NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF QUALITY AND PATIENT SAFETY
CARDIAC SERVICES PROGRAM

Percutaneous Coronary Interventions Report

Form DOH-3331

Instructions and Data Element Definitions
July – December 2009 Discharges

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Table of Contents

Table of Contents (continued)

III. Vessels Diseased and Lesion-Specific Information

IV. Acute MI Information

V. Pre-Intervention Risk Factors

Table of Contents (continued)

V. Pre-Intervention Risk Factors (continued)

VI. Major Events Following PCI

VII. Discharge Information

Table of Contents (continued)

Attachments

Revision Highlights and Coding Clarification

New Data Elements

The following data elements have been added to the PCIRS data collection system effective July 2009. The definitions for these elements are provided in the main text of this document.

Previous LIMA Use – Pg 19
IVUS – Significant Reduction in Cross-Sectional Area – Pg 20
Fractional Flow Reserve Ratio – Pg 20
Estimated Onset Time - Pg 23
Killip Class 2 or 3 – Pg 25
Stress Test Done – Pg 26
Stress Test Type – Pg 27
Stress Test Results – Pg 27
Anti-Anginal Medical Therapies – Pg 29
- Beta Blockers
- Calcium Channel Blockers
- Long Acting Nitrates
- Ranolazine
- Other

Revised Data Elements

The following data elements have been revised effective July 2009. Please see complete definitions in the main text of this document.

Time of first interventional device – Pg 15
This definition has been revised to refer specifically to interventional devices.

Follow-up PCI - Staged Procedure - Pg 17
This data element has been expanded to include staging with CABG.

Lesion Description Codes – Pg 22
Additional descriptive codes have been added for Chronic Total Occlusion and Dissection without previous lesion. Chronic Total Occlusion should be reported even if the lesion is not attempted.

Major Event – Coronary Perforation Pg 46
This definition has been revised to include only Type III perforations.

Additional Procedure Planned – Staged procedure - Pg 47
This data element has been expanded to include staging with CABG.

Revision Highlights and Coding Clarification (continued)

Deleted Data Elements

The following data elements have been deleted from the PCIRS data collection system effective July 2009.

Lesion Description D (fourth column of Lesion Description has been dropped.)

Data Clarifications

The following are recent data clarifications or reminders of recent data changes. For all data elements, please consult the main body of this document to obtain the complete data element definition and all relevant notes, interpretations and clarifications.

Sex (Pg 11) – A clarification has been added that we are collecting sex at birth. In the absence of any other information, you may assume that sex at birth is the same as sex at admission.

Diabetes (Pg 40) – A clarification has been added that the patient must be receiving oral hypoglycemics or insult prior to hospital admission.

PCIRS Data Reporting Policies

End of PCI, Generation of a New Form

For purposes of determining a return to the cath lab, we use the term cath lab in the narrowest sense – that is, the PCI is considered finished when the patient leaves the actual room in which the procedure was performed. If a patient leaves the actual procedure room, but remains in a holding room, staging area or even an adjacent hallway and returns to a procedure room for another PCI, a new form should be generated.

Hospice Policy

Beginning with patients discharged on or after January 1, 2003, any patient that is discharged from the hospital after cardiac surgery or PCI to hospice care (inpatient or home with hospice care) and is still alive 30 days after the discharge from the hospital will be analyzed as a live discharge.

All patients discharged to a hospice or home with hospice care should continue to be reported with Discharge Status – 12: Hospice. If a patient is still alive 30 days after discharge, whether in hospice or not, appropriate supporting documentation should be sent to Cardiac Services Program. Examples of appropriate documentation include: a dated progress note from the hospice service, evidence of a follow-up doctor's visit 30 days after discharge, evidence of subsequent hospital admission 30 days after initial discharge. It will be the responsibility of the hospital (physician) to send documentation to the Department of Health's Cardiac Services Program to support this change. Upon receipt, review, and verification of the documentation, Cardiac Services Program staff will change the discharge status from dead to alive for purposes of analysis. All documentation must be received before the final volume and mortality for a given year of data is confirmed by the hospital.

PCIRS Data Reporting Policies (continued)

Cardiogenic Shock Cases

Beginning with cases discharged January 1, 2006 and continuing for a period of at least two years, cases in pre-procedural Cardiogenic Shock will not be included in the publicly released reports and analyses. This applies only to cases that meet the NYS Cardiac Services Program definition of Cardiogenic Shock (risk factor #13). Data for these cases must still be submitted electronically and will be subject to data verification activities. To ensure that the appropriate cases are identified as "Shock" cases, we will continue to require submission of medical record documentation of any case reported with this risk factor. If appropriate documentation is not provided by your center, the risk factor will be removed from the data and the case will be included in analysis. In addition, we anticipate that there will be increased requirements for medical record documentation for cases coded as "Hemodynamically Unstable" as well. It is strongly suggested that all appropriate staff closely review the definitions and documentation requirements for these two risk factors.

Note: The above policy regarding cases in Shock will be continued for at least another year (2009 discharges) while the data is evaluated.

Physician Assignment

When multiple records exist for the same patient during a hospital admission, and two or more physicians were reported for those operations, the case will be assigned for analysis to the physician performing the first PCI. However, the hospital may submit a letter from the CEO or Medical Director requesting that the case be assigned to the physician performing the later PCI.

Reporting Schedule

PCIRS data is reported quarterly by discharge date. It is due to the Cardiac Services Program one month after the end of the quarter. The 2009 reporting schedule is as follows.

Quarter 1 (1/1/09 – 3/31/09 Discharges) due on or before April 30, 2009
Quarter 2 (4/1/09 – 6/30/09 Discharges) due on or before July 31, 2009
Quarter 3 (7/1/09 – 9/30/09 Discharges) due on or before October 31, 2009
Quarter 4 (10/1/09 – 12/31/09 Discharges) due on or before January 31, 2010

Limited extensions to the above deadlines will be granted on a case by case basis when warranted by extenuating circumstances. They must be requested in writing prior to the required submission date.

Item-By-Item Instructions

PFI Number

Variable Name: PFI

The PFI Number is a Permanent Facility Identifier assigned by the Department of Health. Enter your facility's PFI Number as shown in Attachment A.

Sequence Number

Variable Name: SEQUENCE

If your facility assigns a sequence number to each case on a chronological flow sheet or similar log, enter the sequence number here. The sequence number is not required for the Percutaneous Coronary Interventions Reporting System, but has been included on the form to assist facilities in identifying and tracking cases.

I. Patient Information

Patient Name

Variable Names: LASTNAME, FIRSTNAME

Enter the patient's last name followed by his/her first name.

Medical Record Number

Variable Name: MEDRECNO

Enter the patient's medical record number.

Social Security Number

Variable Name: SSNO

Enter the patient's social security number as shown in the medical record. If the medical record does not contain the patient's social security number, leave this item blank.

Date of Birth

Variable Name: DOB

Enter the patient's exact date of birth.

I. Patient Information (continued)

Sex

Variable Name: SEX

Check the appropriate box for the patient's sex at birth.

Note: In the absence of any other information, it is reasonable to assume that the sex at birth is the same as at the time of admission.

Ethnicity

Variable Name: ETHNIC

Check the appropriate box.

Note: The term "Hispanic" refers to persons who trace their origin or descent to Mexico, Puerto Rico, Cuba, Central and South America or other Spanish cultures.

Race

Variable Names: RACE, RACESPEC

Select the appropriate code below:

1. White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

2. Black or African American. A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

3. Native American / American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

4. Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

5. Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

8. Other. Report for those responses that are not covered by an above category. Please provide the specific race for any case marked "Other."

I. Patient Information (continued)

Race (cont.)

Note: Please note that race should be based on the patient's racial/ethnic origins, which is not necessarily the same as their country or place of origin.

Indicate "multi-racial" by checking "8-Other" and providing details in the "specify" field.

For White Hispanics, check "White"; for Black Hispanics, check "Black."

Residence Code

Variable Names: RESIDENC, STATE

Enter the county code of the patient's principal residence, as shown in Attachment B. If the patient lives outside New York State, use code 99 and print the name of the state or country where the patient resides in the space provided. If you enter a valid NYS County Code then the "State or Country" field should be left blank.

