Voluntary PVI Data Dictionary

Voluntary PVI Registry
Data Field Definitions

2024 version

ABI

Data Abstraction Instructions:

Indicate if ABIs were performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months. Enter all available data for ABIs that are valid for the present procedure (include both right and left, regardless of the operative side).

Enter Yes for ABI Compressible when the value is <1.4.

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Right Pre Procedure ABI Compressible
    - Yes
      - Enter value
    - No
  - Left Pre procedure ABI Compressible
    - Yes
      - Enter value
    - No
- No

Required:
Yes
Maximum:
1.39

ABIs (Follow-up)

Data Abstraction Instructions:

Indicate if the patient has had ABIs measured after discharge, and if so, enter the value. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter Value for ABIs Right
  - Enter Value for ABIs Left
- No
- Not documented

Required:
Yes
Minimum:
0
Maximum:
1.39

ACE Inhibitor (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking an ACE Inhibitor at the time of follow up and if there is a contraindication to an ACE Inhibitor.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
  - Contraindicated for ACE Inhibitor
    - Yes
    - No
- Not documented

Supporting Definitions:

Examples of ACE Inhibitors are

Generic Name	Brand Name
Benazepril	Lotensin
Benazepril + HCTZ *	Lotensin HCT
Benazepril + Amlodipine *	Lotrel
Captopril	Capoten
Captopril + HCTZ *	Capozide
Cilazapril	Inhibace
Cilazapril + HCTZ *	Inhibace Plus
Enalapril	Vasotec, Enalaprilat
Enalapril + HCTZ *	Vaseretic
Enalapril + Felodipine *	Lexxel
Fosinopril	Monopril
Fosinopril + HCTZ *	Monopril HCT
Lisinopril	Zestril, Prinivil
Lisinopril + HCTZ *	Prinzide, Zestoretic
Moexipril	Univasc
Moexipril + HCTZ *	Uniretic
Perindopril	Aceon
Quinapril	Accupril
Quinapril + HCTZ *	Accuretic
Trandolapril	Mavik
Trandolapril + Verapamil *	Tarka

* Denotes a combination medication.

Required:
Yes

ACE Inhibitors

Data Abstraction Instructions:

Record if an ACE Inhibitor was Given, Not Given and/or Contraindicated at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking an ACE Inhibitor before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking an ACE Inhibitor before admission.

Medications at Discharge?

- Enter Yes if an ACE Inhibitor was documented as a new medication or continued at discharge.
- Enter No if an ACE Inhibitor was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to an ACE Inhibitor.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to an ACE Inhibitor.

For Combination Therapy record as follows:
In case of combination drugs individual components should be recorded, e.g., Zestoretic is a combination of lisinopril (ACE Inhibitor) and hydrochlorothiazide (HCTZ, a Thiazide). Enter answers for both ACE Inhibitor AND Thiazide.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

ACE Inhibitors

- Given
- Not Given

Contraindicated for ACE Inhibitors

- Yes
- No

Supporting Definitions:

Generic Name	Brand Name
Benazepril	Lotensin
Benazepril + HCTZ *	Lotensin HCT
Benazepril + Amlodipine *	Lotrel
Captopril	Capoten
Captopril + HCTZ *	Capozide
Cilazapril	Inhibace
Cilazapril + HCTZ *	Inhibace Plus
Enalapril	Vasotec, Enalaprilat
Enalapril + HCTZ *	Vaseretic
Enalapril + Felodipine *	Lexxel
Fosinopril	Monopril
Fosinopril + HCTZ *	Monopril HCT
Lisinopril	Zestril, Prinivil
Lisinopril + HCTZ *	Prinzide, Zestoretic
Moexipril	Univasc
Moexipril + HCTZ *	Uniretic
Perindopril	Aceon
Quinapril	Accupril
Quinapril + HCTZ *	Accuretic
Trandolapril	Mavik
Trandolapril + Verapamil *	Tarka

*** Denotes a combination medication.**

Required:
Yes

Acute Limb Ischemia (Indications)

Data Abstraction Instructions:

Indicate if the procedure is performed for acute limb Ischemia (ALI). ALI is defined as a sudden decrease in limb perfusion that threatens limb viability and represents a major vascular emergency. The clinical presentation is acute if it occurs within 14 days after symptom onset. Symptoms of ALI include pain, pallor (paleness) paralysis (loss of muscle function), pulse deficit, paresthesia (tingling, numbness, burning, prickling sensation) , and poikilothermia (cold or cool extremity when in a warm room).

Reference: ALI: An Update on Diagnosis and Management. Journal of Clinical Medicine. Doi: https://dx.doi.org/10.3390%2Fjcm8081215

Critical Limb Ischemia (CLI) is not the same as ALI. CLI is a progressive disease state. It is defined as ischemic rest pain, a nonhealing wound/ulcer, or gangrene for more than two weeks with signs of poor blood flow.

Reference: AHA Outlines Diagnosis, Treatment Options for Underrecognized Critical Limb Ischemia. Tctmd.com. https://www.tctmd.com/news/aha-outlines-diagnosistreatment-options-underrecognized-critical-limb-ischemia

Selections:

- Yes
- No

Required:
Yes

Ambulation Pre-Procedure

Data Abstraction Instructions:

Indicate the best ambulation category experienced within one month of admission. Indicate the best functional level if the patient is in-between categories.

Example: Patient uses wheelchair but is able to move around the house with the assistance of a walker, enter "Ambulatory with assistance."

Enter Not documented if documentation of patient's pre-procedure ambulation status is unavailable.

Selections:

- Ambulatory
- Ambulates with assistance
- Wheelchair
- Bedridden
- Not documented

Required:
Yes

Amputation (Follow-up)

Data Abstraction Instructions:

Indicate if the patient has had an amputation post hospitalization. If yes, indicate the level of amputation, and the date of first occurrence. Amputation may be obtained through a phone call with the patient.

Selections:

- Yes
  - Left hip disarticulation
  - Left AKA
  - Left BKA
  - Left foot
  - Left metatarsal
  - Left digit
  - Right hip disarticulation
  - Right AKA
  - Right BKA
  - Right foot
  - Right metatarsal
  - Right digit
    - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Amputation (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if an amputation is performed at any time during the procedure.

Selections:

- Yes
  Select type of amputation
  - Left hip disarticulation
  - Left AKA
  - Left BKA
  - Left foot
  - Left metatarsal
  - Left digit
  - Right hip disarticulation
  - Right AKA
  - Right BKA
  - Right foot
  - Right metatarsal
  - Right digit
- No

Required:
Yes

Amputation (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if an amputation is performed at any time post procedure. If an amputation is performed post procedure, enter No for Vascular Surgery Non Emergent.

Selections:

- Yes
  Select type of amputation
  - Left hip disarticulation
  - Left AKA
  - Left BKA
  - Left foot
  - Left metatarsal
  - Left digit
  - Right hip disarticulation
  - Right AKA
  - Right BKA
  - Right foot
  - Right metatarsal
  - Right digit
- No

Required:
Yes

Angina/Abnormal Cardiac Stress Test (Indications)

Data Abstraction Instructions:

Indicate if the patient had episodes of angina or an abnormal cardiac stress test.

Selections:

- Yes
- No

Supporting Definitions:

Indication for revascularization is cardiac ischemia secondary to impaired blood flow to coronary artery bypass graft (e.g. left subclavian stenosis in a patient with an in situ left internal mammary artery bypass graft).

For informational purposes, one of the following criteria are necessary:

- Angina at rest (usually prolonged >20 mins)
- New onset (less than two months) exertional angina of at least Canadian cardiovascular Society Classification (CCSC) class III
- Recent (less than two months) acceleration of angina reflected by an increase in severity of at least one CCSC class to at least CCSC class III. The patient must also NOT have any biochemical evidence of myocardial necrosis.

Required:

Yes

Angiotensin II Receptor Antagonist (ARBs)

Data Abstraction Instructions:

Record if an Angiotensin II Receptor Antagonist (ARB) was Given, Not Given and/or Contraindicated at admission and/or discharge.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking an ARB before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking an ARB before admission.

Medications at Discharge?

- Enter Yes if an ARB was documented as a new medication or continued at discharge.
- Enter No if an ARB was not documented as a new medication or was discontinued at discharge.

For Combination Therapy record as follows: In case of combination drugs individual components should be recorded, e.g., Zestoretic is a combination of lisinopril (ACE Inhibitor) and hydrochlorothiazide (HCTZ, a Thiazide). Enter answers for both ACE Inhibitor AND Thiazide.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

Angiotensin II Receptor Antagonist (ARBs)

- Given
- Not Given

Contraindicated for Angiotensin II Receptor Antagonist (ARBs)

- Yes
- No

Supporting Definitions:

Generic Name	Brand Name
Azilsartan	Edarbi
Candesartan	Atacand
Candesartan + HCTZ *	Atacand HCT
Eprosartan	Teveten
Eprosartan + HCTZ *	Teveten HTC
Irbesartan	Avapro
Irbesartan + HCTZ *	Avalide
Losartan	Cozaar
Losartan + HCTZ *	Hyzaar
Olmesartan	Benicar
Olmesartan + Amlodipine *	Azor
Olmesartan + HCTZ *	Benicar HCT
Olmesartan + Amlodipine + HCTZ *	Tribenzor
Telmisartan	Micardis
Telmisartan + HCTZ *	Micardis HCT
Valsartan	Diovan
Valsartan + HCTZ *	Diovan HCT
Valsartan + Amlodipine *	Exforge
Valsartan + Amlodipine + HCTZ *	Exforge HCT

*** Denotes a combination medication.**
Required:
Yes

Angiotensin II Receptor Blockers (ARBs) (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking an ARB at the time of follow up.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
- Not documented

Supporting Definitions:

Examples of ARBs are

Generic Name	Brand Name
Azilsartan	Edarbi
Candesartan	Atacand
Candesartan + HCTZ *	Atacand HCT
Eprosartan	Teveten
Eprosartan + HCTZ *	Teveten HTC
Irbesartan	Avapro
Irbesartan + HCTZ *	Avalide
Losartan	Cozaar
Losartan + HCTZ *	Hyzaar
Olmesartan	Benicar
Olmesartan + Amlodipine *	Azor
Olmesartan + HCTZ *	Benicar HCT
Olmesartan + Amlodipine + HCTZ *	Tribenzor
Telmisartan	Micardis
Telmisartan + HCTZ *	Micardis HCT
Valsartan	Diovan
Valsartan + HCTZ *	Diovan HCT
Valsartan + Amlodipine *	Exforge
Valsartan + Amlodipine + HCTZ *	Exforge HCT

*Denotes a combination medication.

Required:
Yes

Anticoagulant (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking an Anticoagulant at the time of follow up.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
- Not documented

Supporting Definitions:

Some examples of anticoagulants are

Generic Name	Brand Name
Apixaban	Eliquis
Dabigatran	Pradaxa
Edoxaban	Savaysa
Fondaparinux	Arixtra
Rivaroxaban	Xarelto
Warfarin	Coumadin

Required:
Yes

Antiplatelets (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking antiplatelets (other than ASA) at the time of the follow up and if there is a contraindication to antiplatelets.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
    - Contraindicated for Antiplatelets
        - Yes
        - No
- Not documented

Supporting Definitions:

Some examples of antiplatelet medications are

Generic Name	Brand Name
Cilostazol	Pletal
Clopidogrel	Plavix
Prasugrel	Effient
Ticagrelor	Brilinta

Required:
Yes

Apixaban (Eliquis)

Data Abstraction Instructions:

Record if apixaban (Eliquis) was Given or Not Given at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking apixaban before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking apixaban before admission.

Medications at Discharge?

- Enter Yes if apixaban was documented as a new medication or continued at discharge.
- Enter No if apixaban was not documented as a new medication or was discontinued at discharge.

Selections:

- Given
- Not Given

Required:
Yes

Apixaban (Eliquis) dose (mg)

Data Abstraction Instructions:

Enter the total daily dosage documented for apixaban (Eliquis) in milligrams (mg). For example, if apixaban 2.5mg BID is documented, enter 5 mg.
This field will accept decimals.

Selections:

Enter dose in text box (mg)

Required:
Yes
Suffix:
mg
Minimum:
1
Maximum:
300

Arm Claudication (Indications)

Data Abstraction Instructions:

Indicate if the patient has arm pain caused by poor circulation.

Selections:

- Yes
- No

Supporting Definitions:

Refers to cramping pains in the arms caused by poor circulation of the blood in the arteries to the arm muscles during exercise. True claudication is relieved with rest from exercise.

Required:
Yes

Aspirin (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking aspirin at the time of follow up and if there is a contraindication to aspirin.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
    - Contraindicated for Aspirin
        - Yes
        - No
- Not documented

Required:
Yes

Aspirin

Data Abstraction Instructions:

Record if aspirin was Given, Not Given and/or Contraindicated at admission and/or discharge. Also record if aspirin was Given or Not Given before the procedure (from admission or previous procedure until the current procedure). To enter Yes for aspirin, the minimum dose should be at least 75mg.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking aspirin before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking aspirin before admission.

Medications at Discharge?

- Enter Yes if aspirin was documented as a new medication or continued at discharge.
- Enter No if aspirin was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to aspirin.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to aspirin.

Selections:

- Given
    - Pre (on procedure form)
- Not Given
- Contraindicated
    - Yes
    - No

Required:
Yes

Atrial Fibrillation (AF) / Aflutter

Data Abstraction Instructions:

Indicate if the patient has a history of either paroxysmal atrial fibrillation or chronic atrial fibrillation/flutter prior to the VS intervention. This includes any prior history, even if the patient is not currently in that rhythm.

Selections:

- Yes
- No

Required:
Yes

BP discrepancy (Indications)

Data Abstraction Instructions:

Indicate if there is a >50 mm difference in systolic BP between L and R arms.

Selections:

- Yes
- No

Supporting Definitions:

This may be seen in subclavian stenosis.

Required:
Yes

Beta Blocker (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking a beta blocker at the time of follow up and if there is a contraindication to beta blockers.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
    - Contraindicated for Beta Blockers
        - Yes
        - No
- Not documented

Supporting Definitions:

Examples of beta blockers are

Generic Name	Brand Name
Acebutolol	Sectral
Atenolol	Tenormin
Atenolol + Chlorthalidone *	Tenoretic
Betaxolol	Kerlone
Bisoprolol	Zebeta
Bisoprolol + HCTZ *	Ziac
Carvedilol	Coreg
Esmolol	Brevibloc
Labetalol	Trandate
Metroprolol	Lopressor, Toprol
Metroprolol + HCTZ *	Lopressor HCT, Dutoprol
Nadolol	Corgard
Nadolol + Bendroflumethiazide *	Corzide
Nebivolol	Bystolic
Penbutolol	Levatol
Pindolol	Visken
Propranolol	Inderal, InnoPran
Propranolol + HCTZ *	Inderide
Timolol	Blocadren
Timolol + HCTZ *	Timolide

*Denotes a combination medication

Required:
Yes

Beta Blockers

Data Abstraction Instructions:

Record if a Beta Blocker was Given, Not Given and/or Contraindicated at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking a Beta Blocker before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking a Beta Blocker before admission.

Medications at Discharge?

- Enter Yes if a Beta Blocker was documented as a new medication or continued at discharge.
- Enter No if a Beta Blocker was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to a Beta Blocker.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to a Beta Blocker.

For Combination Therapy record as follows: In case of combination drugs individual components should be recorded, e.g., Zestoretic is a combination of lisinopril (ACE Inhibitor) and hydrochlorothiazide (HCTZ, a Thiazide). Enter answers for both ACE Inhibitor AND Thiazide.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

- Given
- Not Given
- Contraindicated
  - Yes
  - No

Supporting Definitions:

Generic Name	Brand Name
Acebutolol	Sectral
Atenolol	Tenormin
Atenolol + Chlorthalidone *	Tenoretic
Betaxolol	Kerlone
Bisoprolol	Zebeta
Bisoprolol + HCTZ *	Ziac
Carvedilol	Coreg
Esmolol	Brevibloc
Labetalol	Trandate
Metroprolol	Lopressor, Toprol
Metroprolol + HCTZ *	Lopressor HCT, Dutoprol
Nadolol	Corgard
Nadolol + Bendroflumethiazide *	Corzide
Nebivolol	Bystolic
Penbutolol	Levatol
Pindolol	Visken
Propranolol	Inderal, InnoPran
Propranolol + HCTZ *	Inderide
Timolol	Blocadren
Timolol + HCTZ *	Timolide

*** Denotes a combination medication.**

Required:
Yes

Bivalirudin (Angiomax)

Data Abstraction Instructions:

Record if bivalirudin (Angiomax) was Given or Not Given during the procedure (from admission or previous procedure until the current procedure).

