BMC2 Discharge Data Dictionary

Blue Cross Blue Shield of Michigan (BMC2)
Vascular Surgery Registry
Data Collection Definitions

Updated 2.1.2021

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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).

Selections:

- Enter date

Supporting Definitions:

If the patient was admitted through the emergency room, use the date they arrived at the ER as the admission 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).

Selections:

- Enter date

Supporting Definitions:

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.

Required:
Yes

Discharge Status

Data Abstraction Instructions:

Indicate the location to which the patient was discharged.

Selections:

- Home
- Rehabilitation
- Other acute care hospital
- Nursing home
- Hospice/Comfort care
- Left against medical advice: whereby the patient was discharged or eloped against medical advice.
- Death
- Assisted Living
- Other

Supporting Definitions:

Choose the location that the patient was discharged to post-hospitalization. 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.

Required:
Yes

Case Number

Enter a unique number to identify this case.

Selections:

- Enter case number

Supporting Definitions:

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.

Required:
No
Maximum Length:
25

Study Number

Data Abstraction Instructions:

Enter Study Number assigned by your facility

Selections:

- Enter Study number

Supporting Definitions:

If patient is entered into a research study at your facility, enter study number. This is an optional data entry field to track your study patients if you choose.

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:

Indicate the patient's gender at birth.

Selections:

- Female
- Male

Required:
Yes

Zip Code

Data Abstraction Instructions:

Enter zip code of patient's primary address.

Selections:

- Enter five digit value

Supporting Definitions:

If the patient does not live within the United States or is homeless, leave it blank.

Required:
No
Maximum:
99999
Maximum Length:
5

Height

Data Abstraction Instructions:

Enter actual or estimated height in centimeters. Enter the height that is closest to the procedure start time.

Height in cm = Height in inches X 2.54

Selections:

- Enter value in cm

Supporting Definitions:

If the patient has had bilateral amputations, please enter height prior to amputation.

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

Weight

Data Abstraction Instructions:

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

Selections:

- Enter value in kg

Supporting Definitions:

Weight in kgs = Weight in lbs ÷ 2.2. 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): 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: Another race other than those listed, or if unknown.

Required:
Yes

Ethnicity

Data Abstraction Instructions:

Select if the patient is of Hispanic or Latino ethnicity

Selections:

- 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 not documentation of the patient's ethnicity.

Required:
Yes

Insurance Coverage

Insured

Data Abstraction Instructions:

Ener the patient's health insurance coverage.
Yes = The patient has health insurance.
No = The patient does not have health insurance. 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

Required:
Yes

Commercial Insurance

Data Abstraction Instructions:

Indicate if the patient has commercial insurance.

Yes = the patient has commerical insurance.
No = the patient does not have commercial insurance.

Commercial insurance is a type of health insurance that covers medical expenses for the insured. Commercial policies can be sold individually or as part of a group plan. Please see below for examples of the names of BCBSM or Other Payer commercial insurance. *Please note:* This list is not all inclusive.

•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.

