



## Follow Up Data Dictionary

**Blue Cross Blue Shield of Michigan (BMC2)**

**Follow Up Definition**

This data dictionary contains the follow-up data field definitions for VS, CAS, and CEA procedures.

*Updated 2.1.2023*

## Table of Contents

Introduction to Collecting Follow-up Outcomes .....	5
Vascular Surgery Follow-up Data Fields.....	6
Vascular Surgery Follow Up Interval .....	6
Contact Date .....	6
Ambulation .....	6
Current Living Status.....	6
Readmission to Hospital.....	7
Blood Pressure.....	7
Smoking .....	8
Antiplatelets.....	8
Statin.....	9
Aspirin .....	9
Beta Blocker .....	10
ACE Inhibitor .....	10
Calcium Channel Blocker .....	11
Thiazides.....	12
Anticoagulant.....	12
ARBs (Angiotensin II Receptor Blockers).....	13
Other Cholesterol Lowering Agent.....	13
Procedure Type.....	14
Open AAA Subsequent Operations .....	14
EVAR imaging performed.....	15
EVAR Current AAA diameter .....	15
EVAR Current Endoleak.....	15
EVAR Additional Procedure.....	16
EVAR Conversion to Open.....	16
EVAR 1-Year Renal Failure Replacement Therapy .....	16
EVAR 1-Year Creatinine Value.....	17
Open Bypass ABIs .....	17
Open Bypass TBIs .....	17
Open Bypass Toe Pressures.....	18
Open Bypass Revision.....	18
Open Bypass Patency.....	18
Open Bypass Pulses.....	18
Open Thrombectomy Repeat Procedure.....	19
Open Thrombectomy Additional Vascular Procedure .....	19
Open Thrombectomy Vessel Patent.....	19
Wound Complication.....	20
Amputation .....	20
MI.....	21
TIA/Stroke .....	21

Renal Failure/Dialysis (30-Day Follow-up Only).....	22
Transfusion (PRBCs - 30-Day Follow-up Only).....	22
Michigan OPEN (30-Day Follow-up Only).....	22
Patient still taking opioid.....	22
Refills requested .....	24
Refills given .....	24
Carotid Stent Follow-up Data Fields .....	25
Carotid Follow Up Interval .....	25
Contact Date .....	25
Current Living Status .....	25
Additional Procedure .....	26
Neurologic Deficit(s) Occurred Since Discharge .....	26
Territory of Neurologic Deficit.....	27
Carotid Duplex.....	27
Blood Pressure .....	28
Smoking (CAS).....	28
Antiplatelets .....	28
Statin .....	29
Aspirin .....	29
Beta Blocker .....	30
ACE Inhibitor .....	30
Calcium Channel Blocker .....	31
Thiazides .....	32
Anticoagulant.....	32
ARBs (Angiotensin II Receptor Blockers).....	33
Other Cholesterol Lowering Agent.....	34
MI .....	34
Michigan OPEN (30-Day Follow-up Only).....	35
Patient still taking opioid.....	35
Refills requested .....	36
Refills given .....	36
Carotid Endarterectomy Follow-up Data Fields .....	37
Carotid Follow Up Interval .....	37
Contact Date .....	37
Current Living Status .....	37
Additional Procedure .....	38
Cranial Nerve Injury.....	38
Neurologic Deficit(s) Occurred Since Discharge .....	39
Territory of Neurologic Deficit.....	39
Carotid Duplex.....	40
Blood Pressure .....	40
Smoking (CEA).....	40

Antiplatelets .....	41
Statin .....	41
Aspirin .....	42
Beta Blocker .....	42
ACE Inhibitor .....	43
Calcium Channel Blocker .....	44
Thiazides .....	44
Anticoagulant.....	45
ARBs (Angiotensin II Receptor Blockers).....	45
Other Cholesterol Lowering Agent .....	46
MI .....	46
Wound Complication.....	47
Michigan OPEN (30-Day Follow-up Only).....	47
Patient still taking opioid.....	47
Refills requested .....	49
Refills given .....	49

---

## Introduction to Collecting Follow-up Outcomes

---

- The 30-day follow-up information can be gathered anywhere from 2 weeks to 6 weeks post-discharge.
- If the patient is hospitalized for greater than 30 days, get the follow-up information from the first available appointment post-discharge.
- The 1-year follow-up information can be obtained from 9 to 14 months post-discharge. The exception is EVAR Imaging Performed which can be collected 6-14 months post-discharge.
- If the only outcome occurred was at 3, 4, or 5 months post-discharge, enter this outcome on the 30-day follow-up form.
- Do not use the same information for both the 30-day and 1-year follow up.
- If the only outcome occurred was at 6 months post-discharge, enter this outcome on the 1-year follow-up form.
- For registry participation, follow-up forms are expected to be complete (the form has data).
- If you do not have follow-up information leave the follow-up section of the website blank. Do not enter "Not Documented" for every question.
- Contact the Coordinating Center with questions about qualifying follow-ups.

For any follow-up form to be counted as complete, a minimum of current living status and four other fields are marked with a response other than 'Not Documented.'

If you call a patient for the follow-up, only ask questions the patient can answer reliably or read off a document or label, as in their medication bottles. If they claim an outcome such as MI or stroke, you will need to verify the information from the patient's medical record or physician. For example, a patient may be admitted for heart failure or angina and believe they had an MI.

---

## Vascular Surgery Follow-up Data Fields

---

---

### Vascular Surgery Follow Up Interval

---

**Data Abstraction Instructions:**

Choose the time frame for the Follow Up.

**Selections:**

- 30 day
- 1 year

**Required:**

Yes

---

### Contact Date

---

**Data Abstraction Instructions:**

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

**Selections:**

Enter date.

**Required:**

Yes

---

### Ambulation

---

**Data Abstraction Instructions:**

Indicate the ambulation status of the patient during follow-up. Ambulation can be obtained through the medical record or a phone call to the patient.

**Selections:**

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

**Required:**

Yes

---

### Current Living Status

---

**Data Abstraction Instructions:**

Indicate the living status of the patient at the time of follow up. Current Living Status can be obtained through the medical record or a phone call to the patient.

