Core	90%
8100	Other Bleeding	Core	90%
9000	CABG	Core	90%
9005	CABG Status	Core	90%
9010	CABG Indication	Core	90%
9015	CABG Location	Core	90%
9020	CABG Date	Minimum	10%
9020	CABG Date	Supporting	80%
9021	CABG Time	Minimum	10%
9021	CABG Time	Supporting	50%
9025	Other Major Surgery	Minimum	10%
9025	Other Major Surgery	Supporting	80%
9030	Left Ventricular Ejection Fraction	Minimum	10%
9030	Left Ventricular Ejection Fraction	Supporting	80%
9031	Left Ventricular Ejection Fraction Not Assessed	NA	None
9035	Discharge Date	NA	None
9040	Discharge Status	Core	90%
9045	Discharge Location	Core	90%
9050	Cardiac Rehabilitation Referral	Minimum	10%
9050	Cardiac Rehabilitation Referral	Supporting	90%
9055	Death in Lab	Core	90%
9060	Primary Cause of Death	Minimum	10%
9060	Primary Cause of Death	Supporting	80%
9065	Hospital Status	Core	90%
9510	Medication Administered	Core	90%
9515	Medication ID	Core	90%

Appendix: DQR Error Codes

Error Code	Error Type	Resolution
1000	Schema	Data submission zip file could not be unzipped because it is corrupt. Please contact your vendor for assistance. The zip file must contain a valid XML file programmatically zipped with the ACC assigned Encryption key.
1010	Schema	Data submission zip file could not be unzipped using the encryption key provided. Please contact your vendor for assistance. The zip file must contain a valid XML file programmatically zipped with the ACC assigned Encryption key.
1020	Schema	Data submission zip file has more than one XML file. Please contact your vendor for assistance. The zip file must contain one and only one XML file per submission.
1030	Schema	The XML file contained in your data submission zip file is not named correctly. Please contact your vendor for assistance. The format for naming the XML file is: [Registry specific prefix]-[Participant ID]-[YYYYQn].xml
1040	Schema	The data submission file does not contain valid XML. Please contact your vendor for assistance. The zip file must contain a valid XML file.
1090	Schema	The timeframe (<<yyyyQn>>) must not be prior to <<registryinception>>
1100	Schema	Software vendor not ACTION v2.0x certified. Please contact your vendor for assistance. VendorID assigned by the ACC at the successful completion of vendor certification must be used.
1110	Schema	Participant ID in the XML file doesn't match the Participant ID on or in the filename. Please contact your vendor for assistance.
1120	Schema	Timeframe in the XML file doesn't match the Timeframe on or in the filename. Please contact your vendor for assistance.
2000	Schema	The submitted file has encountered a Schema conformance error on Line <<xx>>
2001	Schema	<<ShortN/Ame>> is invalid. The value <<XML Value>> is an invalid selection.
2002	Schema	<<ShortN/Ame>> is invalid. The value <<XML Value>> is an invalid datatype. The error has been identified in Line=<<Line Number>> in the submitted file.
2003	Schema	<<ShortN/Ame>> is invalid. The value <<XML Value>> is an invalid format. The error has been identified in Line=<<Line Number>> in the submitted file.
2004	Schema	<<ShortN/Ame>> is invalid. The value <<XML Value>> has an invalid length. The error has been identified in Line=<<Line Number>> in the submitted file.
2005	Schema	<<ShortN/Ame>> is invalid. The value <<XML Value>> is out of the valid range. The error has been identified in Line=<<Line Number>> in the submitted file.
2006	Schema	Race information is missing from the XML file.
2100	Schema	<<shortname>> is not present in the xml file. Please contact your vendor.
2105	Schema	Both PCI and Diagnostic Cath information is missing. At least one must be present for inclusion in CathPCI registry.