Selections:

- Given
  - If given, enter During.
- Not Given

Required:
Yes

Calcium Channel Blocker (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking a Calcium Channel Blocker at the time of the follow up and if there is a contraindication to Calcium Channel Blockers.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
  - Contraindicated for Calcium Channel Blockers:
  - Yes
  - No
- Not documented

Supporting Definitions:

Examples of Calcium Channel Blockers are:

Generic Name	Brand Name
Amlodipine	Norvasc
Amlodipine + Atorvastatin *	Caduet
Amlodipine + Benazepril *	Lotrel
Amlodipine + Olmesartan	Azor
Amlodipine + Olmesartan + HCTZ *	Tribenzor
Amlodipine + Telmisartan *	Twynsta
Amlodipine + Valsartan *	Exforge
Clevidipine	Cleviprex
Diltiazem	Cardizem, Delacour
Diltiazem HCL	Cartia
Felodipine	Plendil
Felodipine + Enalapril *	Lexxel
Isradipine	Dynacirc
Nicardipine	Cardene
Nifedipine	Adalat, Procardia
Nisoldipine	Sular
Verapamil	Calan, Isoptin, Verelan
Verapamil + Trandolapril	Tarka

* Denotes a combination medication

Required:
Yes

Calcium Channel Blockers

Data Abstraction Instructions:

Record if a Calcium Channel Blocker was Given, Not Given and/or Contraindicated at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking a Calcium Channel Blocker before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking a Calcium Channel Blocker before admission.

Medications at Discharge?

- Enter Yes if a Calcium Channel Blocker was documented as a new medication or continued at discharge.
- Enter No if a Calcium Channel Blocker was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to a Calcium Channel Blocker.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to a Calcium Channel Blocker.

For Combination Therapy record as follows: In case of combination drugs individual components should be recorded, e.g., Zestoretic is a combination of lisinopril (ACE Inhibitor) and hydrochlorothiazide (HCTZ, a Thiazide). Enter answers for both ACE Inhibitor AND Thiazide.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

- Given
- Not Given
- Contraindicated
  - Yes
  - No

Supporting Definitions:

Generic Name	Brand Name
Amlodipine	Norvasc
Amlodipine + Atorvastatin *	Caduet
Amlodipine + Benazepril *	Lotrel
Amlodipine + Olmesartan	Azor
Amlodipine + Olmesartan + HCTZ *	Tribenzor
Amlodipine + Telmisartan *	Twynsta
Amlodipine + Valsartan *	Exforge
Clevidipine	Cleviprex
Diltiazem	Cardizem, Delacour
Diltiazem HCL	Cartia
Felodipine	Plendil
Felodipine + Enalapril *	Lexxel
Isradipine	Dynacirc
Nicardipine	Cardene
Nifedipine	Adalat, Procardia
Nisoldipine	Sular
Verapamil	Calan, Isoptin, Verelan
Verapamil + Trandolapril	Tarka

*** Denotes a combination medication.**

Required:
Yes

Case Number

Data Abstraction Instructions:

Enter a unique number to identify this case. This is an optional data entry field to track patients at your facility if you choose to use it. As an example, you could use the lab log number or another identifying number to identify each individual case. Do not use patient social security number or medical record number.

Selections:

- Enter case number

Required:
No
Maximum Length:
25

Cerebrovascular Disease (CVD) or Transient Ischemic Attack (TIA)

Data Abstraction Instructions:

Indicate if the patient has a history of cerebrovascular disease.

Selections:

- Yes
- No

Supporting Definitions:

- Cerebrovascular Accident (CVA) = Patient has a history of stroke, i.e., loss of neurological function with residual symptoms at least 24 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 from vascular etiology.
- Non-invasive/invasive carotid test with greater than 79% occlusion.
- Previous carotid artery surgery (CEA) or intervention for carotid artery stenosis.
- Note: This does not include neurological disease processes such as metabolic and/or anoxic ischemic encephalopathy.

Required:
Yes

Chronic Lung Disease (COPD)

Data Abstraction Instructions:

Indicate if there is a previous history of Chronic Lung Disease.
Chronic lung disease can include patients with chronic obstructive pulmonary disease (COPD), chronic bronchitis or emphysema. It can also include a patient who is being chronically treated with inhaled or oral pharmacological therapy (e.g. beta-adrenergic agonists, anti-inflammatory agents, leukotriene receptor antagonist, or steroids). Patients with asthma or seasonal allergies are not considered to have chronic lung disease (however they may fit in this definition if they are diagnosed with asthma and are chronically treated with the above approved medications).

Selections:

- Yes
- No

Required:
Yes

Cilostazol (Pletal)

Data Abstraction Instructions:

Record if cilostazol (Pletal) was Given, Not Given, and/or Contraindicated at admission and/or discharge.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking cilostazol before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking cilostazol before admission.

Medications at Discharge?

- Enter Yes if cilostazol was documented as a new medication or continued at discharge.
- Enter No if cilostazol was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to cilostazol.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to cilostazol.

Selections:

- Given

- Not Given
- Contraindicated
  - Yes
  - No

Required:
Yes

Claudication (Indications)

Data Abstraction Instructions:

Indicate if the patient has leg pain caused by poor circulation, inhibiting the patient's ability to walk distances as an indication for the procedure. Refers to cramping pains in the legs (usually the calf muscles but may be in the thigh muscles) caused by poor circulation of the blood in the arteries to the leg muscles during exercise. True claudication is relieved with rest from exercise.

Selections:

- Yes
- No

Required:
Yes

Clopidogrel (Plavix)

Data Abstraction Instructions:

Record if clopidogrel (Plavix) was Given, Not Given, and/or Contraindicated at admission and/or discharge. Also enter if clopidogrel was given before the procedure and/or during the procedure.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking clopidogrel before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking clopidogrel before admission.

Medications at Discharge?

- Enter Yes if clopidogrel was documented as a new medication or continued at discharge.
- Enter No if clopidogrel was not documented as a new medication or was discontinued at discharge.

Medications During Procedure

- Enter Given if clopidogrel was given before or during the procedure
  - Pre = from admission or previous procedure until the current procedure.
  - During = clopidogrel was given from the time the patient enters the room until the time the patient leaves the room
- Enter Not Given if the medication was not given.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to clopidogrel.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to clopidogrel.

Selections:

- Given
  - Select all that apply (on procedure worksheet)
- Not Given
- Contraindicated
  - Yes
  - No

Required:
Yes

Comfort care measures implemented (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if care was withdrawn or comfort care measures were implemented prior to death. If so, indicate the date.

Selections:

- Yes
  - Enter date
- No

Required:
Yes

Compartment Syndrome (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient was determined to have compartment syndrome at any time post procedure.

Selections:

- Yes
- No

Supporting Definitions:

Compartment syndrome is defined as compression of nerves and blood vessels within an enclosed space which leads to muscle and nerve damage and problems with blood flow.

Required:
Yes

Compartment Syndrome (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if the patient was determined to have compartment syndrome at any time during the procedure. This is defined as compression of nerves and blood vessels within an enclosed space which leads to muscle and nerve damage and problems with blood flow.

Selections:

- Yes
- No

Supporting Definitions:

Required:
Yes

Complication from Prior Procedure (Indications)

Data Abstraction Instructions:

Indicate if the patient had a complication from a prior procedure.

Selections:

- Yes
- No

Supporting Definitions:

The patient had a dissection, perforation, or another complication from a prior procedure (such as a cardiac or pulmonary angiogram) that required vascular repair (Percutaneous or Surgical).

Required:
Yes

Computerized Tomographic Angiography (CTA)

Data Abstraction Instructions:

Indicate if a CTA was performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months and indicate if the study was normal or abnormal.

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Supporting Definitions:

- Yes
  - Normal
  - Abnormal
- No

Required:
Yes

Congestive Heart Failure (CHF) (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if it was documented that the patient had new onset or exacerbation of CHF post procedure.

Selections:

- Yes
- No

Supporting Definitions:

Heart failure is defined as physician documentation or report of any of the following clinical symptoms of heart failure described as unusual dyspnea on light exertion, recurrent dyspnea occurring in the supine position, fluid retention, or the description of rales, jugular venous distension, pulmonary edema on physical exam, or pulmonary edema on chest x-ray. A low ejection fraction alone, without clinical evidence of heart failure, does not qualify as heart failure.

Required:
Yes

Congestive Heart Failure (Indications)

Data Abstraction Instructions:

Indicate if the patient has documented CHF and it is the indication for the renal intervention.

Selections:

- Yes
- No

Supporting Definitions:

For informational purposes only, CHF can be defined by one of the following criterion:

- Paroxysmal nocturnal dyspnea (PND);
- Dyspnea on exertion (DOE) due to heart failure;
- Chest X-Ray (CXR) showing pulmonary congestion.
- Pedal edema or dyspnea treated with medical therapy for heart failure.
- Elevated serum BNP

Required:
Yes

Contact Date

Data Abstraction Instructions:

Enter the date of contact for follow up information. The contact date is when the patient was contacted, came to the clinic, or had a phone call to determine their status.

To enter the date click on the calendar and choose the month, year, and day of the contact date.

Selections:

- Enter date into the text box.

Required:
Yes

Contrast Cineangiography

Data Abstraction Instructions:

Indicate if a contrast cineangiography was performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months and indicate if the study was normal or abnormal.

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Normal
  - Abnormal
- No

Required:
Yes

Contrast Types

Data Abstraction Instructions:

Enter the type of contrast that was used during the procedure. Select all that apply.

Selections:

- Yes
  - Nonionic, low-osmolar
  - Nonionic, Iso-osmolar
  - Ionic, hyperosmolar
  - Ionic, low-osmolar
  - Investigational contrast agent
  - Gadolinium
  - Carbon Dioxide (CO2)
  - Unknown
- None

Supporting Definitions:

Commonly used Contrast Agents

- Nonionic low-osmolar
  - Omnipaque, Isovue, Optiray, Ultravist, Oxilam
- Nonionic Iso-osmolar
  - Visipaque
- Ionic, hyperosmolar
  - Hypaque, Conray
- Ionic, low-osmolar
  - Hexabrix

Required:
Yes

Current Living Status

Data Abstraction Instructions:

Indicate the living status of the patient at the time of follow up. Current Living Status can be obtained through the medical record or a phone call to the patient. If you enter death for current living status on the 30-day follow-up, do not enter a 6-month follow-up.

Selections:

- Home
- Nursing Home/Extended Care
- Assisted Living
- In Hospital
- Dead
  - Enter date of death
  - Select cause of death
    - Cardiovascular
    - Procedure related
    - Unknown/other
- Not documented

Required:
Yes

Current Smoker

Data Abstraction Instructions:

Indicate if the patient has smoked cigars, cigarettes, chew (tobacco), pipe (tobacco), marijuana, or used a smokeless device to inhale nicotine (vaping, e-cigarettes) any time during the past one month prior to arrival at your facility. Select all that apply.

The pre-procedure smoking cessation field will display when Yes is entered for Current Smoker.

Selections:

- Yes
  - Cigar
  - Cigarettes
  - Chew (tobacco)
  - Pipe (tobacco)
  - Marijuana
  - Smokeless (vaping, e-cigarettes)
- No

Required:
Yes

Current/Recent GI Bleed

Data Abstraction Instructions:

Indicate if the patient had any occurrence of melena or hematemesis in last 30 days or any history of GI bleed including peptic ulcer disease that may influence clinical management during this hospitalization.

Selections:

- Yes
- No

Required:
Yes

Dabigatran (Pradaxa)

Data Abstraction Instructions:

Record if dabigatran (Pradaxa) was Given, Not Given, and/or Contraindicated at admission and/or discharge.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking dabigatran before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking dabigatran before admission.

Medications at Discharge?

- Enter Yes if dabigatran was documented as a new medication or continued at discharge.
- Enter No if dabigatran was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to dabigatran.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to dabigatran.

Selections:

- Given
- Not Given
- Contraindicated
    - Yes
    - No

Required:
Yes

Dabigatran (Pradaxa) dose

Data Abstraction Instructions:

Enter the total daily dosage documented for dabigatran (Pradaxa) in milligrams (mg). For example, if dabigatran 150 mg BID is documented, enter 300 mg.
This field will accept decimals.

Selections:

Enter dose in text box (mg)

Required:
Yes
Suffix:
mg
Minimum:
1
Maximum Length:
300

Date of Admission

Data Abstraction Instructions:

Enter the date that the patient arrived to the hospital for the current stay. (mm/dd/yyyy). If the patient was admitted through the emergency room, use the date they arrived at the ER as the admission date.

To enter the date click on the calendar and choose the month, year, and day of the date of admission.

Selections:

- Enter date

Required:
Yes

Date of Birth

Data Abstraction Instructions:

Enter month, day, and 4-digit year of patient’s birth. To enter the date click on the calendar and choose the month, year, and day of the patient's birth.

Selections:

- Enter date

Required:
Yes

Date of Discharge

Data Abstraction Instructions:

Enter the date the patient was discharged from the hospital for the current hospitalization (mm/dd/yyyy). If the patient died in the hospital, the hospital discharge date is the date of death. If the patient was transferred to a rehab facility then the discharge date is the date they were transferred to the rehab facility.

To enter the date, click on the calendar and select the month, year, and date of discharge.

Selections:

- Enter date in the text box

Required:
Yes

Death/Cause (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if the patient died in association with this procedure while in the lab/OR. If yes, indicate cause of death.

Selections:

- Yes
  - Cardiovascular (includes: AMI, bleed, stroke, cardiogenic shock)
  - Hemorrhage
  - Multisystem Organ Failure (includes acute lung injury and systematic inflammatory response system)
  - Other (include neurologic, renal, liver, GI, cancer)
  - Unknown cause of death
- No

Supporting Definitions:

Select no if the patient was alive throughout the procedure.

Required:
Yes

Death/Cause (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient died in association with this hospitalization. If yes, indicate cause of death.

Selections:

- Yes
  - Cardiovascular (includes: AMI, bleed, stroke, cardiogenic shock)
  - Hemorrhage
  - Multi System Organ Failure (includes acute lung injury, and systemic inflammatory response system)
  - Other (include neurologic, renal, liver, GI, cancer)
  - Unknown cause of death
- No

Supporting Definitions:

Select no if the patient was alive throughout the hospitalization.

Required:
Yes

Diabetes Mellitus & Diabetes Therapy

Data Abstraction Instructions:

Indicate if the patient has a history of diabetes mellitus regardless of duration of disease or need for anti-diabetic agents. This includes any occurrence between birth and arrival at this facility. If the patient has diabetes mellitus, enter the most aggressive therapy at patient admission.

Selections:

- Yes
  - None
  - Diet
  - Oral
  - Insulin
  - Other
- No

Supporting Definitions:

Diabetes mellitus is diagnosed by a physician or can be defined as a fasting blood sugar greater than 7 mmol/L or 126 mg/dL or a hemoglobin A1C value greater than or equal to 6.5%. It does not include gestational diabetes.

None = No treatment for diabetes.

Diet = Diet management only.

Oral = Oral agent treatment (includes oral agent with/without diet management).

Insulin = Insulin treatment (includes any combination with insulin).

Other = Any adjunctive treatment that is not in this list.

Patients placed on a pre-procedure diabetic pathway of insulin drip after arrival but were not on insulin therapy (treated by diet or oral method) are not coded as insulin treatment. If patient has pancreatic transplant, enter Other since the insulin from the new pancreas is not exogenous insulin.

Required:
Yes

Discharge Creatinine

Data Abstraction Instructions:

Enter the creatinine drawn after the procedure and closest to the time of discharge. If only one creatinine is drawn post procedure and before discharge, enter that value for the discharge creatinine **and** the post procedure peak creatinine value.

