VS Discharge Data Dictionary

Blue Cross Blue Shield of Michigan
Vascular Surgery Registry
Data Collection Definitions

Dictionary updated for REDCap 6.20.2023

Patient Information

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.

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.

Selections:

- Enter date

Required:
Yes

Discharge Status

Data Abstraction Instructions:

Enter the location to which the patient was discharged. If you enter death as the discharge status, do not fill out a 30-Day or 1-year follow-up form.

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

Case Number

Data Abstraction Instructions:

Enter a unique number to identify this case. This data field is optional. As an example, you could use the lab log number or another identifying number to identify each individual case. Do not enter patient's social security number or medical record number.

Selections:

- Enter case number

Required:
No
Maximum Length:
25

Study Number

Data Abstraction Instructions:

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

Selections:

- Enter Study number

Required:
No
Maximum Length:
25

Date of Birth

Data Abstraction Instructions:

Enter month, day, and 4-digit year of patient’s birth (mm/dd/yyyy)

Selections:

- Enter date

Required:
Yes

Gender

Data Abstraction Instructions:

Enter the patient’s gender at birth.

Selections:

- Female
- Male

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

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

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

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

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

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

Insurance Coverage

Insured

Data Abstraction Instructions:

Enter the patient's health insurance coverage. If the terms “Self-Pay,” "Self-Pay/No Insurance", or "Patient Self-Pay" are documented, enter No. If the patient is listed as "Medicaid Pending", enter No.

Selections:

- Yes
- No

Supporting Definitions:

Yes = The patient has health insurance.

No = The patient does not have health insurance.

Required:
Yes

Commercial Insurance

Data Abstraction Instructions:

Indicate if the patient has commercial insurance. If the patient has Medicare and Medicaid, enter Medicare under Commercial Insurance as Other Payer. Enter Medicaid under Government Provided Insurance.

Please refer to the Insurance Classification Guide on the BMC2 website for a list of Commercial Insurance carriers. This list is not all inclusive.

Selections:

- Yes
  - BCBSM
  - Other Payer
- No

Supporting Definitions:

Yes = the patient has commercial insurance.

No = the patient does not have commercial insurance.

Commercial insurance is health insurance provided and administered by public and private companies rather than by the government.

- Employment-based health insurance is coverage offered through one's own employment or a relative's. It may be offered by an employer or by a union.
- Own Employment-based health insurance is coverage offered through one's own employment and only the policyholder is covered by the plan.
- Direct-purchase health insurance is coverage through a plan purchased by an individual from a private company.

Required:
Yes

Health Maintenance Organization (HMO)

Data Abstraction Instructions:

Indicate if the patient has a HMO. Please refer to the Insurance Classification Guide on the BMC2 website for a list of HMO carriers. This list is not all inclusive.

Selections:

- Yes
  - Blue Care Network (BCN) Michigan
  - Other HMO
- No

Supporting Definitions:

A **health maintenance organization** (HMO) is an organization that provides or arranges managed care for health insurance, self-funded health care benefit plans, individuals and other entities in the United States and acts as a liaison with health care providers (hospitals, doctors, etc.) on a prepaid basis.

Yes = the patient has a HMO.

No = the patient does not have a HMO.

Required:
Yes

Government Provided Insurance

Data Abstraction Instructions:

Indicate if the patient has government health insurance coverage. Government health insurance includes plans funded by governments at the federal, state, or local level.

If the patient has Medicare and Medicaid, enter Medicare under Commercial Insurance as Other Payer. Enter Medicaid under Government Provided Insurance.

Please refer to the Insurance Classification Guide on the BMC2 website for a list of Government Provided Insurance carriers. This list is not all inclusive.

Selections:

- Yes
  - Medicare Original
    - Medicare Supplemental
      - Yes
        - BCBSM
        - Other Payer Medicare supplemental coverage
      - No
  - Medicare Advantage (Part C)
    - BCBSM
    - BCN
    - Other
  - Blue Cross Complete of Michigan
  - Medicaid
  - County
  - Other
- No

Supporting Definitions:

Yes = the patient has government provided insurance.

No = the patient does not have government provided insurance.

Medicare Original = The Federal program which helps pay health care costs for people 65 and older and for certain people under 65 with long-term disabilities.

Medicare Supplemental Coverage = Private supplemental health insurance plans sold to Medicare beneficiaries in the United States that provide coverage for medical expenses.