2110	Schema	PCI (5305) has been reported as "Yes". However, PCI information is missing.
2115	Schema	Diagnostic Cath (5310) has been reported as "Yes". However, Diagnostic Cath information is missing.
2120	Schema	For Procedure Date/Time <<ProcedureDate>><<ProcedureTime>> (5300)/(5301), PCI (5305) has been reported as 'No', but PCI information is reported

2125	Schema	For Procedure Date/Time <<ProcedureDate>><<ProcedureTime>> (5300)/(5301), Diagnostic Cath (5310) has been reported as 'No', but Diagnostic Catheterization procedure information has been reported
2130	Schema	For Procedure Date/Time (5300/5301) <<ProcedureDate>><<ProcedureTime>> Lesion number associated with this Device (7225) <ICDevID> is invalid.
2135	Schema	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Coronary Anatomy information is missing.
2140	Schema	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Lab Procedure information is missing.
2145	Schema	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Procedure Medications information is missing.
2150	Schema	PCI is 'Yes' and Discharge Status (9040) is 'Alive' and Discharge Location (9050) is 'Home', 'Nursing home', 'Extended care/TCU/rehab', or 'Other'; however, Discharge Medications information is missing.
2200	Selection	<<child element name>> (xxxx) has been reported even though <<parent element name>> (xxxx) does not require it. Please refer to the data dictionary for full specifications. Please check the data or contact your vendor for assistance.
2202	Outlier	Insurance - Payor None (3307) has been reported as 'No', but no Insurance Payors (3300, 3301, 3302, 3303, 3304, 3305, 3306) have been specified.
2203	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, <<time estimated field>> (5007) has been marked but <<time field>> (5006) has not been provided. Please specify a time.
2204	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, PCI(5305) has been reported as "No" and Diagnostic Cath(5310) has been reported as "No". At least one must be specified for inclusion in the CathPCI Registry.
2205	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>> and Lesion Counter (7100)<<LesionCounter>>, Device Deployed (7220) has been reported as Yes, but no device is associated with the Device
2207	Selection	Prior CABG (4045) has been reported as "No" and CABG Date/Time(9020/9021)<<CABGDate>><<CABGTime>> is not before or equal to Procedure Date(5300/5301) <<ProcedureDate>><<ProcedureTime>> but Grafts information is provided (6170, 6180, 6190, 6200,6210)
2208	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, an Intracoronary Device(s) Used (7225) has been provided even though Device Deployed (7220) does not require it. A value can be provided only if Device Deployed (7220) is 'Yes'
2209	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Culprit Lesion7110 <<value>> has been provided even though CAD Presentation5000 <<value>> doesn't require it. A value can be provided only if CAD Presentation5000 (at the lab visit level) is equal to 'STEMI', 'Non-STEMI', or 'Unstable angina'.
2210	Selection	Discharge medications have been provided even though Discharge Status9040 <<Value>> and Location9050 <<Value>> do not require them. A value can be provided if Discharge Status9040 is 'Alive' and Discharge Location9045 is 'Home', 'Nursing home', 'Extended care/TCU/rehab', or 'Other'.
2212	Outlier	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Anti-Anginal (5025) has been reported as 'Yes', but no Medication Types (5026,5027,5028,5029,5030) have been specified.

2213	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Admit Source (3010) is reported as 'Emergency Department' and Patient Transferred in for Immediate PCI for STEMI(7055) is reported as 'Yes'.
2214	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, both Prior CABG (4045) and CABG(9000) have been reported as 'No' but Grafts information is provided (6170, 6180, 6190, 6200,6210)
2217	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, PCI (5305) has been reported as 'Yes'. At least one Stenosis for Native Artery element [6110,6120,6130,6140,6150, 6160] must be completed.
2218	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Diagnostic Cath(5310) has been reported as 'Yes' and Dx Coronary Angiography(6020) = 'Yes' and Left Heart Cath(6025) = 'No'. At least one Stenosis for Native Artery element [6110,6120,6130,6140,6150, 6160] must be completed.
2219	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Lesion Length(7190) is greater than 20mm but Lesion Complexity(7185) has not been reported as 'High/C'.
2220	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, PCI (5305) has been reported as 'Yes' but no Lesion information has been provided.
2221	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Symptom Onset Time (5006) and/or Time Estimated (5007) has been reported even though Symptom Onset Date (5005) does not require it. Values can be entered only when Symptom Onset Date (5005) is provided.