For extended hospitalizations, greater than 30 days, use the last creatinine prior to day 30 after the procedure. If a creatinine is not drawn post procedure and before discharge, enter Not Drawn.

Enter a value between 0.1 mg/dL and 15 mg/dL. If the patient's discharge creatinine value is outside of the limits, enter 0.1 for creatinine value <0.1 mg/dL. Enter 15 for creatinine value >15 mg/dL.

Selections:

- Drawn
  - Enter value mg/dl
- Not Drawn

Required:

Yes
Suffix:
mg/dL
Minimum:
0.1
Maximum:
15
Soft Minimum:
0.3

Discharge Hemoglobin (Hgb)

Data Abstraction Instructions:

Enter the hemoglobin drawn after the procedure and closest to the time of discharge. If a hemoglobin was not drawn post procedure and before discharge, enter Not Drawn. If only one value is available post procedure and before discharge, enter that value for both post procedure nadir hemoglobin **and** discharge hemoglobin.

Enter a value between 3 g/dL and 20 g/dL. If the patient's discharge hemoglobin value is outside of the limits, enter 3 for hemoglobin value <3 g/dL. Enter 20 for hemoglobin value >20 g/dL.

Selections:

- Drawn
  - Enter value g/dl
- Not Drawn

Required:
Yes
Suffix:
g/dl
Minimum:
3
Maximum:
20

Discharge Status

Data Abstraction Instructions:

Enter the location to which the patient is discharged. If you enter death for discharge status, do not enter a 30-day or 6-month follow-up.

Selections:

- Home
- Rehabilitation
- Other acute care hospital
- Nursing home / Extended care
- Hospice / Comfort care
- Left against medical advice
- Death
- Assisted Living
- Homeless
- Other

Supporting Definitions:

Home = The patient was discharged to the placed they lived before they were admitted to the hospital. If the patient was admitted from a nursing home or prison and released back to the nursing home or prison, enter Home for Discharge Status.

Rehabilitation= The patient was discharged to an inpatient rehab floor or an external rehab facility.

Other acute care hospital = The patient is discharged to a facility where they need immediate but short-term care.

Nursing home / Extended care = The patient was discharged to a nursing home for long term care or because they needed nursing care beyond rehabilitation. If the patient was discharged to a nursing home for physical rehabilitation, enter Rehabilitation for Discharge Status.

Left against medical advice = The patient was discharged or left (eloped) the hospital against medical advice.

Death = The patient died any time during the hospital encounter.

Assisted Living = The patient was discharged to an assisted living facility, or the patient was discharged to home with home health care. Home care and home health care are not the same. Home care provides the patient with non-clinical help. Home health care provides professional medical assistance.

Homeless = The patient has no physical home or lives in a homeless shelter.

Other = The patient was discharged to a facility that is not on the list.

Required:
Yes

Discharged with opioid

Data Abstraction Instructions:

Indicate if the patient was discharged with any opioid medication (either a new prescription or continuation of a pre procedure medication).

Selections:

- Yes
- No

Supporting Definitions:

Hydrocodone = Norco, Vicodin, Lortab, Lorcet
Oxycodone = OxyContin, Percocet, Roxicodone
Codeine = Tylenol #2, #3, or #4
Tramadol = Ultram, Ultram ER
Other = Fentanyl, Morphine, Hydromorphone, Dilaudid, Methadone, etc.

Required:
Yes

Type of opioid

Data Abstraction Instructions:

Indicate the type of opioid prescribed. Select all that apply.

Selections:

- Hydrocodone (Norco, Vicodin, Lortab, Lorcet)
- Oxycodone (OxyContin, Percocet, Roxicodone)
- Codeine (Tylenol 2, 3, or 4)
- Tramadol (Ultram, Ultram ER)
- Other (Fentanyl, Morphine, Hydromorphone, Dilaudid, Methadone, etc.)

Required:
Yes

Opioid dose prescribed

Data Abstraction Instructions:

Indicate the dose of the prescribed opioid. If a dose range was written for the prescribed opioid (example: Oxycodone 5-10mg) enter the lower dose.

Selections:

Enter value

Required:
Yes

Opioid dose prescribed (unit)

Data Abstraction Instructions:

Indicate the units for the dose of opioid prescribed.

Selections:

- mg
- ml
- mcg/hr
- mg/ml
- mcg/ml
- other

Required:
Yes

Opioid quantity prescribed

Data Abstraction Instructions:

Enter the number of pills/tablets/doses of the opioid prescribed.

Selections:

- Yes
  - Enter value
- Not Documented

Required:
Yes

Opioid refills available

Data Abstraction Instructions:

Indicate if the opioid prescription at discharge has available refills.

Selections:

- Yes
- No
- Not Documented

Required:
Yes

Opioid number of refills

Data Abstraction Instructions:

Indicate the number of opioid refills available.

Selections:

Enter value

Required:
Yes

Dissection (Not Repaired) (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if there was a dissection that was clinically significant (causing a decrease in blood flow) or residual blood flow limiting dissection at the intervention/procedure site.

Selections:

- Yes
- No

Supporting Definitions:

The appearance of contrast material outside the expected luminal dimensions of the target vessel and extending longitudinally beyond the length of the lesion. If the dissection is successfully treated with, e.g., angioplasty or stent, then it should not be considered as a complication. It would be considered a complication if the patient has a dissection identified during a return trip to the lab.

Required:
Yes

Duplex Ultrasound

Data Abstraction Instructions:

Indicate if a duplex ultrasound was performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months and indicate if the study was normal or abnormal.

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Normal
  - Abnormal
- No

Required:
Yes

Dysrhythmia (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if there was a new rhythm disturbance post procedure, requiring treatment with medications or cardioversion.

Selections:

- Yes
- No

Required:
Yes

Edoxaban (Savaysa)

Data Abstraction Instructions:

Record if edoxaban (Savaysa) was Given or Not Given at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking edoxaban before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking edoxaban before admission.

Medications at Discharge?

- Enter Yes if edoxaban was documented as a new medication or continued at discharge.
- Enter No if edoxaban was not documented as a new medication or was discontinued at discharge.

Selections:

- Given
- Not Given

Required:
Yes

Edoxaban (Savaysa) dose (mg)

Data Abstraction Instructions:

Enter the total daily dosage documented for edoxaban (Savaysa) in milligrams (mg). For example, if edoxaban 60 mg daily is documented, enter 60 mg.
This field will accept decimals.

Selections:

Enter dose in text box (mg).

Required:
Yes
Minimum:
1
Maximum Length:
300

Ejection Fraction (EF)

Data Abstraction Instructions:

Indicate whether the patient had Ejection Fraction, the percentage of the blood emptied from the ventricle at the end of the contraction, assessed before or during the visit via invasive (i.e.. LV gram) or non-invasive testing (i.e.. ECHO). If yes, enter a percentage in the range of 01 – 99. If EF was estimated as a range then take the lowest value.
Use most recent EF value within last 12 months. If the patient has an EF documented post procedure (within the hospitalization), it may be entered, provided the patient has not experienced any form of cardiac event.

Selections:

- Documented
  - Enter value%
- Not Documented

Required:
Yes
Suffix:
%
Minimum:
1
Maximum:
99

Embolus (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if the patient is identified to have an embolus during the procedure. If yes, indicate if it was treated successfully.

Selections:

- Yes
  - Successful
  - Unsuccessful
- No

Supporting Definitions:

An embolus (compromised of atherosclerotic debris and / or blood clot) moves through the blood vessels until it reaches a vessel that is too small to let it pass. When this happens, the blood flow is stopped by the **embolus.**

Required:
Yes

Embolus (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient is identified to have an embolus post procedure. If yes, indicate if it was treated successfully.

Selections:

- Yes
  - Successful
  - Unsuccessful
- No

Supporting Definitions:

An embolus (compromised of atherosclerotic debris and / or blood clot) moves through the blood vessels until it reaches a vessel that is too small to let it pass. When this happens, the blood flow is stopped by the embolus. This occurs after exiting the procedure area.

Required:
Yes

End of procedure ACT

Data Abstraction Instructions:

Record the activated clotting time (ACT) at the conclusion of the procedure while the patient is still in the procedure area.

Selections:

- Yes
  - Enter value in seconds
- Not documented

Required:
Yes
Suffix:
seconds
Minimum:
50
Maximum:
600

Ethnicity

Data Abstraction Instructions:

Select if the patient is of Hispanic or Latino ethnicity

Selections:

- Hispanic
- Non-Hispanic
- Not documented

Supporting Definitions:

Hispanic = A person of Cuban, Mexican, Puerto Rican, South or Central American or other Spanish culture or origin, regardless of race. The term "Spanish origin" can be used in addition to "Hispanic or Latino".

Non-Hispanic = A person of a non-Spanish culture.

Not documented = There is no documentation of the patient's ethnicity.

Required:
Yes

Ever Smoked

Data Abstraction Instructions:

Indicate if the patient has ever smoked.

Selections:

- Yes
- No

Supporting Definitions:

Yes = The patient has smoked at any point in their life.

No = The patient has never smoked at any point in their life. This may be documented as the patient is a Never Smoker.

Required:
Yes

Exercise counseling

Data Abstraction Instructions:

Indicate if the patient received exercise counseling/education. Verbal, written, and/or formal instruction qualifies for exercise counseling. This should include reference to a walking program or exercise plan and does not include activity restrictions post procedure.

This field does not display when Death is entered for Discharge Status.

Selections:

- Yes
- No

Required:
Yes

Facilitation of Procedure (Indications)

Data Abstraction Instructions:

Indicate if the PVI procedure performed was to facilitate a different endovascular procedure (EVAR, TAVR, etc.). For example, the PVI procedure was necessary to pass a device.

Selections:

- Yes
- No

Required:
Yes

Failed Endovascular Procedure (Indications)

Data Abstraction Instructions:

Indicate if the procedure was performed for a failed endovascular intervention.

A failed endovascular procedure is one performed on the ipsilateral limb (same side as the current procedure) within the same vascular bed within the last 30 days.

Example: Two weeks prior, patient had a left SFA stent. Now presents for a Left Common Femoral to Popliteal byass.

Required:
Yes

Family History of Premature Coronary Artery Disease

Data Abstraction Instructions:

Indicate if the patient has or had any direct blood relatives (parents, siblings, children) who have had any of the following diagnosed at age less than 55 years for male relatives or less than 65 years for female relatives:

- Angina,
- Acute Myocardial Infarction
- Sudden cardiac death without apparent cause
- Previous CABG surgery
- Previous Percutaneous Coronary Intervention
- Congestive Heart Failure

If the patient is adopted or the family history is unavailable enter No.

Selections:

- Yes
- No

Required:
Yes

Fellow ID/Second Operator

Data Abstraction Instructions:

Choose the fellow / second operator from the drop down list or create a physician identification if not already listed.

To enter a new fellow / second operator name navigate the drop down list. Click on (-1) Not Found / Other. Enter the physician's 10-digit NPI number in the Physician NPI field. Enter the physician's information in the Physician Name and Physician Specialty fields.

Go to the NIPPES NPI Registry website to find the operator's NPI number: https://npiregistry.cms.hhs.gov/search

Note: When entering the fellow / second operator name enter [Last Name] space [First Name]. Do not use commas to separate the last name and first name. Use only a space to separate the last name and first name.

Selections:

- Enter Fellow ID/Second Operator

Supporting Definitions:

This is an optional field if your site chooses to track its fellows or second operators.

Required:
No

Fibromuscular Dysplasia (Indications)

Data Abstraction Instructions:

Indicate if the procedure is being performed due to FMD (Fibromuscular Dysplasia).

Selections:

- Yes
- No

Required:
Yes

Fondaparinux (Arixtra)

Data Abstraction Instructions:

Record if fondaparinux (Arixtra) was Given or Not Given at admission and/or discharge.
Home Medications Prior to Admission?

- Enter Yes if the patient was taking fondaparinux before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking fondaparinux before admission.

Medications at Discharge?

- Enter Yes if fondaparinux was documented as a new medication or continued at discharge.
- Enter No if fondaparinux was not documented as a new medication or was discontinued at discharge.

Selections:

- Given
- Not Given

Required:
Yes

Foot Infection (WIfI) (Indications)

Data Abstraction Instructions:

Indicate if the patient has a foot infection and to what degree.

Grade	Clinical Description	IDSA	IWGDF Class
0	wound without purulence or manifestations of infection	uninfected	1
1	>2 manifestations of infection (erythema or purulence, pain tenderness, warmth or induration) any cellulitis or erythema extends < 2cm around ulcer; infection is limited to skin or subcutaneous tissues; no local complications or systemic illness	mild	2
2	Infection in patient who is systemically and metabolically stable but has ≥1 of the following: cellulitis extending 2cm, lymphangitis; spread beneath fascia; deep tissue abscess; gangrene; muscle, tendon, joint or bone involvement	moderate	3
3	Infection in patient with systemic or metabolic toxicity	severe	4

Selections:

- Yes
  - Grade 1
  - Grade 2
  - Grade 3
  - Not Documented
- No

Supporting Definitions:

Grade 1: >2 manifestations of infection (erythema, purulence, pain, warmth, etc.)
Grade 2: Infection in patient who is systemically stable but has one or more of the following; cellulitis extending 2cm, spread beneath fascia, deep tissue abscess, gangrene, muscle/tendon/bone involvement
Grade 3: Infection in patient with systemic or metabolic toxicity

Required:
Yes

Former Smoker

Data Abstraction Instructions:

Select if patient has stopped smoking cigars, cigarettes, chew (tobacco), pipe (tobacco), or marijuana, or stopped using a smokeless device to inhale nicotine (vaping, e-cigarettes) for one month or more before this admission. Select all that apply.

Selections:

- Yes
  - Cigar
  - Cigarettes
  - Chew (tobacco)
  - Pipe (tobacco)
  - Marijuana
  - Smokeless (vaping, e-cigarettes)
- No

Required:
Yes

Gender

Data Abstraction Instructions:

Enter the patient's gender at birth.

Selections:

- Female
- Male

Required:
Yes

HDL Cholesterol

Data Abstraction Instructions:

Enter the HDL Cholesterol value collected within 6 months prior to procedure, provided the patient is on a stable statin dose, or anytime during the hospitalization.

If multiple values are available, select the values closest to the procedure start time. Enter a value between 20 mg/dL and 60 mg/dL. If the patient's HDL value is outside of the limits enter 20 for HDL <20 mg/dL. Enter 60 for HDL >60 mg/dL.

Selections:

- Drawn
  - Enter value mg/dl
- Not Drawn

Required:
Yes
Suffix:
mg/dL
Minimum:
20
Maximum:
60

Hb A1C

Data Abstraction Instructions:

Enter the Hb A1C closest to the procedure start time. This value can be taken within four months prior to procedure or during the hospitalization.

Selections:

- Yes
  - Enter value
- Not drawn

Required:
Yes
Minimum:
0
Maximum:
20

Height

Data Abstraction Instructions:

Enter actual or estimated height, in centimeters, that is closest to the procedure start time. If the patient has had bilateral amputations, enter the patient's height prior to amputation.

Height in cm = Height in inches X 2.54

Selections:

- Enter value in cm

Required:
Yes
Suffix:
cm
Minimum:
100
Maximum:
250

History of Coronary Artery Disease (CAD)

Data Abstraction Instructions:

Indicate if the patient has a history of Coronary Artery Disease. These include a history of:

- Angina: stable: (history of angina controlled by medications)
- Angina: unstable: (history of admissions for unstable angina symptoms)
- Percutaneous coronary intervention (PCI) (balloon or stent placement)
- History of MI
- History of CABG

Selections:

- Yes
- No

Required:
Yes

Hybrid Procedure

Data Abstraction Instructions:

Indicate if there was a planned combination of angioplasty and surgery. The plan can be developed prior to the procedure or after the initial angiogram. The angiogram or surgical procedure should NOT be a result of a complication of a prior PVI.

Selections:

- Yes
- No

Supporting Definitions:

Hybrid can include a PVI and open surgical procedure within the same setting or can include a PVI procedure and an open surgical procedure within the same hospitalization. An open surgical procedure is one in which significant blood loss is possible.

NOTE: All amputations within the hospitalization are considered hybrid.

