2027 BMC2 ASC PCI Data Dictionary

Blue Cross Blue Shield of Michigan

Percutaneous Coronary Interventions

Data Collection Definitions

Definitions updated 11/02/2026 for 2027Q1 Discharges

Patient Information

Date of Discharge

Data Abstraction Instructions:

Enter the date the patient was discharged from your facility for the current hospitalization

Selections: enter (mm/dd/yyyy)

NCDR Cath PCI Patient ID

Data Abstraction Instructions:

Enter CathPCI Identification number that matches CathPCI data sent to NCDR. This number is generated either by a vendor tool or the CathPCI website.

NCDR Cath PCI Other ID

Data Abstraction Instructions:

Enter your own identification number. For example, case number or a number of your choice.

Date of Birth

Data Abstraction Instructions:

Enter patient date of birth dd/mm/yyyy

Selections: Enter dd/mm/yyyy

Patient History/Comorbidity

Afib/Aflutter

Data Abstraction Instructions:

Prior to procedure start, or history of: paroxysmal, persistent, or permanent atrial fibrillation and/or atrial flutter.

Timeframe: Birth until start of first PCI procedure performed during this admission.

Selections:

- Yes
- No

History of TIA/CVA

Data Abstraction Instructions:

- Cerebrovascular Accident (CVA): Patient has a history of stroke, i.e., loss of neurological function with residual symptoms at least 72 hours after onset, presumed to be from vascular etiology.
- Transient Ischemic Attack (TIA): Patient has a history of loss of neurological function that was abrupt in onset but with complete return of function within 24 hours, presumed to be due to vascular etiology.

Timeframe: Birth until start of first PCI procedure performed during this admission.

Selections:

- Yes
- No

Diabetes Treatment

Data Abstraction Instructions:

Select patients' highest level of diabetes therapy.
If patient is not diabetic select not applicable "N/A"
Do not include sliding scale management during hospitalization as IDDM.

Example: Patient is on Metformin and Lantus we would enter IDDM.
Example: Patient on Metformin and placed on sliding scale in hospital, select NIDDM.

Timeframe: Birth until start of first PCI procedure performed during this admission.

Selections:

- IDDM
- NIDDM
- Not Applicable

LVEF Assessed Pre Procedure

Data Abstraction Instructions:

Indicate if an LVEF assessment was performed within 30 days of procedure start. Invasive (cath lab) or non-invasive (TTE, TEE, MUGA, Stress, etc.) methods would all be applicable.

Selections:

- Yes
- No

If "Yes":

LVEF Percentage

If LVEF assessment within 30 days of procedure start, enter value obtained closest to time of procedure start (% of blood that is pumped (or ejected) out of the ventricles with each contraction of the left ventricle).

Please follow the same coding instructions LVEF% instructions noted in NCDR Cath PCI dictionary. If a single numeric value is specified in addition to a range, report the specific value. Example: “Ejection fraction is estimated to be 38% in the range of 35-40%.” 38% should be reported. See below:

NCDR Cath PCI coding instruction notes:

Enter a percentage in the range of 01 - 99. If a percentage range was reported, report the lowest number of the range (i.e.50-55%, is reported as 50%).

If only a descriptive value is reported (i.e. normal), enter the corresponding percentage value from the list below:

Normal = 60%

Good function = 50%

Mildly reduced = 45%

Fair function = 40%

Moderately reduced = 30%

Poor function = 25%

Severely reduced = 20%

Prior LM PCI

Prior to procedure start, indicate if PCI was previously performed on the left main coronary artery.

Selections:

- Yes
- No

<u>Discharge</u>

Lipid Panel

Data Abstraction Instructions:

Indicate whether a lipid panel was obtained within 30 days prior to PCI procedure start.

*if "non-HDL" description provided by laboratory, please enter as an LDL equivalent if no LDL level provided (non-HDL=total cholesterol-HDL).

Selections:

- Yes
- No

If “Yes”:

Total Cholesterol

Data Abstraction Instructions:

Enter the Total Cholesterol level mg/dl obtained within 30 days of PCI procedure start.