2222	Selection	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>> and Lesion Number (7100) <<LesionCounter>>, duplicate Segment Numbers (7105) were found.
2223	Outlier	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>> and Lesion Number (7100) <<LesionCounter>>, duplicate Device Numbers (7230) were found.
2224	Selection	CAD Presentation (5000) has been reported as <<CADPresentation>>, yet PCI Indication (7035) has been reported as <<PCIIndication selection 6, 7, 8>>
2225	Selection	Device Number (7230) <<ICDevCounter>> is not associated to any Lesion
2226	Selection	For Procedure Date/Time (5300)/(5301) <<ProcedureDate>>, <<ProcedureTime>>, IC Device ID has not been provided for one of the devices.
2300	Date	Date of Discharge (<<seqnum for dcdte >>) <<dcdte>> is prior to the Arrival Date (<<seqnum for arrivaldate>>) <<arrivaldate>>.
2310	Date	Procedure Date(5300) <<ProcedureDate<x>> and Procedure Time (5301) <<ProcedureTime<x>> is before the Patient's Arrival Date (3000) <<ArrivalDate>> and Arrival Time (3001) <<ArrivalTime>>
2320	Date	Procedure Date(5300) <<ProcedureDate<x>> is after the patient's Discharge Date (9035) <<DischargeDate>>
2340	Date	Arrival Date (<<seqnum for arrivaldate>>) <<arrivaldate>> is prior to Patient Date of Birth (2050) <<DOB>>.
2390	Date	ED Presentation Date/Time (7060)/(7061) <<EDPresentDate>>, <<EDPresentTime>> is either before Symptom Onset Date/Time (5005)/(5006) <<OnsetDate>>, <<OnsetTime>> or after current Procedure Date/Time (5300)/(5301) <<ProcedureDate>>, <<ProcedureTime>>
2391	Date	ED Presentation Date/Time(7060/7061) is after Arrival Date/Time (3000/3001)

2400	Date	Symptom Onset Date/Time (5005)/(5006) <<OnsetDate>>, <<OnsetTime>> is either greater than 7days prior to current Procedure Date/Time (5300)/(5301) <<ProcedureDate>> <<ProcedureTime>> or greater than Procedure Date/Time (5300)/(5301)<<ProcedureDate>><<ProcedureTime>>
2420	Date	Subsequent ECG with STEMI or STEMI Equivalent Date (7045/7046) <<SubECGDate/SubECGTime>> is either more than one day prior to Procedure Date/Time (5300)/(5301) <<ProcedureDate/ProcedureTime>>, or greater than ProcedureDate/Time (5300)/(5301) <<ProcedureDate/ProcedureTime>>
2430	Date	Most Recent PCI Date (4040) <<PriorPCIDate>> is either prior to Patient Date of Birth (2050) <<DOB>> or after Arrival at this facility (3000) <<ArrivalDate>>.
2440	Date	Most Recent CABG Date (4045) <<PriorCABGDate>> is either prior to Patient Date of Birth (2050) <<DOB>> or after Arrival at this facility (3000) <<Arrivaldate>>.
2630	Date	CABG Date (9020) <<CABGDate>> is either prior to Arrival Date (3000) <<ArrivalDate>> or after Discharge Date (9035) <<DCDate>>.
2640	Date	Thrombolytic Therapy Date/Time (5015)/(5016) <<ThromDate>>, <<ThromTime>> is either more than one week prior to Arrival Date (3000)/(3001) <<ArrivalDate>>, <<Arrivaltime>> or after Procedure Date/Time (5300)/(5301) <<ProcedureDate>><<ProcedureTime>>
2840	Date	First Device Activation Date/Time (7050)/(7051) <<FirstDevActiDate>>, <<FirstDevActiTime>> is either prior Procedure Date/Time (5300/5301) <<ProcedureDate>><<ProcedureTime>> or after Discharge Date (9035) <<DCDate>>
2860	Date	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, First Device Activation Date/Time (7050)/(7051) <<FirstDevActiDate>>, <<FirstDevActiTime>> is prior to Subsequent ECG with STEMI or STEMI Equivalent Date/Time (7045)/(7046) <<SubECGDate>>, <<SubECGTime>>.