Required:
No

Hyperlipidemia

Data Abstraction Instructions:

Indicate if the patient has a history of hyperlipidemia diagnosed and/or treated by a physician. If the patient is diagnosed within 24 hours of the admission select "yes".

Selections:

- Yes
- No

Supporting Definitions:

For patients with known coronary artery disease, treatment is initiated if LDL is greater than 100mg/dl, this would qualify as hypercholesterolemia.

Criteria also includes documentation of the following:

- Total cholesterol greater than 200mg/dL (5.18mmol/L) or
- Low density lipoprotein (LDL) greater than or equal to 100 mg/dL (2.58mmol/L) or
- High Density Lipoprotein (HDL) less than 40 mg/dL (1.04mmol/L)
- Currently on lipid lowering pharmacologic therapy

Required:
Yes

Hypertension

Data Abstraction Instructions:

Indicate if the patient has a history of hypertension diagnosed and/or treated by a physician. If the patient is diagnosed within 24 hours of the admission select "yes".

Selections:

- Yes
- No

Supporting Definitions:

Patient qualifies with:

- History of hypertension diagnosed and treated with medication, diet and/or exercise.
- Documentation of blood pressure greater than 140 mm Hg systolic or 90 mm Hg diastolic for patients without documented diabetes or chronic kidney disease.
- Documentation of blood pressure greater than 130 mm Hg systolic or 80 mm Hg diastolic on at least two occasions for patients with diabetes, chronic kidney disease, CHF, or PAD.
- Currently on antihypertensive pharmacologic therapy for the treatment of hypertension.

Required:
Yes

IV Heparin/Unfractionated Heparin

Data Abstraction Instructions:

Record if IV heparin/unfractionated heparin was Given before, during and/or after the procedure or Not Given. Record Heparin that was administered IV, IC or IA (bolus during the procedure) to the patient. Do not include low dose (unfractionated) heparin given SQ for DVT prophylaxis
Medications During Procedure

- Enter Given if IV heparin/unfractionated heparin was given before, during or after the procedure
  - Pre = IV heparin/unfractionated heparin that was given from admission or previous procedure until the current procedure.
  - During = IV heparin/unfractionated heparin that was given from the time the patient enters the room until the time the patient leaves the room
  - Post = IV heparin/unfractionated heparin that was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if the medication was not given.

Selections:

- Given
  - If given, choose all that apply.
- Not Given

Required:
Yes

IV Nitroglycerin

Data Abstraction Instructions:

Record if Nitrates or IV Nitroglycerin is Given or Not Given during the procedure (Nitrates or IV Nitroglycerin that were given from the time the patient enters the room until the time the patient leaves the room).

PRN nitroglycerin does not qualify.

Selections:

- Given
  - If given, enter During.
- Not Given

Supporting Definitions:

Generic Name	Brand Name
Isosorbide Dinitrate	Dilatrate SR, Isordil
Isosorbide Dinitrate + Hydralazine *	Bidil
Isosorbide Mononitrate	Imdur, Ismo, Monoket
Nitroglycerin	Nitro-bid, Nitro-Dur
Nitroglycerin Ointment	Nitrol, Nitro-BID
Nitroglycerin: IV infusion	Tridil
Nitroglycerin: Nitrolingual Spray	NitroMist, Nitrolingual
Nitroglycerin: Sublingual	Nitrostat, NitroQuick
Nitroglycerin: Transdermal	Minitran, NitroDur
Nitroglycerin: Transmucosal	Nitroguard

*** Denotes a combination medication.**

Required:
Yes

Impaired Ability to Work (Indications)

Data Abstraction Instructions:

Indicate if the procedure is performed due to an inability to work.

Selections:

- Yes
- No

Required:
Yes

Increased Stent Graft Velocity (Indications)

Data Abstraction Instructions:

Indicate if the procedure performed is due to increased velocities in a pre-existing stent graft and whether the patient is experiencing symptoms. This may be demonstrated via abnormal duplex scans, abnormal non-invasive imaging, or increased velocities identified during surveillance visits.

Selections:

- Yes
  - Symptomatic
  - Asymptomatic
- No

Required:
Yes

Increased Stent Velocity (Indications)

Data Abstraction Instructions:

Indicate if the procedure performed is due to increased velocities in a pre-existing stent and whether the patient is experiencing symptoms. This may be demonstrated via abnormal duplex scans, abnormal non-invasive imaging, or increased velocities identified during surveillance visits.

Selections:

- Yes
  - Symptomatic Asymptomatic
  -
- No

Required:
Yes

Indication Type

Data Abstraction Instructions:

Enter the indication type for the current procedure.

Selections:

- Endovascular Repair of Abdominal Aortic Stenosis
- EVAR/AAA Revascularization
- Lower Extremity Revascularization
- Upper Extremity Revascularization
- Mesenteric Revascularization
- Renal Revascularization

Required:
Yes

Infection (Indications)

Data Abstraction Instructions:

Indicate if the procedure was performed due to an infection from a prior procedure.

The indication of infection captures vascular surgeries performed due to an infected graft, wound, or other sources of infection from a prior procedure, not those indicated for ulcers or wound healing.

Selections:

- Yes
- No

Required:
Yes

Infection/Sepsis (Outcomes Post Procedure)

Data Abstraction Instructions:

Positive cultures requiring treatment with antibiotics. Do not include patients that are placed on antibiotics during a hospitalization with no positive cultures.

Pneumonia may be indicated when evidenced on CXR (lobar infiltrate on CXR and/or pure growth of recognized pathogen or 4+ growth of recognized pathogen in presence of mixed growth) and treatment with antibiotics, even without positive culture.

If yes, select all that apply.

Selections:

- Yes
  - Access site
  - Central Line/IV
  - Blood
  - Graft infection
  - Pulmonary
  - UTI
  - Wound site
  - Unknown
- No

Required:
Yes

Ischemia (WIfI) (Indications)

Data Abstraction Instructions:

Indicate the degree of ischemia present.

Grade	*ABI*	*Ankle systolic pressure*	*TP, $TcPO_2$*
0	≥0.80	>100 mm Hg	≥60 mm Hg
1	0.6-0.79	70-100 mm Hg	40-59 mm Hg
2	0.4-0.59	50-70 mm Hg	30-39 mm Hg
3	≤0.39	<50 mm Hg	<30 mm Hg

ABI, Ankle-brachial index; *PVR,* pulse volume recording; *SPP,* skin perfusion pressure; *TP,* toe pressure; *$TcPO_2$,* transcutaneous oximetry.
Patients with diabetes should have TP measurements. If arterial calcification precludes reliable ABI or TP measurements, ischemia should be documented by $TcPO_2$, SPP, or PVR. If TP and ABI measurements result in different grades, TP will be the primary determinant of ischemia grade.
Flat or minimally pulsatile forefoot PVR = grade 3.

Selections:

- Yes
  - Grade 1
  - Grade 2
  - Grade 3
  - Not Documented
- No

Supporting Definitions:

Grade 1 = ABI 0.60-0.79, Toe pressure 40-59 mm Hg
Grade 2 = ABI 0.40-0.59, Toe pressure 30-39 mm Hg
Grade 3 = ABI < 0.39, Toe pressure <30 mm Hg

Required:
Yes

LDL Cholesterol

Data Abstraction Instructions:

Enter the LDL Cholesterol value collected within 6 months prior to procedure, provided the patient is on a stable statin dose, or anytime during the hospitalization. If multiple values are available, select the values closest to the procedure start time. Enter a value between 50 mg/dL and 200 mg/dL. If the patient's LDL value is outside of the limits, enter 50 for LDL <50 mg/dL. Enter 200 for LDL >200 mg/dL.

Selections:

- Drawn
  - Enter value mg/dl
- Not Drawn
- Not Calculated

Required:
Yes
Suffix:
md/dL
Minimum:
50
Maximum:
200

Lactated Ringer's Infusion

Data Abstraction Instructions:

Record if a Lactated Ringer's (LR) infusion was Given or Not Given during a procedure. If an LR infusion was administered, enter the timeframe (pre, during, post) and length of the infusion.

LR rate for inclusion is >= 50cc/hr.

Medications During Procedure

- Enter Given if LR was given before, during or after the procedure
  - Pre = LR was given from admission or previous procedure until the current procedure.
  - During = LR was given from the time the patient enters the room until the time the patient leaves the room
  - Post = LR was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if LR was not given.

Selections:

- Given
  - Infusion < 1 hour
    - Pre
    - During
    - Post
  - Infusion 1 - 3 hours
    - Pre
    - During
    - Post
  - Infusion ≥3 - 6 hours
    - Pre
    - During
    - Post
  - Infusion > 6 hours
    - Pre
    - During
    - Post
- Not Given

Required:
Yes

MI (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital for a myocardial infarction post procedure. This information should be gathered from a patient's medical record, not from interviewing the patient.

Enter MI if the patient is diagnosed with Type 2 Myocardial Infarction, Type 1 NSTEMI, or STEMI. If no diagnosis is documented, enter MI if the patient has an elevated cardiac troponin value(s) greater than the 99th percentile URL (upper reference limit) with a rise and/or fall in troponin and at least one of the following:

- Chest pain
- Nausea
- Shortness of breath
- New ischemic EKG changes (S-T elevations, S-T depression, pathological Q waves)
- An Echo/MRI/Stress test that is positive for ischemia
- Thrombus seen on angiogram or autopsy

Reference: Thygesen, K., Alpert, J. S., Jaffe, A. S., Chaitman, B. R., Bax, J. J., Morrow, D. A., White, H. D., & The Executive Group on behalf of the Joint European Society of Cardiology (ESC)/American College of Cardiology (ACC)/American Heart Association (AHA)/World Heart Federation (WHF) Task Force for the Universal Definition of Myocardial Infarction. (2018, November 13). *Fourth Universal Definition of Myocardial Infarction (2018)*. Fourth universal definition of myocardial infarction (2018). Retrieved August 22, 2022, from https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000617

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Magnetic Resonance Imaging/Magnetic Resonance Angiography (MRI/MRA)

Data Abstraction Instructions:

Indicate if an MRI/MRA was performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months and indicate if the study was normal or abnormal.

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Normal
  - Abnormal
- No

Required:
Yes

Mesenteric Ischemia (Indications)

Data Abstraction Instructions:

Indicate if the patient has symptoms of bowel ischemia (abdominal pain and discomfort with eating, nausea, weight loss) as an indication for the procedure.

Selections:

- Yes
  - Acute
  - Chronic
- No

Supporting Definitions:

Acute = sudden onset of severe abdominal pain, vomiting, or diarrhea secondary to mesenteric ischemia.

Chronic = more than 1 month of chronic abdominal pain (discomfort, bloating) after eating.

Required:
Yes

Myocardial Injury (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient suffered any type of myocardial injury post procedure, including an Acute Myocardial Injury, Type 2 myocardial infarction, Type 1 NSTEMI or STEMI. If Yes is entered, indicate the date of the first elevated troponin value and the peak troponin value. **The peak troponin value should be obtained within 30 days of the procedure.**

Selections:

- Yes
  - Enter date of first occurrence post procedure _____
  - Enter type of injury:
    - Acute Myocardial Injury
    - Type 2 Myocardial Infarction
    - Type 1 NSTEMI
    - STEMI
    - Not documented
- No

Supporting Definitions:

Myocardial ischemia = The patient has one or more of the following:

- Chest pain
- Nausea
- Shortness of breath
- new ischemic EKG changes (S-T elevations, S-T depression, pathological Q waves)
- An Echo/MRI/Stress test that is positive for ischemia
- Thrombus seen on angiogram or autopsy

Acute Myocardial Injury = Elevated cardiac troponin value(s) greater than the 99th percentile URL (upper reference limit) with a rise and/or fall in troponin **without** myocardial ischemia. Some causes of an Acute Myocardial Injury are hypertension, acute heart failure, or myocarditis.

Type 2 Myocardial Infarction = Elevated cardiac troponin value(s) greater than the 99th percentile URL (upper reference limit) with a rise and/or fall in troponin **with** myocardial ischemia. With Type 2 Myocardial Infarction, a supply and demand imbalance is causing a stressor to the heart. Some causes of Type 2 Myocardial Infarction are severe hypertension, sustained tachyarrhythmias, hemorrhagic shock/anemia, sepsis, pulmonary embolism, hypoxia, respiratory failure, or heart failure.

Type 1 NSTEMI (Non-ST Elevation Myocardial Infarction) = Elevated cardiac troponin value(s) greater than the 99th percentile URL with a rise and/or fall in troponin **with** myocardial ischemia related to atherosclerotic plaque disruption, which causes a complete or partial blockage in the coronary artery. The EKG during an NSTEMI will not show ST elevations.

STEMI (ST Elevation Myocardial Infarction) = Elevated cardiac troponin value(s) greater than the 99th percentile URL with a rise and/or fall in troponin **with** myocardial ischemia related to atherosclerotic plaque disruption, which causes a complete or partial blockage in the coronary artery. The patient having a STEMI will develop new ST-segment elevations in 2 contiguous leads or new bundle branch blocks with ischemic repolarization patterns.

Not documented = The type of injury is not documented, or there is not sufficient information recorded to determine what type of injury the patient suffered.

No =

- A single abnormal troponin value was found without other criteria for myocardial injury.
- Troponins are elevated but stable (no rise and/or fall).
- The patient did not suffer a myocardial injury post procedure.

Reference: Thygesen, K., Alpert, J. S., Jaffe, A. S., Chaitman, B. R., Bax, J. J., Morrow, D. A., White, H. D., & The Executive Group on behalf of the Joint European Society of Cardiology (ESC)/American College of Cardiology (ACC)/American Heart Association (AHA)/World Heart Federation (WHF) Task Force for the Universal Definition of Myocardial Infarction. (2018, November 13). *Fourth Universal Definition of Myocardial Infarction (2018)*. Fourth universal definition of myocardial infarction (2018). Retrieved August 22, 2022, from https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000617

Required:
Yes

Peak post-operative troponin value

Data Abstraction Instructions:

Indicate the peak value and type of troponin drawn within 30 days post procedure.

Selections:

Peak post-operative troponin

- Yes
  - troponin I
    - Yes
      - Enter lab value _____
      - Pick unit of lab value from list

- ng/dL
- ng/mL
- ng/L
- pg/mL

- No

- troponin T
  - Yes
    - Enter lab value _____
    - Pick unit of lab value from list
      - ng/dL
      - ng/mL
      - ng/L
      - pg/mL
  - No
- troponin I HS
  - Yes
    - Enter lab value _____
    - Pick unit of lab value from list
      - ng/dL
      - ng/mL
      - ng/L
      - pg/mL
  - No
- troponin T HS
  - Yes
    - Enter lab value _____
    - Pick unit of lab value from list
      - ng/dL
      - ng/mL
      - ng/L
      - pg/mL
  - No

- Not Drawn

Required:
Yes

New Requirement for Dialysis (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient had acute or worsening renal failure, post procedure, which led to dialysis during the hospitalization.

Selections:

- Yes
- No

Required:
Yes

New Vascular Procedure (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was admitted to the hospital from time of discharge or last follow up to the time of current follow up for a new vascular procedure on a different site than the corresponding discharge record. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
    - Surgical
    - Percutaneous
        - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Opioid Education

Data Abstraction Instructions:

Indicate if the patient received pain management instructions and/or education on the correct use of opioid medication for this procedure. This education may have been provided pre- or post-procedure and may include alternative pain management modalities, proper use of opioid medications, and expectations surrounding pain level.

This field will not display when Death is entered for Discharge Status.

Selections:

- Yes
- No

Supporting Definitions:

An actual note referencing the education needs to be in the patient record. The note can be written by a physician, advanced practice provider or nurse. Pre-populated discharge template instructions do not qualify. If the provider used the "Opioid Start Talking Form," this form must be scanned into the EMR with the patient's signature, and the provider does not need to write a note.