Selections:

- Yes
    - Enter value mg/dl
- Not documented

Minimum:

10

Maximum:

1100

HDL

Data Abstraction Instructions:

Enter the high-density lipoprotein (HDL) level mg/dl obtained within 30 days of PCI procedure start.

Selections:

- Yes
    - Enter value mg/dl
- Not documented

Minimum:

1

Maximum:

150

LDL

Data Abstraction Instructions:

Enter the low-density lipoprotein (LDL) level mg/dl obtained within 30 days of PCI procedure start.

Selections:

- Yes
    - Enter value mg/dl
- Not documented

Minimum:

10

Maximum:

600

Triglycerides

Data Abstraction Instructions:

Enter the triglycerides level mg/dl obtained within 30 days of PCI procedure start.

Selections:

- Yes
    - Enter value mg/dl
- Not documented

Minimum:

10

Maximum:

5000

P2Y12 Duration

Data Abstraction Instructions:

Indicate whether the specific P2Y12 medication and duration recommendations are documented in the procedural report.

Example: Interventionalist documents the following: Dual anti-platelet therapy for 6 months then Aspirin alone. Please select "No"

Example: "triple therapy" for duration of 3 months, then please continue with warfarin and ASA afterwards. Please select "No"

Example: Procedural report indicates "Clopidogrel for a minimum of 6 months="Yes"

Cardiac Rehab Liaison

Data Abstraction Instructions:

Please indicate whether there is evidence in the medical record that *a cardiac rehabilitation staff member or other appropriately trained staff member "liaison",* provided face to face information related to cardiac rehabilitation participation to the patient **prior to discharge**.

You would select "N/A if there is documentation in the medical record that the patient is not a suitable candidate for cardiac rehabilitation (would correlate with NCDR CVASC field #10116="No-Medical Reason Documented" or "No-Healthcare System Reason Documented").

Selections:

- Yes
- No
- N/A

Patient Transferred for CABG:

Indicate if patient was transferred to acute care hospital (NCDR CV ASC field 10110=" Acute care hospital") for coronary artery bypass grafting surgery (CABG).

Notes: Base abstraction on plan of care. Abstractors do not need to confirm surgery was performed.

Smoking Cessation Counseling

Data Abstraction Instructions:

Indicate if the patient received physician delivered advice, a prescription for nicotine replacement, and/or a referral for smoking cessation services submitted on the patient's behalf. Select all that apply.

- If NCDR CV ASC sequence #4625 "Tobacco Use"="Current" **AND** the patient received 1 or more of the smoking cessation interventions during this discharge, please select "Yes".

- If NCDR CV ASC sequence #4625 "Tobacco Use"="Current" **AND** the patient **REFUSED** 1 or more of the smoking cessation interventions during this discharge, please select "Yes", then select the intervention(s) that was refused, then select "Patient Refused".
- If NCDR CV ASC sequence #4625 "Tobacco Use"="Current" **AND** the patient **DID NOT** receive 1 or more of the smoking cessation interventions, please select "No".
- If NCDR CV ASC sequence #4625 "Tobacco Use"="Never", "Former", "Unknown", please select "No".
- If NCDR CV ASC sequence #10105 "Discharge Status"="Deceased, please select "No".
- If NCDR Cath PCI V5.0 sequence # 10110 "Discharge Location" ="Left against medical advice (AMA)" and does not receive Smoking Cessation, please select "No.

Selections:

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- Yes
    - Physician delivered advice
        - Patient refused Y/N
    - Nicotine replacement therapy (NRT)
        - Patient refused Y/N
    - Referral to smoking counseling services
        - Patient refused Y/N

If No:

- Local counseling service
- Michigan Quitline
- Other counseling service
- No

Supporting Definitions:

Physician delivered advice = A physician, advanced practice personnel (PA, NP), or resident has a conversation with the patient and recommends that the patient stops smoking. A recommendation to stop smoking offered by a nurse, respiratory therapist, or student does not count as physician delivered advice.