**Selections:**

- Home
- Rehabilitation
- Other acute care hospital
- Nursing Home / Extended Care
- Hospice / Comfort care
- Assisted Living

- Homeless
- In Hospital
- Dead
  - Enter date of death
  - Select cause of death
    - Cardiovascular
    - Operation related
    - Unknown/other
- Not documented

#### Supporting Definitions:

**Home** = The patient lives at the place during the follow-up interval they lived before being admitted to the hospital. If the patient is in prison at the time of follow-up, enter Home.

**Rehabilitation** = The patient is on an inpatient rehab floor or in an external rehab facility. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

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

**Nursing home / Extended Care** = The patient is in a nursing home for long-term care or because they need nursing care beyond rehabilitation. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

**Hospice / Comfort care** = The patient is admitted to a Hospice center or is at home and is under the care of a Hospice center. Or the patient is in a facility where comfort care orders have been written.

**Assisted Living** = The patient is in 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.

**In Hospital** = The patient is in the hospital at the time of follow-up.

**Dead** = The patient died any time after discharge or during the follow-up interval.

#### Required:

Yes

## Readmission to Hospital

#### Data Abstraction Instructions:

Indicate if the patient was readmitted to the hospital during follow-up for a procedure related issue. If yes, indicate the reason. Select all that apply.

If the patient were readmitted for an amputation on the side of the procedure, enter the outcomes of readmission and amputation. If the patient states they were readmitted to the hospital during a phone call, you will need to verify the information from the patient's medical record or physician.

#### Selections:

- Yes
  - Lymph leak (seroma)
  - Wound infection/dehiscence
  - Graft infection
  - Anticoagulation complication
  - Thrombectomy/lysis
  - Other
    - Enter date of occurrence post discharge
- No
- Not documented

#### Required:

Yes

## Blood Pressure

**Data Abstraction Instructions:**

Enter the systolic blood pressure (SBP) and diastolic blood pressure (DBP) documented at the time of follow-up. If the patient is in the hospital >30 days, enter the first blood pressure after the patient is discharged from the hospital for the 30-Day follow-up blood pressure.

**Selections:**

- Yes
  - Enter value SBP
  - Enter value DBP
- Not documented

**Required:**

Yes

**Maximum Length:**

3

---

## Smoking

---

**Data Abstraction Instructions:**

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

**Selections:**

- Yes
- No
- Not documented

**Required:**

Yes

---

## Antiplatelets

---

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of antiplatelet medications are

- Cilostazol (Pletal)
- Clopidogrel (Plavix)
- Prasugrel (Effient)
- Ticagrelor (Brilinta)

**Required:**

Yes

---

## Statin

---

### Data Abstraction Instructions:

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

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

### Selections:

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

### Supporting Definitions:

Some examples of statins are

- Atorvastatin (Lipitor)
- Atorvastatin + Amlodipine\* (Caduet)
- Cerivastatin (Baycol)
- Fluvastatin (Lescol)
- Lovastatin (Mevacor)
- Lovastatin + Niacin\* (Advicor)
- Pitavastatin (Livalo)
- Pravastatin (Pravachol)
- Rosuvastatin (Crestor)
- Simvastatin (Zocor)
- Simvastatin + Ezetimibe\* (Vytorin)
- Simvastatin + Niacin\* (Simcor)

\*Denotes a combination medication

### Required:

Yes

---

## Aspirin

---

### Data Abstraction Instructions:

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

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

### Selections:

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

### Required:

Yes

---

## Beta Blocker

---

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Examples of beta blockers are

- ACEBUTOLOL (SECTRAL)
- ATENOLOL (TENORMIN)
- ATENOLOL + CHLORTHALIDONE \* (TENORETIC)
- BETAXOLOL (KERLONE)
- BISOPROLOL (ZEBETA)
- BISOPROLOL + HCTZ \* (ZIAC)
- CARVEDILOL (COREG)
- ESMOLOL (BREVIBLOC)
- LABETALOL (TRANDATE)
- METOPROLOL (LOPRESSOR, TOPROL)
- METOPROLOL + HCTZ \* (LOPRESSOR HCT, DUTROPROL)
- NADOLOL (CORCARD)
- NADOLOL + BENDROFLUMETHIAZIDE \* (CORZIDE)
- NEBIVOLOL (BYSTOLIC)
- PENBUTOLOL (LEVATOL)
- PINDOLOL (VISKEN)
- PROPRANOLOL (INDERAL, INNOPRAN)
- PROPRANOLOL + HCTZ \* (INDERIDE)
- TIMOLOL (BLOCADREN)
- TIMOLOL + HCTZ \* (TIMOLIDE)

\*Denotes a combination medication

**Required:**

Yes

---

## ACE Inhibitor

---

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
  - Contraindicated for ACE Inhibitors:
    - Yes

- No
- Not documented

### Supporting Definitions:

Examples of ACE Inhibitors are

- BENAZEPRIL (LOTENSIN)
- BENAZEPRIL + HCTZ \* (LOTENSIN HCT)
- BENAZEPRIL + AMLODIPINE \* (LOTREL)
- CAPTOPRIL (CAPOTEN)
- CAPTOPRIL + HCTZ \* (CAPTOZIDE)
- CILAZAPRIL (INHIBACE)
- CILAZAPRIL + HCTZ \* (INHIBACE PLUS)
- ENALAPRIL (VASOTEC, ENALAPRILAT)
- ENALAPRIL + HCTZ \* (VASERETIC)
- ENALAPRIL + FELODIPINE \* (LEXXEL)
- FOSINOPRIL (MONOPRIL)
- FOSINOPRIL + HCTZ \* (MONOPRIL HCT)
- LISINOPRIL (ZESTRIL, PRINIVIL)
- LISINOPRIL + HCTZ \* (PRINZIDE, ZESTORETIC)
- MOEXIPRIL (UNIVASC)
- MOEXIPRIL + HCTZ \* (UNIRETIC)
- PERINDOPRIL (ACEON)
- QUINAPRIL (ACCUPRIL)
- QUINAPRIL + HCTZ \* (ACCURETIC)
- TRANDOLAPRIL (MAVIK)
- TRANDOLAPRIL + VERAPAMIL \* (TARKA)

\*Denotes a combination medication.