If the patient is from a foreign country, but is staying in the US during the pre-intervention and post-intervention time period, you must enter 99 and print the name of the country that the patient is from. Do not enter the residence code of where the patient is staying in the US.

Hospital Admission Date

Variable Name: ADMIDATE

Enter the date that the patient was admitted to your hospital.

Note: If the admission date is after the PCI date, then you must also report the date for "Arrival at PCI Hospital," even if the patient did not have an MI.

I. Patient Information (continued)

Primary Payer

Variable Name: PRIMEPAY

Enter the primary source of payment for this hospital stay as shown in Attachment C.

Please note that Workers Compensation, Family Health Plus, and Other Federal Programs are reported as code "19 - Other."

Interpretation:
For "Medicaid Pending" code Primary Payer as "11 - Self-Pay" and check the box for Medicaid.

For patients in prison, code Primary Payer as "19 - Other".

Please note the difference between "07 - Other Private Insurance Company" and "19 - Other". Code 07 refers to a Private Insurance Company (also referred to as "Commercial" insurance) that is not listed elsewhere. Code 19 is any other type of insurance that is not given a code of its own (e.g. Corrections).

If the patient has Blue Cross and Medicare, code Medicare if there is no indication of which is primary.

Report a PPO (Preferred Provider Organization) as Code 06 – HMO/Managed Care.

If a patient has Medicare or Medicaid, but you do not know if it is Fee for Service or Managed Care, report Fee for Service.

Medicaid

Variable Name: MEDICAID

Check this box if the patient has Medicaid that will provide payment for any portion of this hospital admission. If the patient's primary payer is Medicaid, check this box in addition to entering "03" or "04" under Primary Payer.

I. Patient Information (continued)

PFI of Transferring Hospital

Variable Name: TRANS_PFI

If the patient was transferred from another Acute Care Facility, enter the PFI of the transferring hospital.

This element only needs to be completed for transfer patients.

A listing of PFI for cardiac diagnostic centers in NYS is provided in Attachment A. If transferred from a Veterans Administration hospital in NYS, enter "8888"; if transferred from outside NYS, enter "9999". For patients transferred from another hospital in NYS, please see http://hospitals.nyhealth.gov for a complete listing of NYS hospitals, including PFI. Please note: PFI on the above website is listed without leading 0s. For purposes of cardiac reporting, PFI should always be four (4) numeric characters. For example, PFI “1” should be reported as “0001”.

II. Procedural Information

Hospital that Performed Diagnostic Cath

Variable Name: CATH_PFI

If the angioplasty was preceded by a diagnostic catheterization, enter the name and PFI number of the hospital in the space provided. If the catheterization was at a cardiac diagnostic center in NYS, enter its PFI Number from Attachment A; if done at a Veterans Administration hospital in NYS, enter "8888"; if done outside NYS, enter "9999". If there was no diagnostic catheterization, leave this item blank.

Note: If the patient does not have a diagnostic catheterization but is diagnosed via CT scan, do not report the Hospital that performed the CT scan here.

Primary Physician Performing PCI

Variable Name: PHYSNUM

Enter the name and license number of the primary physician who performed the PCI.

Note: Physician name is included on the paper version of the data collection form for abstractor convenience. Physician name is not part of the required PCIRS data structure.

Date of PCI

Variable Name: PCI_DATE

Enter the date on which the PCI was performed.

Time of First Interventional Device

Variable Names: PCI_HR, PCI_MIN

Report the earliest time of any of the following: Balloon inflation, stent deployment, treatment of lesion (e.g. AngioJet or other thrombectomy/aspiration device, laser, rotational atherectomy).

Time should be reported using military time (e.g. 1:00 am is 01:00, and 1:00 pm is 13:00).

Interpretation: In the case of an attempted PCI when no interventional device can be deployed, report the time that the guidewire leaves the catheter.

II. Procedural Information (continued)

Diagnostic Cath During Same Lab Visit

Variable Name: CATHSAME

If a full diagnostic catheterization was performed during the same cath lab visit as the PCI, then check "Yes". Otherwise check "No".

Interpretation: This does NOT include the case where there was a "quick look" done on the vessel to have the intervention. The diagnostic cath does not have to be every vessel, but should be a complete diagnostic of the area of interest.

Previous PCI This Admission

Variable Name: PCI_SAME, SAMEDATE

For patients who have had a previous PCI during this admission, check "Yes". Otherwise check "No".

Interpretation: If "Yes," it is very important to enter the date of this procedure. It is this date that aids in combining multiple procedures from the same hospital admission in the proper order. This becomes especially important when determining Emergency/Non-Emergency status, since certain risk factors are only "credited" if they occur prior to the first procedure in a hospital admission.

PCI Prior to This Admission at this Hospital

Variable Name: PCIPRIOR, PRIODATE

For patients who have had a PCI prior to this admission at this hospital, check "Yes" and report the date of this previous procedure. If only the month and year are known, use 01 for the day and write in the correct month and year. If only the year is known, write in 01 for both the month and the day then the correct year.

II. Procedural Information (continued)

Follow-up PCI - Staged Procedure

Variable Name: PART2

Use the following codes to indicate if the current procedure is in follow-up to a previous PCI or CABG as part of a staged treatment strategy.

0. No, not a staged follow-up to a previous procedure.
1. Yes, staged follow-up to a previous PCI
2. Yes, staged follow-up to a previous CABG

The follow-up PCI in a staged procedure would be a non-emergency PCI occurring after completion, but within 60 days, of an initial PCI or CABG with the intervention at a different lesion location than the previous procedure. Typically the intervention is on a different vessel than was treated in the first procedure.

Interpretation: Staging for these purposes DOES include a planned treatment strategy of PCI and CABG.

The following scenario would NOT be considered a staged procedure:
The first PCI was unsuccessful and the patient returns to the lab at a later point for another attempt.

Total Contrast Volume in 72 hours

Variable Name: CONTRAST

Report the total contrast used (cc) for this procedure and any other procedures commencing in the previous 72 hours.

Interpretation: Include contrast used for any procedure (e.g. intervention, diagnostic, peripherals, etc) at this or any other facility in the previous 72 hours.

Additional Procedures using Contrast

Variable Name: ADDCON

If the exact information on amount of contrast used at another institution is unknown, you should first try to get the exact information. If the only information you can obtain from an outside institution shows that a procedure using contrast was done, but not the amount of contrast used, use the following codes to report procedures done:

1 – PCI
2 – Diagnostic Cath
3 – CT scan
4 – Other
5 – Multiple procedures listed above

II. Procedural Information (continued)

Access Site

Variable Names: ACCESS_ARM, ACCESS_LEG

Indicate if the access site was in the arm (radial or brachial) or the leg (femoral artery).

Interpretation: Report the site through which access to the ascending aorta was successfully achieved. If access through one site was attempted but failed, do not report. If access was achieved through both sites, check both.

Thrombolytics

Variable Names: THROMLT3, THROM3_6, THROMGT6, CONTRA

Check the appropriate box to indicate if, and at what time interval, thrombolytics were administered.

If thrombolytics were not administered because they were contraindicated, check "Contraindicated".

III. Vessels Diseased and Lesion Specific Information

Vessels Diseased

Variable Names: LMT, PROX_LAD, MID_LAD, RCA, LCX

For each diseased vessel, check the appropriate box to indicate the percent diameter stenosis. Include all vessels diseased, even branches.

Interpretation: If the diseased segment of the native vessel is bypassed by an open artery or vein graft, do not code as diseased. This vessel is revascularized.

Use the ranges listed below when the medical record describes the percent stenosis in the following ways:

MILD	= plaques to < 50%
MODERATE	= 50-69%
SEVERE	= > 70%

If a vessel or branch is described as having "mild" stenosis then the vessel would not be coded as diseased, since we only code 50-100% stenosis.

If the medical record reports the range "40-50% stenosis", then do not code as diseased. If the medical record reports the range "60-70% stenosis", then code 50-69%.

The Ramus Intermediate can be coded as either the marginal or the diagonal depending on the origin of the vessel.

Always take the highest stenosis reported for a vessel. If the medical record reports the proximal RCA with a 70% lesion and the distal RCA with a 50% you should code the RCA as 70-100%, since the proximal RCA has a 70% lesion.

If the medical record only has documentation that states the LAD was stenosed, then code the mid LAD and not the proximal LAD.

