

Percutaneous Coronary Intervention Report

Form DOH-3331

Instructions and Data Element Definitions July 2002

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Revision Highlights and Coding Clarification

Procedural Information

Enzyme Data:

Pre-PCI and at least one set of Post-PCI enzymes should be reported for ALL patients.

Please note that Troponin values can now be reported with 2 decimal places.

Procedure Related Medicines

Heparin:

A bolus of heparin at the start of the intervention should NOT be reported.

We will now be collecting Fractionated Heparin, Un-Fractionated Heparin, and Direct Thrombin Inhibitors as separate data fields.

IV GPIIb/IIIa Platelet Inhibitors will now be collected in a way that indicates the type of inhibitor given as well as WHY they are being given.

Oral GPIIb/IIIa Platelet Inhibitors and IV Nitro within 24 hours pre-proc will NO longer be collected.

Major Events Following Surgery

Stroke:

Transient neurological deficits are NO longer to be reported as a post-procedural event.

Stent Thrombosis:

Should be reported when the stented area closes due to a thrombus. You should report this as a major event if it occurs any time post-procedure, even after hospital discharge. DO NOT report if the closure is due to plaque build-up.

Stent Thrombosis should be reported up to 6 months post-PCI, regardless of whether or not the patient has been discharged from the hospital.

Revision Highlights and Coding Clarification (Cont.)

Peri-Procedural Information

This section will now be completed for ALL patients.

The section should include information regarding the patient's condition from 24 hours pre-procedure, until 24 hours post-procedure.

The definition for time of onset of chest pain to hospital admission has been changed to time of onset of chest pain to procedure. This is the only variable in this section that should be looked at for more than 24 hours pre-procedure. If the patient has had chest pain for 3 days before the procedure, then the time of onset of chest pain to procedure would be 72.

Lesion Specific Information

Angiojet:

Angiojet procedures performed on a vessel are coded "9 Other" device.

IVUS:

Intravascular ultrasound conducted for diagnostic purposes SHOULD NOT be coded.

Device Code Changes:

Atherectomy – will no longer be coded by itself but instead should be coded as either "2" Directional or "3" Rotational, whichever is most appropriate

Distal Protective Devices – will be coded as "4"

Cutting Balloons – will be coded as "5"

TEC – will now be coded as "9: Other"

Brachytherapy should be coded as a Balloon with Radiation

Stent Code Changes:

Stents will now be coded as:

0 – No Stent

1 – Un-Coated Stent, including heparin coated stents

2 – Coated Stent, other than heparin coated stents

Revision Highlights and Coding Clarification (Cont.)

Pre-Intervention Risk Factors

Previous MI < 24 hours:

Documentation **MUST** be present in the medical record that reports the date and time the patient was ruled in with an MI, along with the date and time of the intervention.

Congestive Heart Failure, Current and Past:

These have new definitions as of 2001. It is important to recognize that it is now possible to code **BOTH** risk factors. This is due to the fact that the definitions are now within “2 weeks” and “2 weeks to 6 months”, respectively. It is also important to note that the definitions are no longer subjective NYHA classifications, they have specific requirements that need to be met for coding.

ITEM-BY-ITEM INSTRUCTIONS

PFI Number

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

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 in case your facility finds it useful in identifying and tracking cases.

I. Patient Information

Patient Name

Enter the patient's last name followed by the first name. Please note that this field is only for your individual use. The patient's name will NOT be transmitted to the Department of Health and will NOT appear on any reports generated by the software.

Medical Record Number

Enter the patient's medical record number.

Social Security Number

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.

This information can usually be found on the face sheet of the hospital medical record.

Age in Years

Enter the patient's age at admission to the hospital. The age should be calculated by subtracting the Date of Birth from the Hospital Admission Date.

I. Patient Information (Cont.)

Date of Birth

Enter the patient's exact date of birth.

Sex

Check the appropriate box.

Ethnicity

Check the appropriate box.

Race

Check the appropriate box. For White Hispanics, check "White"; for Black Hispanics, check "Black"; "Other" refers to races other than White or Black, such as Asian, American Indian, or Middle Eastern.

Residence Code

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 the patient is from a foreign country, but is staying in the US during the pre-operative and post-operative 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

Enter the date that the current hospital stay began.

II. Procedural Information

Hospital that Performed Diagnostic Cath

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 New York State, enter its PFI Number from Attachment A; if done at a Veterans Administration hospital in New York State, enter "8888"; if done outside New York State, enter "9999". If there was no diagnostic catheterization, leave this item blank.

Primary Physician Performing PCI

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

Date of PCI

Enter the date on which the PCI was performed.

Diagnostic Cath During Same Lab Visit

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

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.

Other PCI This Admission

For patients who have had an additional PCI during this admission, check "Yes".

Otherwise check "No".

If **YES**, it is very important that you enter the date of this procedure. It is this date that allows multiple procedures during the same hospital admission to be combined 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.

II. Procedural Information (Cont.)

PCI Prior to This Admission at this Hospital

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 01/01 for the month and day and the correct year.

Cardiac Enzymes

Report results of pre- and post-PCI cardiac enzyme measures. CAC guidelines recommend one pre- and two post-PCI enzyme measures at intervals indicated on the form.

Troponin may be used in place of the CK-MB iso-enzyme.

Interpretation:

Troponin can now be reported with two decimal places to add increased accuracy.

The timing of the enzymes should be determined by when the blood was drawn NOT when it was processed by the lab. For the Post-PCI enzyme values, get as close as possible to the time frames asked for.

If the first set of Post-PCI enzymes are “normal” then a second set of Post-PCI enzymes is not necessary.

It should be noted that the 6-8 hour time frame for Post-PCI enzymes is an approximate time frame and should be followed to the best of the hospital’s ability. **DO NOT** report any Post-PCI enzymes taken before 3 hours Post-PCI.