### Required:

Yes

## Calcium Channel Blocker

### Data Abstraction Instructions:

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

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

### Selections:

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

### Supporting Definitions:

Examples of Calcium Channel Blockers are

- AMLODIPINE (NORVASC)
- AMLODIPINE + ATORVASTATIN \* (CADUET)
- AMLODIPINE + BENAZAPRIL \* (LOTREL)
- AMLODIPINE + OLMESARTAN (AZOR)
- AMLODIPINE + OLMESARTAN + HCTZ \* (TRIBENZOR)
- AMLODIPINE + TELMISARTAN \* (TWINSTA)
- AMLODIPINE + VALSARTAN \* (EXFORGE)
- CLEVIDIPINE (CLEVIPREX)
- DILTIAZEM (CARDIZEM, DALACOR)
- DILTIAZEM HCL (CARTIA)

- FELODIPINE (PLENDIL)
- FELODIPINE + ENALAPRIL \* (LEXXEL)
- ISRADIPINE (DYNACIRC)
- NICARDIPINE CARDENE
- NIFEDIPINE (ADALAT, PROCARDIA)
- NISOLDIPINE (SULAR)
- VERAPAMIL (CALAN, ISOPTIN, VERELAN)
- VERAPAMIL + TRANDOLAPRIL (TARKA)

\* Denotes a combination medication

**Required:**

Yes

## Thiazides

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of Thiazides are:

- Bendoflumethiazide (naturetin)
- Chlorothiazide (diuril, diuril sodium)
- Chlorthalidone (hygroton, chlorthalid)
- chlorthalidone + atenolol \* (tenoretic)
- chlorthalidone + azilsartan medoxomil \* (edarbyclor)
- hydrochlorothiazide (HCTZ) (microzide, hydrodiuril, oretic esidrix, aquazide)
- hydroflumethiazide (saluron)
- indapamide (lozol)
- methyclothiazide (enduron, aquatensen)
- metolazone (zaroxolyn, mykrox)

\*Denotes a combination medication.

**Required:**

Yes

## Anticoagulant

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No

- Not documented

**Supporting Definitions:**

Some examples of anticoagulants are

- Apixaban (Eliquis)
- Dabigatran (Pradaxa)
- Edoxaban (Savaysa)
- Fondaparinux (Arixtra)
- Rivaroxaban (Xarelto)
- Warfarin (Coumadin)

**Required:**

Yes

**ARBs (Angiotensin II Receptor Blockers)****Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of ARBs are

- AZILSARTAN (EDARBI)
- CANDESARTAN (ATACAND)
- CANDESARTAN + HCTZ \* (ATACAND HCT)
- EPROSARTAN (TEVETEN)
- EPROSARTAN + HCTZ \* (TEVETEN HTC)
- IRBESARTAN (AVAPRO)
- IRBESARTAN + HCTZ \* (AVALIDE)
- LOSARTAN (COZAAR)
- LOSARTAN + HCTZ \* (HYZAAR)
- OLMESARTAN (BENICAR)
- OLMESARTAN + AMLODIPINE \* (AZOR)
- OLMESARTAN + HCTZ \* (BENICAR HCT)
- OLMESARTAN + AMLODIPINE + HCTZ \* (TRIBENZOR)
- TELMISARTAN (MICARDIS)
- TELMISARTAN + HCTZ \* (MICARDIS HCT)
- VALSARTAN (DIOVAN)
- VALSARTAN + HCTZ \* (DIOVAN HCT)
- VALSARTAN + AMLODIPINE \* (EXFORGE)
- VALSARTAN + AMLODIPINE + HCTZ \* (EXFORGE HCT)

\*Denotes a combination medication

**Required:**

Yes

**Other Cholesterol Lowering Agent****Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of Other Cholesterol Lowering Medications are:

- Alirocumab (Praluent)
- Bezafibrate (Bezalip)
- Evolocumab (Repatha)
- Ezetimibe (Zetia, Ezetrol)
- Fenofibrate (Tricor, Antara, Lipofen, Triglide, Lipidil Micro, Lipidil Supra, Lipidil EZ)
- Fenofibric Acid (Fibricor, TriLipix)
- Gemfibrozil (Lopid)

**Required:**

Yes

## Procedure Type

**Data Abstraction Instructions:**

Choose the type(s) of procedures performed. Select all that apply.

**Selections:**

- Open AAA
- EVAR
- Open Bypass
- Open Thrombectomy

**Required:**

Yes

## Open AAA Subsequent Operations

**Data Abstraction Instructions:**

Indicate if the patient had subsequent operations related to AAA repair. Enter the indication for the additional procedure. Select all that apply.

Open AAA Subsequent Operations can be obtained from the patient's medical record. This information cannot be obtained from interviewing the patient.

**Selections:**

- Open AAA Subsequent Operations
  - Incision
  - Graft
  - Intestine
  - Leg Ischemia
    - Enter date of occurrence post discharge

**Supporting Definitions:**

**Incision** = additional procedure related to infection or hernia.

**Graft** = additional procedure related to infection, thrombosis, pseudo-aneurysm, or aortoenteric fistula.

**Intestine** = additional procedure related to bowel obstruction or aortoenteric fistula.

**Leg ischemia** = additional procedure related to thrombosis or embolism.

**Required:**

Yes

---

## EVAR imaging performed

---

**Data Abstraction Instructions:**

Indicated if the patient had a CT or US 6-14 months after the date of discharge. Enter the date the imaging was performed.

**Selections:**

- EVAR Imaging performed
  - Enter date on the imaging report

**Required:**

Yes

---

## EVAR Current AAA diameter

---

**Data Abstraction Instructions:**

Enter the value for the maximum AAA diameter during the follow-up timeframe in mm. This value can be found on a CT or US report.

NOTE: This is not the diameter of the endograft. This is the current diameter of the aneurysm to identify if sac growth has occurred.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- EVAR Current AAA Diameter
  - Enter value in mm.

**Required:**

Yes

**Suffix:**

mm

**Minimum:**

0

**Maximum:**

200

---

## EVAR Current Endoleak

---

**Data Abstraction Instructions:**

Indicate what type of endoleak the patient has during the follow-up timeframe.

This information will be gathered from a patient's medical record and not from interviewing the patient. This information can be found on a CT or US imaging report, office, or hospital progress notes.