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*BCBSM Examples: BCBSM, Blue Cross Blue Shield, BCBS - Blue Preferred PPO, Blue Cross Blue Shield of Michigan, BC BCBSM Trust, Blue Cross Trust, BCBSM Fed. Emp., BCBSM Trust, BCBS Traditional, BCBS PPO, BCBSM- Traditional, Preferred PPO Blue Cross, BCBSM PPO, BCBSM PPO Teamsters, Blue Cross Blue Shield Insurance PPO, Blue Cross Blue Shield Insurance Trust PPO, Blue Cross Traditional - Michigan Blue Cross, Blue Cross Preferred Plus Blue Cross, Blue Cross PPO, BC Trust or PPO B15/Blue Cross, BCBS IP, BCBS - Messa, BCBS Out of Area, BCBSM Co-Ded/Care, BCBSM Custom Community Blue, BCBSM Out of Area, Blue Cross Blue Shield OOA, Blue Cross Blue Shield PPO, Blue Cross Blue Shield Traditional, Blue Cross Insurance Out of State PPO, Blue Cross IP, Blue Cross OP, Blue Cross Other/Blue Cross PPO, BSBS, Preferred PPO Blue Cross/BCBS Other - Medicare, BCBS
*Other Payer Examples: Aetna, Aetna Healthcare, Aetna PPO, Aetna PPO PAR (Texas), Upper Peninsula Health Plan, BCBS- out of state (Illinois), Cigna, DMC Care, Health Plus, Health Plus of Michigan, McLaren Health Plan, Priority Health, Priority Health Fully Funded, Cofinity, Humana, Blue Cross Out of State, McLaren, Smart Health, Sparrow Profession Health Network (SPHN), Total Healthcare, Paramount Elite, Coventry Cares, NGS, Northern Group Service - Cofinity, Commercial Health Plus, Commercial Connect Care, Connect Care Key Benefits, Anthem Blue Cross Blue Shield Ohio, ASR Insurance through Lakeland, BCBS - OOS Traditional and PPO, BCBSM Anthem, Blue Cross Trinity Domestic, Cofinity (PPOM) - Other plan, E-BCBS/BCBS Michigan PPO, E-Aetna/Aetna APP, E-HAP/Alliance HLT Life EPA EPO, Gateway, Health Plus PPO, Humana Choice PPO Part A, Humana Medicare Advantage PPO, McLaren Health Advantage, McLaren Health Plan IP Medicaid, McLaren Health Plan Medicaid, Medicaid Priority Health HMO, Medicaid United Healthcare, Medicaid Meridian Health, Medicare Traditional Part A and B Blue Cross Blue Shield Minnesota, Physician's Health Plan (PHP), PPOM Cofinity, Priority Health Medicare, Priority Health PPO, Priority Medicare Part A, Priority Medicare Part A & Part B, US Health and Life - Smarthealth

Selections:

- Yes
  - BCBSM
  - Other Payer
- No

Required:
Yes

Health Maintenance Organization (HMO)

Data Abstraction Instructions:

Indicate if the patient has a HMO. 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.

Please see below for examples of the names of HMOs. *Please note: This list is not all inclusive.*

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* Blue Care Network (BCN) Michigan: BCBSM - BCN, BCN, BCBSM BCN, Blue Care Network, Blue Cross HMO (BCN Michigan), Blue Care Network - BCBS HMO, Blue Care Network Blue Cross, BCN - BCN HMO Non-Beaumont Network, E-BCN/BCN Medicaid BC Complete UM PCP, U of M Premier Care, E-BCN/BCN Premier Care non-UM PCP, E-BCN/BCN Premier Care UM PCP, Blue Care Network- Medicaid
* Other HMO Example: Priority Health HMO, HAP unassigned DS HMO, HAP - Preferred Cigna Open Access Plus, HAP Senior Plus, HAP, Health Alliance Plan, United Healthcare, HAP DMC Assigned

Selections:

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

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. The major categories of government health insurance are Medicare, Medicaid, the Children's Health Insurance Program (CHIP), military health care, state plans, and the Indian Health Service.

Yes = the patient has government provided insurance.
No = the patient does not have government provided insurance.
If the patient has Medicare and Medicaid, enter Medicare under Commercial Insurance. Enter Medicaid under Government Provided Insurance.

- **Medicare Original** is 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 Examples:** Medicare Part A, Medicare Traditional Part A & Part B, Medicare
  - If Yes to Medicare, Patients may have a **Medicare Supplemental that they pay for**. Medigap (also Medicare supplement insurance or Medicare supplemental insurance) refers to various private supplemental health insurance plans sold to Medicare beneficiaries in the United States that provide coverage for medical expenses not or only partially covered by Medicare. Medigap's name is derived from the notion that it exists to cover the difference or "gap" between the expenses reimbursed by Medicare and the total amount charged.
  - **Medicare Supplemental Coverage:**
    - **BCBSM**
    - **Other Payer Medicare supplemental Coverage**:
- **Medicare Advantage** (Part C)
  - **BCBSM:**
    - Group Options: The UAW Retiree Medical Benefits Trust- URMBT Hourly Retirees: Chrysler, Ford, GM; Michigan Public School Employees Retirement System
    - BCBS Medicare Advantage
  - **BCN**:
    - BCN Advantage Part A, Blue Care Network Advantage Part A & Part B
  - **Other**