Disease of a major diagonal should be reported with mid/distal LAD, not with the proximal LAD.

Previous LIMA Use

Variable Name: LIMA_USE

Choose one:
1 –LIMA used as a graft and remains patent to native coronary artery
2 –LIMA used as a graft but is no longer functional
3 –Never used – includes no previous CABG

III. Vessels Diseased and Lesion Specific Information (cont).

Lesion-Specific Information

Variable Names: LES_LOC1 – LES_LOC7, BYPASS_1 – BYPASS_7, BPSTEN1 – BPSTEN7, PRESTEN1 – PRESTEN7, IVUS1 – IVUS7, FFR1 – FFR7, PREVPCI1- PREVPCI7, DEVICE_1- DEVICE_7, DEVSPEC1- DEVSPEC7, SECOND_1- SECOND_7,, STENT1- STENT7, STENTB_1- STENTB_7, STNTSPC1-STNTSPC7, LESDESA1- LESDESA7, LESDESB1- LESDESB7, LESDESC1- LESDESC7 POSTSTEN1- POSTSTEN7.

Complete one line for every lesion for which PCI was attempted (even if pre-stenosis is < 50%), and one line for each non-attempted lesion with diameter stenosis of 50% or more. If there are more than seven lesions, report the seven most significant.

Location

Enter the code indicating the location of the lesion, as shown in Attachment D.

For lesions in a "sequential" graft going to two of the major coronary systems, complete a separate line for each coronary artery jeopardized (*LAD, LCX, RCA*).

Interpretation: In the event of a long lesion that spans across two locations as defined in Attachment D, report this lesion as the more proximal location.

For the ramus use '15' for an LAD derived ramus and '20' for an LCX derived ramus.

Bypassed (A or V)

If the lesion has been bypassed by a vein graft, enter "V."
If the lesion has been bypassed by an artery graft, enter "A."
If the lesion was not bypassed leave blank.

Bypass Stenosis

If the lesion has a vein or artery graft, use the following code to report the level of stenosis found in the graft:

1. $\geq$ 70%
2. < 70%
3. Unknown

% Pre-Op Stenosis

Enter the pre-PCI percent diameter reduction. Measurement with calipers is recommended. Note: Findings by IVUS are acceptable.

IVUS

For lesions with pre-PCI stenosis of 40-70%, indicate if prior to intervention there is a significant reduction in cross-sectional area as documented by IVUS. Significant reduction is defined as $6mm^2$ for the left main and $4mm^2$ for major epicardial vessels other than the left main.

FFR

For lesions with pre-PCI stenosis of 40-70%, indicate the fractional flow reserve if determined prior to intervention, if available. If FFR not done, leave blank.

III. Vessels Diseased and Lesion Specific Information (cont).

Previous PCI

Use the following codes to indicate if the lesion is restenotic following a previously successful PCI.

0. No Previous PCI
1. No Restenosis
2. Restenosis, No Stent Previously Placed in the Vessel
3. Restenosis, Stent Previously Placed in the Vessel

Interpretation: For the purposes of this data element, report the presence of thrombus as restenosis.

Device 1 and Device 2

From the PCI Devices list in Attachment E, indicate the device used. If the device used is not found in Attachment E, use Device Code "99 – Other" and specify the device used.

If two different devices were used on the same lesion, complete Device 2 as well.

Interpretation: In the event of a failed PCI attempt, when the guidewire is advanced but no device is used, report the Device Code "98 – Failed PCI, No Device Used."

If a Balloon and a Stent are both used, it is at the discretion of the physician if the Balloon is coded as the Device 1 or not coded at all. For purposes of analysis/ interpretation, the stent will be considered the primary or most important intervention

Device Code "12 – Mechanical Thrombus Extraction" should be used to code Export Catheters or Extraction/Aspiration Devices when they are used independently of Distal Protection Devices.

Stent 1 and Stent 2

From the Stent Code list in Attachment E, indicate the type of stent used. If the stent used is not found in Attachment E, use Stent Code "9 – Other" and specify the type of stent used.

Interpretation: If two different stents were used on the same lesion, complete Stent 2 as well. If multiple stents of the same type were used in the lesion, then only report Stent 1.

When two lesions are treated with a single stent, it should be reported as one lesion and reported on a single row in the lesion specific grid.

III. Vessels Diseased and Lesion Specific Information (cont).

Lesion Description

Report all that apply (up to 3)

1. Small vessel (<2.5 mm diameter)
2. Long lesions (stenting ≥33 mm)
3. Bifurcation stenting
4. Heavily calcified and/or unyielding lesion
5. Tortuous and/or angled vessel obstructing stent delivery
6. Complex lesion – details not documented
7. Chronic Total Occlusion (CTO)
8. Dissection without prior significant disease
9. None of the above apply

Interpretation:

2 – Long lesion should only be reported when the actual length of the lesion is documented to be ≥ 33 mm. A note of "long lesion" should not be used as evidence for reporting this element.

4- Heavily calcified and/or unyielding lesion may be reported when a rotational atherectomy device is used, even if there is no specific notation of calcification.

6- Complex lesion, details not documented – should only be reported when there is a note of "complex lesion" and the documentation does not support coding any of the other lesion description codes.

7 - Chronic Total Occlusion (CTO) should be indicated for any CTO, even if it is not attempted. This is defined as: a vessel with 100% pre-procedure stenosis presumed to be 100% occluded for at least three months previous to this procedure. Note: This description should be reported if a lesion is described as a CTO even if there is no specific documentation with regard to timeframe of three months.

8 –Dissection without prior significant disease refers to intra-PCI dissections caused by the procedure which necessitate treatment. The pre-PCI stenosis for these lesions should be reported as the stenosis prior to the dissection occurring.

% Post-Op Stenosis

If a PCI was attempted on this lesion, enter the percent diameter of the stenosis immediately following the PCI.

Measurement with calipers is recommended.
If PCI was not attempted, leave post-op stenosis blank.

If the Medical Record says % Post-Stenosis was 0%, record it as 1% to indicate that it was actually a successful PCI and not left blank by mistake.

IV. Acute MI Information

Complete this section for all patients with an MI less than 24 hours prior to the PCI.

NOTE: The data in this section is only required for patients with Pre-Intervention Risk Factors #4-#6 (MI < 24 hours), with one exception. For patients with an admission date that is after the PCI date you must complete the "Arrival at PCI Hospital" date, even if the patient did not have an MI.

Onset of Ischemic Symptoms

Variable Name: CHESTPDATE

Report the date and time of the onset of chest pain or surrogate ischemic symptoms. This may be reported by the patient as pain, pressure, burning, heaviness or discomfort in the upper abdomen, shoulder, arm, jaw or upper back. This may also be accompanied by nausea and/or diaphoresis.

Note: The time reported here should be the time of the onset of symptoms that brought the patient to the hospital or caused the patient to seek care. If the symptoms have stopped before the start of the procedure, you can still report the date and time that they began.

If the exact symptom onset time is not specified in the medical record, it may be recorded as 0700 for morning, 1200 for lunchtime, 1500 for afternoon, 1800 for dinnertime, 2200 for evening and 0300 if awakened from sleep.

Estimated Onset Time

Variable Name: EST_ONSET

Indicate if the symptom onset time was estimated.

Arrival at Transferring Hospital

Variable Name: TRANARRDATE

Only for patients that are transferred from another acute care facility (with the pre-intervention risk factor MI < 24 hours), enter the date and time of arrival at the transferring institution.

IV. Acute MI Information (continued)

Arrival at PCI Hospital

Variable Name: PCIARRDATE

Enter the date and time the patient arrives in the PCI hospital.

Interpretation: If the patient presents first to another center (for example a community hospital), the time reported should be when the patient reaches the hospital that is going to perform the PCI.

When an MI develops in the PCI hospital, code the date and time documented by the nurses' notes as the start of chest pain or an equivalent cardiac symptom (jaw pain, shortness of breath, etc).

Also report this information when the patient's admission date is after the PCI date.

New ST Elevation

Variable Name: STELEVE

> 1mm in two or more contiguous leads.

New ST ↓ or T ↓

Variable Name: STORTDEP

New Ischemic changes on EKG appearing as ST depression, T-Wave inversion, or both.