Any cases WITHOUT a Pre-PCI enzyme and at least ONE Post-PCI enzyme reported will be sent back to the centers during quarterly and annual data validation to verify the accuracy of this data element.

Procedure Related Medicines

Check ALL that apply.

Fractionated Heparin

Administered 6 hrs pre-proc or anytime post-PCI

Includes low molecular weight heparin.
E.g. Lovenox, Fragmin, and Innohep.

Un-Fractionated Heparin

Administered 6 hrs pre-proc or anytime post-PCI

Direct Thrombin Inhibitors

Administered 6 hrs pre-proc or anytime post-PCI

E.g. Refludan, Argatroban, and Angiomax

If IV GPIIb/IIIa Platelet Inhibitors

Administered 6 hrs pre-proc or anytime post-PCI

Check the appropriate box to indicate which IV GPIIb/IIIa Platelet Inhibitor was used.

If more than one is given, check the one that was given *first*.

If one of these is checked, the Indication for Use of IV GPIIb/IIIa Platelet Inhibitors MUST also be checked.

Indications for the Use of IV GPIIb/IIIa Platelet Inhibitors

Please mark the appropriate box, to indicate the reason for giving Abciximab or any other IV GPIIb/IIIa Platelet Inhibitor.

- 1 – Baseline Angiographic Evidence
- 2 – Baseline Clinical Evidence
- 3 – Post-PCI Angiographic Evidence
- 4 – Clinical Decompensation
- 5 – Another Reason

The indication checked should be the primary reason for giving the *first* dose of *any* IV GPIIb/IIIa Platelet Inhibitor.

If IV GPIIb/IIIa Platelet Inhibitors were NOT given, leave Blank.

Thrombolytics

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".

Interpretation of Indications for Use of IV GPIIb/IIIa Platelet Inhibitors:

This section applies to the timing and reason for giving IV GPIIb/IIIa Platelet Inhibitors.

If the medicine was given for more than one of the following reasons, check the one that occurred first. For example, if there was evidence of baseline angiographic evidence and clinical decompensation, the indication should be checked as baseline angiographic evidence.

If the medication is given as standard practice at your institution, code "Another Reason", regardless of when the medication was given.

Baseline Indications apply to any time before the PCI begins, while Post-PCI Angiographic, and Clinical Decompensation Indications refer to any time after the start of the procedure.

Some examples of the types of indications include:

Baseline Angiographic Evidence: Evidence of intra luminal thrombus (defined as: presence of filling defect within the coronary lumen, surrounded by contrast material, seen in multiple projections; persistence of contrast material (staining) of the lumen; a hazy lesion; visible embolization of intra luminal material downstream); High-risk lesions for PCI (B and C); Complication of low risk lesion (A)

Baseline Clinical Evidence: Acute Coronary Syndrome (ACS) including patients with unstable angina, non ST-elevation MI, and ST-elevation MI.; Acute MI requiring primary angioplasty

Post-PCI Angiographic Evidence: Acute occlusion at the site of PCI; Residual dissection at the site; Any baseline angiographic indications that occur after the guide wire crosses; Sub-optimal Results.

Clinical Decompensation: Instability occurring during or after PCI (intractable angina, acute MI, etc)

Another Reason: Any indication not listed above.

III. Major Events Following Intervention

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 risk factor that persists post-intervention with NO increase in severity is not a major event.

Unless otherwise specified, major events are **ONLY** reported if they occur during or after PCI, but before hospital discharge.

0. None

Check if none of the Major Events listed below occurred following the intervention.

1. Stroke (New Neurological Deficit) 24 hrs or less

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 no longer 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

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 no longer reported as a Post-PCI event.

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

III. Major Events Following Intervention (Cont.)

7. Acute Occlusion at Site of Intervention

Acute occlusion, complete or partial, 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.

Include any occlusion of the targeted or treated vessel, in any location within the vessel or within its **significant** proximal or distal branches (including the left artery).

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

Arterial or Venous injury, including:

Those requiring femoral or brachial embolectomy

Evacuation of a hematoma

Repair of false aneurysm, **example: ultrasound guided compressions**

Closure of arterial-venous fistula.

Report occlusions which occur at other coronary arterial sites related to the PCI.

10. Renal Failure

Creatinine greater than 2.5 mg/dl for more than 7 days Post-PCI **or** there is need for temporary or permanent renal dialysis of any type.

Do not code this item if Risk Factors 23 (Renal Failure, Creatinine > 2.5 mg/dl) or 24 (Renal Failure, Dialysis) are coded.

14. Emergency Bypass Surgery, Hemodynamically Unstable

The patient is taken to the operating room on an emergency basis in an unstable condition, with ongoing chest pain, ECG changes, and/or hypotension.

III. Major Events Following Intervention (Cont.)

15. Emergency Bypass Surgery, Hemodynamically Stable

The patient is taken to the operating room in a stable condition due to a complication of PCI.

17. Stent Thrombosis

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. Stent thrombosis usually occurs within 30 days following the procedure.

NOTE: Stent Thrombosis should be reported as a major event even if it does not become apparent until after the patient is discharged from the hospital. **It should be reported if apparent up to 6 months post intervention.**

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.

IV. Discharge Information

Discharged Alive To

Check the appropriate box.

If a patient is discharged to Hospice (including Home with Hospice Care), code it “12”. NOTE that for purposes of analysis a hospice discharge (“12”) is considered an in-hospital mortality.

If the patient came from a Prison or Correctional Facility and is being discharged back to the same institution then “11 – Home” would be checked.

“19 – Other (specify)” should NEVER be checked if it is specified as “4 – Died CCU” or “Died”, these cases should be coded in the next section.

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”.

If the patient is discharged to either an acute rehab or to another acute care setting then “13” should be checked.

Any discharge status “19” that does not specify where the patient was discharged to will be sent back to the hospital for verification.

Died in

Check the appropriate box.

Hospital Discharge Date

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.

V. Peri-Procedural Information

Report the timing of the following events for **ALL** patients.