- If the physician recommended smoking cessation, and the patient refused, enter Physician Delivered Advice **AND** Patient refused. There must be adequate documentation to support this claim.

- **Nicotine replacement therapy (NRT**) = The provider ordered or continued NRT at discharge. NRT may include a nicotine patch, gum, lozenge, or other pharmacologic assistance (Varenicline or Bupropion).

- If a patient refuses NRT, and there is provider documentation that NRT was offered and documentation that the patient refused, enter NRT **AND** Patient refused.

- **Referral to smoking counseling services** = The provider documents during the hospital admission or at discharge that they referred the patient to a smoking counseling service. Smoking counseling services may include a hospital specialist, a smoking cessation class, the Michigan Tobacco Quitline, or a national smoking cessation service. The provider must recommend a smoking counseling service to the patient. ***The standard message to stop smoking on the AVS or discharge summary template is not sufficient.***

- If a physician, mid-level provider, or resident does an assessment and then puts in a referral to a respiratory therapist or a dedicated smoking cessation nurse to provide smoking cessation education, you can choose Referral to smoking counseling services.

- If there is documentation that the provider recommended smoking counseling services and the patient refused, enter Referral to smoking counseling services, **AND** Patient refused. There must be adequate documentation to support this claim.

- If the referral to smoking counseling services was submitted to the Michigan Tobacco Quitline, enter Referral to smoking counseling services AND Michigan Quitline.

- **Local counseling service** = The provider refers the patient to the hospital's smoking counseling service or a community-based smoking counseling service. Enter Referral to smoking counseling services AND Local counseling service.

- **Michigan Quitline** = The provider refers the patient to the Michigan Tobacco Quitline. Enter Referral to smoking counseling services AND Referral to Michigan Quitline.

- **Other counseling service** = The provider refers the patient to a Federal or National smoking cessation service. Enter Referral to smoking counseling services AND Other counseling service.

Procedure Information

Procedure Start Date & Time

Data Abstraction Instructions:

Enter the date of the current procedure (mm/dd/yyyy) and enter the time the procedure was initiated. (Military time)

Selections:

- Enter Date & Time

Supporting Definitions:

The time the procedure started is defined as the time which local anesthetic was first administered for vascular access, or the time of the first attempt at vascular access for the intervention (use whichever is earlier), or incision time for open vascular surgery procedures. Indicate the time (hours:minutes) using military 24-hour clock, beginning at midnight (00:00 hours). If an arterial sheath is already in place, use the time of the introduction of a catheter or the time the sheath was exchanged.

Required:

Yes

Performed in Lab#

Data Abstraction Instructions:

Enter a numerical value that corresponds to the cardiac catheterization laboratory in which the procedure currently being entered was performed.

•If your facility does not routinely address their cath labs using a numerical value, it will be necessary to develop a tool that equates each cath lab to a numerical value.

•This tool will need to be distributed to all abstractors to enable consistent data entry of this field.

EXAMPLE: Procedure performed in "combo" room. Tool developed states: "Coronary Lab"=#1, "New Lab"=#2, "Combo Lab"=#3. Please enter "3".

Selections:

- Yes
    - Enter Value in whole number
- Not Documented

Peak Intra Procedure ACT

Data Abstraction Instructions:

Enter the peak intra-procedure ACT in seconds.

- Activated clotting time (ACT) should be measured during the procedure after the heparin IV bolus is given (within 1 hour of heparin bolus). Example: STEMI patient receives heparin bolus in Emergency Department
- The ACT recorded for this field must be performed **during**, ***NOT*** at the end of the procedure.
- If there are multiple specimens obtained during the procedure, enter the highest measurement of ACT (peak) in seconds
- Enter "not obtained" if peak ACT or clotting measurement was not obtained during the procedure
- If the highest value exceeds the limit of the device, please enter the highest reportable value +1. Example: device limit is 400 seconds. Result is reported "Exceeds Limit". Enter 401 seconds.
- For purposes of abstraction of this field: **During (intra) procedure= Procedure start-removal of the interventional guide**

Selections:

- Yes
    - Enter value in seconds
- Not documented

Suffix:

seconds

Maximum:

1000

Non-Wire Based Physiologic Assessment

Data Abstraction Instructions: Select "Yes" if a non-invasive physiologic method was used to assess the functional significance of coronary artery stenosis without requiring a pressure wire or pharmacologic hyperemia.