New Left Bundle Branch Block (LBBB)

Variable Name: LBBB

Should be coded when LBBB is considered new and persisting as evidenced by EKG.

TIMI < II

Variable Name: TIMILTII

Evidence of TIMI flow < II WITH either total vessel occlusion or a high-grade lesion.

IV. Acute MI Information (continued)

Ongoing Ischemia at Time of Procedure

Variable Name: ONGOINGISCH

Check this box if the patient is experiencing chest pain and acute ST or T-Wave changes at the start of the PCI.

Killip Class 2 or 3

Variable Name: KILLIP23

Indicate severe heart failure in the acute MI patient as evidenced by any of the following:

- Documentation of Killip Class 2 or 3
- NYHA functional classification IV- symptoms at rest
- Symptoms are dyspnea and there may be note of orthopnea and paroxysmal nocturnal dyspnea (PND) .

  NOTE: If the patient requires oxygen to control dyspnea and then the chart notes "no longer short of breath or no longer dyspneic," this should still be considered evidence of dyspnea.
- Physical examination/ clinical evidence of fluid overload, and documentation of rales, crackles or pulmonary edema.

  NOTE: A description of the rales as "mild, minimal or bibasilar" or rales which "clear with deep breathing" is not sufficient. Notation of jugular venous distension (JVD), hepatic congestion, ascites and/or peripheral edema, chart notes of "grossly edematous or fluid overloaded" are not sufficient in the absence of clear statement about the pulmonary findings. In this case, it is reasonable to look elsewhere in the chart for evidence of pulmonary fluid overload (e.g. the anesthesiologist notes on intubation that there is "pink, frothy sputum" or notation of "not moving any air" or even an x-ray finding).

V. Pre-Intervention Risk Factors

Priority

Variable Name: PRIORITY

Check the appropriate box.

Elective: All cases not classified as urgent or emergency as defined below.

Urgent: The patient is too ill or unstable to be discharged from the hospital, but is not classified as emergency as defined below.

Emergency: Patients with ongoing, refractory, unrelenting cardiac compromise, with or without hemodynamic instability.

Typical emergency patients include those in arrest with CPR administered immediately prior to the procedure, shock, ongoing ischemia including rest angina, acute evolving MI or equivalent within 24 hours of procedure, and/or pulmonary edema requiring intubation.

Height

Variable Name: HEIGHT

Enter the patient's height in centimeters (cm).

Centimeters = 2.54 x inches

Weight

Variable Name: WEIGHT

Enter the patient's weight in kilograms (kg).

Kilograms = pounds ÷ 2.2

Stress Test / Imaging Study Done

Variable Name: STRS_DONE

Use the codes below to indicate if a stress test was performed prior to this procedure but within 6 months.

1. Yes
2. No
9. Unknown

V. Pre-Intervention Risk Factors (continued)

Stress Test / Imaging Study Type

Variable Name: STRS_TYP

Use the codes below to indicate the type of stress test / imaging study performed

1. Standard Exercise Stress Test – without imaging
2. Stress Echocardiogram
3. Stress Testing with single photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI)
4. Stress Testing with cardiac magnetic resonance (CMR)
9. Not Done / Unknown

If more than one type of stress test was performed within the past 6 months, report on the most recent test.

Stress Test / Imaging Study Results

Variable Name: STRS_RES

Use the codes below to indicate the stress test results.

1. Negative –
   A stress test or imaging study is negative when the electrocardiogram is normal or not suggestive of ischemia; or the imaging study reveals no change in wall motion during the procedure, or the imaging study revealed no myocardial perfusion defect. ECGs are not suggestive of ischemia when < 1 mm of horizontal or downsloping ST segment depression or evaluation for >= 60 – 80 milliseconds after the end of the QRS complex, either during or after exercise.
2. Positive, Low Risk – Any of the following:
   a. Low-risk treadmill score (score ≥ 5)
   b. Normal or small myocardial perfusion defect at rest or with stress.*
   c. Normal stress echocardiographic wall motion or no change of limited resting wall motion abnormalities during stress.*

   *Although the published data are limited, patients with these findings will probably not be at low risk in the presence of either a high-risk treadmill score or severe resting left ventricular dysfunction (LVEF < 35%).
3. Positive, Intermediate Risk – Any of the following:
   a. Mild/moderate resting left ventricular dysfunction (LVEF = 35-49%)
   b. Intermediate risk treadmill score (- 11 < score < 5)

V. Pre-Intervention Risk Factors (continued)

Stress Test / Imaging Study Results (continued)

   c. Stress-induced moderate perfusion defect without LV dilation or increased lung uptake (thallium-201).
   d. Limited stress echocardiographic ischemia with a wall motion abnormality only at higher doses of dobutamine involving less than or equal to two segments.

4. Positive, High Risk – Any of the following:
   a. Severe resting left ventricular dysfunction (LVEF < 35%)
   b. High-risk treadmill score (≤- 11).
   c. Severe exercise left ventricular dysfunction (exercise LVEF < 35%)
   d. Stress-induced large perfusion defect (particularly if anterior)
   e. Stress-induced multiple perfusion defects of moderate size
   f. Large, fixed perfusion defect with LV dilation or increased lung uptake (thallium 201).
   g. Echocardiographic wall motion abnormality (involving greater than two segments) developing at low dose of dobutamine (less than or equal to 10 mg/kg/min) or at a low heart rate (<120 beats /min).
   h. Stress echocardiographic evidence of extensive ischemia.
5. Positive, Risk Unavailable – Stress test / imaging study positive but risk or extent of ischemia not available.
6. Indeterminate - Results were indeterminate or un-interpretable. They cannot be considered positive or negative.
7. Unavailable –The results of the test are not available.
9. Not Done/ Unknown – No stress test/imaging study was performed within the past 6 months or it is not known if a stress test/imaging study was performed in the past 6 months.

Note:
Inclusion of stress test reports in the medical record is encouraged to allow for accurate and complete reporting of these data elements.

If the stress test report is not in the chart and the only documentation is a note of "positive stress test," please report as follows:

Stress Test Done = "1 -Yes"
Stress Test Type = "9 - Not Done / Unknown"
Stress Test Result = "5 - Positive, risk unavailable"

V. Pre-Intervention Risk Factors (continued)

Anti-Anginal Medication within 2 Weeks

Variable names: MED_BB, MED_CA, MED_NIT, MED_RAN, MED_OTH

Indicate if the patient was taking any of the following agents to treat anginal symptoms within the past two weeks. Check all that apply.

- ■ Beta-Blockers
- ■ Calcium Channel Blockers
- ■ Long Acting Nitrates
- ■ Ranolazine
- ■ Other

Interpretation:
If the patient is taking the medication for any reason, then report. It does not have to be documented as a prescription to treat anginal symptoms.

If the patient has been prescribed the medication but is known to be not taking it, then do not report.

Nitro paste and nitro patch are considered Long Acting Nitrates.

Other is a category created for medications not on the market at this time.

V. Pre-Intervention Risk Factors (continued)

Ejection Fraction and Measure

Variable Names: EJEC_FRA, MEASURE

Record the ejection fraction taken closest to (but before) the intervention. When a calculated measure is unavailable, the ejection fraction should be estimated visually from the ventriculogram or by echocardiography. If an ejection fraction is unavailable, enter "0" and enter "9 - Unknown" for the measure.

Note: Intraoperative direct observation of the heart is NOT an adequate basis for a visual estimate of the ejection fraction.

Indicate how the Ejection Fraction was measured using one of the following:

1. LV Angiogram
2. Echocardiogram
3. Radionuclide Studies
4. Transesophageal Echocardiogram (TEE), this includes intra-operative
8. Other
9. Unknown

Interpretation: Any ejection fraction that is well documented in the chart is acceptable, but give precedence to the one closest to (but before) the cardiac procedure being reported.

An ejection fraction that is described in the medical record as "Normal" should be considered 55%.

An EF measured up to one year prior to the PCI may be used if there is not a more recent value and if there was no change in clinical condition that would indicate the value was likely to change in that time period.

Any cases with a missing ejection fraction or ejection fraction < 10% will be sent back to the centers during quarterly and/or annual data validation to verify accuracy of this data element.

Creatinine

Variable Name: CREATININE

Enter the patient's highest pre-procedure creatinine (mg/dL) recorded during this hospital admission.