Medicare Advantage (Part C) = A Medicare Advantage Plan is (like an HMO or PPO) is another Medicare health plan choice you may have as part of Medicare. Medicare Advantage Plans, sometimes called "Part C" or "MA Plans" are offered by private companies approved by Medicare.

Blue Cross Complete of Michigan = A Medicaid health insurance plan contracted with the Michigan Department of Community Health. The plans service areas include Livingston, Washtenaw, and Wayne counties.

Medicaid = A program administered at the state level, which provides medical assistance to low-income individuals and families.

County = County Health Plans provide access to organized systems of health care for low-income persons who are not eligible for any other health coverage.

Other = Other Government Insurance that is not on the list.

Required:
Yes

Other

Data Abstraction Instructions:

Indicate if the patient had a type of insurance that is not commercial insurance, a HMO or a government provided insurance. Please refer to the Insurance Classification Guide on the BMC2 website for Other insurance carriers. This list is not all inclusive.

Selections:

- Yes
- No

Required:
Yes

Patient History / Comorbidity

Pre-procedure SBP

Data Abstraction Instructions:

Enter the systolic blood pressure (SBP) documented on the H&P for the current procedure. The blood pressure recorded on the H&P must be within 45 days of the date of admission. If the H&P is >45 days from the date of admission, or the blood pressure is not documented on the H&P, enter the first blood pressure taken at hospital admission.

For a SBP <60, enter 60. For a SBP >300, enter 300.

Selections:

Enter value SBP in the data field.

Required:
Yes
Minimum:
60
Maximum:
300
Maximum Length:
3

Pre-procedure DBP

Data Abstraction Instructions:

Enter the diastolic blood pressure (DBP) documented on the H&P for the current procedure. The blood pressure recorded on the H&P must be within 45 days of the date of admission. If the H&P is >45 days from the date of admission, or the blood pressure is not documented on the H&P, enter the first blood pressure taken at hospital admission.

For a DBP <40, enter 40. For a DBP >150, enter 150.

Selections:

Enter DBP value in the data field.

Required:
Yes
Minimum:
40
Maximum:
150
Maximum Length:
3

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

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

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

Pre-procedure Smoking Cessation

Data Abstraction Instructions:

Indicate if the patient received physician-delivered advice, a prescription for nicotine replacement, 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
  - Nicotine replacement therapy (NRT)
    - 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.

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

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

Referral to smoking counseling services = The provider documents 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

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

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

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

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

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

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

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

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

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

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

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

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 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

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

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

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

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 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

Prior Procedures

Prior PVI Procedures

Enter PVI procedures performed before the current VS 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 VS collects the most recent 5 PVI procedures that were performed before the current VS or carotid 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 Vascular Surgery Procedures

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

How many prior Vascular Surgery procedures?

Data Abstraction Instructions:

BMC2 VS collects the most recent 5 VS procedures that were performed before the current VS or carotid 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.

Supporting Definitions:

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

Selections:

Required:
Yes

Labs

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

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

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

Supporting Definitions:

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

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

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

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
Soft Minimum:
5
Soft Maximum:
18

Discharge

Discharge SBP

Data Abstraction Instructions:

Enter the systolic blood pressure (SBP) documented on the discharge summary. If the blood pressure is not recorded on the discharge summary, enter the last documented blood pressure before discharge from the hospital.

For a SBP <60, enter 60. For a SBP >300, enter 300.

Selections:

Enter the SBP value in the data field.

Required:
Yes
Minimum:
60
Maximum:
300
Maximum Length:
3

Discharge DBP

Data Abstraction Instructions:

Enter the diastolic blood pressure (DBP) that is documented on the discharge summary. If the blood pressure is not recorded on the discharge summary, enter the last documented blood pressure before discharge from the hospital. If the DBP is <40, enter 40. If the DBP is >150, enter 150.

Selections:

Enter the DBP in the data field.

Required:
Yes
Minimum:
40
Maximum:
150
Maximum Length:
3

Smoking Cessation Counseling

Data Abstraction Instructions:

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

Selections:

- Yes
  - Physician delivered advice
    - Patient refused
  - Nicotine replacement therapy (NRT)
    - 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.

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

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

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

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

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

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

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.

Selections:

- Yes
- No

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.

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

Michigan OPEN

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

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:

- Yes
    - Enter value
- Not Documented

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