**Selections:**

- EVAR Current Endoleak
  - Type 1
  - Type 2
  - Type 3
  - Indeterminate

**Supporting Definitions:**

**Type 1** = Proximal or distal attachment site leak.

**Type 2** = Retrograde filling of sac via lumbar, IMA or accessory renals.

**Type 3** = Filling of sac via leak at component overlap sites or fabric tear.

**Indeterminate** = The area of endoleak cannot be determined or is unknown.

**Required:**

Yes

---

## EVAR Additional Procedure

---

### Data Abstraction Instructions:

Indicate any additional procedures performed related to EVAR during the follow-up timeframe, and their indication. Check all that apply. Also enter the date the procedure was performed.

This information should be gathered from a patient's medical record and not from interviewing the patient.

### Selections:

- ◆ EVAR Additional Procedure
  - Endoleak
  - Sac Growth
  - Migration
  - Limb Occlusion
  - Symptoms-Rupture
    - Enter date of occurrence post discharge

**Required:**

Yes

---

## EVAR Conversion to Open

---

### Data Abstraction Instructions:

Indicate if the EVAR procedure was converted to and open AAA procedure during the follow-up timeframe and enter the indication for the OAAA. Choose all that apply. Also enter the date the EVAR procedure was converted to an OAAA.

This information should be gathered from a patient's medical record and not from interviewing the patient.

### Selections:

- ◆ EVAR Conversion to Open
  - Endoleak
  - Sac Growth
  - Migration
  - Infection
  - Symptoms-Rupture
    - Enter date of occurrence post discharge

**Required:**

Yes

---

## EVAR 1-Year Renal Failure Replacement Therapy

---

### Data Abstraction Instructions:

Indicate if the patient had hemodialysis, CAPD, or CRRT during the 1-year follow-up timeframe for EVAR procedures only. Enter the date the renal failure replacement therapy was initiated. If no date is documented enter not documented.

EVAR 1-Year Renal Failure Replacement Therapy can be obtained through the medical record or a phone call to the patient.

### Selections:

- ◆ EVAR 1-Year Renal Failure Replacement Therapy

- Enter date EVAR 1-Year Renal Failure Replacement Therapy was initiated
- Not documented

**Required:**

Yes

---

## EVAR 1-Year Creatinine Value

---

**Data Abstraction Instructions:**

Enter the Creatinine value and the date of the Creatinine value that is documented during the 1-year follow-up timeframe for EVAR procedures only.

This value must be taken from the patient's medical record.

**Selections:**

- EVAR 1-Year Creatinine
  - Enter EVAR 1-Year Creatinine Value (mg/dl)
  - Date of EVAR 1-Year Creatinine Value

**Required:**

Yes

---

## Open Bypass ABIs

---

**Data Abstraction Instructions:**

Indicate if the patient has had ABIs measured during the follow-up timeframe and if so, enter the value.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Bypass ABIs
  - Enter Value for ABIs Right
  - Enter Value for ABIs Left

**Required:**

Yes

**Minimum:**

0

**Maximum:**

1.39

---

## Open Bypass TBIs

---

**Data Abstraction Instructions:**

Indicate if the patient had TBIs measured during the follow-up timeframe, and if so, enter the value.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Bypass TBIs
  - Enter Value for TBIs Right
  - Enter Value for TBIs Left

**Required:**

Yes

**Minimum:**

0

**Maximum:**

1.39

---

## Open Bypass Toe Pressures

---

**Data Abstraction Instructions:**

Indicate if the patient had Toe Pressures measured during the follow-up timeframe, and if so, enter the value.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Bypass Toe Pressures
  - Enter value for Toe Pressures Right mm/Hg
  - Enter value for Toe Pressures Left mm/Hg

**Required:**

Yes

**Suffix:**

mmHg

---

## Open Bypass Revision

---

**Data Abstraction Instructions:**

Indicate if the patient was readmitted to the hospital for a graft revision and indicate if the graft revision was performed surgical and/or percutaneously. Select all that apply.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Bypass Revision
  - Surgical
  - Percutaneous
  - Enter date of occurrence post discharge

**Required:**

Yes

---

## Open Bypass Patency

---

**Data Abstraction Instructions:**

Indicate if the patient's graft is patent at follow up.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open bypass Patency
  - Yes
  - No

**Required:**

Yes

---

## Open Bypass Pulses

---

**Data Abstraction Instructions:**

Indicate the method of determining graft patency at follow up. Select all that apply.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Bypass Pulses
  - Palpable graft pulse
  - Palpable distal pulse
  - ABI increase >0.15
  - Duplex

**Required:**

Yes

---

## Open Thrombectomy Repeat Procedure

---

**Data Abstraction Instructions:**

Indicate if the patient had an intervention on the same vessel as the original open thrombectomy procedure during the follow-up timeframe. Enter the date of the intervention.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Thrombectomy Repeat Procedure
  - Yes
    - Surgical
    - Percutaneous
    - Enter date of the repeat procedure
  - No

**Required:**

Yes

---

## Open Thrombectomy Additional Vascular Procedure

---

**Data Abstraction Instructions:**

Indicate if the patient returned during follow-up for an additional vascular procedure on a different vessel than the original open thrombectomy procedure. Do not select this option for a repeat procedure on the same vessel.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Thrombectomy Additional Vascular Procedure
  - Yes
    - Surgical
    - Percutaneous
    - Enter date of occurrence post discharge
  - No

**Required:**

Yes

---

## Open Thrombectomy Vessel Patent

---

**Data Abstraction Instructions:**

Indicate if the target thrombectomy vessel is patent at follow up.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

- Open Thrombectomy Vessel Patent

- Yes
- No

**Required:**

Yes

## Wound Complication

**Data Abstraction Instructions:**

Indicate if the patient has experienced an issue with surgical healing during follow-up. This can be an infection, hematoma, or other issue with the surgical site.

Examples:

- An infection that does not require admission to the hospital, IV antibiotics or wound culture.
- A post-op hematoma that requires admission to the hospital to evacuate the hematoma. Enter Readmission to Hospital>Other AND Wound Complication for this scenario.

If the patient reports a wound complication, you should verify the extent/type with the medical record, or a call to their physician, or any actual documentation of the complication.

**Selections:**

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

**Required:**

Yes

## Amputation

**Data Abstraction Instructions:**

Indicate if the patient had an amputation during the follow-up timeframe. If yes, indicate the level of amputation. If the patient had multiple amputations within the follow-up timeframe, enter the date and level of the first amputation that was performed.