- **Medicaid** is a program administered at the state level, which provides medical assistance to the needy. Families with dependent children, the aged, blind, and disabled who are in financial need are eligible for Medicaid. It may be known by different names in different states.
  - **Medicaid Examples:** Medicaid, Medicaid-HMO, Molina Medicaid HMO
- **Blue Cross Complete of Michigan** is a medicaid health insurance plan contracted with the Michigan Department of Community Health. The plans service areas include Livingston, Washtenaw, and Wayne Counties. For more information see: http://www.mibluecrosscomplete.com/member/blue-cross-complete/blue-cross-complete-of-michigan.shtml
- **County** : Many communities in Michigan (not all) are using an innovative approach to providing health care benefits to persons in need. Programs called County Health Plans are serving as a vehicle to provide access to organized systems of health care for the indigent uninsured and lower income persons without private or public health insurance. Examples include: Mid-Michigan Health Plan (MHP), Ingham Health Plan (IHP), Northern Health Plan (NHP), Kent Health Plan (KHP), and Washtenaw Health Plan (WHP).
- **Other:** Other Government Insurance (i.e. Canadian Health Insurance, Military Health Care, Indian Health Services, E-CHAMPVA/CHAMPVA, Commercial Champus Tri-Care Standard).

Medicare has *two* options:
1. Original Medicare, government provided (which includes part A (hospital coverage) and part B (medical outpatient coverage)

2. Medicare Advantage , offered by private companies with contracts with Medicare to provide hospital and medical services (A & B) which is called part C.

The second option, Medicare Advantage can be an HMO, PPO, private pay for service plans, special needs plans, and medical savings account plans.

If a patient has the original Medicare with parts A & B, they can have a Medicare supplemental plan as well. These supplemental plans are also private payers and can be Blue Cross, United Health, Humana, Omaha, etc.

If a patient has Medicare Advantage there will not be a supplemental insurance plan as well.

Having said all of the above, we want to capture any portion of Blue Cross coverage, Medicare Advantage part C which has a "Blue" component or a supplemental that has a "Blue" component.

Selections:

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

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.

Selections:

- Yes
- No

Required:
Yes

Patient History / Comorbidity

Ambulation Pre-Procedure

Data Abstraction Instructions:

Indicate the best ambulation category experienced within one month of admission.

Selections:

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

Supporting Definitions:

Indicate the best functional level if in between categories. Example: Patient uses wheelchair but is able to move around the house with the assistance of a walker - code "Ambulatory with assistance."

Choose Not documented if documentation is unavailable.

Required:
Yes

Ever Smoked

Data Abstraction Instructions:

Indicate if the patient has ever smoked.

Selections:

- Yes
- No

Supporting Definitions:

Answer yes if the patient has ever smoked at any point in their life.

Required:
No

Current Smoker

Data Abstraction Instructions:

Select if patient is currently a smoker. 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.

Selections:

- Yes
  - Cigar
  - Cigarettes
  - Chew (tobacco)
  - Pipe (tobacco)
  - Marijuana
  - Smokeless (vaping, e-cigarettes)

- No

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.

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/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 obvious cause, Previous CABG surgery, Previous Percutaneous Coronary Intervention or Congestive Heart Failure.

Selections:

- Yes
- No

Supporting Definitions:

If the patient is adopted or the family history is unavailable select 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 or chronic kidney disease.
- Currently on antihypertensive pharmacologic therapy for the treatment of hypertension.

Required:
Yes

Diabetes Mellitus

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.

Selections:

- Yes
- 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.

Required:
Yes

Diabetes Therapy

Data Abstraction Instructions:

Indicate the most aggressive therapy at patient admission.

Selections:

- 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 – Other adjunctive treatment, non-oral/insulin/diet

Supporting Definitions:

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, code "other" since the insulin from the new pancreas is not exogenous insulin.

Required:
Yes

Hb A1C

Data Abstraction Instructions:

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

Selections:

- Yes
    - Enter value
- Not documented

Required:
Yes
Minimum:
0
Maximum:
20

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 assessed before or during the visit via invasive (ie. LV gram) or non-invasive testing (ie. 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

Supporting Definitions:

The percentage of the blood emptied from the ventricle at the end of the contraction.

Required:
Yes
Suffix:
%
Minimum:
1
Maximum:

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.