Interpretation: If no Pre-PCI creatinine values are available from the current hospital stay, it is acceptable to use values found during Pre-Admission Testing (up to 2 weeks prior to the intervention). If the patient is transferred, the creatinine can come from the transferring hospital.

V. Pre-Intervention Risk Factors (continued)

Angina: CCS Functional Class

Variable Name: CCS_CLAS

Enter the number (1-4) corresponding to the patient's Canadian Cardiovascular Society Functional Class, as defined below.

Canadian Cardiovascular Society (CCS) Functional Classification:

1. Class I Ordinary physical activity, such as walking or climbing stairs, does not cause angina. Angina may occur with strenuous or rapid or prolonged exertion at work or recreation.

2. Class II There is slight limitation of ordinary activity. Angina may occur with walking or climbing stairs rapidly, walking uphill, walking or stair climbing after meals or in the cold, in the wind, or under emotional stress, or walking more than two blocks on the level, or climbing more than one flight of stairs under normal conditions at a normal pace.

3. Class III There is marked limitation of ordinary physical activity. Angina may occur after walking one or two blocks on the level or climbing one flight of stairs under normal conditions at a normal pace.

4. Class IV There is inability to carry on any physical activity without discomfort, angina may be present at rest.

8. None Patient does not have Angina CCS Class I-IV as defined above. This includes those who do not have documented history of angina but present with chest pain associated with an MI.

Note: The determination of functional class should be based on the typical level of exertion required to produce angina. The CCS class should be based on the patient's history or pattern of angina, not the presenting symptoms. For example, a patient with no history of angina that is experiencing ischemic chest pain at rest in the ED should be classified as "8-None".

Anginal equivalent symptoms (e.g. Shortness of Breath) can be used to determine CCS Class.

V. Pre-Intervention Risk Factors (continued)

Angina Type

Variable Name: ANGINA

Enter the appropriate number (1, 2, or 8) indicating the patient's angina type.

1. Stable — Angina without a change in frequency or pattern for the 6 weeks prior to this procedure.

   Angina is controlled by rest and/or oral or transcutaneous medications.

2. Unstable — Angina has increased in frequency during the last 6 weeks, including new onset.

   Angina is produced by less effort or provocation and occurring in a crescendo pattern.

   Angina can be experienced at rest and pain may last for longer periods of time and be more difficult to relieve.
   Includes progressive, rest, and variant.

8. None — Patient does not have angina as defined above. This includes those who do not have angina but present with chest pain associated with an MI.

Note: Angina type should not be confused with CCS Class. CCS is a "snapshot" of the level of activity which brings on the angina and does not consider the changes in pattern or intensity over time, which are considered in the stable/unstable categorization. For example, new onset angina could be only a CCS Class II based on the level of activity associated with angina, but it is still "unstable." In a similar fashion, CCS class III angina, if it has not changed in intensity or pattern in 6 weeks, could be "stable."

V. Pre-Intervention Risk Factors (continued)

0. None

Variable Name: NORISK

None of the pre-intervention risk factors listed below are present.

1-3. Previous PCIs

Variable Names: PREV_PR1, PREV_PR2, PREV_PR3

If the patient had one or more previous PCI, check the appropriate box to indicate the number of previous PCIs.

Include any interventions that occurred prior to this one during the current admission. If there was a previous procedure this admission, please be sure that the date of the most recent PCI is indicated for “Previous PCI This Admission” on the form.

4-7. Previous MI (most recent)

Variable Names: PREMILT6, PREMI611, PRMI1223, PREMIDAY

If the patient had one or more myocardial infarctions before PCI, report the length of time since the most recent MI. The timing should be from the onset of symptoms that prompted the patient to seek medical care to the start of the procedure. The diagnosis of Acute Coronary Syndrome (ACS) in the medical record is not sufficient to code risk factors 4 – 7. There must be documentation of a myocardial infarction.

If less than 6 hours, check box “4”.
If >6 - <12 hours, check box “5”.
If >12 - <24 hours, check box “6”.
If 24 hours or more, enter the number of days in the space provided next to “7”.
If 21 days or more, enter "21".

V. Pre-Intervention Risk Factors (continued)

9. Cerebrovascular Disease

Variable Name: CEREBRO

A history of stroke, with or without residual deficit; angiographic or ultrasound demonstration of at least 50% narrowing in a major cerebral or carotid artery (common or internal); or previous surgery for such disease. A history of bruits or transient ischemic attacks (TIA) is not sufficient evidence of cerebrovascular disease.

Examples:

Cerebrovascular Disease	Code	Do Not Code
1. Patient with TIA, vertigo per history & physical		X
2. Cerebral aneurysm and clipping residual deficit	X	
3. External carotid artery has >50% stenosis		X
4. Internal or common carotid artery has >50% stenosis	X	
5. Carotid endarterectomy is scheduled for after PCI, but there is no pre-PCI documentation of the carotid stenosis.	X	

Note: Cerebrovascular Disease can be coded if carotid stenosis is documented after the PCI. Please note this clarification differs from that of the Cardiac Surgery Reporting System.

V. Pre-Intervention Risk Factors (continued)

10. Peripheral Vascular Disease

Variable Name: PERIPH

Angiographic demonstration of at least 50% narrowing in a major aortoiliac or femoral/popliteal vessel, previous surgery for such disease, absent femoral or pedal pulses, or the inability to insert a catheter or intra-aortic balloon due to iliac aneurysm or obstruction of the aortoiliac or femoral arteries.

Examples:

Peripheral Vascular Disease	Code	Do Not Code
1. Tortuosity of the vessel alone		X
2. Tortuosity of the vessel with an inability to insert a catheter	X	
3. Abdominal aortic aneurysm (AAA)	X	
4. Aneurysm in the ascending or descending aorta	X	
5. Absence of femoral pulse on either the right or the left	X	
6. Diminished femoral pulse on either right or left or both		X
7. Claudication		X
8. A negative popliteal pulse alone (1+1- or 1-1+)		X
9. Palpable dorsalis pedis and posterior tibial pulses		X
10. If pulses are non-palpable, but are dopplerable	X	
11. Inability to insert a catheter or IABP in femoral arteries	X	
12. Amputated toes, necrotic toes, gangrene of the foot in the absence of other acceptable criteria		X
13. Renal artery with significant stenosis	X	

V. Pre-Intervention Risk Factors (continued)

12. Unstable

Variable Name: UNSTABLE

The patient requires pharmacologic or mechanical support to maintain blood pressure or cardiac index.

Interpretation: Key elements for documentation of Unstable include Pre-PCI evidence of the following:

1. Evidence of hypotension or low cardiac index **and**
2. Administration of mechanical or pharmacological support.

– The procedure itself does not constitute support.
– Fluid replacement alone does not constitute support.
– IABP constitutes support only when documented that it was placed for hemodynamics. Pain control, anatomy, or undocumented indication for IABP do not support coding Unstable.

When coding Unstable, be careful of timing. It needs to be just prior to the commencement of the PCI. Once the guide-wire has left the catheter any instability after that would not constitute the patient being coded Unstable.

Unstable cannot be coded with Shock.

V. Pre-Intervention Risk Factors (continued)

13. Shock

VARIABLE NAME: SHOCK

Acute hypotension (systolic blood pressure < 80 mmHg) or low cardiac index (< 2.0 liters/min/m2) despite pharmacologic or mechanical support.

Interpretation: Key elements for the documentation of Shock include evidence of all three of three prior to PCI:

1. Documented acute hypotension (systolic blood pressure < 80 mmHg) or low cardiac index (< 2.0 liters/min/m2), **and**
2. Mechanical or pharmacological support, **and**
3. Persistent acute hypotension (systolic blood pressure < 80 mmHg) or low cardiac index (< 2.0 liters/min/m2) while receiving mechanical or pharmacological support.

Ongoing resuscitation warrants coding Shock.

If the patient has an IABP, the non-augmented blood pressure should be < 80 mmHg to code Shock.

If the patient is Ventricular Assist Device (VAD) dependent then Shock can be coded. The type of VAD (Right, Left, Bi) is not important.

When coding Shock, be careful of timing. It needs to be just prior to the commencement of the PCI. Once the guide-wire has left the catheter any factors that would constitute the patient being coded Shock would not matter.

Shock cannot be coded with Unstable.