Interpretation:

Pre-Proc:

This information should be collected for all patients up to 24 hours Pre-PCI.

Post-Proc:

This section **SHOULD ALWAYS BE COMPLETED** with information from the first 24 hours Post-PCI. Once the guidewire has been inserted and the procedure has begun, any event that occurs should be considered Post-PCI.

Both:

Check "Both" if the patient experienced the event **BOTH** within 24 hours before and 24 hours after the PCI.

NOTE: *Regardless of the onset of chest pain or symptoms, **ALL** pre-procedure MI's should be reported in the pre-procedural risk factor (Risk 4-7) section.*

V. Peri-Procedural Information

*For the following variables, check "Pre-Proc" if the patient has any of the following events within 24 hours, check "Post-Proc" **ANY** time a patient has evidence of any of the following data elements within 24 hours Post-PCI, and check "Both" if the patient has **ANY** of the following both pre-proc **and** post-proc.*

New Abnormal Wall Motion

As determined by EKG, ECHO or Nuclear Medicine.

Interpretation:

Code if **ALL** of the following are present:

NO baseline studies

NO reasonable clinical evidence of a previous MI

Ventriculogram shows hypokinesis and/or akinesis

The patient is in the Acute Phase of an MI

V. Peri-Procedural Information (Cont.)

New Q Waves

Defined as 0.03 seconds in width and/or > one third of the total QRS complex in two or more continuous leads.

New ST Elevation

> 1mm in two or more continuous leads.

NOTE: ST segment changes that occur during the procedure but are resolved by the end of the procedure, should NOT be coded as “Post”. Those changes that occur or persist after the procedure has ended MUST be coded.

New ST ↓ or T ↓

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

NOTE: ST segment changes that occur during the procedure but are resolved by the end of the procedure, should NOT be coded as “Post”. Those changes that occur or persist after the procedure has ended MUST be coded.

New Left Bundle Branch Block (LBBB)

As evidenced by the EKG.

TIMI \leq II

Evidence of total vessel occlusion or high-grade lesion with a TIMI flow \leq II.

Ischemic Type Chest Pain

Characteristics of ischemic type chest pain for > 20 minutes and not relieved by Nitroglycerin.

Characteristics of ischemic type chest pain can have a surrogate when associated with the cardiac event. Some equivalents would include but are not limited to: pain in the arm, shoulder, back, or jaw.

V. Peri-Procedural Information (Cont.)

Time from Onset of Chest Pain to Procedure

Report in hours. Round to the nearest half hour.

For example, a patient report of 1¼ hr, would be reported as 1.5 and a patient report of 2 hrs 10 minutes would be reported as 2.0.

If greater than 99.9 hours, report 99.9.

NOTE: This is the only data element in this section that is reportable for more than 24 hours Pre-PCI. The time reported here should be the time from the onset of chest pain that brought the patient to the hospital or caused them to seek care. If the chest pain has stopped before the start of the procedure, you can still report the number of hours since it started.

Ongoing Ischemia at Time of Procedure

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

VI. Pre-Intervention Risk Factors

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 requiring emergency procedures will have ongoing, refractory, unrelenting cardiac compromise, with or without hemodynamic instability.

Typical 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.

VI. Pre-Intervention Risk Factors (Cont.)

Height

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

Centimeters = 2.54 x inches

Weight

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

Kilograms = pounds (lbs) / 2.2

Ejection Fraction and Measure

Record the ejection fraction taken closest to the cardiac procedure. 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, check "Unknown".

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

Interpretation:

Any ejection fraction that is well documented in the chart is acceptable, but give precedence to the one closest to the cardiac procedure.

An Ejection Fraction is acceptable and should be reported if it is measured or estimated by the following:

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

If the measure is unknown code it as a "9. Unknown".

An Ejection Fraction that is described in the medical record as "Normal" should be considered 55.

Any cases with a missing or "0" ejection fraction will be sent back to the centers during quarterly and annual data validation to verify accuracy of this data element.

VI. Pre-Intervention Risk Factors (Cont.)

Angina: CCS Functional Class

Check the box corresponding to the patient's Canadian Cardiovascular Society Functional Class, as defined in Attachment C.

Note: The determination of functional class should be based on the typical level of exertion required to produce angina. For example, a single episode of anginal pain at rest does not qualify a patient as Class IV.

Angina Type

Check the box indicating the patient's angina type

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.

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.

VI. Pre-Intervention Risk Factors (Cont.)

Vessels Diseased

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

Interpretation:

This section **MUST** be completed for each procedure.

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

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

In this section, a stenosed graft is coded as the native vessel.

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 60-70% stenosis, then code 50-69%.

The Ramus Intermediate would be coded as the LAD or LCX.

ALWAYS take the highest stenosis reported for a vessel.

For example, if the medical record reports the Ramus Intermediate with a 70% lesion and the Distal Circumflex Trunk with a 50% you should code the LCX as 70-100%, since the Ramus Intermediate 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.

VI. Pre-Intervention Risk Factors (Cont.)

Lesion-Specific Information

State PCI Definition:

Complete one line for each lesion for which PCI was attempted, and one line for each non-attempted lesion with diameter stenosis of 50% or more – even if the lesion has been bypassed. 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*).

See examples in Attachment D.

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.

Lesion Type

Enter code A, B, or C to describe the lesion type, as defined in Attachment E.

% Pre-Op Stenosis

Enter the pre-PCI percent diameter reduction.

Measurement with calipers is recommended.

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 Previous Stent Placed in the Vessel

3 -- Restenosis, Stent Previously Placed in the Vessel

Primary Device and Secondary Device

ANY attempt to cross a lesion with a guide wire constitutes attempted PCI.

As soon as the guidewire leaves the catheter there is an attempted PCI.

From the procedural code list in Attachment F, indicate the primary device used.

If the lesion was not attempted, place a "0" under primary device.

If a secondary device was used, indicate the device used in the appropriate box.