Selections:

- Yes
- No

Supporting Definitions:

This may include physician documentation of moderate or severe valve disease.

Required:
Yes

Chronic Lung Disease (COPD)

Data Abstraction Instructions:

Indicate if there is a previous history of Chronic Lung Disease.

Selections:

- Yes
- No

Supporting Definitions:

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).

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.

Selections:

- Yes
- No

Supporting Definitions:

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

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.

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

Supporting Definitions:

This includes PCI performed after admission, but prior to the current procedure.

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 occurrence 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:

This includes MI diagnosed upon/after admission, but prior to the current procedure.

A myocardial infarction is evidenced by any of the following:

1. A rise and fall of cardiac biomarkers (preferably troponin) with at least one of the values in the abnormal range for that laboratory [typically above the 99th percentile of the upper reference limit (URL) for normal subjects] together with at least one of the following manifestations of myocardial ischemia:
   - Ischemic symptoms
   - ECG changes indicative of new ischemia (new ST-T changes, new left bundle branch block, or loss of R wave voltage).
   - Development of pathological Q waves in 2 or more contiguous leads in the ECG (or equivalent finding for true posterior MI).
   - Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality.
   - Documentation in the medical record of the diagnosis of acute myocardial infarction based on the cardiac biomarker pattern in the absence of any items enumerated in a-d due to conditions that may mask their appearance (e.g., peri-operative infarct when the patient cannot report ischemic symptoms; baseline left bundle branch block or ventricular pacing).
2. ECG changes associated with prior myocardial infarction can include the following (with or without prior symptoms):
   - Any Q wave in leads V2-V3 >= 0.02 seconds or QS complex in leads V2 and V3.
   - Q-wave >= 0.03 seconds and >= 0.1 mV deep or QS complex in leads I, II, aVL, aVF, or V4-V6 in any two leads of a contiguous lead grouping (I, aVL, V6; V4-V6; I, III, and aVF).
   - R-wave >= 0.04 seconds in V1-V2 and R/S >= 1 with a concordant positive T-wave in the absence of a conduction defect.
3. Imaging evidence of a region with new loss of viable myocardium at rest in the absence of a non-ischemic cause. This can manifest as:
   - Echocardiographic, CT, MR, ventriculographic or nuclear imaging evidence of left ventricular thinning or scarring and a failure to contact appropriately (i.e., hypokinesis, akinesis, or dyskinesis).
   - Fixed (non-reversible) perfusion defects on nuclear radioisotope imaging (e.g., MIBI, thallium).
   - Medical records documentation of prior myocardial infarction.

Source:
Thygesen K, Alpert JS, White HD; Joint ESC/ACCF/AHA/WHF Task Force for the Redefinition of Myocardial Infarction. Universal definition of myocardial infarction. Circulation. 2007;116:2634–2653.
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.

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

Supporting Definitions:

This includes CABG performed after admission but prior to the current procedure.

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)

Data Abstraction Instructions:

History of either paroxysmal atrial fibrillation or chronic atrial fibrillation prior to the VS intervention.

Selections:

- Yes
- No

Supporting Definitions:

This includes any prior history, even if the patient is not currently in that rhythm.

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.

Selections:

- Yes
- No

Supporting Definitions:

Include transplants that have failed.

Required:
Yes

HDL Cholesterol

Data Abstraction Instructions:

Record HDL value.

Selections:

- Drawn
  - Enter value
- Not Drawn

Supporting Definitions:

The HDL value can be 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.

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

LDL Cholesterol

Data Abstraction Instructions:

Record LDL value.

Selections:

- Drawn
    - Enter value
- Not Drawn
- Not Calculated

Supporting Definitions:

The LDL value can be 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 HLDL <50 mg/dL. Enter 200 for LDL >200 mg/dL.

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

Total Cholesterol

Data Abstraction Instructions:

Record total cholesterol value.

Selections:

- Drawn
    - Enter value
- Not Drawn

Supporting Definitions:

The Total Cholesterol value can be 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 100 mg/dL and 300 mg/dL. If the patient's Total Cholesterol value is outside of the limits, enter 100 for Total Cholesterol <100 mg/dL. Enter 300 for Total Cholesterol >300 mg/dL.