Please click the following link for more information about Michigan Opioid Laws regarding Opioid Education and Opioid Start Talking form: https://www.michigan.gov/opioids/0,9238,7-377-88141_88294---,00.html

Required:
Yes

Other Cholesterol Lowering Agent (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking any other cholesterol lowering agent at the time of follow up, other than statins.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
- Not documented

Supporting Definitions:

Examples of Other Cholesterol Lowering Medications are:

Generic Name	Brand Name
Bezafibrate	Bezalip
Ezetimibe	Zetia, Ezetrol
Fenofibrate	Tricor, Antara, Lipofen, Triglide, Lipidil Micro, Lipidil Supra, Lipidil EZ
Fenofribric Acid	Fibricor, TriLipix
Gemfibrozil	Lopid

Required:
Yes

Other Cholesterol Lowering Agents

Data Abstraction Instructions:

Record if a cholesterol lowering agent other than a statin or PSCK9 inhibitor was Given or Not Given at admission and/or discharge. Record only cholesterol lowering agents that are prescription strength. Do not record over the counter (OTC) medications.

Home Medications Prior to Admission?

- Enter Yes if the patient was taking a cholesterol lowering agent before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter No if the patient was not taking a cholesterol lowering agent before admission.

Medications at Discharge?

- Enter Yes if a cholesterol lowering agent was documented as a new medication or continued at discharge.
- Enter No if a cholesterol lowering agent was not documented as a new medication or was discontinued at discharge.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

- Given
- Not Given

Supporting Definitions:

Generic Name	Brand Name
Bezafibrate	Bezalip
Ezetimibe	Zetia, Ezetrol
Fenofibrate	Tricor, Antara, Lipofen, Triglide, Lipidil Micro, Lipidil Supra, Lipidil EZ
Fenofribric Acid	Fibricor, TriLipix
Gemfibrozil	Lopid

Required:
Yes

Other Hydration

Data Abstraction Instructions:

Record if fluids for hydration (other than 0.9 NS or LR) were Given or Not given during a procedure. If the infusion was administered, enter the timeframe (pre, during, post) and length of the infusion. Rate for inclusion must be >= 50 cc/hr.

PlasmaLyte and 0.45% NS are entered under Other Hydration. Include the volume of PlasmaLyte and 0.45% NS in the Total Crystalloids field under Procedure Details.

Medications During Procedure

- Enter Given if the fluid was given before, during or after the procedure
  - Pre = from admission or previous procedure until the current procedure.
  - During = fluid that was given from the time the patient enters the room until the time the patient leaves the room
  - Post = fluid that was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if the fluid was not given.

Selections:

- Given
  - Infusion < 1 hour
    - Pre
    - During
    - Post
  - Infusion 1 - 3 hours
    - Pre
    - During
    - Post
  - Infusion ≥3 - 6 hours
    - Pre
    - During
    - Post
  - Infusion > 6 hours
    - Pre
    - During
    - Post
- Not Given

Required:
Yes

PSCK9 Inhibitor

Data Abstraction Instructions:

Record if a PSCK9 Inhibitor was Given or Not Given at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Given if the patient was taking a PSCK9 Inhibitor before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking a PSCK9 Inhibitor before admission.

Medications at Discharge?

- Enter Given if a PSCK9 Inhibitor was documented as a new medication or continued at discharge.
- Enter Not Given if a PSCK9 Inhibitor was not documented as a new medication or was discontinued at discharge.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

- Given
- Not Given

Supporting Definitions:

Generic Name	Brand Name
Evolocumab	Repatha
Alirocumab	Praluent

Required:
Yes

PVI Follow Up Interval

Data Abstraction Instructions:

Choose the time frame for the Follow Up.

Selections:

- 30 Day
- 6 Month

Required:
Yes

Peak Intra Procedure Activated Clotting Time (ACT)

Data Abstraction Instructions:

Indicate the peak intraoperative ACT in seconds.

Selections:

- Yes
  - Enter value in seconds
- Not documented

Supporting Definitions:

Activated clotting time (ACT) should be measured after the heparin IV bolus is given. In long cases, as clinically indicated, additional heparin boluses may be given, and subsequent ACT measurements may be done. The ACT recorded here must be done during, NOT at the end of the procedure. There must be some part of the intervention procedure performed after the ACT value for it to qualify for peak ACT. Record highest measurement of ACT (peak) in seconds. Enter "Not documented" if peak ACT or clotting measurement was not drawn/document in the patient record.

Required:
Yes
Suffix:
seconds
Maximum:
600

Peripheral Aneurysm Repair (Indications)

Data Abstraction Instructions:

Indicate if the procedure is being performed for repair of a peripheral aneurysm and whether the patient is experiencing symptoms. Peripheral aneurysms are aneurysms that develop in the upper or lower extremities.

Selections:

- Yes
  - Symptomatic
  - Asymptomatic
- No

Required:
Yes

Physician

Data Abstraction Instructions:

Choose the attending physician from the drop down list or create a physician identification if not already listed.

To enter a new physician name navigate to the drop down list. Click on (-1) Not Found / Other. Enter the physician's 10-digit NPI number in the Physician NPI field. Enter the physician's information in the Physician Name and Physician Specialty fields.

Go to the NIPPES NPI Registry website to find the operator's NPI number: https://npiregistry.cms.hhs.gov/search

Note: When entering the physician name enter [Last Name] space [First Name]. Do not use commas to separate the last name and first name. Use only a space to separate the last name and first name.

Selections:

- Choose physician

Supporting Definitions:

If physician is not available in the drop down, enter the physician's information to create a physician ID.

Required:
Yes

Post Procedure Nadir Hemoglobin

Data Abstraction Instructions:

Enter the lowest hemoglobin value documented from the end of the procedure to the next procedure or discharge, whichever occurs first. The next procedure is an open procedure.

Please refer to the PVI Labs Timetable Multiple Procedures document on the BMC2 website for instructions on how to enter post procedure nadir hemoglobin when the next procedure is an open procedure.

Selections:

- Yes
  - Enter value g/dl
- Not drawn

Required:
Yes
Suffix:
g/dl
Minimum:
2
Maximum:
20

Post Procedure Peak Creatinine

Data Abstraction Instructions:

Enter the highest creatinine value documented from the end of the procedure to the next procedure or discharge, whichever occurs first. The next procedure for is a procedure that uses contrast.

Please refer to the PVI Labs Timetable Multiple Procedures document on the BMC2 website for instructions on how to enter post procedure peak creatinine when the next procedure uses contrast.

Selections:

- Yes
  - Enter value mg/dl
- Not drawn

Required:
Yes
Suffix:
mg/dl
Minimum:
0.1
Maximum:
15

Post-discharge Creatinine

Data Abstraction Instructions:

Enter the highest Creatinine drawn within 3-5 days after discharge. If no labs are available in that timeframe, enter not drawn.

Enter a value between 0.1 mg/dL and 15 mg/dL. If the patient's post discharge creatinine value is outside of the limits, enter 0.1 for creatinine value <0.1 mg/dL. Enter 15 for creatinine value >15 mg/dL.

Selections:

- Drawn
  - Enter value mg/dl
- Not Drawn

Required:
Yes
Minimum:
0.1
Maximum:
15
Soft Minimum:
0.3

Prasugrel (Effient)

Data Abstraction Instructions:

Record if prasugrel (Effient) was Given, Not Given, and/or Contraindicated at admission and/or discharge. Also record if prasugrel (Effient) was given before procedure and/or during the procedure.

Home Medications Prior to Admission?

- Enter Given if the patient was taking prasugrel before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking prasugrel before admission.

Medications at Discharge?

- Enter Given if prasugrel was documented as a new medication or continued at discharge.
- Enter Not Given if prasugrel was not documented as a new medication or was discontinued at discharge.

Medications During Procedure

- Enter Given if prasugrel was given before or during the procedure
  - Pre = prasugrel was given from admission or previous procedure until the current procedure.
  - During = prasugrel was given from the time the patient enters the room until the time the patient leaves the room
  - Post = prasugrel was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if prasugrel was not given.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to prasugrel.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to prasugrel.

Selections:

- Given
  - If given, select all that apply. (on procedure form)
- Not Given
- Contraindicated
  - Yes
  - No

Required:
Yes

Pre Admission Living Location

Data Abstraction Instructions:

Indicate the last living status prior to any current, acute hospitalization or rehabilitation stay.

Selections:

- Home
- Rehabilitation
- Nursing home/Extended Care
- Assisted Living
- Other

Required:
Yes

Pre Procedure Creatinine

Data Abstraction Instructions:

Enter the creatinine value documented within the 30 days before the current procedure. If more than one creatinine value is documented, enter the value that is closest to the procedure start time. If there is no value, enter Not drawn.

If a patient has multiple procedures within a hospitalization, the pre-procedure labs should be abstracted after the previous procedure. If no labs are drawn from the end of the previous procedure to the start of the current procedure, enter "Not drawn".

The range for Pre Procedure Creatinine is 0.1 - 15 mg/dL. Enter 0.1 for a Pre Procedure Creatinine this is <0.1. Enter 15 for a Pre Procedure Creatinine that is >15.

Selections:

- Yes
  - Enter value mg/dl
- Not drawn

Required:
Yes
Suffix:
mg/dl
Minimum:
0.1
Maximum:
15
Soft Minimum:
0.3

Pre Procedure Hemoglobin (Hgb)

Data Abstraction Instructions:

Enter the hemoglobin value documented within the 30 days before the current procedure. If more than one hemoglobin value is documented, enter the value that is closest to the procedure start time. If there is no value, mark "Not drawn."

If a patient has multiple procedures within a hospitalization, the pre-procedure labs should be abstracted after the previous procedure. If no labs are drawn from the end of the previous procedure to the start of the current procedure, enter "Not drawn".

The Pre Procedure Hemoglobin range is 2 - 20 g/dL. Enter 2 for a hemoglobin value <2. Enter 20 for a hemoglobin value >20.

Selections:

- Yes
  - Enter value g/dl
- Not drawn

Required:
Yes
Suffix:
g/dl
Minimum:
2
Maximum:
20

Pre-Procedure Exercise Therapy

Data Abstraction Instructions:

Indicate if there is documentation that the patient was on or failed some type of pre-procedure exercise program prior to the hospitalization. If so, indicate whether it was informal or structured.

Selections:

- Yes
  - Structured/Supervised
  - Home Based/Informal
- No

Required:
Yes

Pre-operative opioid use

Data Abstraction Instructions:

Indicate if the patient was taking a prescribed opioid in the 30 days prior to admission. This includes any opioids taken in the last 30 days.

If Yes is entered, indicate the type of opioid as well as the dose/unit.

Selections:

- Yes
- No

Supporting Definitions:

Hydrocodone = Norco, Vicodin, Lortab, Lorcet

Oxycodone = OxyContin, Percocet, Roxicodone

Codeine = Tylenol #2, #3, or #4

Tramadol = Ultram, Ultram ER

Other = Fentanyl, Morphine, Hydromorphone, Dilaudid, Methadone, etc.

Required:
Yes

Type of opioid

Data Abstraction Instructions:

Enter the type of opioid that was prescribed in the 30 days prior to admission. Select all that apply.

Selections:

- Hydrocodone (Norco, Vicodin, Lortab, Lorcet)
- Oxycodone (OxyContin, Percocet, Roxicodone)
- Codeine (Tylenol 2, 3, or 4)
- Tramadol (Ultram, Ultram ER)
- Other (Fentanyl, Morphine, Hydromorphone, Dilaudid, Methadone, etc.)

Required:
Yes

Pre-operative opioid dose prescribed

Data Abstraction Instructions:

Enter the dose of the opioid that was prescribed in the 30 days before admission. If no dose is available, choose Not documented. If the dose is in a range, enter the lower dose. Example: Oxycodone 5-10mg.

Selections:

- Yes
    - Enter dose
- Not Documented

Required:
Yes

Pre-operative opioid dose prescribed (unit)

Data Abstraction Instructions:

Enter the units of the opioid dose that was prescribed in the 30 days prior to admission.

Selections:

- mg
- ml
- mcg/hr
- mg/ml
- mcg/ml
- other

Required:
Yes

Pre-procedure Smoking Cessation

Data Abstraction Instructions:

Indicate if the patient received physician-delivered advice, a prescription for pharmacotherapy, and/or a referral for smoking cessation services before admission to the hospital. These interventions would be implemented to prepare the patient for the current procedure. Select all that apply.

The pre-procedure smoking cessation field will display when Yes is entered for Current Smoker.

Selections:

- Yes
    - Physician delivered advice
        - Patient refused
            - Yes
            - No
    - Pharmacotherapy
        - Patient refused
            - Yes
            - No
    - Referral to smoking counseling services
        - Patient refused
            - Yes
            - No
        - Local counseling service
        - Michigan Quitline
        - Other counseling service
- No

Supporting Definitions:

Yes = One of the three smoking cessation interventions was implemented before admission to the hospital.

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

If there is documentation that the provider recommended smoking cessation and the patient refused, enter Physician delivered advice AND Patient refused. There must be adequate documentation to support this claim.

Pharmacotherapy = The provider ordered pharmacotherapy before admission to the hospital. Pharmacotherapy may include a nicotine patch, gum, lozenge, or other pharmacologic assistance (Varenicline or Bupropion).

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

Referral to smoking counseling services = The provider documents they referred the patient to a smoking counseling service. Smoking counseling services may include a smoking counseling service, a smoking cessation program, 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 refers the patient 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.

Patient Refused = The provider documented that the patient refused the corresponding intervention.

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.

No = None of the three smoking cessation interventions were implemented before admission to the hospital.

Required:
Yes

Previous Myocardial Infarction (MI)

Data Abstraction Instructions:

Indicate if the patient has had at least one documented previous myocardial infarction. This includes any MI diagnosed between birth and the current procedure.

Selections:

- Yes
  - MI less than, or equal to, 30 days prior to procedure
  - MI greater than 30 days to 6 months prior to procedure
  - MI greater than 6 months prior to procedure
  - Not documented
- No

Supporting Definitions:

Enter Previous MI if the patient is diagnosed with Type 2 Myocardial Infarction, Type 1 NSTEMI, or STEMI. If no diagnosis is documented, enter MI if the patient has an elevated cardiac troponin value(s) greater than the 99^{th} percentile URL (upper reference limit) with a rise and/or fall in troponin and at least one of the following:

- Chest pain
- Nausea
- Shortness of breath
- new ischemic EKG changes (S-T elevations, S-T depression, pathological Q waves)
- An Echo/MRI/Stress test that is positive for ischemia
- Thrombus seen on angiogram or autopsy

Reference:
Thygesen, K., Alpert, J. S., Jaffe, A. S., Chaitman, B. R., Bax, J. J., Morrow, D. A., White, H. D., & The Executive Group on behalf of the Joint European Society of Cardiology (ESC)/American College of Cardiology (ACC)/American Heart Association (AHA)/World Heart Federation (WHF) Task Force for the Universal Definition of Myocardial Infarction. (2018, November 13). Fourth Universal Definition of Myocardial Infarction (2018). Fourth universal definition of myocardial infarction (2018). Retrieved August 22, 2022, from https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000617

Required:
Yes

Previous Surgery/Stenosis (Indications)

Data Abstraction Instructions:

Indicate if the patient has had previous aortic surgery resulting in stenosis that is the indication for the procedure.

Selections:

- Yes
- No

Required:
Yes

Prior Congestive Heart Failure (CHF)

Data Abstraction Instructions:

Indicate if there is a previous history of heart failure/ischemic cardiomyopathy.

Selections:

- Yes
- No

Supporting Definitions:

A previous hospital admission with principal diagnosis of heart failure is considered evidence of heart failure history. Heart failure is defined as physician documentation or report of any of the following clinical symptoms of heart failure described as unusual dyspnea on light exertion, recurrent dyspnea occurring in the supine position, fluid retention; or the description of rales, jugular venous distension, pulmonary edema on physical exam, or pulmonary edema on chest X-ray. A low ejection fraction alone, without clinical evidence of heart failure, does not qualify as heart failure.

Required:
Yes

Prior Coronary Artery Bypass Graft (CABG)

Data Abstraction Instructions:

Indicate if the patient has had a coronary artery bypass surgery at any time prior to the current procedure. This includes CABG performed after admission but prior to the current procedure.