The attending physician is responsible for determining the primary and secondary devices.

VI. Pre-Intervention Risk Factors (Cont.)

Lesion-Specific Information (Cont.)

Stent

If an un-coated stent was placed in the vessel, write "1" in the box

If a coated stent was placed in the vessel, write "2" in the box

This does not include heparin coated stents, they should be coded with a "1".

If no stent was placed, write "0" in the box.

Radiation

Check if **ANY** radiation was placed in the vessel regardless of the source (eg. pre-radiated stent, radiation of the lesion by different technique).

% 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.

Interpretation:

Angiojet procedures performed on a vessel are coded as "9", "Other" procedure.

Intravascular Ultrasound (IVUS) performed as the ONLY procedure should NOT be reported.

Atherectomy should be coded as either "2" – Directional or "3" – Rotational, whichever is the most appropriate form. If neither fit then code it with a "9".

TEC should be coded as "9".

Distal protective devices will now be coded as a "4".

Filterwires should be coded as "4" – distal protective devices.

Cutting balloons will now be coded as a "5".

Brachytherapy should be coded as a Balloon "1" or **Cutting Balloon "5"**, whichever is used, and with a "1" under Radiation. **If the radiation is placed in a separate cath lab visit and NO balloon is used, code "9" as the primary device for the additional cath lab visit.**

If a Balloon is used SOLEY to properly place a stent, DO NOT CODE the balloon as a primary device, ONLY CODE the stent.

If the Medical Record says % Post-Stenosis was 0%, record it as 1% so that we will know it was actually a successful PCI and not left blank.

If the device is unable to be advanced due to complications, but the guidewire leaves the catheter and it is an attempted PCI, code a Balloon as the primary device, unless the intended device is known.

VI. Pre-Intervention Risk Factors (Cont.)

0. None

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

1-3. Previous PCIs

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

Include any interventions that occurred prior to this one during the current admission.

If there was another procedure this admission, please be sure that the date of the most recent PCI is indicated next to "Other PCI This Admission" on the front of the form.

4-7. Previous MI (most recent)

If the patient had one or more myocardial infarctions before PCI, report the length of time since the **most recent** MI.

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".

VI. Pre-Intervention Risk Factors (Cont.)

Peripheral Vascular Disease

8. Stroke

A history of stroke, with or without residual deficit.

9. Carotid/ Cerebrovascular

Angiographic or ultrasound demonstration of at least 50% narrowing in a major cerebral or carotid artery (common or internal), history of a non-embolic stroke, or previous surgery for such disease. A history of bruits or transient ischemic attacks (TIA) is not sufficient evidence of carotid/cerebrovascular disease.

10. Aortoiliac

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

11. Femoral/Popliteal

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

VI. Pre-Intervention Risk Factors (Cont.)

Peripheral Vascular Disease (Continued)

Interpretation:

Peripheral Vascular Disease	CODE	DO NOT CODE
Stroke		
1. Patient with TIA, vertigo per history & physical		X
2. Cerebral aneurysm and clipping residual deficit	X	
Carotid/Cerebrovascular		
1. External Carotid Artery has > 50% stenosis		X
2. Internal or Common Carotid Artery has > 50% stenosis	X	
Aortoiliac		
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. History of aorto-bifemoral bypass	X	
6. Absence of femoral pulse on either the right or the left	X	
7. Diminished femoral pulse on either right or left or both		X
8. Claudication		X
Femoral/Popliteal		
1. Leg ulceration and diminished leg pulses		X
2. Conflicting doctor note and H&P Cannot feel dorsalis pedis or posterior tibial pulses Consult note: 1+ peripheral pulses	X	
3. Angio report -> because of tortuosity of the vessel, even a sheath could not be passed up the wire.	X	
4. A negative popliteal pulse alone (1+1- or 1-1+)		X
5. A patient with a palpable Dorsalis Pedis and Posterior Tibial pulses and treated with Trental		X
6. If pulses are non-palpable, but is Dopplerable	X	
7. If Dorsalis Pedis and Posterior Tibial pulses are absent in the right or the left or both	X	
8. Below the knee amputation of one or both legs	X	
9. Inability to insert a catheter or IABP in femoral arteries	X	
10. At least 50% narrowing in a major femoral artery	X	

VI. Pre-Intervention Risk Factors (Cont.)

Hemodynamic Instability at Time of Procedure

Determined just prior to or at the commencement of the PCI (the guide-wire crossing the lesion). These patients usually have hypotension and low cardiac output **AND** the administration of pharmacological or mechanical support **MUST** be documented in the patient's medical record. For purposes of reporting, the PCI **does not** constitute the mechanical support.

12. Unstable

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

Interpretation:

Unstable	CODE	DO NOT CODE
1. Patient on IV Nitroglycerin or IV Heparin		X
2. IABP inserted for pain control		X
3. Inability to place IABP because of tortuous and diseased vessels		X
4. Documents evidence of hypotension, with NO pharmacologic or mechanical support		X

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

There **MUST** be actual documentation of blood pressure and/or cardiac output, simply stating that the patient was hypotensive is **NOT** sufficient.

With *documented evidence of hypotension* (low B/P), an IABP would be considered mechanical support and the patient would be considered unstable.

The procedure itself **DOES NOT** constitute pharmacological or mechanical support.

Unstable CANNOT be coded with SHOCK

VI. Pre-Intervention Risk Factors (Cont.)

Hemodynamic Instability at Time of Procedure (Cont.)

13. Shock

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

Interpretation:

To code a patient with “Shock” there must be evidence that all the criteria for “Unstable” have been met and that *DESPITE* the support the patient’s hemodynamic status fails to improve or stabilize.

When coding “Shock”, be careful of timing. It needs to be prior to or at the commencement of the PCI. Once the guide-wire has crossed the lesion any factors that would constitute the patient being coded “Shock” would **NOT** matter.

References in the medical record of “hemodynamics not improved”, “continuing instability”, etc are acceptable documentation.