If the patient were readmitted for an amputation on the side of the procedure, enter the outcomes of readmission and amputation.

Amputation may be obtained through a phone call with the patient.

**Selections:**

- Yes
  - Left AKA
  - Left BKA
  - Left foot
  - Left metatarsal
  - Left digit
  - Left hip disarticulation
  - Right AKA
  - Right BKA
  - Right foot
  - Right metatarsal
  - Right digit
  - Right hip disarticulation
    - Enter Date of first amputation
- No
- Not documented

**Supporting Definitions:****Required:**

Yes

---

## MI

---

**Data Abstraction Instructions:**

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

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

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

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

**Selections:**

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

**Required:**

Yes

---

## TIA/Stroke

---

**Data Abstraction Instructions:**

Indicate if the patient was readmitted to the hospital for a TIA or stroke during follow-up.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

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

**Supporting Definitions:**

- Transient Ischemic Attacks (TIA) are characterized by the following: A focal neurologic abnormality of sudden onset and brief duration (i.e., lasting <24 hours) that reflects a dysfunction (presumed to be ischemic in origin) in the cerebral distribution of the affected artery. They are evidenced by neurological symptoms involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories.
- Ischemic Strokes are caused by a "blockage of a blood vessel" resulting in residual symptoms lasting greater than 24 hours and leading to impaired functional outcomes. They are evidenced by loss of neurological function involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories.
- Intracranial Hemorrhage or Hemorrhagic Strokes are caused by "bursting or leaking of blood vessels" in the brain and may lead to impaired functional outcomes.

Symptoms of transient ischemic attack or ischemic stroke can include the following:

- Transient monocular blindness (e.g., amaurosis fugax, defined as a transient episode of blindness or partial blindness, affecting one eye only)
- language impairment
- speech impairment or dysphasia
- hemi-neglect
- vertigo (spinning sensation)
- cranial nerve abnormalities (an example is dysconjugate gaze, in which eyes are no longer yoked together)
- “crossed” neurological symptoms, indicated by focal neurological deficits involving both sides of the body (example: sensory loss on the right and motor weakness on the left)
- motor weakness
- sensory loss
- slurred speech (“dysarthria”)
- visual field cut
- clumsiness or incoordination

**Required:**

Yes

---

## Renal Failure/Dialysis (30-Day Follow-up Only)

---

**Data Abstraction Instructions:**

Indicate if the patient was readmitted during the 30-day follow-up timeframe for renal failure or new dialysis.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

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

**Required:**

Yes

---

## Transfusion (PRBCs - 30-Day Follow-up Only)

---

**Data Abstraction Instructions:**

Indicate if the patient was readmitted during the 30-day follow-up and received a transfusion of PRBCs.

This information should be gathered from a patient's medical record and not from interviewing the patient.

**Selections:**

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

**Required:**

Yes

---

## Michigan OPEN (30-Day Follow-up Only)

---

---

### Patient still taking opioid

---

**Data Abstraction Instructions:**

Indicate if the patient is still taking an opioid during the 30-day follow-up.

**Selections:**

- No
- Same as discharge
- New opioid/dose

**Required:**  
Yes

---

## Type of opioid

---

### Data Abstraction Instructions:

Indicate the type of new opioid the patient is taking during the 30-day follow-up. 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 new opioid that was prescribed during the 30-day follow-up. If the dose is in a range, enter the lower dose.

### Selections:

Enter opioid dose prescribed

**Required:**  
Yes

---

## Opioid dose prescribed (unit)

---

### Data Abstraction Instructions:

Indicate the units for the dose of opioid prescribed during the 30-day follow-up.

### Selections:

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

**Required:**  
Yes

---

## Opioid Prescribing provider type

---

### Data Abstraction Instructions:

Indicate the type of provider that wrote the opioid prescription during the 30-day follow-up.

### Selections:

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist

- Oncologist
- Other

**Required:**Yes

---

**Refills requested**

---

**Data Abstraction Instructions:**

Indicate if the patient requested a refill of any opioid prescription during the 30-day follow-up.

**Selections:**

- Yes
- No

**Required:**Yes

---

**Refills given**

---

**Data Abstraction Instructions:**

Indicate if the patient received additional refills of the opioid during the 30-day follow-up. These refills would be in addition to the refills that were prescribed at discharge.

**Selections:**

- Yes
- No

**Required:**Yes

---

**Refill prescribing provider type**

---

**Data Abstraction Instructions:**

Indicate the type of provider that wrote the additional opioid refill during the 30-day follow-up.

**Selections:**

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist
- Oncologist
- Other

**Required:**

Yes

---

## Carotid Stent Follow-up Data Fields

---

---

### Carotid Follow Up Interval

---

**Data Abstraction Instructions:**

Choose the time frame for the Follow Up.

**Selections:**

- 30 Day
- 1 Year

**Required:**

Yes

---

### Contact Date

---

**Data Abstraction Instructions:**

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

**Selections:**

Enter date.

**Required:**

Yes

---

### Current Living Status

---

**Data Abstraction Instructions:**

Indicate the living status of the patient at the time of follow up. Current Living Status can be obtained through the medical record or a phone call to the patient.

**Selections:**

- Home
- Rehabilitation
- Other acute care hospital
- Nursing Home/Extended Care
- Hospice / Comfort care
- Assisted Living
- Homeless
- In Hospital
- Dead
  - Current Living Status Death Date
  - Select Cause of Death
    - Neurologic
    - Cardiac
    - Pulmonary
    - Vascular
    - Infection
    - Renal
    - Unknown
- Not documented

**Supporting Definitions:**

**Home** = The patient lives at the place during the follow-up interval they lived before being admitted to the hospital. If the patient is in prison at the time of follow-up, enter Home.

**Rehabilitation** = The patient is on an inpatient rehab floor or in an external rehab facility. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

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

**Nursing home / Extended Care** = The patient is in a nursing home for long-term care or because they need nursing care beyond rehabilitation. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

**Hospice / Comfort care** = The patient is admitted to a Hospice center or is at home and is under the care of a Hospice center. Or the patient is in a facility where comfort care orders have been written.