Clarification: The intent of this data element is to capture patients with pre-procedural cardiogenic shock, whose hemodynamics cannot be stabilized with pharmacologic or mechanical support. Patients whose hemodynamics are maintained (SBP $\underline{\geq}$ 80 or CI ≥2.0) by pharmacological or mechanical support should be coded as Unstable, not as Shock.

V. Pre-Intervention Risk Factors (continued)

18. Congestive Heart Failure, Current

Variable Name: CHF_CURRENT

Within 2 weeks prior to the procedure, the patient has a clinical diagnosis of CHF, and symptoms requiring treatment for CHF.

Note: Physician diagnosis of CHF may be based on one of the following:

- Paroxysmal nocturnal dyspnea (PND)
- Dyspnea on exertion (DOE) due to heart failure
- Chest X-Ray showing pulmonary congestion

Documentation must include the presence of a diagnosis of CHF, evidence of symptoms, and treatment for CHF.

19. Congestive Heart Failure, Past

Variable Name: CHF_PAST

Between 2 weeks and 6 months prior to the procedure, the patient has a clinical diagnosis/ past medical history of CHF and ongoing treatment for CHF.

Note: Physician diagnosis of CHF may be based on one of the following:

- Paroxysmal nocturnal dyspnea (PND)
- Dyspnea on exertion (DOE) due to heart failure
- Chest X-Ray showing pulmonary congestion

Documentation must include a diagnosis of CHF and evidence of treatment for CHF. Patient's clinical status may be compensated.

It is acceptable to report both Congestive Heart Failure Current and Past.

37. BNP, three times normal

Variable name: BNP3X

Report if prior to PCI but within this admission, the BNP was at least three times the lab's upper limit of normal value.

For transfer patients, BNP from a transferring institution is acceptable.

V. Pre-Intervention Risk Factors (continued)

20. Malignant Ventricular Arrhythmia

Variable Name: MAL_VENT

Recent (within the past 14 days) sustained ventricular tachycardia requiring electrical defibrillation or conversion with intravenous antiarrhythmic agents or ventricular fibrillation requiring electrical defibrillation. Excludes V-Tach or V-Fib occurring within 6 hours of the diagnosis of a myocardial infarction and responding well to treatment.

Interpretation:
Sustained arrhythmia is that which continues until something is done to stop it; it does not resolve on its own.

If a patient is experiencing V-Tach or V-Fib that otherwise meets the criteria, but is within 6 hours of an MI, you may still code this risk factor, IF the arrhythmia is not responding well to treatment. That is, if it continues despite electrical defibrillation or conversion with intravenous anti-arrhythmic agents.

If the patient has an AICD that is documented to have fired then CODE, unless the patient has had an MI within the last 6 hours.

Regular oral medication for a ventricular arrhythmia is NOT sufficient reason to code the risk factor.

V. Pre-Intervention Risk Factors (continued)

21. Chronic Obstructive Pulmonary Disease

Variable Name: COPD

Patients who:

- Require chronic (longer than three months) bronchodilator therapy to avoid disability from obstructive airway disease,

Or

- Have a forced expiratory volume in one second of less than 75% of the predicted value or less than 1.25 liters,

Or

- Have a room air P_{O_2} <60 or a P_{CO_2} >50.

Note: COPD should not be checked unless the patient's medical record contains documentation of the above criteria, regardless of how much the patient may have smoked.

Examples:

COPD	Code	Do Not Code
1. Chest X-ray as documentation		X
2. Patient required bronchodilators prior to PCI		X
3. Fibrotic lungs on chest X-ray		X
4. Hyperinflated lungs at intervention		X
5. Chart states asthma without medications		X
6. Sleep apnea without any of the above criteria		X

22. Diabetes Requiring Medication

Variable Name: DIABETES

The patient is receiving either oral hypoglycemics or insulin.

Interpretation:
The patient must be on oral hypoglycemics or insulin prior to hospital admission.

The following scenario would not be coded since the medication was not ongoing:

Patient admitted on 12/28. Nurse's note on 12/29: "patient has no hx DM but had Insulin (stat) in another hospital." Glucose level 155 on no meds.

V. Pre-Intervention Risk Factors (continued)

24. Renal Failure, Dialysis

Variable Name: REN_DIAL

The patient is on chronic peritoneal or hemodialysis.

Interpretation: A single dialysis treatment does not constitute coding this risk factor.

28. Previous CABG Surgery

Variable Name: PREVSURG

Previous coronary artery bypass graft (CABG) surgery.

Interpretation: This risk factor may be reported if the CABG was during this admission, but before PCI, or in a previous admission.

If the patient has an "A" or "V" coded in the lesion specific section and this risk factor is not reported, the case will be returned for validation.

32. Emergency PCI due to DX Cath Complication

Variable Name: EME_PTCA

Catheterization related dissection or obstruction of coronary artery during diagnostic catheterization, requiring immediate, unplanned angioplasty to treat closure or threatened closure of the vessel.

34. Stent Thrombosis

Variable Name: STETHROM

Formation of a blood clot/thrombus in the stented segment of an artery and/or adjacent area. This usually results in an acute occlusion, chest pain or development of an acute MI. Patient must be currently affected by stent thrombosis as evidenced by AMI, ACS, or clinical angina to code this risk factor.

Interpretation: An occlusion alone, in-stent restenosis, or plaque build-up does not constitute coding.

The thrombus needs to be in or around the area that is stented for the risk factor to be coded.

V. Pre-Intervention Risk Factors (continued)

35. Any Previous Organ Transplant

Variable Name: ORGAN_TRANS

The patient has had any organ transplant prior to the PCI. This includes, but is not limited to: heart, lung, kidney, and liver transplants.

Interpretation: Also code for bone marrow transplant.

Do not code for corneal transplant or skin transplant (grafting).

36. Contraindication to Aspirin and Plavix

Variable Name: BLEEDRSK

Report if any of the following apply:

- Hereditary or acquired bleeding disorders or conditions associated with increased bleeding risk
- Allergic or idiosyncratic reactions to Aspirin/Plavix or similar drugs
- Anticipated need for an operation or procedure which would require cessation of the medications in a way that would unacceptably increase stent thrombosis risk.

Do not report for reasons such as “inability to afford medications” or “expectation of non-compliance”.

VI. Major Events Following PCI

Check to be sure that all of the listed major events occurred during or after the intervention. Check at least one box in this section.

Please Note: A documented pre-intervention condition that persists post-intervention with no increase in severity is not a reportable major event.

All major events are only reported if they occur during or after PCI, but before hospital discharge.

0. None

Variable Name: NO_COMPS

Check if none of the Major Events listed below occurred during or after PCI, but before hospital discharge.

1. Stroke (New Neurological Deficit) 24 Hours or Less

Variable Name: STROKE

Permanent new focal neurological deficit occurring either during the intervention or within 24 hrs Post-PCI.

Interpretation: Exacerbation of a previous CVA with no new neurological deficit would not be coded.

Transient neurological deficits, such as TIA, are not reported as a Post-PCI event.

If the condition is still present at discharge, then the event should be reported.

1A. Stroke (New Neurological Deficit) over 24 Hours

Variable Name: STROKE24

Permanent new focal neurological deficit occurring more than 24 hours Post-PCI.

Interpretation: Exacerbation of a previous CVA with no new neurological deficit would not be coded.

Transient neurological deficits, such as TIA, are not reported as a Post-PCI event.

If the condition is still present at discharge, then the event should be reported.

VI. Major Events Following PCI (continued)

2. Q- Wave MI

Variable Name: TRANS_MI

New Q waves and a rise in cardiac enzyme (CK) to at least 2.5 times the normal range, occurring within 24 hours after PCI.

7A. Acute Occlusion in the Targeted Lesion

Variable Name: OCC_TL

Acute occlusion, complete or partial, in the targeted lesion resulting in reduction of flow through the dilated artery.

Usually caused by thrombosis, intimal flap, or dissection.

An occlusion which is reopened before the patient leaves the catheterization laboratory and stays open should not be reported.

An occlusion requiring the patient's return to the catheterization laboratory should be reported even if the vessel is then reopened.

If the acute occlusion is caused by a stent thrombosis, only code the stent thrombosis.