Shock CANNOT be coded with Unstable.

33. CPR

The patient requires cardiopulmonary resuscitation within one hour prior to the procedure.

Interpretation:

To code “CPR”, it **MUST** occur within ONE hour prior to surgery.

A single defibrillation, even if accompanied by *initial* compressions, **DOES NOT** constitute coding “CPR”.

CPR CAN be coded with either Unstable or Shock.

VI. Pre-Intervention Risk Factors (Cont.)

14. More Than One Previous MI

Clinical or ECG evidence of more than one previous myocardial infarction (MI).

Interpretation:

The MI must be documented to have occurred **PRIOR** to the intervention.

15. Hypertension History

Code if any of the following are present:

- Blood pressure greater than 140/90
- History of hypertension
- Current treatment for hypertension.

17. ECG Evidence of Left Ventricular Hypertrophy

Pre-PCI electrocardiogram shows evidence of LV hypertrophy.

NOTE: The ECG should have clear documentation of the patient's medical record number, the date the ECG was performed, the time the ECG was performed, and all interpretation printed on the ECG. If the interpretation for the ECG is not printed on it, but is available in a narrative as part of a physician's note in the medical record, the ECG along with the narrative can be used to support coding this risk factor.

Interpretation:

ECG Evidence of LVH	CODE	DO NOT CODE
1. ECG reads minimal voltage criteria for LVH, may be normal variant.		X
2. Transesophageal Echo (TEE) for LVH		X
3. Echo diagnosis for patients with LBBB or who are paced	X	
4. ECG reads moderate voltage criteria for LVH, may be normal variant.	X	
5. ECG reads LVH with no mention of voltage criteria	X	
6. ECG present, but without any written interpretation		X

VI. Pre-Intervention Risk Factors (Cont.)

18. Congestive Heart Failure, Current

Within 2 weeks prior to the procedure, a physician has diagnosed CHF by one of the following:

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

NOTE: Pedal edema or dyspnea alone are **NOT** diagnostic. Patient should also have received diuretics, digoxin, or vascular therapy such as ace inhibitors.

Interpretation:

Congestive Heart Failure, Current	CODE	DO NOT CODE
1. Patient admitted to Hospital A, with CHF and then transferred to Hospital B (within 2 weeks)	X	
2. Hospital reports: Chest + for rales, treated with Lasix	X	
3. Patient with prior renal transplant, pending renal transplant with creatinine up to 5 and BUN-72. Renal failure would explain the bilateral pleural effusions and DOE. Lasix was used to treat fluid retention secondary to renal failure not CHF. CXR indicating “cannot rule out mild CHF” is pretty consistent with fluid overload due to Renal Failure.		X

If there is documentation to support coding both “Congestive Heart Failure, Current” and “Congestive Heart Failure, Past” – then **CODE BOTH** risk factors.

19. Congestive Heart Failure, Past

Between 2 weeks to 6 months prior to the procedure, a physician has diagnosed CHF by one of the following:

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

NOTE: Pedal edema or dyspnea alone are **NOT** diagnostic. Patient should also have received diuretics, digoxin, or vascular therapy such as ace inhibitors.

VI. Pre-Intervention Risk Factors (Cont.)

20. Malignant Ventricular Arrhythmia

Recent (*within the past 7 days*) recurrent ventricular tachycardia or ventricular fibrillation requiring electrical defibrillation or the use of intravenous antiarrhythmic agents. **Excludes** a single episode of V-Tach or V-Fib occurring within 6 hours of the diagnosis of a myocardial infarction and responding well to treatment.

Interpretation:

Malignant Ventricular Arrhythmia	CODE	DO NOT CODE
1. Patient has ventricular bigeminy and treated with IV antiarrhythmic	X	
2. PVC's treated with Lidocaine.		X
3. V-Fib x2 in ambulance while having an MI. D-fib x2 with no further episodes		X
4. The patient experienced V-tach arrest requiring D-Fib, IV Lidocaine given during an evolving MI		X
5. 20 beat run of V-tach, treated with Lidocaine. No recurrent episodes for medication.		X
6. Arrhythmia not an ongoing problem by time of cardiac intervention. Episode only in context of admitting acute ischemic event.		X

If the Malignant Ventricular Arrhythmia occurs within 6 hours of a diagnosed MI, **DO NOT** code.

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.

The duration of the event **MUST** be documented. There **MUST** be recurrent episodes. A single episode should **NOT** be coded.

Medication for a ventricular arrhythmia is **NOT** sufficient reason to document the risk factor.

VI. Pre-Intervention Risk Factors (Cont.)

21. Chronic Obstructive Pulmonary Disease

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 pO₂ <60 or a pCO₂ >50.

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

Interpretation:

COPD	CODE	DO NOT CODE
1. Chest X-Ray as documentation		X
2. Patient required bronchodilators prior to surgery		X
3. Hyperinflated lungs, wheezing		X
4. Fibrotic lungs on chest X-Ray		X
5. Hyperinflated lungs at operation		X
6. Although admitting notes state no history of COPD, documentation in the chart elsewhere as well as chest X-Ray results and a smoking history are apparent		X
7. Patient has a history of asthma, is on bronchodilator and asthma meds	X	
8. Chart states asthma without medications		X
9. Sleep Apnea without any of the above criteria		X

22. Diabetes Requiring Medication

The patient is receiving either oral hypoglycemics or insulin.

Interpretation:

The following scenario **WOULD NOT** be coded since the medication was not ongoing:

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

VI. Pre-Intervention Risk Factors (Cont.)

23. Renal Failure, Creatinine > 2.5 mg/dl

Pre-PCI Creatinine > 2.5 mg/dl.

Interpretation:

No matter how many renal transplants the patient has had, if the creatinine *DOES NOT* have at least one value >2.5 mg/dl during this admission, prior to the intervention, **DO NOT** code.

If the patient has at least one creatinine > 2.5 mg/dl prior to the intervention then code.