Selections:

- Yes
  - CABG less than, or equal to, 30 days prior to procedure
  - CABG greater than 30 days to 6 months prior to procedure
  - CABG greater than 6 months prior to procedure
  - Not documented
- No

Required:
Yes

Prior PVI Procedures

Enter PVI procedures performed before the current PVI procedure. Do not collect failed PVI procedures. If the patient had multiple prior PVI procedures, enter the 5 PVI procedures performed closest to the current VS procedure.

How many prior PVI procedures?

Data Abstraction Instructions:

BMC2 Voluntary PVI registry collects the most recent 5 PVI procedures that were performed before the current PVI procedure. Enter the number of forms you will fill out, one form for each prior PVI procedure (up to 5 procedures).

Required:
Yes

Prior Procedure Date

Data Abstraction Instructions:

Enter the procedure date of the prior PVI procedure. If only year is documented, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:
No

Artery Location

Data Abstraction Instructions:

Enter the artery treated during the prior PVI procedure.

Selections:

- Choose artery location from the drop down list

Required:
Yes

PTA (percutaneous transluminal angioplasty)

Data Abstraction Instructions:

Indicate if balloon device was used during the PVI.

Selections:

- Yes
- No

Required:
Yes

Stent

Data Abstraction Instructions:

Indicate if any type of stent was used during the PVI.

Selections:

- Yes
- No

Required:
Yes

Atherectomy

Data Abstraction Instructions:

Indicate if atherectomy device was used during the PVI. (e.g. laser, rotational/orbital, directional, other atherectomy).

Selections:

- Yes
- No

Required:
Yes

Thrombolysis

Data Abstraction Instructions:

Indicate if patient underwent local or systemic thrombolysis for arterial occlusion/thrombosis.

Selections:

- Yes
- No

Required:
Yes

Other Peripheral Intervention

Data Abstraction Instructions:

Indicate if a device other than balloon, stent or atherectomy was previously used (cryoplasty, cutting balloon, etc.).

Selections:

- Yes
- No

Required:
Yes

Prior Percutaneous Coronary Intervention (PCI)

Data Abstraction Instructions:

Indicate if the patient has a previous percutaneous coronary intervention. This includes any occurrence between birth and the current procedure. This includes PCI performed after admission, but prior to the current procedure.

Selections:

- Yes
    - PCI less than, or equal to, 30 days prior to procedure
    - PCI greater than 30 days to 6 months prior to procedure
    - PCI greater than 6 months prior to procedure
    - Not documented
- No

Required:
Yes

Prior Vascular Surgery Procedures

Enter VS procedures performed before the current PVI procedure. If the patient had multiple prior VS procedures, enter the 5 VS procedures performed closest to the current PVI procedure.

How many prior Vascular Surgery procedures?

Data Abstraction Instructions:

BMC2 PVI registry collects the most recent 5 VS procedures that were performed before the current PVI procedure. Enter the number of forms you will fill out, one form for each prior VS procedure (up to 5 procedures).

Required:
Yes

Bypass

Data Abstraction Instructions:

Indicate if the patient had a prior bypass.

Selections:

- Yes
- No

Required:
No

Bypass Date

Data Abstraction Instructions:

Specify the date (mm/dd/yyyy) of the prior bypass. If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:
No

Bypass Origin

Data Abstraction Instructions:

Select the origin point of the bypass (inflow) from the drop down list. Example: If the patient has a fem-pop bypass, the origin of the bypass is the common femoral artery, and the insertion of the bypass is the popliteal artery.

Selections:

- Choose Bypass Origin from drop down list

Required:
Yes

Insertion Point

Data Abstraction Instructions:

Select the insertion point (outflow) of the bypass from the dropdown list. Example: If the patient has a fem-pop bypass: the origin of the bypass is the common femoral artery, and the insertion of the bypass is the popliteal artery.

Selections:

- Choose Insertion Point from the drop down list.

Required:
Yes

Insertion Point #2

Data Abstraction Instructions:

Select the second insertion point (outflow) from the dropdown list, if applicable. For example, if an aorto-bifemoral bypass was performed. Enter the right CFA for the insertion point and the left CFA for the 2nd insertion point.

Selections:

- Choose insertion point #2 from the drop down list.

Required:
No

Type of Graft

Data Abstraction Instructions:

Select the type of graft used for the bypass.

Selections:

- Vein
- Synthetic
- Not documented

Required:
Yes

Endarterectomy

Data Abstraction Instructions:

Indicate if the patient has had a prior open endarterectomy.

Selections:

- Yes
- No

Required:
Yes

Endarterectomy Date

Data Abstraction Instructions:

Enter the date (mm/dd/yyyy) of the prior open endarterectomy. If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:
No

Endarterectomy Location

Data Abstraction Instructions:

Select the vessel that was treated with open endarterectomy or patch angioplasty from the dropdown list.

Selections:

- Choose vessel location from the drop down list.

Required:
Yes

Aneurysm Repair

Data Abstraction Instructions:

Indicate if the patient had a prior open aneurysm repair.

Selections:

- Yes
- No

Required:
Yes

Aneurysm Repair Date

Data Abstraction Instructions:

Ener the date (mm/dd/yyyy) of the open aneurysm repair. If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:

No

Aneurysm Repair Location

Data Abstraction Instructions:

Select the vessel of the open aneurysm repair from the dropdown list.

Selections:

- Choose vessel location from drop down list.

Required:
Yes

Amputation

Data Abstraction Instructions:

Indicate if the patient had a prior amputation.

Selections:

- Yes
- No

Required:
No

Amputation Date

Data Abstraction Instructions:

Enter the date (mm/dd/yyyy) of the amputation. If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:
No

Amputation Point

Data Abstraction Instructions:

Select the most proximal amputation point.

- RAKA = right above the knee amputation
- LAKA = left above the knee amputation
- RBKA = right below the knee amputation
- LBKA = left below the knee amputation
- R T-MET = right trans-metatarsal
- L T-MET = left trans-metatarsal
- R DIGIT = right digit
- L DIGIT = left digit

Required:
Yes

Procedure Date & End Time

Data Abstraction Instructions:

Enter the date and time the procedure ends (military time).

There are two ways to enter the procedure end date & time

In the Procedure End Date & Time field type the two digit day, two digit month, and four digit year. Hit the spacebar once. Then type the two digit hour, enter a colon, and type the two digit minutes. For example, the procedure end date and time is June 16, 2023, at 12:21 p.m. You will type into this field 16062021 12:21. Hit the Tab key to go to the next field.

- OR -

Click on the calendar and choose the month, year, and day of the current procedure. Use the slider below to enter the time the procedure ended. Click Done so that your response can be recorded.

Selections:

- Enter Date & Time

Supporting Definitions:

The time the procedure ended is defined as the time the primary operator leaves the room for peripheral interventions. Should the patient expire in the procedure area, indicate the time the patient was pronounced.

Required:
Yes

Procedure Date & Start Time

Data Abstraction Instructions:

Enter the date of the current procedure and enter the time the procedure was initiated (military time).

There are two ways to enter the procedure date & start time

In the Procedure Date & Start Time field type the two digit day, two digit month, and four digit year. Hit the spacebar once. Then type the two digit hour, enter a colon, and type the two digit minutes. For example, the procedure date and start time is June 16, 2023, at 12:21 p.m. You will type into this field 16062021 12:21. Hit the Tab key to go to the Procedure End Date & Time field.

- OR -

Click on the calendar and choose the month, year, and day of the current procedure. Use the slider below to enter the time the procedure was initiated. Click Done so that your response can be recorded.

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 peripheral intervention (use whichever is earlier). 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

Procedure Locations

Each procedure type can have one or many vessel locations.

Vessel Location

Data Abstraction Instructions:

Indicate vessel location of the procedure.

Selections:

Choose Vessel Location from the drop down list

Required:
Yes

Lesion Segment Area

Data Abstraction Instructions:

Identify if the lesion is proximal, mid, distal, or diffuse. If the lesion treated involves more than one segment, check diffuse. E.g. proximal and mid.

Selections:

- Proximal
- Mid
- Distal
- Diffuse
- Not documented

Required:
Yes

PVI Procedure Performed

Data Abstraction Instructions:

Indicate the PVI procedure performed. Select all that apply.

Selections:

- Aspirational Atherectomy (JetStream, Pathways) = Asp-Ather
- Mechanical Thrombectomy (Angiojet) – M-Throm
- Balloon = BA
- Cryoballoon = Cryo-B
- CTO device = CTO
- Cutting Balloon = CB
- Directional Atherectomy (Fox hollow, SilverHawk) = D-Ather
- Distal Protection Device (balloon) = DPD-B
- Distal Protection Device (filter) = DPD-F
- Drug Coated Balloon = DCB
- Flow-wire = FW
- Infusion Catheter (Benephit) = Inf-Cath
- IVUS = IVUS (Intravascular Ultrasound)
- Laser Atherectomy (Excimer laser) = L-Ather
- Lysis (Note: do not record lysis only procedures). Select this box if lytic agents were used during the procedure in addition to any other device. Do not record procedures if only angiojet or fogarty catheter was used.) = LYS
- Not crossed with a device = ND
- Not crossed with a wire = NW
- Other Atherectomy (ClearPath) = Oth-Ather
- Open Endarterectomy
- Open Thrombectomy
- Rotational/Orbital Atherectomy (DiamondBack) = R-Ather
- Re-Entry Catheter (Pioneer, Outback) = Re-Ent-Cath
- Research (whether the procedure was done for research purpose only) = Research
- Scoring Balloon (Angiosculpt) = S-BA
- Stent = STNT
- Thrombus Aspiration (Pronto, Export, Aspire, Diver, Xtract, Fetch, QuickCat) – Throm-Asp
- Vascular Embolectomy = Vasc-E (Fogarty)

Required:
Yes

Bypass Graft

Data Abstraction Instructions:

Indicate if the PVI procedure is performed on an arterial bypass graft.

Selections:

- Yes
- No

Required:
Yes

Graft Type

Data Abstraction Instructions:

Select the type of bypass graft: synthetic or vein.

Selections:

- Synthetic
- Vein
- Not Documented

Required:
Yes

Graft Origin

Data Abstraction Instructions:

Select the bypass graft origin (inflow) using the vessel drop down box.

Selections:

- Select artery name from the drop down list

Required:
Yes

Graft Insertion

Data Abstraction Instructions:

Select the bypass graft insertion (outflow) using the vessel drop down box.

Selections:

- Select artery name from the drop down list

Required:
Yes

Lesion Length

Data Abstraction Instructions:

Visual estimate of the length of the lesion. If not dictated, use balloon/stent length. For tandem lesions, add lengths together. For diffuse disease use the length of the treated segment.

Selections:

- Enter value in mm

Required:
No
Suffix:
mm
Minimum:
0
Maximum:
1000

Heavy Calcium

Data Abstraction Instructions:

Indicate if moderate to heavy calcium is documented as being present in the lesion.

Selections:

- Yes
- No

Required:
Yes

In-stent Restenosis

Data Abstraction Instructions:

Indicate if the lesion that is being treated is within a previously place stent.

Selections:

- Yes
- No

Required:
Yes

Thrombus

Data Abstraction Instructions:

Indicate if thrombus is present before the PVI intervention. Thrombus is suggested by certain angiographic features: haziness, reduced contrast density or contrast persistence, irregular lesion contours or globular filling defects.

Selections:

- Yes
- No

Required:
Yes

Pre Stenosis % (0-100)

Data Abstraction Instructions:

Record the preprocedural percent of stenosis for each segment treated. If a range is given, take the highest value. If unavailable, choose not documented.

Selections:

- Yes
  - Enter value (0 - 100)
- Not documented

Required:
Yes
Suffix:
%
Maximum:
100

Post Stenosis % (0-100)

Data Abstraction Instructions:

Record the postprocedural percent of stenosis for each segment treated. If a range is given, take the lowest value. If not recorded, choose not documented.

Selections:

- Yes
  - Enter value (0 - 100)
- Not documented

Required:
Yes
Suffix:
%
Maximum:
100

Final Balloon Diameter

Data Abstraction Instructions:

Indicate the diameter, in millimeters, of the final balloon used to treat this lesion. If not recorded, enter not documented.

Selections:

- Yes
  - Enter value in mm
- Not documented

Required:
Yes
Suffix:
millimeters
Minimum:
1.5
Maximum:

30

Stents

Stent Name

Data Abstraction Instructions:

Select the brand name of the stent used in the PVI procedure from the drop down list.
Other = The name of the stent is not in the list.

Selections:

- Choose stent name.

Required:
Yes

Stent Diameter

Data Abstraction Instructions:

Enter the diameter of the stent.

Selections:

- Enter Stent Diameter in mm

Required:
Yes
Suffix:
mm
Minimum:
2
Maximum:
30

Stent Length

Data Abstraction Instructions:

Enter the length of the stent.

Selections:

- Enter Stent Length in mm

Required:
Yes

Suffix:
mm
Minimum:
1
Maximum:
250

Procedure Number

Data Abstraction Instructions:

Enter '1' in the data field for the first procedure you enter during this discharge. If there are multiple procedures during this discharge, enter '2' for the following procedure. For multiple procedures performed during the same OR time, enter a different procedure number.

Selections:

Enter procedure number

Required:
Yes

Protamine

Data Abstraction Instructions:

Record if Protamine was Given during and/or after the procedure or Not Given.
Medications During Procedure

- Enter Given if protamine was given during or after the procedure
  - Pre = protamine was given from admission or previous procedure until the current procedure.
  - During = protamine was given from the time the patient enters the room until the time the patient leaves the room
  - Post = protamine was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if protamine was not given.

Selections:

- Given
  - If given, choose all that apply.
- Not Given

Required:
Yes

Race

Data Abstraction Instructions:

Select the appropriate race of the patient.

Selections:

- White (Caucasian)
- Black or African American
- Asian
- American Indian or Alaskan Native
- Native Hawaiian or Pacific Islander
- Other

Supporting Definitions:

White (Caucasian) = Having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Black or African American = Having origins of the black racial groups of Africa. Terms such as "Black or African American" may be used.

Asian = Having origins of the origin 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.

American Indian or Alaskan Native = Having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

Native Hawaiian or Pacific Islander = Having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Other = A race that is not in this list. Or race is documented as unknown.

Required:
Yes

Refractory Hypertension (Indications)

Data Abstraction Instructions:

Indicate if the patient has refractory hypertension that is resistant to medical treatment.

Selections:

- Yes
- No

Supporting Definitions:

For informational purposes only, having both of the following conditions constitute refractory hypertension:

- BP must be more than 140/90 (if the patient is suffering from diabetes or renal disease, then BP should be more than 130/80)
- Treated with at least 3 drugs (e.g. vasodilator, beta blocker and diuretic therapy).

Required:
Yes

Renal Failure Currently Requiring Dialysis

Data Abstraction Instructions:

Indicate if the patient is currently undergoing either hemodialysis or peritoneal dialysis on an ongoing basis as a result of renal failure. For patients currently undergoing CVVH (Continuous Veno – Venous Hemofiltration) as a result of renal failure (and not as a treatment to remove fluid for heart failure) then select "Yes".

Selections:

- Yes
- No

Required:
Yes

Renal Failure/Dialysis (Follow-up)

Data Abstraction Instructions:

Indicate if the patient had to be readmitted for renal failure or new dialysis post procedure. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Renal Insufficiency/Hypertension (Indications)

Data Abstraction Instructions:

Indicate if the patient has renal insufficiency or hypertension as the indication for the procedure.

Selections:

- Yes
- No

Required:
Yes

Renal Salvage (Indications)

Data Abstraction Instructions:

Indicate if the patient had an intervention performed to improve renal function or delay the start of dialysis.

Selections:

- Yes
- No

Supporting Definitions:

Emergent/Urgent procedure where patient has extensive renal function loss or in the setting of renal failure.

Required:
Yes

Renal Transplant

Data Abstraction Instructions:

Indicate if the patient had a history of a renal transplant. Include transplants that have failed.

Selections:

- Yes
- No

Required:
Yes

Repeat Procedure (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital for a repeat procedure. A repeat procedure is defined as an intervention on the same site of the corresponding discharge record. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Rest Pain (Indications)

Data Abstraction Instructions:

Indicate if the patient has severe pain in the foot and toes made worse by elevation of the leg and relieved by sitting or standing. Analgesics do not readily control rest pain.