2870	Date	Discharge Information has not been entered for the episode.
2880	Date	Cathlab Visit Information has not been entered for the episode.
2900	Date	This admission with Arrival Date (<<seqnum for arrivaldate>>) of <<arrivaldate>> and Discharge Date (<<seqnum for dcdte>>) <<dcdte>> overlaps with an admission with Arrival Date (<<seqnum for arrivaldate>>) <<arrivaldate>> and Discharge Date (<<seqnum for dcdte>>) <<dcdte>> for the same patient.
2910	Date	Patients must be over 18 to participate
2915	Date	For Arrival Date/Time (3000)/(3001) <<ArrivalDate>>/<ArrivalTime>>, duplicate CathLab Visits were found based on the Procedure Data/Time information provided.
2920	Date	
3010	Outliers	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, <Full Name>> (<<Seq Number>>) is out of the usual range. NOTE: If Procedure Date/Time are not applicable, they should not display. (ex: Height/Weight)
3020	Outliers	Overall length of stay exceeds 30 days.
3040	Outliers	You have not identified any Race choices for this Patient. Please confirm the data.
3050	Outliers	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, Post-Procedure length of stay exceeds 10 days.

3060	Outliers	For Procedure Date/Time(5300/5301) <<ProcedureDate>><<ProcedureTime>>, both Fluoro Time (5320) and Fluoro Dose (5321) have not been reported.
3070	Outlier	You have answered more than one Test performed before the procedure. Are you sure?
4100	List	Expired Medication: Medication<MedID>> is not available for this Episode based Arrival Date(3000)<<ArrivalDate>>. Update your medications file on the NCDR Maintenance screen with the most recent available from the NCDR™. If the most recent medications file has been imported and problem persists, please contact your vendor
4105	List	IC Device ID <<IC Device ID>> being reported has been expired based on Arrival Date (3000) <<ArrivalDate>>. Update your Intracoronary Device file on the NCDR Maintenance screen with the most recent file available from the NCDR™. If the most recent Intracoronary Device file has been imported and problem persists, please contact your vendor.
4110	List	Closure Device ID <<ClosureDevice ID>> being reported has been expired based on Arrival Date (3000) <<ArrivalDate>>. Update your Closure Device file on the NCDR Maintenance screen with the most recent file available from the NCDR™. If the most recent Closure Device file has been imported and problem persists, please contact your vendor.
4115	List	<<Med ID>> is an invalid medication ID. Update your medications file on the NCDR Maintenance screen with the most recent available from the NCDR™. If the most recent medications file has been imported and problem persists, please contact your vendor.
4120	List	<<IC Device ID>> is an invalid IC Device. Update your Intracoronary Device file on the NCDR Maintenance screen with the most recent available from the NCDR™. If the most recent Intracoronary Device file has been imported and the problem persists, please contact your vendor.
4125	List	<<ClosureDevice ID>> is an invalid Closure Device ID. Update your Closure Device file on the NCDR Maintenance screen with the most recent available from the NCDR™. If the most recent Closure Device file has been imported and problem persists, please contact your vendor.
4130	List	Medication ID <<Med id>> is missing. Please contact your vendor to update your medication list
4135	List	Medication ID <<Med id>> has been reported more than once. Please check your medication list or contact your vendor.
4200	Counter	For Procedure Date/Time <<ProcedureDate>><<ProcedureTime>>, the Lesion Counters (7100) reported for this Cath Lab Visit are not sequential and/or do not start with counter 1.
4205	Counter	For Procedure Date/Time <<ProcedureDate>><<ProcedureTime>>, the IC Device Counters (7230) reported for this Cath Lab Visit are not sequential and/or do not start with counter 1.
4210	Counter	For Procedure Date/Time <<ProcedureDate>><<ProcedureTime>>, the Closure Device Counters (5360) reported for this Cath Lab Visit are not sequential and/or do not start with counter 1.
4215	Selection	Lesion number <Lesion Counter<<x>>, Segment Number(7105)<<SegmentID>>, is invalid