24. Renal Failure, Dialysis

The patient is on chronic peritoneal or hemodialysis.

Interpretation:

A single dialysis treatment **DOES NOT** constitute coding this risk factor.

26. IABP Required at the Start of Procedure

The patient arrives in the cath lab with an intra-aortic balloon pump in place, or requires its insertion before the commencement of the PCI procedure, for ongoing myocardial ischemia, left ventricular failure, or shock, clinical evidence of which should be contained in the patient's record.

Excludes IABP necessitated by a complication of previous PCI.

Interpretation:

The intervention begins at the first insertion of the guidewire.

Can be coded if it is inserted **AT THE SAME TIME** the intervention is being started.

The following scenario **WOULD NOT** be coded:

IABP inserted at Hospital A. IABP removed before transfer to Hospital B.
Intervention was done at Hospital B.

VI. Pre-Intervention Risk Factors (Cont.)

28. Previous Open Heart Surgery

Previous open heart surgery, either coronary or valvular.

Interpretation:

DO NOT code if it occurred during the same admission as the PCI in question.

If the patient has an A or V coded in the lesion specific section, then this variable should be coded **UNLESS** the graft occurred during this admission.

A heart transplant does **NOT** count as a previous open heart operation.

30. Smoking History, in past 2 weeks

The patient has used any tobacco products within the past two weeks.
The use of chewing tobacco would be included here.

31. Smoking History, in past year

The patient has used any tobacco products within the past year.
The use of chewing tobacco would be included here.

32. Emergency PCI due to DX Cath Complication

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

VI. Pre-Intervention Risk Factors (Cont.)

34. Stent Thrombosis

Formation of a blood clot/thrombus 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. Stent thrombosis usually occurs up to 30 days following the procedure.

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 risk factor to be coded.

VII. Person Completing Report

This section is for hospital use only. It may be helpful to enter the name and telephone number of the person completing the report, and the date the report was completed.

ATTACHMENT A

PFI NUMBERS FOR CARDIAC DIAGNOSTIC AND SURGICAL CENTERS

PFI #	HOSPITAL
0001	Albany Medical Center Hospital
0116	Arnot-Ogden Medical Center
1438	Bellevue Hospital Center
1439	Beth Israel Medical Center/ Petric Campus
1164	Bronx-Lebanon Hospital Center, Fulton Division
1286	Brookdale Hospital Medical Center
1288	The Brooklyn Hospital Center, Downtown Campus
0207	Buffalo General Hospital – Kaleida Health
3013	Catholic Medical Center of Brooklyn & Queens Mary Immaculate Hospital
1634	Catholic Medical Center of Brooklyn & Queens – St. John’s Queens Hosp
0977	Cayuga Medical Center at Ithaca
0135	Champlain Valley Physicians Hospital Medical Center
0208	Children’s Hospital – Buffalo – Kaleida Health
1626	City Hospital Center at Elmhurst
1294	Coney Island Hospital
0636	Crouse Medical Center
0829	Ellis Hospital
0210	Erie County Medical Center
0407	Genesee Hospital – Rochester
1005	Glens Falls Hospital
0779	Good Samaritan Hospital of Suffern
0925	Good Samaritan Hospital Medical Center – West Islip
1445	Harlem Hospital Center
0913	Huntington Hospital
1300	Interfaith Medical Center, Jewish Hosp. Med. Ctr. of Brooklyn Division
1629	Jamaica Hospital
1450	Lenox Hill Hospital

ATTACHMENT A

PFI NUMBERS FOR CARDIAC DIAGNOSTIC AND SURGICAL CENTERS

PFI #	HOSPITAL <i>(continued)</i>
1302	Long Island College Hospital
1630	Long Island Jewish Medical Center - North Shore-LIJ Health System
1304	Lutheran Medical Center
1305	Maimonides Medical Center
0746	Mary Imogene Bassett Hospital
0213	Mercy Hospital – Buffalo
0215	Millard Fillmore Hospital – Kaleida Health
3058	Montefiore Med. Ctr., Jack D. Weiler Hosp. of A. Einstein College Div.
1169	Montefiore Medical Center, Henry & Lucy Moses Division
1456	Mount Sinai Hospital
0528	Nassau County Medical Center
1458	New York Cornell Hospital – NY Presbyterian Medical Center
1637	The New York Hospital Medical Center of Queens (formerly Booth Memorial)
1306	The New York Methodist Hospital (formerly Methodist Hospital of Brooklyn)
1463	NYU Medical Center
0541	North Shore University Hospital - North Shore-LIJ Health System
0066	Olean General Hospital – Main
0471	Park Ridge Hospital
1464	Presbyterian Hospital - NY Presbyterian Medical Center
0411	Rochester General Hospital – Via Helath
0367	Samaritan Medical Center
0818	Saratoga Hospital
1072	Sound Shore Medical Center
0527	South Nassau Communities Hospital
0924	Southside Hospital
1176	St. Barnabus Hospital
0598	St. Elizabeth Hospital
0563	St. Francis Hospital – Roslyn
0870	St. James Mercy Hospital

ATTACHMENT A

PFI NUMBERS FOR CARDIAC DIAGNOSTIC AND SURGICAL CENTERS

PFI #	HOSPITAL <i>(continued)</i>
0943	St. Catherine of Siena Medical Center (Formerly St. John's Episcopal Hospital)
0630	St. Joseph's Hospital Health Center – Syracuse
0599	St. Luke's Memorial Hospital Center – New Hartford
1466	St. Luke's Roosevelt Hospital Center, Roosevelt Hospital Division
1469	St. Luke's Roosevelt Hospital, St. Luke's Hospital Division
0005	St. Peter's Hospital
0412	Park Ridge Hospital Genesee Street Campus (Formerly St. Mary's Hospital)
1471	St. Vincent's Hospital and Medical Center of New York
1738	Sister's of Charity @ St. Vincent's (Formerly St. Vincent's Med Ctr of Richmond)
1740	Staten Island University Hospital – North
0413	Strong Memorial Hospital – University of Rochester
0058	United Health Services Wilson Hospital Division
0245	University Hospital – Stony Brook
1320	University Hospital of Brooklyn
0635	State University Hospital of Upstate Medical Center
0181	Vassar Brothers Hospital
1139	Westchester Medical Center, Westchester Med. Ctr. Division
0511	Winthrop-University Hospital
0103	Women's Christian Association