Required:
Yes
Suffix:
mg/dL
Minimum:
100
Maximum:

300

Prior Procedures

Prior PVI

Procedure Date

Data Abstraction Instructions:

Indicate if the patient has undergone a prior vascular interventional procedure, enter procedure date, if known (mm/dd/yyyy). If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date if known

Required:
No

Artery Location

Data Abstraction Instructions:

Identify the artery treated during single procedure.

Selections:

- Choose location

Required:
Yes

PTA (percutaneous transluminal angioplasty)

Data Abstraction Instructions:

Indicate if balloon device was used during previous vascular intervention.

Selections:

- Yes
- No

Required:
Yes

Stent

Data Abstraction Instructions:

Indicate if any type of stent was used during previous vascular intervention.

Selections:

- Yes
- No

Required:
Yes

Atherectomy

Data Abstraction Instructions:

Indicate if atherectomy device was used during previous vascular intervention. (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 device other than balloon, stent or atherectomy was previously used (cryoplasty, cutting balloon, etc.).

Selections:

- Yes
- No

Required:
Yes

Prior Vascular Surgery

Bypass

Data Abstraction Instructions:

Indicate if the patient has had a prior bypass.

Selections:

- Yes
- No

Required:
No

Bypass Date

Data Abstraction Instructions:

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

Selections:

- Enter date

Required:
No

Bypass Origin

Data Abstraction Instructions:

Select origin point of bypass using the vessel artery map.

Selections:

- Choose Origin

Supporting Definitions:

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.

Required:
Yes

Insertion Point

Data Abstraction Instructions:

Select insertion point of bypass using the vessel artery map.

Selections:

- Choose Insertion Point

Supporting Definitions:

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.

Required:
Yes

Type of Graft

Data Abstraction Instructions:

Select the type of graft used in the procedure.

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:

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

Selections:

- Enter date

Required:
No

Endarterectomy Location

Data Abstraction Instructions:

If the patient underwent open surgical endarterectomy or patch angioplasty, and identify the vessel treated.

Selections:

- Choose location

Required:
Yes

Aneurysm Repair

Data Abstraction Instructions:

Indicate if the patient has had a prior open aneurysm repair.

Selections:

- Yes
- No

Required:
Yes

Aneurysm Repair Date

Data Abstraction Instructions:

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

Selections:

- Enter date

Required:
No

Aneurysm Repair Location

Data Abstraction Instructions:

Identify the aneurysm repair location.

Selections:

- Choose location

Required:
Yes

Amputation

Data Abstraction Instructions:

Indicate if the patient has had a prior amputation.

Selections:

- Yes
- No

Required:
Yes

Amputation Date

Data Abstraction Instructions:

If the patient had amputation, specify date (mm/dd/yyyy). Document the most recent amputation date. If only year is known, enter one for month and day (01/01/yyyy).

Selections:

- Enter date

Required:
No

Amputation Point

Data Abstraction Instructions:

Select most proximal amputation point for each leg.

Selections:

Supporting Definitions:

- 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

Labs at Discharge

Discharge Creatinine

Data Abstraction Instructions:

Post procedure creatinine recorded closest to the time of discharge. For extended hospitalizations, greater than 30 days, use the last creatinine prior to day 30 after the procedure.

Selections:

- Drawn
    - Enter value
- Not Drawn

Supporting Definitions:

If a creatinine is not drawn post procedure and before discharge, enter Not Drawn. 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.

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.

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

Post Discharge Creatinine

Data Abstraction Instructions:

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

Selections:

- Drawn
    - Enter value
- Not Drawn

Supporting Definitions:

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.

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

Discharge Hemoglobin (Hgb)

Data Abstraction Instructions:

Post procedure hemoglobin recorded closest to the time of discharge.

Selections:

- Drawn
    - Enter value
- Not Drawn

Supporting Definitions:

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.

Required:
Yes
Suffix:
g/dl
Minimum:
3
Maximum:
20
Soft Minimum:
5
Soft Maximum:
18

Discharge Education

Smoking Cessation Counseling

Data Abstraction Instructions:

BMC2 VASCULAR SURGERY/VOLUNTARY PVI

Data Abstraction Instructions:

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

BMC2 PCI

Data Abstraction Instructions:

Documented evidence that the patient was referred for smoking cessation counseling or counseled to stop smoking in the hospital.