7B. Acute Occlusion in a Significant Side Branch

Variable Name: OCC_SSB

Acute occlusion, complete or partial, in a significant side branch resulting in reduction of flow.

This should include any occlusion in any location within the significant proximal or distal branches of the targeted or treated vessel.

Usually caused by thrombosis, intimal flap, or dissection.

An occlusion, which is re-opened before the patient leaves the catheterization laboratory and stays open, should not be reported.

An occlusion requiring the patient's return to the catheterization laboratory should be reported even if the vessel is then reopened.

VI. Major Events Following PCI (continued)

8. A/V Injury at Cath Entry Site, requiring intervention

Variable Name: AV_INJUR

Arterial or Venous injury requiring intervention, including, but not limited to:

Those requiring femoral or brachial embolectomy
Evacuation of a hematoma
Repair of false aneurysm, example: ultrasound guided compressions
Closure of arterial-venous fistula
Thrombin injection

Transfusion with no other intervention does not require coding the major event.

10. Renal Failure

Variable Name: RENALFAI

Temporary or permanent renal dialysis of any type before hospital discharge.

Do not code this item if "Risk Factor #24 -Renal Failure, Dialysis" is reported.

Interpretation: For renal failure, initiation of dialysis is always a major event, regardless of the Pre-PCI creatinine or expectation of future need for dialysis.

14. Emergency Cardiac Surgery

Variable Name: EMESURG

The patient is taken to the operating room for cardiac surgery on an emergency basis due to a complication of PCI.

Interpretation: This major event should be reported for any cardiac surgery, not just those reportable in the NYS Cardiac Surgery Reporting System (CSRS). Examples of reportable surgeries include but are not limited to: CABG, cardiac massage and cardiac explorations.

VI. Major Events Following PCI (continued)

17. Stent Thrombosis

Variable Name: ST_THROM

Formation of a blood clot in the stented segment of the artery and/or adjacent area. This usually results in an acute occlusion, chest pain, or development of an acute MI.

Interpretation: An occlusion alone or plaque build-up does not constitute coding.

The thrombus needs to be in or around the area that is stented for the major event to be coded.

Report only if stent thrombosis occurs before hospital discharge.

18. Emergency Return to the Cath Lab for PCI

Variable Name: ER_CATH

The patient is taken to the Cath Lab for PCI on an emergency basis due to a complication of a previous PCI.

19. Coronary Perforation

Variable Name: CORN_PERF

Indicate if there was a coronary perforation during this lab visit.
Type III – extravasation through a frank (1 mm) perforation

Do not code if the perforation is repaired during the same lab visit as the PCI.
If the perforation requires emergency cardiac surgery then the Major Event #14-Emergency Cardiac Surgery should also be coded.

VII. Discharge Information

Additional Procedure Planned - Staged Procedure

Variable Name: STAGE_PLAN

Use the following codes to indicate if, at the end of this procedure, it is expected that another procedure (PCI or CABG) will be performed within 60 days on a different lesion location in a non-emergency setting.

0. No additional procedure planned as staged treatment strategy
1. Yes, additional PCI planned as part of staged treatment strategy
2. Yes, CABG planned as part of staged treatment strategy.

Interpretation: Report "No" if at the end of this procedure there is a plan to wait for clinical or laboratory evidence to decide if another procedure is necessary.

Report "No" if this procedure was a failed attempt and the plan is to "try again" at a later time.

Discharged Alive To

Variable Name: STATUS, STAT_SPE

Check the appropriate box.

Hospice discharge (including home with hospice), should be reported as code "12". For purposes of analysis this is considered an in-hospital mortality unless the hospital provides documentation that 30 days after discharge the patient was still alive (even if still in hospice).

Use code "11- Home" for patients who arrive from and are discharged to prison or correctional facility.

If the patient is discharged to sub-acute rehab that is in a skilled nursing facility then the discharge status would be "14". If it is unknown where the sub-acute rehab facility is located then the discharge status would be "19".

Use code "14" for patients who arrive from and are discharged to a skilled nursing home.

Use code "15" for patients discharged to an in-patient physical medicine and rehabilitation unit.

Use "19–Other" for a live discharge status not otherwise specified (e.g. AMA). *Any discharge status "19" that does not specify where the patient was discharged to will be sent back to the hospital for completion.*

VII. Discharge Information (continued)

Died in

Variable Name: STATUS, STAT_SPE

Check the appropriate box.
If "8 – Elsewhere in Hospital" is checked, specify where the patient died.

Hospital Discharge Date

Variable Name: DISDATE

Enter the date the patient was discharged from the hospital.

If the patient died in the hospital, the hospital discharge date is the date of death.

30-Day Status

Variable Name: THIRTYDAY

Report the patient's status at 30 days post-procedure using the appropriate code.
Live (1); Dead (2); Unknown (9)

This data element is intended as a tool to assist in tracking post-discharge outcomes. It is not required for data reporting.

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Attachment A

PFI Numbers for Cardiac Diagnostic and Surgical Centers

PFI	Facility
	ALBANY AREA
0001	Albany Medical Center Hospital
0135	Champlain Valley Physicians Hospital Medical Center
0829	Ellis Hospital
1005	Glens Falls Hospital
0746	Mary Imogene Bassett Hospital
0755	Rensselaer Regional Heart Institute – St. Mary's
0756	Rensselaer Regional Heart Institute – Samaritan
0818	Saratoga Hospital
0005	St. Peter's Hospital
	BUFFALO AREA
0207	Buffalo General Hospital
0208	Children's Hospital of Buffalo
0210	Erie County Medical Center
0213	Mercy Hospital of Buffalo
0215	Millard Fillmore Gates
0103	Women's Christian Association
	ROCHESTER AREA
0116	Arnot Ogden Medical Center
0411	Rochester General Hospital
0413	Strong Memorial Hospital
0471	Unity Hospital of Rochester
	SYRACUSE AREA
0977	Cayuga Medical Center at Ithaca
0628	Community General
0636	Crouse Hospital
0599	Faxton-St. Luke's Healthcare, St. Luke's Division
0367	Samaritan Medical Center
0598	St. Elizabeth Medical Center
0630	St. Joseph's Hospital Health Center
0058	United Health Services Hospital, Inc.-Wilson Hospital Division
0635	University Hospital SUNY Health Science Center (Upstate)

Attachment A (continued)

PFI Numbers for Cardiac Diagnostic and Surgical Centers

PFI	Facility
	NEW ROCHELLE AREA
0989	Benedictine Hospital
0779	Good Samaritan Hospital-Suffern
0990	Kingston Hospital
0513	Mercy Medical Center
0686	Orange Regional Medical Center
1072	Sound Shore Medical Center-Westchester
0180	St. Francis Hospital (Poughkeepsie)
0694	St. Luke's Cornwall Hospital/Newburgh
0181	Vassar Brothers Medical Center
1139	Westchester Medical Center
1045	White Plains Hospital Center
	LONG ISLAND AREA
0885	Brookhaven Memorial Hospital
0925	Good Samaritan Hospital Medical Center-West Islip
0913	Huntington Hospital
0528	Nassau University Medical Center
0541	North Shore University Hospital
0527	South Nassau Communities Hospital
0924	Southside Hospital
0943	St. Catherine of Siena Medical Center
0563	St. Francis Hospital (Roslyn)
0245	Stony Brook University Hospital
0511	Winthrop University Hospital
	NY CITY AREA
1438	Bellevue Hospital Center
1439	Beth Israel Medical Center / Petrie Campus
1178	Bronx-Lebanon Hospital Center-Concourse Division
1286	Brookdale Hospital Medical Center
1288	Brooklyn Hospital Center-Downtown
1294	Coney Island Hospital
1626	Elmhurst Hospital Center
1445	Harlem Hospital Center
1300	Interfaith Medical Center, Jewish Hospital Medical Center of Brooklyn Division
1165	Jacobi Medical Center
1629	Jamaica Hospital Medical Center
1301	King's County Medical Center
1450	Lenox Hill Hospital

Attachment A (continued)

PFI Numbers for Cardiac Diagnostic and Surgical Centers

PFI	Facility
	NY CITY AREA (CONT.)
1302	Long Island College Hospital
1630	Long Island Jewish Medical Center
1304	Lutheran Medical Center
1305	Maimonides Medical Center
3058	Montefiore Medical Center-Jack D. Weiler Hospital of A. Einstein College Division
1169	Montefiore Medical Center-Henry and Lucy Moses Division
1456	Mount Sinai Hospital
1637	NY Hospital Medical Center of Queens
1306	NY Methodist Hospital
1464	NY Presbyterian-Columbia Presbyterian Center
1458	NY Presbyterian-NY Weill Cornell Center
1463	NYU Medical Center
2968	North General Hospital
1176	St. Barnabas Hospital
1466	St. Luke's Roosevelt Hospital Center-Roosevelt Hospital Division
1469	St. Luke's Roosevelt Hospital-St. Luke's Hospital Division
1740	Staten Island University Hospital-North
1471	SVCMC-St. Vincent's Manhattan
1738	Richmond University Medical Center
1320	University Hospital of Brooklyn
1318	Wyckoff Heights Medical Center

8888 Catheterization Laboratory at a Veterans Administration Hospital in New York. (for use in this reporting system; not an official Permanent Facility Identifier)

9999 Catheterization Laboratory Outside New York State (for use in this reporting system; not an official Permanent Facility Identifier)

A complete listing of NYS hospitals, including their PFI can be found at: http://hospitals.nyhealth.gov/ .