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)

ATTACHMENT B

Residence Codes

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

01 Albany	35 Oswego
02 Allegany	36 Otsego
03 Broome	37 Putnum
04 Cattaraugus	38 Rensselaer
05 Cayuga	39 Rockland
06 Chautauqua	40 St. Lawrence
07 Chemung	41 Saratoga
08 Chenango	42 Schenectady
09 Clinton	43 Schoharie
10 Columbia	44 Schuyler
11 Cortland	45 Seneca
12 Delaware	46 Steuben
13 Dutchess	47 Suffolk
14 Erie	48 Sullivan
15 Essex	49 Tioga
16 Franklin	50 Tompkins
17 Fulton	51 Ulster
18 Genesee	52 Warren
19 Greene	53 Washington
20 Hamilton	54 Wayne
21 Herkimer	55 Westchester
22 Jefferson	56 Wyoming
23 Lewis	57 Yates
24 Livingston	58 Bronx
25 Madison	59 Kings
26 Monroe	60 Manhattan
27 Montgomery	61 Queens
28 Nassau	62 Richmond
29 Niagara	
30 Oneida	
31 Onondaga	88 Unknown
32 Ontario	
33 Orange	99 Outside NYS
34 Orleans	

ATTACHMENT C

Definitions of CCS Functional Classes

Canadian Cardiovascular Society (CCS) Functional Classification:

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

ATTACHMENT D

Codes for Location of Lesion

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

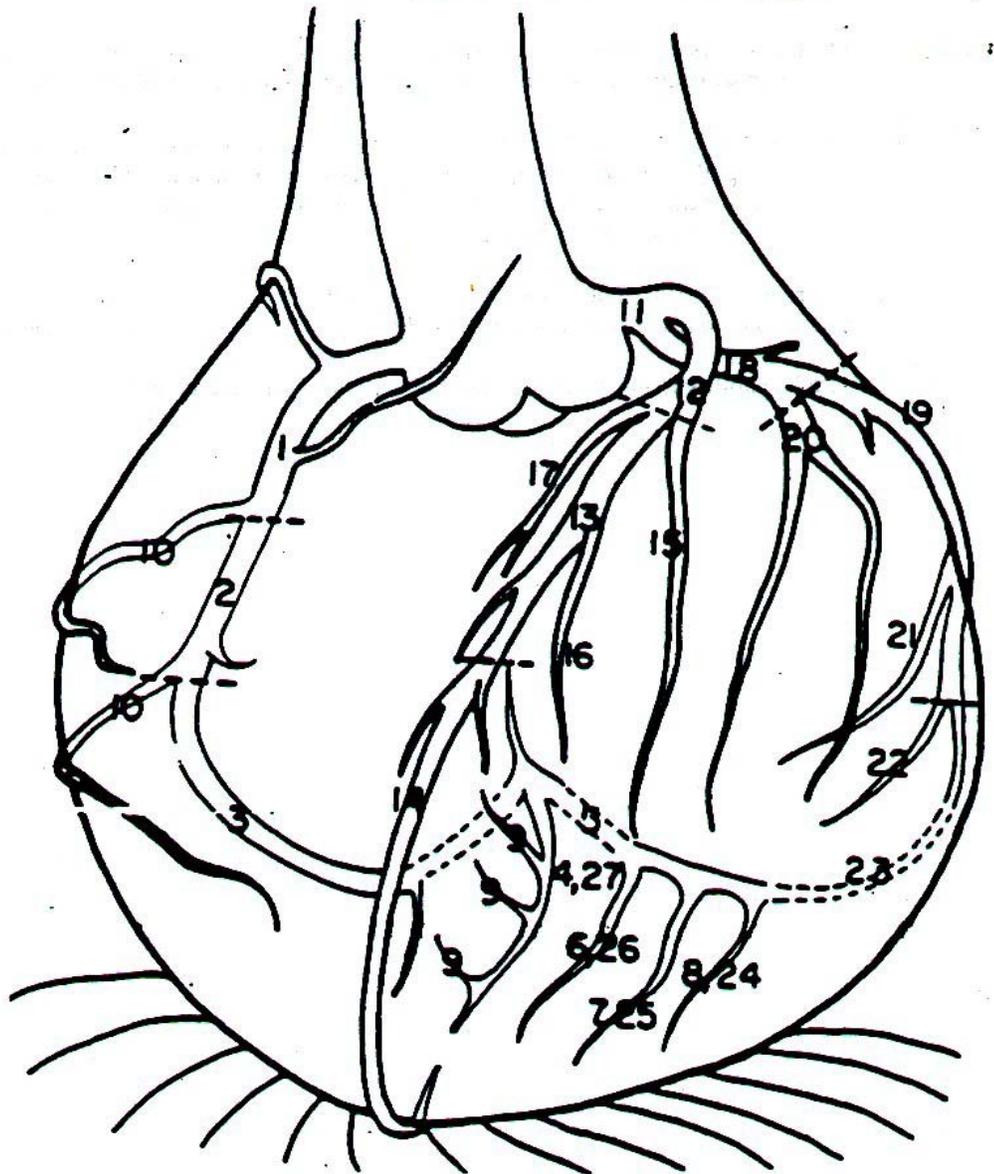
1. Prox RCA
2. Mid RCA
3. Dist RCA
4. R PDA
5. RPLS
6. 1st RPL
7. 2nd RPL
8. 3rd RPL
9. Inf. Septal
10. Ac Marg
11. LMCA
12. Prox LAD *
13. Mid LAD
14. Dist LAD
15. 1st Diag or Intermediate Branch
16. 2nd Diag
17. 1st Septal
18. Prox CX
19. Dist CX
20. 1st Ob Marginal
21. 2nd Ob Marginal
22. 3rd Ob Marginal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

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

Characteristics of Type A, B, and C Lesions

If ANY of the characteristics of a Type C lesion are present, use code C.