**Assisted Living** = The patient is in 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.

**In Hospital** = The patient is in the hospital at the time of follow-up.

**Dead** = The patient died any time after discharge or during the follow-up interval.

**Required:**

Yes

## Additional Procedure

### Data Abstraction Instructions:

Indicate if an additional procedure, either stenting or carotid endarterectomy, was performed on the same vessel as the original CAS procedure during follow-up. Select all that apply.

If the patient states during a phone call that an additional procedure was performed, verify the information from the patient's medical record or physician.

### Selections:

- Yes
  - CAS
  - CEA
    - Enter date of occurrence
- No

**Required:**

Yes

## Neurologic Deficit(s) Occurred Since Discharge

### Data Abstraction Instructions:

Indicate if a new neurologic deficit has occurred since discharge. If yes, indicate the resolution timeframe. If the patient states they had neurological changes during a phone call, verify the information from the patient's medical record or physician.

### Selections:

- Yes
  - Deficit occurred and resolved within 24 hours (i.e.TIA)
  - Deficit occurred and duration was greater than 24 hours, but did completely resolve
  - Persistent deficit occurred, lasted greater than 24 hours, and did not completely resolve
  - Enter date of occurrence post discharge
- No
- Not documented

### Supporting Definitions:

- **Stroke**
  - Ischemic Strokes are caused by a "blockage of a blood vessel" resulting in residual symptoms lasting greater than 24 hours and leading to impaired functional outcomes. They are evidenced by loss of neurological function involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories. Intracranial Hemorrhage or

Hemorrhagic Strokes are caused by “bursting or leaking of blood vessels” in the brain and may lead to impaired functional outcomes. They are evidenced by intraparenchymal (e.g., hemorrhagic conversion of prior stroke) intracranial hemorrhage, subarachnoid intracranial hemorrhage, and/or subdural intracranial hemorrhage.

- **TIA**
  - A focal neurologic abnormality of sudden onset and brief duration (i.e., lasting <24 hours) that reflects a dysfunction (presumed to be ischemic in origin) in the cerebral distribution of the affected artery. They are evidenced by neurological symptoms involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories.

**Required:**

Yes

## Territory of Neurologic Deficit

**Data Abstraction Instructions:**

Indicate the territory of the neurologic deficit post discharge. Select all that apply.

This information can be obtained through the patient's medical record or by calling their physician.

**Selections:**

- Yes
  - Right Retinal
  - Left Retinal
  - Right Hemispheric
  - Left Hemispheric
  - Vertebrobasilar
  - Unknown
- No

**Supporting Definitions:**

Symptoms of **ischemic stroke or TIA** in specific territories can include the following:

- - Ischemia in the **retinal territory** can be manifested as Transient monocular blindness (e.g., amaurosis fugax, defined as a transient episode of blindness or partial blindness, affecting one eye only).
  - Ischemia in the **hemispheric territory** supplied by the carotid artery can be manifested as:
    - language impairment
    - speech impairment or dysphasia
    - hemi-neglect
    - motor weakness
    - sensory loss
    - slurred speech ("dysarthria")
    - visual field cut (more common in the vertebrobasilar territory)
    - clumsiness or incoordination (more common in the vertebrobasilar territory)
  - Ischemia in the **vertebrobasilar territory** can be manifested as:
    - vertigo (spinning sensation)
    - cranial nerve abnormalities (an example is dysconjugate gaze, in which eyes are no longer yoked together)
    - “crossed” neurological symptoms, indicated by focal neurological deficits involving both sides of the body (example: sensory loss on the right and motor weakness on the left)
    - motor weakness
    - sensory loss
    - slurred speech ("dysarthria")
    - visual field cut (more common in the vertebrobasilar territory)

**Unknown** = The territory of the deficit is unknown or cannot be identified.

**Required:**

Yes

## Carotid Duplex

**Data Abstraction Instructions:**

Indicate if a carotid duplex was performed during the follow-up timeframe. If yes, indicate the measurement of stenosis at the operative site. If the duplex results give a range for the operative site, use the largest value.

This information can be obtained from the carotid duplex report.

**Selections:**

- Yes
  - ≤ 50%
  - > 50%
  - > 60%
  - > 70%
  - > 80%
  - Occluded
  - Not Occluded
- No
- Not documented

**Required:**

Yes

---

## Blood Pressure

---

**Data Abstraction Instructions:**

Enter the systolic blood pressure (SBP) and diastolic blood pressure (DBP) documented at the time of follow-up. If the patient is in the hospital >30 days, enter the first blood pressure after the patient is discharged from the hospital for the 30-Day follow-up blood pressure.

**Selections:**

- Yes
  - Enter value SBP
  - Enter value DBP
- Not documented

**Required:**

Yes

**Maximum Length:**

3

---

## Smoking (CAS)

---

**Data Abstraction Instructions:**

Indicate if patient was smoking cigars, cigarettes (including e-cigarettes or vaping), pipe (tobacco), marijuana or chewing tobacco at the time of follow-up.

Smoking can be obtained through the medical record or a phone call to the patient.

**Selections:**

- Yes
- No
- Not Documented

**Required:**

Yes

---

## Antiplatelets

---

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of antiplatelet medications are

- Cilostazol (Pletal)
- Clopidogrel (Plavix)
- Prasugrel (Effient)
- Ticagrelor (Effient)

**Required:**

Yes

**Statin****Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of statins are

- Atorvastatin (Lipitor)
- Atorvastatin + Amlodipine\* (Caduet)
- Cerivastatin (Baycol)
- Fluvastatin (Lescol)
- Lovastatin (Mevacor)
- Lovastatin + Niacin\* (Advicor)
- Pitavastatin (Livalo)
- Pravastatin (Pravachol)
- Rosuvastatin (Crestor)
- Simvastatin (Zocor)
- Simvastatin + Ezetimibe \* (Vytorin)
- Simvastatin + Niacin \* (Simcor)

\*Denotes a combination medication

**Required:**

Yes

**Aspirin****Data Abstraction Instructions:**

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

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

**Selections:**

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

**Required:**

Yes

## Beta Blocker

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Examples of beta blockers are