Notes: Non-wire based physiologic assessments (e.g., QFR, angiography-derived FFR, vFFR, FFRangio) provide a functional analysis of coronary lesions via software applied to angiographic data, rather than direct intravascular pressure measurements. These methods do not require insertion of pressure wires or administration of agents such as adenosine. Results can inform clinical decision-making regarding the necessity of intervention for a given lesion, similar to standard wire-based FFR measurements.

Examples of Non-Wire Based Techniques:

- QFR (Quantitative Flow Ratio)
- vFFR (Vessel Fractional Flow Reserve)
- FFRangio

Use Case:

non-wire based physiologic assessment is typically performed when a coronary lesion's severity needs to be functionally evaluated, but pressure wire or hyperemic agent use is not desired or feasible.

Registry Note:

Document as "QFR" or "Non-wire based physiologic assessment" when such a modality was used to evaluate coronary stenosis and specify the technique if available.

Selections:

- Y=Yes
- N=No

Venous Access:

Data Abstraction Instructions:

Indicate if venous access was obtained for use during the diagnostic and/or PCI portion of this procedure.

IVUS/OCT Post PCI

Data Abstraction Instructions:

Indicate whether IVUS/OCT was utilized after PCI portion of procedure underway.

When approaching this definition, the question you are trying to answer is; "Was IVUS/OCT used to optimize PCI?" We are not addressing whether IVUS/OCT was used as one of the tools to diagnose/assess the lesion prior to PCI.

Example #1: Physician assesses lesion with IVUS and then inserts stent. No further IVUS (or OCT) is performed. We would code this situation as "No" since IVUS was used to diagnose, not optimize PCI.

Example #2: diagnostic coronary angiography is performed. Physician assesses lesion with OCT and then inserts stent. The physician then performs IVUS and two additional balloon inflations. Code "Yes" for this scenario as IVUS was utilized to optimize PCI.

Selections:

- Yes
- No
- Attempted

If "Yes":

Lesion Number

Enter the number that was entered into NCDR Cath PCI® sequence #8000 "Lesion Counter" to identify which lesion the IVUS/OCT measurements correlate to.

Minimum Stent Area (MSA)

Enter the value noted in mm^2 for each coronary artery lesion in which this measurement is obtained.

- Enter the same lesion number noted in NCDR Cath PCI field #8000.
- If multiple MSA values are documented, enter the last (final) measurement.
- Select "N/A" if no measurement was obtained.

Range: 0-30mm^2

Description:

The units for minimum stent area are square millimeters (mm2).

A "Minimal Stent Area" (MSA) refers to the smallest cross-sectional area of a stent within its length, essentially representing the narrowest point of the stent lumen, usually measured using imaging techniques like intravascular ultrasound (IVUS) during a coronary intervention procedure; it is a critical parameter used to assess the adequacy of stent expansion and potential risk of restenosis (re-narrowing of the vessel) after stent placement.

https://www.jacc.org/doi/10.1016/j.jcin.2021.06.012

Stent diameter selection the identification of and then measuring the proximal and distal references. Following stent implantation, IVUS can assess the minimal stent area (MSA), a prognostic indicator closely associated with the likelihood of future events related to the stent.[6]

https://www.ncbi.nlm.nih.gov/books/NBK537019/#:~:text=Stent%20diameter%20selection%20the%20identification,to%20the%20stent.%5B6%5D

Distal Reference Lumen Area (DRLA)

Enter the value noted in mm^2 for each coronary artery lesion in which this measurement is obtained.

- Enter the same lesion number noted in NCDR cath PCI field #8000.
- If multiple DRLA values are documented for the same lesion, enter the last (final) measurement.
- Select "N/A" if no measurement was obtained.