If NO Type C lesion characteristics are present and ANY Type B lesion characteristics are present, use code B.

If NO Type B or C lesion characteristics are present, use code A.

Type A Lesions: Discrete (< 10 mm length)
Concentric
Readily accessible
Non-angulated segment, < 45 degrees
Smooth contour
Little or no calcification
Less than totally occlusive
Not ostial in location
No major branch involvement
Absence of thrombosis

Type B Lesions: 10 to 20 mm length
Eccentric
Moderate tortuosity of proximal segment
Moderately angulated segment, 45 to 90 degrees
Irregular contour
Moderate to heavy calcification
Total occlusion < 3 months old
Ostial in location
Bi-furcation lesions requiring double guide wires
Some thrombosis present

Type C Lesions: > 2 cm length
Excessive tortuosity of proximal segment
Extremely angulated segment, > 90 degrees
Total occlusion > 3 months old
Inability to protect major side branches
Degenerated vein grafts with friable lesions

ATTACHMENT F

Procedure/Device List

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

NOTE: If a Balloon is ONLY used to insert the stent then DO NOT code the Balloon as a device.

Brachytherapy should be coded using a Balloon as the Primary Device and a "1" under Radiation.

Primary and Secondary Devices:

- 0 No Lesion Attempted
- 1 Balloon
- 2 Directional Atherectomy
- 3 Rotational Atherectomy
- 4 Distal Protective Devices
- 5 Cutting Balloon
- 6 Laser
- 7 Intravascular Ultrasound (IVUS)
- 8 PTMR
- 9 Other

Stents:

- 0 No Stent Used
- 1 Un-Coated Stent, including Heparin Coated Stents
- 2 Coated Stent, other than Heparin Coated Stents

ATTACHMENT G

Examples for Coding Lesion Specific Section

Example 1:

All lesions are new and have NO Previous PCI.

90% Type B lesion in the Distal RCA, after PCI there was a 20% stenosis. Cutting Balloon was used.

100% Type A lesion in the mid LAD.

80% Type C lesion in the Proximal LAD, a radiated un-coated stent was placed unsuccessfully.

70% Type C lesion in the Distal LAD, a Rotoblater reduced the graft stenosis to 0%.

Location	Bypassed (A or V)	Lesion Type	% Pre-op Stenosis	Previous PCI	Primary Device	Secondary Device	Stent	Radiation	% Post-op Stenosis
3		B	90	0	5	0	0	0	20
13		A	100	0	0	0	0	0	
12		C	80	0	0	0	1	1	80
14		C	70	0	3	0	0	0	1

Example 2:

100% Type C lesion in the first marginal branch of LCX. Vein Graft to this vessel is 100% occluded by a Type C lesion.

90% restenosis of a Type B lesion in the proximal RCA. Balloon and then a coated Stent (after the failed balloon) were attempted, but were unsuccessful.

75% restenosis of a stented Type C lesion in the LMCA. Laser was used and then an un-coated stent was placed. Stenosis down to 0%.

Location	Bypassed (A or V)	Lesion Type	% Pre-op Stenosis	Previous PCI	Primary Device	Secondary Device	Stent	Radiation	% Post-op Stenosis
20	V	C	100	0	0	0	0	0	
61		C	100	0	0	0	0	0	
1		B	90	2	1	0	2	0	90
11		C	75	3	6	0	1	0	1

ATTACHMENT G

Examples for Coding Lesion Specific Section - Cont.

Example 3:

80%, restenosed, Type A lesion in the LPDA, after Rotablater, TEC, and a coated stent there was a 10% stenosis.

100% Type B lesion in the Ac Marginal, no PCI attempted

60% Type C lesion in the LAV, an un-coated stent was placed and the stenosis went to 0%

90% Type A lesion in the Inf. Septal, no previous PCI and No attempt

90% Type C lesion, with a restenosis from a previous stent, in the 1st LPL, a Rotablater reduced the graft stenosis to 30% and a distal protective device (Guardwire) was placed.

Location	Bypassed (A or V)	Lesion Type	% Pre-op Stenosis	Previous PCI	Primary Device	Secondary Device	Stent	Radiation	% Post-op Stenosis
27		A	80	2	3	9	2	0	10
10		B	100	0	0	0	0	0	
23		C	60	0	0	0	1	0	1
9		A	90	0	0	0	0	0	
24		C	90	3	3	4	0	0	30

Example 4:

90% Type B lesion in the Mid RCA, no PCI attempted

80% Type C lesion in the LMCA, restenosis, failed balloon and IVUS

70% Type C lesion in the Prox CX, no attempt

60% Type B lesion in the RPLS, restenosis of previous stent, no attempt

100% Type C lesion in the R PDA, no previous PCI, no attempt

50% Type B lesion in the Ac Marginal, no previous PCI, no attempt

70% Type C lesion in the Prox RCA, restenosis of previous stent, no attempt **

60% Type B lesion in the LPDA, no previous PCI, TEC and coated stent, stenosis of 0%

Location	Bypassed (A or V)	Lesion Type	% Pre-op Stenosis	Previous PCI	Primary Device	Secondary Device	Stent	Radiation	% Post-op Stenosis
2		B	90	0	0	0	0		
11		C	80	2	1	7	0		80
18		C	70	0	0	0	0		
5		B	60	3	0	0	0		
4		C	100	0	0	0	0		
10		B	50	0	0	0	0		
27		B	60	0	9	0	2		1

** don't code because we stop coding diseased vessels with NO attempts, once 7 fields have been filled