Selections:

- Yes
- No

Selection Type:

Yes / No Question

Supporting Definitions:

Note: Documentation can be by any health care provider.

- If patient refuses literature, still mark yes.
- If patient dies, Smoking Cessation to be marked no.
- If patient never smoked, mark no.
- If patient leaves AMA and does not receive Smoking Cessation, mark no.

Required:

Yes

Selections:

BMC2 VASCULAR SURGERY/VOLUNTARY PVI

- Yes
    - Physician delivered advice
    - Nicotine replacement therapy (NRT)
    - Referral to smoking counseling services
- No

Supporting Definitions:

BMC2 VASCULAR SURGERY/VOLUNTARY PVI:

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.

If there is physician documentation, the physician recommended smoking, and the patient refused. Then Yes can be entered for smoking cessation counseling. There must be adequate documentation to support this claim. It cannot just be noted in standard DC instructions (as allowed in the past).

Physician delivered advice = A surgeon or advanced practice personnel (PA, NP) has a conversation with the patient and recommends that the patient stops smoking.

A recommendation to stop smoking offered by a resident, nurse, respiratory therapist, or student does not count as physician delivered advice.

Nicotine replacement therapy (NRT) = NRT may include a nicotine patch, gum, lozenge, or other pharmacologic assistance (Varenicline or Bupropion).

If the patient starts NRT before the procedure or during the hospitalization and NRT is continued on the discharge summary, you can choose NRT.

If a patient refuses nicotine replacement therapy, and there is physician documentation that NRT was offered and documentation that the patient refused, you can choose NRT.

Referral to smoking counseling services = A referral may include a hospital specialist or a smoking cessation program or class. The addition of the Michigan Tobacco Quitline phone number and/or website to the discharge instructions is not sufficient. The site must SUBMIT a referral on the patient's behalf.

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

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 3 steps were implemented during the hospitalization or at discharge.

Per the VAPOR trial, the protocol for smoking cessation includes a 3 step program:

1. Physician delivered advice
2. Nicotine replacement therapy (NRT)
3. Referral to smoking counseling services

For a case to qualify for Smoking Cessation at Discharge on the VS report, NRT and referral to smoking counseling services need to be marked.
 *See the BMC2 Knowledge Base for full references if your site will implement a smoking cessation protocol.

Required:
Yes

Exercise counseling

Data Abstraction Instructions:

Indicate if the patient received exercise counseling/education.

Selections:

- Yes
- No

Supporting Definitions:

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.

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, correct use of opioid medications, and expectations surrounding pain level. 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.

Selections:

- Yes
- No

Supporting Definitions:

We need to see documentation of an actual conversation between the provider and the patient. This is the reason pre-populated discharge template instruction does not qualify as documentation of opioid education.
if your providers write a note stating that opioid education was provided to the patient by using the "Opioid Start Talking" form, you can enter Yes for Opioid Education. This form must be visible to the auditors during the chart review portion of your site visit. For more information about Michigan Opioid Laws regarding Opioid Education and the Opioid Start Talking form, please click the following link: 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.

If so, indicate the type of opioid as well as the dose/unit.

Selections:

- Yes
- No

Supporting Definitions:

This includes any opioids taken in the last 30 days.

Required:
Yes

Type of opioid

Data Abstraction Instructions:

Indicate the type of opioid that was prescribed in the 30 days prior to admission.

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

Data Abstraction Instructions:

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

If no dose is available, choose "not documented"

Selections:

- Yes
  - Enter dose
- Not Documented

Required:
Yes

Pre-operative opioid dose (unit)

Data Abstraction Instructions:

Indicate the units for the dose of opioid 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).

If so, indicate the type of opioid as well as the dose/unit and how many refills are available.

Selections:

- Yes
- No

Required:
No

Type of opioid

Data Abstraction Instructions:

Indicate the type of opioid prescribed.

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.

Selections:

Enter value

Supporting Definitions:

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

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:
No

Opioid number of refills

Data Abstraction Instructions:

Indicate the number of opioid refills available.

Selections:

Enter value

Required:
No