- ACEBUTOLOL (SECTRAL)
- ATENOLOL (TENORMIN)
- ATENOLOL + CHLORTHALIDONE \* (TENORETIC)
- BETAXOLOL (KERLONE)
- BISOPROLOL (ZEBETA)
- BISOPROLOL + HCTZ \* (ZIAC)
- CARVEDILOL (COREG)
- ESMOLOL (BREVIBLOC)
- LABETALOL (TRANDATE)
- METOPROLOL (LOPRESSOR, TOPROL)
- METOPROLOL + HCTZ \* (LOPRESSOR HCT, DUTROPROL)
- NADOLOL (CORGARD)
- NADOLOL + BENDROFLUMETHIAZIDE \* (CORZIDE)
- NEBIVOLOL (BYSTOLIC)
- PENBUTOLOL (LEVATOL)
- PINDOLOL (VISKEN)
- PROPRANOLOL (INDERAL, INNOPRAN)
- PROPRANOLOL + HCTZ \* (INDERIDE)
- TIMOLOL (BLOCADREN)
- TIMOLOL + HCTZ \* (TIMOLIDE)

\*Denotes a combination medication

**Required:**

Yes

## ACE Inhibitor

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
  - Contraindicated for ACE Inhibitors:
    - Yes
    - No
- Not documented

**Supporting Definitions:**

Examples of ACE Inhibitors are

- BENAZEPRIL (LOTENSIN)
- BENAZEPRIL + HCTZ \* (LOTENSIN HCT)
- BENAZEPRIL + AMLODIPINE \* (LOTREL)
- CAPTOPRIL (CAPOTEN)
- CAPTOPRIL + HCTZ \* (CAPTOZIDE)
- CILAZAPRIL (INHIBACE)
- CILAZAPRIL + HCTZ \* (INHIBACE PLUS)
- ENALAPRIL (VASOTEC, ENALAPRILAT)
- ENALAPRIL + HCTZ \* (VASERETIC)
- ENALAPRIL + FELODIPINE \* (LEXXEL)
- FOSINOPRIL (MONOPRIL)
- FOSINOPRIL + HCTZ \* (MONOPRIL HCT)
- LISINOPRIL (ZESTRIL, PRINIVIL)
- LISINOPRIL + HCTZ \* (PRINZIDE, ZESTORETIC)
- MOEXIPRIL (UNIVASC)
- MOEXIPRIL + HCTZ \* (UNIRETIC)
- PERINDOPRIL (ACEON)
- QUINAPRIL (ACCUPRIL)
- QUINAPRIL + HCTZ \* (ACCURETIC)
- TRANDOLAPRIL (MAVIK)
- TRANDOLAPRIL + VERAPAMIL \* (TARKA)

\*Denotes a combination medication.

**Required:**

Yes

**Calcium Channel Blocker****Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Examples of Calcium Channel Blockers are:

- AMLODIPINE (NORVASC)
- AMLODIPINE + ATORVASTATIN \* (CADUET)
- AMLODIPINE + BENAZAPRIL \* (LOTREL)
- AMLODIPINE + OLMESARTAN (AZOR)
- AMLODIPINE + OLMESARTAN + HCTZ \* (TRIBENZOR)
- AMLODIPINE + TELMISARTAN \* (TWINSTA)
- AMLODIPINE + VALSARTAN \* (EXFORGE)
- CLEVIDIPINE (CLEVIPREX)
- DILTIAZEM (CARDIZEM, DALACOR)
- DILTIAZEM HCL (CARTIA)
- FELODIPINE (PLENDIL)
- FELODIPINE + ENALAPRIL \* (LEXXEL)
- ISRADIPINE (DYNACIRC)
- NICARDIPINE CARDENE
- NIFEDIPINE (ADALAT, PROCARDIA)
- NISOLDIPINE (SULAR)
- VERAPAMIL (CALAN, ISOPTIN, VERELAN)
- VERAPAMIL + TRANDOLAPRIL (TARKA)

\* Denotes a combination medication

**Required:**

Yes

## Thiazides

### Data Abstraction Instructions:

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

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

### Selections:

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

### Supporting Definitions:

Some examples of Thiazides are:

- Bendoflumethiazide (naturetin)
- Chlorothiazide (diuril, diuril sodium)
- Chlorthalidone (hygroton, chlorthalid)
- chlorthalidone + atenolol \* (tenoretic)
- chlorthalidone + azilsartan medoxomil \* (edarbyclor)
- hydrochlorothiazide (HCTZ) (microzide, hydrodiuril, oretic esidrix, aquazide)
- hydroflumethiazide (saluron)
- indapamide (lozol)
- methyclothiazide (enduron, aquatensen)
- metolazone (zaroxolyn, mykrox)

\*Denotes a combination medication.

**Required:**

Yes

## Anticoagulant

### Data Abstraction Instructions:

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Some examples of anticoagulants are

- Apixaban (Eliquis)
- Dabigatran (Pradaxa)
- Edoxaban (Savaysa)
- Fondaparinux (Arixtra)
- Rivaroxaban (Xarelto)
- Warfarin (Coumadin)

**Required:**

Yes

## ARBs (Angiotensin II Receptor Blockers)

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of ARBs are

- AZILSARTAN (EDARBI)
- CANDESARTAN (ATACAND)
- CANDESARTAN + HCTZ \* (ATACAND HCT)
- EPROSARTAN (TEVETEN)
- EPROSARTAN + HCTZ \* (TEVETEN HTC)
- IRBESARTAN (AVAPRO)
- IRBESARTAN + HCTZ \* (AVALIDE)
- LOSARTAN (COZAAR)
- LOSARTAN + HCTZ \* (HYZAAR)
- OLMESARTAN (BENICAR)
- OLMESARTAN + AMLODIPINE \* (AZOR)
- OLMESARTAN + HCTZ \* (BENICAR HCT)
- OLMESARTAN + AMLODIPINE + HCTZ \* (TRIBENZOR)
- TELMISARTAN (MICARDIS)
- TELMISARTAN + HCTZ \* (MICARDIS HCT)
- VALSARTAN (DIOVAN)
- VALSARTAN + HCTZ \* (DIOVAN HCT)
- VALSARTAN + AMLODIPINE \* (EXFORGE)
- VALSARTAN + AMLODIPINE + HCTZ \* (EXFORGE HCT)

\*Denotes a combination medication

**Required:**

Yes

---

## Other Cholesterol Lowering Agent

---

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of Other Cholesterol Lowering Medications are:

- Alirocumab (Praluent)
- Bezafibrate (Bezalip)
- Evolocumab (Repatha)
- Ezetimibe (Zetia, Ezetrol)
- Fenofibrate (Tricor, Antara, Lipofen, Triglide, Lipidil Micro, Lipidil Supra, Lipidil EZ)
- Fenofibric Acid (Fibricor, TriLipix)
- Gemfibrozil (Lopid)

**Required:**

Yes

---

## MI

---

**Data Abstraction Instructions:**

Indicate if the patient was readmitted to the hospital for a myocardial infarction during the follow-up interval. This information should be gathered from a patient's medical record, not from interviewing the patient.