Selections:

- Yes
- No

Required:
Yes

Rivaroxaban (Xarelto)

Data Abstraction Instructions:

Record if rivaroxaban (Xarelto) was Given or Not Given at admission and/or discharge.
Home Medications Prior to Admission?

- Enter Given if the patient was taking rivaroxaban before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking rivaroxaban before admission.

Medications at Discharge?

- Enter Given if rivaroxaban was documented as a new medication or continued at discharge.
- Enter Not Given if rivaroxaban was not documented as a new medication or was discontinued at discharge.

Selections:

- Given
- Not Given

Required:
Yes

Rivaroxaban (Xarelto) dose (mg)

Data Abstraction Instructions:

Enter the total daily dosage documented for rivaroxaban (Xarelto) in milligrams (mg). For example, if rivaroxaban 20 mg daily is documented, enter 20 mg.
This field will accept decimals.

Selections:

Enter dose in text box (mg).

Required:
Yes

Saline Infusion

Data Abstraction Instructions:

Record if a Saline infusion was Given or Not Given during a procedure. If a Saline infusion was administered, enter the timeframe (pre, during, post) and length of the infusion.
Saline rate for inclusion is >= 50cc/hr. Document an infusion of 0.45% Normal Saline under Other Hydration.
Medications During Procedure

- Enter Given a Saline infusion was given before, during or after the procedure
  - Pre = a Saline infusion was given from admission or previous procedure until the current procedure.
  - During = a Saline infusion was given from the time the patient enters the room until the time the patient leaves the room
  - Post = a Saline infusion given after the patient has left the room until discharge or next procedure.
- Enter Not Given if a Saline infusion was not given.

Selections:

- Given
  - Infusion < 1 hour
    - Pre
    - During
    - Post
  - Infusion 1 - 3 hours
    - Pre
    - During
    - Post
  - Infusion ≥3 - 6 hours
    - Pre
    - During
    - Post
  - Infusion > 6 hours
    - Pre
    - During
    - Post
- Not Given

Required:
Yes

Significant Valve Disease

Data Abstraction Instructions:

Indicate whether the patient has had a previous surgical replacement and/or repair of a cardiac valve by any approach prior to arrival at this facility. This includes percutaneous valve procedures and valvuloplasty. Also indicate if patient has mitral valve regurgitation of at least grade 2 or greater, mitral valve area < 1.5 cm^2, aortic valve regurgitation of at least grade 2 or greater, or aortic valve area <= 1.0 cm^2.
This may include physician documentation of moderate or severe valve disease.

Selections:

- Yes
- No

Required:
Yes

Smoking (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is smoking cigars, cigarettes (including electronic cigarettes), chew (tobacco), pipe (tobacco), or marijuana at the time of follow-up. Smoking can be obtained through the medical record or a phone call to the patient.

Selections:

- Yes
- No
- Not documented

Required:
Yes

Smoking Cessation Counseling

Data Abstraction Instructions:

Indicate if the patient received physician delivered advice, a prescription for pharmacotherapy, and/or was referred to a smoking cessation service. Select all that apply.

This field will not display when Death is entered for Discharge Status.

Selections:

- Yes
  - Physician delivered advice
    - Patient refused
  - Pharmacotherapy
    - Patient refused
  - Referral to smoking counseling services
    - Patient refused
    - Local counseling service
    - Michigan Quitline
    - Other counseling service
- No

Supporting Definitions:

Yes = Enter Yes for Smoking Cessation at Discharge if Yes was entered for Current Smoker under Patient History / Comorbidity, and at least one of the 3 steps were implemented during the hospitalization or at discharge.

Physician delivered advice = A surgeon, 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.

Pharmacotherapy = The provider ordered or continued pharmacotherapy at discharge. pharmacotherapy may include a nicotine patch, gum, lozenge, or other pharmacologic assistance (Varenicline or Bupropion).

If a patient refuses pharmacotherapy, and there is provider documentation that pharmacotherapy was offered and documentation that the patient refused, enter pharmacotherapy 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.

Patient Refused = The provider documented that the patient refused the corresponding intervention.

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.

No = Enter No for Smoking Cessation at Discharge if No was entered for Ever Smoked or Current Smoker under Patient History / Comorbidity. Enter No if the patient is a current smoker; however, none of the three steps were implemented during the hospitalization or at discharge.

Required:
Yes

Sodium Bicarbonate Infusion

Data Abstraction Instructions:

Record if a Sodium Bicarbonate infusion was Given or Not Given before, during, and/or after a procedure. If an sodium bicarbonate infusion was administered, enter the timeframe (pre, during, post) and length of the infusion. Go to page 3 of the VS Medications Dictionary for definitions to data fields.
Do Not Include Sodium Bicarbonate administered in IV bolus doses, only IV infusion.
Medications During Procedure

- Enter Given if a Sodium Bicarbonate infusion was given before, during or after the procedure
  - Pre = a Sodium Bicarbonate infusion from admission or previous procedure until the current procedure.
  - During = a Sodium Bicarbonate infusion was given from the time the patient enters the room until the time the patient leaves the room
  - Post = a Sodium Bicarbonate infusion was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if a Sodium Bicarbonate infusion was not given.

Selections:

- Given
  - If given, choose all that apply.
- Not Given

Required:
Yes

Staged Procedure

Data Abstraction Instructions:

Indicate if the intervention is the part of a staged procedure.

Selections:

- Yes
- No

Supporting Definitions:

Interventions planned for subsequent procedures at the time of the initial procedure are considered staged procedure, e.g., initial procedure left superficial femoral angioplasty (SFA) with a plan for right SFA in future. Patients undergoing lysis procedures are considered staged procedures. A plan for a staged procedure can be developed with the patient as an outpatient or an inpatient. Enter a new case for any staged procedure (For the first case, mark No for staged procedure, for the second procedure mark Yes).

The following are NOT staged procedures: a subsequent intervention due to restenosis, a diagnostic angiogram with intervention planned on a separate day, a coronary procedure followed by a peripheral procedure, a return attempt after a failed PVI.

Required:
Yes

Statin (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking a statin at the time of the follow up and if there is a contraindication to statins.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
    - Contraindicated for Statin
        - Yes
        - No
- Not documented

Supporting Definitions:

Some examples of statins are

Generic Name	Brand Name
Atorvastatin	Lipitor
Atorvastatin + Amlodipine*	Caduet
Cerivastatin	Baycol
Fluvastatin	Lescol
Lovastatin	Mevacor
Lovastatin + Niacin*	Advicor
Pitavastatin	Livalo
Pravastatin	Pravachol
Rosuvastatin	Crestor
Simvastatin	Zocor
Simvastatin + Ezetimibe *	Vytorin
Simvastatin + Niacin *	Simcor

*Denotes a combination medication

Required:
Yes

Statins

Data Abstraction Instructions:

Record if a Statin was Given, Not Given and/or Contraindicated at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Given if the patient was taking a statin before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking a statin before admission.

Medications at Discharge?

- Enter Given if a statin was documented as a new medication or continued at discharge.
- Enter Not Given if a statin was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to a medication.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to a medication.

For Combination Therapy record as follows:
In case of combination drugs individual components should be recorded, e.g., Caduet is a combination of amlodipine and atorvastatin. Enter Given or Not Given for both Calcium Channel Blockers and Statins.

NOTE: Medication lists provided are not all inclusive. If the medication you are looking for is not in this dictionary go to https://www.drugs.com/

Selections:

- Given
- Not Given
- Contraindicated
  - Yes
  - No

Supporting Definitions:

Generic Name	Brand Name
Atorvastatin	Lipitor
Atorvastatin + Amlodipine*	Caduet
Cerivastatin	Baycol
Fluvastatin	Lescol
Lovastatin	Mevacor
Lovastatin + Niacin*	Advicor
Pitavastatin	Livalo
Pravastatin	Pravachol
Rosuvastatin	Crestor
Simvastatin	Zocor
Simvastatin + Ezetimibe *	Vytorin
Simvastatin + Niacin *	Simcor

*** Denotes a combination medication**

Required:
Yes

Status of Procedure

Data Abstraction Instructions:

Indicate status of the procedure using the following categories.

Selections:

- Elective
- Urgent
- Emergent

Supporting Definitions:

Elective = The procedure could be deferred without increased risk of compromised vascular outcome. This includes elective or scheduled patients.

Urgent = Required procedure within 72 hours, but > 12 hours of symptoms.

Emergent = Required procedure within 12 hours of symptoms.

Required:
Yes

Stent/Graft Thrombosis (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if a blood clot formed within the stent/graft during the procedure that limits distal blood flow. If yes, indicate if it was treated successfully. If yes, indicate if it was treated successfully.

Selections:

- Yes
  - Successful
  - Unsuccessful
- No

Required:
Yes

Stent/Graft Thrombosis (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if a blood clot formed within the stent/graft that limits distal blood flow. If yes, indicate if it was treated successfully.

Selections:

- Yes
  - Successful
  - Unsuccessful
- No

Required:
Yes

Study Number

Data Abstraction Instructions:

Enter Study Number assigned by your facility if your patient is enrolled into a research study. This data field is optional.

Selections:

- Enter Study number

Required:
No
Maximum Length:
25

TBI

Data Abstraction Instructions:

Indicate if TBIs were performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months. Enter all available data for TBIs that are valid for the present procedure (include both right and left, regardless of the operative side).

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Right Pre Procedure TBI
    - Yes
      - Enter value
    - No
  - Left Pre Procedure TBI
    - Yes
      - Enter value
    - No
- No

Required:
Yes
Maximum:
1.39

TBIs (Follow-up)

Data Abstraction Instructions:

Indicate if the patient has had TBIs measured after discharge, and if so, enter the value. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter Value for TBIs Right
  - Enter Value for TBIs Left
- No
- Not documented

Required:
Yes
Minimum:
0
Maximum:
1.39

TIA/Stroke (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital for a TIA or stroke post procedure. This information should be gathered from the patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

TIA/Stroke (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if there was abrupt loss of neurological function with complete return of function within 24 hours or loss of neurological function caused by an ischemic event that is severe enough to leave a persistent deficit for greater than 24 hours. The symptoms should begin while the patient is in the procedure area.

Selections:

- Yes
- No

Required:
Yes

TIA/Stroke (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if there was abrupt loss of neurological function with complete return of function within 24 hours or loss of neurological function caused by an ischemic event that is severe enough to leave a persistent deficit for greater than 24 hours.

Selections:

- Yes
- No

Required:
Yes

Thiazides

Data Abstraction Instructions:

Thiazides are a category of diuretics. See the medication list below for examples of thiazide diuretics. Do not enter Loop Diuretics or Potassium Sparing Diuretics in this category.

Record if a Thiazide diuretic was Given, Not Given and/or Contraindicated at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Given if the patient was taking a Thiazide diuretic before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking a Thiazide diuretic before admission.

Medications at Discharge?

- Enter Given if a Thiazide diuretic was documented as a new medication or continued at discharge.
- Enter Not Given if a Thiazide diuretic was not documented as a new medication or was discontinued at discharge.

Contraindicated

- **Yes** = the patient has an allergy, sensitivity, or adverse reaction to a Thiazide diuretic.
- **No** = the patient does not have an allergy, sensitivity, or adverse reaction to a Thiazide diuretic.

For Combination Therapy record as follows:
In case of combination drugs individual components should be recorded, e.g., Caduet is a combination of amlodipine and atorvastatin. Enter Given or Not Given for both Calcium Channel Blockers and Statins.

Selections:

- Given
- Not Given
- Contraindicated
  - Yes
  - No

Supporting Definitions:

Generic Name	Brand Name
bendoflumethiazide	naturetin
chlorothiazide	diuril, diuril sodium
chlorthalidone	hygroton, chlorthalid
chlorthalidone + atenolol *	tenoretic
chlorthalidone + azilsartan medoxomil *	edarbyclor
hydrochlorothiazide (HCTZ)	microzide, hydrodiuril, oretic esidrix, aquazide
hydroflumethiazide	saluron
indapamide	lozol
methyclothiazide	enduron, aquatensen
metolazone	zaroxolyn, mykrox

*** Denotes a combination medication.**

Required:
Yes

Thiazides (Follow-up)

Data Abstraction Instructions:

Indicate if the patient is taking a Thiazide at the time of the follow up and if there is a contraindication to Thiazides. Do not enter Loop Diuretics or Potassium Sparing Diuretics in this category.

Medication information can be obtained from the patient's medical record or from a phone call if the patient gathers their medication bottles and reads them.

Selections:

- Yes
- No
    - Contraindicated for Thiazides
    - Yes
    - No
- Not documented

Supporting Definitions:

Some examples of Thiazides are:

Generic Name	Brand Name
bendoflumethiazide	naturetin
chlorothiazide	diuril, diuril sodium
chlorthalidone	hygroton, chlorthalid
chlorthalidone + atenolol *	tenoretic
chlorthalidone + azilsartan medoxomil *	edarbyclor
hydrochlorothiazide (HCTZ)	microzide, hydrodiuril, oretic esidrix, aquazide
hydroflumethiazide	saluron
indapamide	lozol
methyclothiazide	enduron, aquatensen
metolazone	zaroxolyn, mykrox

*Denotes a combination medication.

Required:
Yes

Threatened Bypass Graft (Indications)

Data Abstraction Instructions:

Indicate if the procedure performed is to maintain patency of a previously placed bypass graft. This may be demonstrated via abnormal duplex scans, abnormal non-invasive imaging, or increased velocities identified during surveillance visits.

Selections:

- Yes
    - Symptomatic
    - Asymptomatic
- No

Required:
Yes

Thrombectomy/lysis (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital for a thrombectomy or thrombolysis. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Thrombolytics (TPA, TNK, rPA)

Data Abstraction Instructions:

Record if a thrombolytic (TPA, TNK, rPA) was Given before, during and/or after the procedure or Not Given.
Medications During Procedure

- Enter Given if a thrombolytic was given before, during or after the procedure
  - Pre = a thrombolytic was given from admission or previous procedure until the current procedure.
  - During = a thrombolytic was given from the time the patient enters the room until the time the patient leaves the room
  - Post = a thrombolytic was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if a thrombolytic was not given.

Selections:

- Given
  - If given, choose all that apply.
- Not Given

Required:
Yes

Thrombus (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if a blood clot formed during the procedure, within the treated vessel, which limits distal flow. Do not include any thrombus that was present at the beginning of the procedure.

Selections:

- Yes
- No

Required:
Yes

Thrombus (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if a blood clot formed, post procedure, within the treated vessel, which limits distal flow.

Selections:

- Yes
- No

Supporting Definitions:

Do not include any thrombus that was present at the beginning of the procedure. If the thrombus formed within a stent of graft, select the outcome "Stent/graft thrombosis" and do not select thrombus.

Required:
Yes

Ticagrelor (Brilinta)

Data Abstraction Instructions:

Record if ticagrelor (Brilinta) was Given, Not Given, and/or Contraindicated at admission and/or discharge. Also record if ticagrelor was given before the procedure and/or during the procedure or Not Given.
Home Medications Prior to Admission?

- Enter Given if the patient was taking ticagrelor before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking ticagrelor before admission.

Medications at Discharge?

- Enter Given if ticagrelor was documented as a new medication or continued at discharge.
- Enter Not Given if ticagrelor was not documented as a new medication or was discontinued at discharge.

Medications During Procedure

- Enter Given if ticagrelor was given before, during or after the procedure
  - Pre = ticagrelor was given from admission or previous procedure until the current procedure.
  - During = ticagrelor was given from the time the patient enters the room until the time the patient leaves the room
  - Post = ticagrelor was given after the patient has left the room until discharge or next procedure.
- Enter Not Given if ticagrelor was not given.

Selections:

- Given
  - If given, select all that apply Pre (on procedure worksheet)
- Not Given
- Contraindicated
  - Yes
  - No

Required:
Yes

Toe Pressure

Data Abstraction Instructions:

Indicate if toe pressures were performed to diagnose PAD, CAD, or as part of a functional assessment within prior 6 months. Enter all available data for toe pressures that are valid for the present procedure (include both right and left, regardless of the operative side).

For patients who have multiple procedures during the same hospitalization, do not use the same pre-procedure imaging studies as used prior to the first procedure. Only enter imaging studies performed prior to the specific procedure being entered.