Range: 0-30mm^2

Description:

The units for distal reference lumen area are square millimeters (mm2).

The distal reference lumen area is calculated by averaging the largest lumen areas measured within 5 mm proximally and distally to the stent edges.

The distal reference lumen area is used in the assessment of optimal stent expansion.

reference: https://www.ahajournals.org/doi/full/10.1161/CIRCINTERVENTIONS.121.011124#:~:text=Different%20criteria%20for%20IVUS%2Ddefined%20optimal%20stent%20expansion%20were%20primarily,the%20latest%20expert%20consensus%20document.&text=Absolute%20optimal%20expansion%20criteria%20included,when%20not%20meeting%20the%20criteria

Secondary Access Site

Data Abstraction Instructions:

Indicate if a secondary arterial access site was used or attempted for any reason.

Selections:

- Yes
- No

If "Yes":

Rationale for Secondary Access Site

Data Abstraction Instructions:

Were any of the following devices used, or did any of the following circumstances apply? If so, check all devices used or circumstances that apply.

Example: the PCI is performed via the RFA, without groin complications. The LFA is accessed during the procedure, and an Impella is placed. The patient develops a thrombus in the left lower extremity that results in a surgical procedure. You would mark NO for the Primary PCI Site. You would select "Yes" for Secondary Access site, "Yes" for Thrombus, and "Yes" for Impella.

Selections:

- Yes
    - Mechanical Circulatory Support
    - Additional Procedure Access
    - Failed Access
        - Femoral
        - Radial
        - Brachial
        - Other
- No

    - Enter Value
- Not Documented

<u>Outcomes in Lab</u>

Indicate whether there were any complications or outcomes from the time the patient entered the lab to the time of departure from the lab.

Acute Closure

Data Abstraction Instructions:

Indicate for the treated segment if an acute closure was observed during the PCI procedure. Complete occlusion of the treated vessel is usually indicated by TIMI grade flow of 0 or 1.

Selections:

- Yes
- No

No Reflow

Data Abstraction Instructions:

Indicate for the treated segment if there was a period where no flow phenomenon was noted during the PCI procedure. No reflow phenomenon pertains to lack of flow distal to the treated segment.
No reflow pertains to lack of perfusion down the vessel despite the vessel having been opened with either ballooning or stenting.

Selections:

- Yes
- No

Untreated Dissection

Data Abstraction Instructions:

Significant (flow limiting) dissection noted but not treated. Do not capture type A & B dissections.

Selections:

- Yes
- No

Side Branch Occlusion

Data Abstraction Instructions:

Total occlusion of any side branch resulting from treatment of the index lesion.

Example, 100% occlusion of 1st diag during stenting of mid LAD lesion. To qualify as a side branch occlusion the vessel must be occluded at the end of the case.

Selections:

- Yes
- No

Outcomes Post Lab

Indicate whether there were any complications or outcomes from the time the patient left the cath lab to the time of next PCI, discharge or death, whichever comes first. Restrict coding to this ASC visit.

Stent Thrombosis

Data Abstraction Instructions:

If the patient returned to the lab and angiography revealed stent thrombosis in stent(s) placed during this discharge, mark this variable.

Selections:

- Yes
- No

VT/VF Requiring Therapy

Data Abstraction Instructions:

Ventricular tachycardia or ventricular fibrillation requires either pharmacologic or mechanical therapy. Includes an ICD firing.

Selections:

- Yes
- No

New Atrial Fibrillation

Data Abstraction Instructions:

Select "yes" if patient experienced a new instance of atrial fibrillation from the time the patient left the cath lab to the time of next PCI, hospital discharge or death, whichever comes first.

Example(s):

- *Ms. Smith has no history of atrial fibrillation, the morning after PCI staff notes afib on the monitor and calls the physician who confirms diagnosis of atrial fibrillation=Yes*
- *Mr. Jones has had atrial fibrillation for three years now but communicates with staff that it has "acted up" for a while now. He also has an episode of atrial fibrillation post PCI=No*

Selections:

- Yes
- No