Attachment B

Residence Codes

The county codes shown below are also used in the SPARCS Discharge Data Abstract:

01 Albany
02 Allegany
03 Broome
04 Cattaraugus
05 Cayuga
06 Chautauqua
07 Chemung
08 Chenango
09 Clinton
10 Columbia
11 Cortland
12 Delaware
13 Dutchess
14 Erie
15 Essex
16 Franklin
17 Fulton
18 Genesee
19 Greene
20 Hamilton
21 Herkimer
22 Jefferson
23 Lewis
24 Livingston
25 Madison
26 Monroe
27 Montgomery
28 Nassau
29 Niagara
30 Oneida
31 Onondaga
32 Ontario
33 Orange
34 Orleans
35 Oswego
36 Otsego
37 Putnam
38 Rensselaer
39 Rockland
40 St. Lawrence
41 Saratoga
42 Schenectady
43 Schoharie
44 Schuyler
45 Seneca
46 Steuben
47 Suffolk
48 Sullivan
49 Tioga
50 Tompkins
51 Ulster
52 Warren
53 Washington
54 Wayne
55 Westchester
56 Wyoming
57 Yates
58 Bronx
59 Kings
60 Manhattan
61 Queens
62 Richmond

88 Unknown

99 Outside NYS

Attachment C

Payer Codes

01 Medicare—Fee For Service
02 Medicare—Managed Care
03 Medicaid—Fee For Service
04 Medicaid—Managed Care
05 Blue Cross
06 HMO/Managed Care
07 Other Private Insurance Company
11 Self Pay
19 Other

Attachment D
Codes for Location of Lesion

Use the list and diagram below to find the code for location of lesion.

1. Prox RCA
2. Mid RCA
3. Dist RCA
4. R PDA
5. RPLS
6. 1st RPL
7. 2nd RPL
8. 3rd RPL
9. Inf. Septal
10. Ac Marg
11. LMCA
12. Prox LAD *
13. Mid LAD
14. Dist LAD
15. 1st Diag or Intermediate Branch
16. 2nd Diag
17. 1st Septal
18. Prox CX
19. Dist CX
20. 1st Ob Marginal
21. 2nd Ob Marginal
22. 3rd Ob Marginal
23. L A V
24. 1st LPL
25. 2nd LPL
26. 3rd LPL
27. LPDA

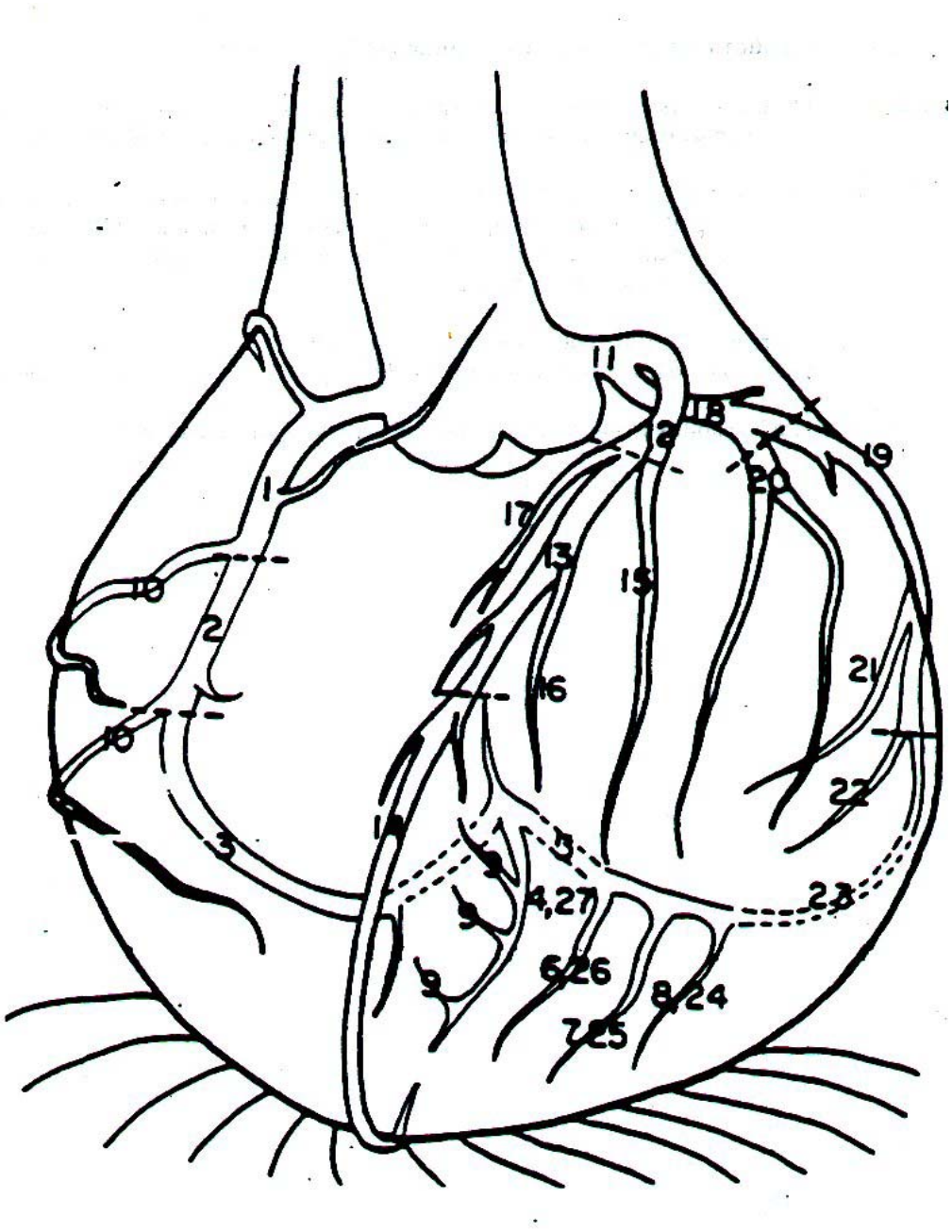
41. Vein Graft to LMCA
42. Artery Graft to LMCA

51. Vein Graft to LAD
52. Artery Graft to LAD

61. Vein Graft to LCX
62. Artery Graft to LCX

71. Vein Graft to RCA
72. Artery Graft to RCA

88. PTMR



* Code 12 refers to the region before the origin of the major septal artery.

Attachment E
Device and Stent List

Use the following values to code procedures and/or devices used during the intervention.

Device Codes:

0	Lesion Not Attempted or No Device Used
1	Balloon
3	Rotational Atherectomy
4	Protective Devices (Including Filter Wires)
5	Cutting Balloon
11	Angiojet
12	Mechanical Thrombus Extraction
98	Failed PCI – No Device Used
99	Other (Specify)

Stents:

0	No Stent Used
1	Un-Coated Stent
2	Covered Stent
4	Paclitaxel Coated Stent (Taxus)
6	Sirolimus Coated Stent (Cypher)
7	Zotarolimus Coated Stent (Endeavor)
8	Everolimus Coated Stent (Xience)
9	Other Coated Stent (Specify)