Selections:

- Yes
  - Right pre procedure toe pressure
    - Yes
      - Enter value (mm Hg)
    - No
  - Left pre procedure toe pressure
    - Yes
      - Enter value (mm Hg)
    - No
- No

Required:
Yes
Suffix:
mm Hg

Toe Pressures (Follow-up)

Data Abstraction Instructions:

Indicate if the patient has had toe pressures measured after discharge, and if so, enter the value. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter Value for Toe Pressure Right
  - Enter Value for Toe Pressure Left
- No
- Not Documented

Required:
Yes
Suffix:
mmHg

Total Heparin Dosage

Data Abstraction Instructions:

Record the total dose(s)/bolus(es) of unfractionated heparin units that were given during the procedure. If heparin was given and you cannot find documentation of the dose given, enter not documented.

Do not include heparin drip doses in this value. Include only the bolus doses.

Selections:

- Yes
  - Enter value in units
- Not documented

Required:
Yes
Suffix:
units
Maximum:
40000

Total IV Contrast Used

Data Abstraction Instructions:

Indicate the volume of contrast (ionic & non-ionic) used in milliliters (ml). The volume recorded should be the total volume for the lab visit. This should be the total between the start of procedure and end of procedure. If half dose contrast was used during the procedure, record only the dose of the contrast given, not the total volume. If CO2 contrast is used, do not include the volume of CO2 used in the total contrast.

Selections:

- Yes
  - Enter value in ml
- Not documented

Supporting Definitions:

If >500 ml of contrast was used, enter 500.

Required:
Yes
Suffix:
ml
Minimum:
0
Maximum:
500

Transfusion (Follow-up)

Data Abstraction Instructions:

Indicate if the patient has been readmitted and received a transfusion of PRBCs post discharge. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Transfusion (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if the patient received any transfusion for any reason during the procedure. If yes, select the type of transfusion: PRBC, Whole blood, Platelets, FFP, Other e.g. Cryoprecipitate, Factor VIII infusion. Select all that apply.

Selections:

- Yes
  Select type of transfusion
  - PRBC
    - if yes, Enter the number of units for PRBC's (enter # of packed red blood cells 1, 2, 3, etc.)
  - Platelets
  - FFP
  - Other
- No

Supporting Definitions:

NOTE: Return of cell saver product is not captured as a transfusion.

Required:
Yes
Minimum:
1
Maximum:
20

Transfusion (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient received any transfusion for any reason post procedure. If yes, select the type of transfusion: PRBC, Whole blood, Platelets, FFP, Other e.g. Cryoprecipitate, Factor VIII infusion. Select all that apply.

Selections:

- Yes
  Select type of transfusion
  - PRBC
    - # units for PRBC's (enter # of packed red blood cells 1, 2, 3, etc.)
    - Hgb prior to transfusion
      - Yes
        - Enter Hgb value
      - No
      - Not Documented
  - Platelets
  - FFP
  - Other

Required:
Yes
Minimum:
1
Maximum:
20

Hemoglobin prior to Transfusion (OPP)

Data Abstraction Instructions:

Enter the hemoglobin value drawn prior to the first Transfusion of PRBC's post procedure. This is the value on which they made the decision to transfuse.

Selections:

- Yes
- No
- Not Documented

Required:
Yes
Suffix:
mg/dL
Soft Minimum:
2
Soft Maximum:
20

Transplant Renal Artery Stenosis (Indications)

Data Abstraction Instructions:

Indicate if the patient has iliac artery stenosis proximal to a transplanted kidney, at the anastomosis of the transplanted renal artery to the external iliac artery, or if the stenosis is within the transplanted renal artery.

Selections:

- Yes
- No

Required:
Yes

Trauma (Indications)

Data Abstraction Instructions:

Indicate if the vascular procedure was performed to repair injury that resulted from trauma (motor vehicle accident, fire, fall etc.).

Selections:

- Yes
- No

Required:
Yes

Ulcer/Gangrene (Indications)

Data Abstraction Instructions:

Indicate if the patient has an ulcer, gangrene, or if tissue loss is present.

Selections:

- Yes
- No

Required:
Yes

Vascular Access

Vascular Access Site(s)

Data Abstraction Instructions:

Indicate location of vascular access.

Selections:

- Select artery from the drop down list

Required:
Yes

Vascular Access Type

Data Abstraction Instructions:

Indicate vascular access type.

Selections:

- Percutaneous
- Surgical Cutdown

Supporting Definitions:

Percutaneous = vascular access obtained via skin puncture without direct visualization of artery.

Surgical cutdown = access via skin incision with direct visualization of the underlying structures.

Required:
Yes

Vessel Accessed

Data Abstraction Instructions:

Indicate if the native artery or bypass graft was accessed for the current procedure.

Selections:

- Native Artery
- Bypass Graft

Required:
Yes

Access Guidance

Data Abstraction Instructions:

Indicate if guidance was used for vascular access. If both are utilized, select ultrasound.

Selections:

- Yes
    - Fluoro
    - Ultrasound
- No

Required:
Yes

Access Approach

Data Abstraction Instructions:

Enter the sheath direction at site of insertion. If more than one access was attempted, record the access approach that was used to gain access rather than the failed access approach.

Both = the sheath was utilized in both the retrograde and antegrade direction at the same insertion site.

Selections:

- Antegrade
- Retrograde
- Both

Required:
Yes

Sheath Size

Data Abstraction Instructions:

Indicate the largest size of the sheath placed during the procedure. Include sheaths placed at the end of the procedure.

Selections:

- Enter value (French)

Required:
Yes
Suffix:
French
Minimum:
3
Maximum:
30

Sheath Removed

Data Abstraction Instructions:

Indicate if the sheath was removed by the physician, nurse, technician, or advanced practice professional (NP or PA). In cases of manual removal, indicate the person responsible for holding pressure.

In lysis procedures in which the sheath is left in at the end of the procedure, select yes for "Sheath Removed" and indicate the timeframe/method of eventual removal.

Selections:

- Yes
- No

Supporting Definitions:

Answering "Yes" to this field triggers the 3 following conditional fields: Vascular Closure Type, Failed Closure, and Sheath Removal Time Post Procedure.

Required:
Yes

Vascular Closure Type

Data Abstraction Instructions:

Indicate the arterial closure methods used regardless of whether or not they provided hemostasis. Note: If more than one vascular closure type per access site was used, select all that were used.

Selections:

- Manual: no device or a mechanical type was used, e.g. manual pressure by the personnel pulling the sheath.
- Perclose
- Angioseal
- Mynx
- Starclose
- Surgical
- Exoseal
- Compression Device (i.e.: Femstop, C Clamp, TR Band)
- Boomerang
- Hemostatic Patch
- FISH
- Vascade

Supporting Definitions:

Conditional on "Yes" indicated for Sheath Removed

Required:
Yes

Sheath Removal Time

Data Abstraction Instructions:

Indicate time between end of procedure and sheath removal.

Selections:

- 0-3 hours
- 3-24 hours
- >24 hours

Supporting Definitions:

Conditional on "Yes" indicated for Sheath Removed
Required:
Yes

Vascular Access Complication (Follow-up)

Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital for an vascular access site complication. If yes, indicate if an intervention was performed. This information should be gathered from a patient's medical record and not from interviewing the patient.

Selections:

- Yes
  - Intervention
  - No Intervention
    - Enter date of occurrence post discharge
- No
- Not documented

Required:
Yes

Vascular Access Complications (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate vascular complications at the access site requiring transfusion, prolonged hospital stay, causing a drop in hemoglobin 3.0 gm/dl, or any access site complications requiring surgical repair. Select all that apply.

Selections:

- Yes
  - Retroperitoneal hematoma
  - Pseudo-aneurysm
  - Hematoma at access site
  - Bleeding at access site
  - AV fistula
  - Acute thrombosis
  - Surgical repair of the vascular access site
  - Other
- No

Supporting Definitions:

Retroperitoneal hematoma = bleeding into the anatomical space located behind the abdominal or peritoneal cavity.

Pseudoaneurysm = the occurrence of a disruption and dilation of the arterial wall without identification of the arterial wall layers at the site of the catheter entry demonstrated by arteriography or ultrasound.

Hematoma at access site = blood loss at the site of arterial or venous access due to perforation of a traversed artery or vein that causes at one or more of the following:

- transfusion
- prolonged hospital stay
- drop in hemoglobin > 3.0 gm/dl

Bleeding at access site = Blood loss associated with decreased Hgb (greater than or equal to 3.0 gm/dl) and/or causes an increased length of hospital stay. Without other obvious source (GI, GU, operative, or hemolysis) that is attributable to intraprocedural blood loss (e.g. during equipment changes) should be considered bleeding at the access site even if no hematoma is palpable or documented on imaging studies.

AV fistula = A connection between the access artery and the accompanying vein that is demonstrated by arteriography or ultrasound and most often characterized by a continuous bruit.

Acute thrombosis = Total obstruction of the artery by thrombus most commonly at the site of access.

Surgical repair of the vascular access site = such as surgical closures, exploration of the arteriotomy site, balloon angioplasty or covered stent (JOMED GraftMaster) placement.

Other = a vascular access complication that is not in this list.

Required:
Yes

Vascular Access Complications (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate vascular complications at the access site requiring transfusion, prolonged hospital stay, causing a drop in hemoglobin 3.0 gm/dl, or any access site complications requiring surgical repair. Select all that apply.

Selections:

- Yes
  - Retroperitoneal hematoma
  - Pseudo-aneurysm
  - Hematoma at access site
  - Bleeding at access site
  - AV fistula
  - Acute thrombosis
  - Surgical repair of the vascular access site
  - Other
- No

Supporting Definitions:

Retroperitoneal hematoma = bleeding into the anatomical space located behind the abdominal or peritoneal cavity.

Pseudoaneurysm = the occurrence of a disruption and dilation of the arterial wall without identification of the arterial wall layers at the site of the catheter entry demonstrated by arteriography or ultrasound.

Hematoma at access site = blood loss at the site of arterial or venous access due to perforation of a traversed artery or vein that causes at one or more of the following:

- transfusion
- prolonged hospital stay
- drop in hemoglobin > 3.0 gm/dl

Bleeding at access site = Blood loss associated with decreased Hgb (greater than or equal to 3.0 gm/dl) and/or causes an increased length of hospital stay. Without other obvious source (GI, GU, operative, or hemolysis) that is attributable to intraprocedural blood loss (e.g. during equipment changes) should be considered bleeding at the access site even if no hematoma is palpable or documented on imaging studies.

AV fistula = A connection between the access artery and the accompanying vein that is demonstrated by arteriography or ultrasound and most often characterized by a continuous bruit.

Acute thrombosis = Total obstruction of the artery by thrombus most commonly at the site of access.

Surgical repair of the vascular access site = such as surgical closures, exploration of the arteriotomy site, balloon angioplasty or covered stent (JOMED GraftMaster) placement.

Other = a vascular access complication that is not in this list.

Required:
Yes

Vascular Surgery Emergent (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if the patient needed to go to the operating room immediately from intervention room or conversion to an unplanned open procedure.

Selections:

- Yes
  - Artery Rupture
  - Access Site Complication
  - Bleeding
  - Bowel Ischemia
  - Limb Ischemia
  - Thrombosis/Embolus
  - Conversion to Open Procedure
  - Other
- No

Supporting Definitions:

The procedure may include any of the following:

- dissection of artery requiring surgical repair
- embolus or thrombosis not manageable by percutaneous devices
- ischemic leg in lab requiring surgery, device removal, or repair of vascular access complications.

Emergent surgery must be performed to prevent loss of major organ, tissue/limb, or life. Do not include staged procedures.

Required:
Yes

Vascular Surgery Emergent (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient needed to go to the operating room post procedure through 12 hours post procedure for an unplanned open procedure. If yes, select reason for surgery.

Selections:

- Yes
  - Artery rupture
  - Access Site Complication
  - Bleeding
  - Bowel Ischemia
  - Limb Ischemia
  - Thrombosis/Embolus
  - Conversion to Open Procedure
  - Other
- No

Supporting Definitions:

This procedure may include any of the following:

- dissection of artery requiring surgical repair, embolus, or thrombosis not manageable by percutaneous devices
- ischemic leg in procedure area requiring surgery
- device removal, and repair of vascular access complications.

Emergent surgery must be performed to prevent loss of major organ, tissue/limb, or life. Do not include staged procedures.

Required:
Yes

Vascular Surgery Non Emergent (Outcomes Post Procedure)

Data Abstraction Instructions:

Indicate if the patient had any elective vascular surgery procedure that occurs any time from 12 hours post PVI intervention to discharge or death. Include hybrid procedures or vascular surgery performed for revascularization after failed percutaneous interventions.

If an amputation is performed post procedure, enter No for Vascular Surgery Non Emergent.

Selections:

- Yes
- No

Required:
Yes

Vessel Perforation (Outcomes During Procedure)

Data Abstraction Instructions:

Indicate if there was a vessel perforation during the procedure. If yes, indicate if it was treated successfully.

Selections:

- Yes
  - Successful
    - Balloon
    - Covered stent
    - Bare metal stent
    - External compression
    - Reversal of anticoagulation
    - No treatment
  - Unsuccessful
- No

Supporting Definitions:

A perforation occurs when there is angiographic or clinical evidence of a dissection or intimal tear that extends through the full thickness of the arterial wall, distant from the access site caused by device manipulation. Extravasations of contrast beyond vessel wall is usually seen.

Required:
Yes

Warfarin/Coumadin

Data Abstraction Instructions:

Record if warfarin (Coumadin) was Given or Not Given at admission and/or discharge.

Home Medications Prior to Admission?

- Enter Given if the patient was taking warfarin before admission. Enter home medications prior to admission for patients who expire before discharge.
- Enter Not Given if the patient was not taking warfarin before admission.

Medications at Discharge?

- Enter Given if warfarin was documented as a new medication or continued at discharge.
- Enter Not Given if warfarin was not documented as a new medication or was discontinued at discharge.

Selections:

- Given
- Not Given

Required:
Yes

Weight

Data Abstraction Instructions:

Enter actual or estimated weight, in kilograms, that is closest to the procedure start time.

Weight in kgs = Weight in lbs. ÷ 2.2.

Selections:

- Enter value in kg

Supporting Definitions:

The weight closest to procedure time is the weight that is used to calculate the medications that are given during the procedure.

Required:
Yes
Suffix:
kg
Maximum:
300

Wound (WIfI) (Indications)

Data Abstraction Instructions:

Indicate if the patient has a wound present and to what degree.

Grade	*Ulcer*	*Gangrene*
0	No ulcer	No gangrene
Clinical description: ischemic rest pain (requires typical symptoms + ischemia grade 3); no wound.		
1	Small, shallow ulcer(s) on distal leg or foot; no exposed bone, unless limited to distal phalanx	No gangrene
Clinical description: minor tissue loss. Salvageable with simple digital amputation (1 or 2 digits) or skin coverage.		
2	Deeper ulcer with exposed bone, joint or tendon; generally not involving the heel; shallow heel ulcer, without calcaneal involvement	Gangrenous changes limited to digits
Clinical description: major tissue loss salvageable with multiple (≥3) digital amputations or standard TMA ± skin coverage.		
3	Extensive, deep ulcer involving forefoot and/or midfoot; deep, full thickness heel ulcer ± calcaneal involvement	Extensive gangrene involving forefoot and /or midfoot; full thickness heel necrosis ± calcaneal involvement
Clinical description: extensive tissue loss salvageable only with a complex foot reconstruction or nontraditional TMA (Chopart or Lisfranc); flap coverage or complex wound management needed for large soft tissue defect		

Selections:

- Yes
  - Grade 1
  - Grade 2
  - Grade 3
  - Not Documented
- No

Supporting Definitions:

Grade 1: Minor tissue loss; small shallow ulceration
Grade 2: Major tissue loss; deeper ulceration with exposed bone, joint, or tendon
Grade 3: Extensive ulcer/gangrene;

Required:
Yes

Zip Code

Data Abstraction Instructions:

Enter zip code of patient's primary address. If the patient does not live within the United States or is homeless, leave this field blank.

Selections:

- Enter five digit value

Required:
No
Maximum:
99999
Maximum Length:
5