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

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

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

**Selections:**

- Yes
  - Enter date of MI
- No
- Not Documented

**Required:**

Yes

---

## Michigan OPEN (30-Day Follow-up Only)

---

---

### Patient still taking opioid

---

**Data Abstraction Instructions:**

Indicate if the patient is still taking an opioid at the 30-Day follow-up.

**Selections:**

- No
- Same as discharge
- New opioid/dose

**Required:**

Yes

---

### Type of opioid

---

**Data Abstraction Instructions:**

Indicate the type of new opioid the patient is taking during the 30-day follow-up. 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 new opioid that was prescribed during the 30-day follow-up. If the dose is in a range, enter the lower dose.

**Selections:**

Enter opioid dose prescribed

**Required:**

Yes

---

### Opioid dose prescribed (unit)

---

**Data Abstraction Instructions:**

Indicate the units for the dose of opioid prescribed during the 30-day follow-up.

**Selections:**

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

**Required:**

Yes

---

## Opioid prescribing provider type

---

### Data Abstraction Instructions:

Indicate the type of provider that wrote the opioid prescription during the 30-day follow-up.

### Selections:

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist
- Oncologist
- Other

### Required:

Yes

---

## Refills requested

---

### Data Abstraction Instructions:

Indicate if the patient requested a refill of any opioid prescription during the 30-day follow-up.

### Selections:

- Yes
- No

### Required:

Yes

---

## Refills given

---

### Data Abstraction Instructions:

Indicate if the patient received additional refills of the opioid during the 30-day follow-up. These refills would be in addition to the refills that were prescribed at discharge.

### Selections:

- Yes
- No

### Required:

Yes

---

## Refill prescribing provider type

---

### Data Abstraction Instructions:

Indicate the type of provider that wrote the additional opioid refill during the 30-day follow-up.

### Selections:

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist
- Oncologist
- Other

### Required:

Yes

---

## Carotid Endarterectomy Follow-up Data Fields

---

---

### Carotid Follow Up Interval

---

**Data Abstraction Instructions:**

Choose the time frame for the Follow Up.

**Selections:**

- 30 Day
- 1 Year

**Required:**

Yes

---

### Contact Date

---

**Data Abstraction Instructions:**

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

**Selections:**

Enter date.

**Required:**

Yes

---

### Current Living Status

---

**Data Abstraction Instructions:**

Indicate the living status of the patient at the time of follow up. Living Status can be obtained through the medical record or a phone call to the patient.

**Selections:**

- Home
- Rehabilitation
- Other acute care hospital
- Nursing Home/Extended Care
- Hospice / Comfort care
- Assisted Living
- Homeless
- In Hospital
- Dead
  - Enter date of death
  - Select cause of death
    - Neurologic
    - Cardiac
    - Pulmonary
    - Vascular
    - Infection
    - Renal
    - Unknown
- Not documented

**Supporting Definitions:**

**Home** = The patient lives at the place during the follow-up interval they lived before being admitted to the hospital. If the patient is in prison at the time of follow-up, enter Home.

**Rehabilitation** = The patient is on an inpatient rehab floor or in an external rehab facility. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

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

**Nursing home / Extended Care** = The patient is in a nursing home for long-term care or because they need nursing care beyond rehabilitation. If the patient is in a nursing home for physical rehabilitation, enter Rehabilitation.

**Hospice / Comfort care** = The patient is admitted to a Hospice center or is at home and is under the care of a Hospice center. Or the patient is in a facility where comfort care orders have been written.

**Assisted Living** = The patient is in 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.

**In Hospital** = The patient is in the hospital at the time of follow-up.

**Dead** = The patient died any time after discharge or during the follow-up interval.

**Required:**

Yes

## Additional Procedure

### Data Abstraction Instructions:

Indicate if an additional procedure, either stenting or carotid endarterectomy, was performed on the same vessel as the original CAS procedure during follow-up. Select all that apply.

If the patient states during a phone call that an additional was performed, verify the information from the patient's medical record or physician.

### Selections:

- Yes
  - CAS
  - CEA
  - Enter date of occurrence
- No

**Required:**

Yes

## Cranial Nerve Injury

### Data Abstraction Instructions:

If the patient had a cranial nerve injury related to the carotid procedure, indicate the status at follow up.

### Selections:

- Yes
  - Resolved
  - Persistent
- No
- Not documented

### Supporting Definitions:

The cranial nerves and symptoms of nerve injuries are listed below.

- **VII** - facial droop or more severe
- **IX** - swallowing difficulty unless other diagnosis confirmed
- **X** - hoarseness unless laryngoscopy normal
- **XII** - any tongue deviation or dis-coordination

**Required:**

Yes

---

## Neurologic Deficit(s) Occurred Since Discharge

---

**Data Abstraction Instructions:**

Indicate if a new neurologic deficit has occurred since discharge. If yes, indicate the resolution timeframe. If the patient states they had neurological changes during a phone call, verify the information from the patient's medical record or physician.

**Selections:**

- Yes
  - Deficit occurred and resolved within 24 hours (i.e.TIA)
  - Deficit occurred and duration was greater than 24 hours, but did completely resolve
  - Persistent deficit occurred, lasted greater than 24 hours, and did not completely resolve
    - Enter date of occurrence post discharge
- No
- Not documented

**Supporting Definitions:**

- **Stroke**
  - Ischemic Strokes are caused by a “blockage of a blood vessel” resulting in residual symptoms lasting greater than 24 hours and leading to impaired functional outcomes. They are evidenced by loss of neurological function involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories. Intracranial Hemorrhage or Hemorrhagic Strokes are caused by “bursting or leaking of blood vessels” in the brain and may lead to impaired functional outcomes. They are evidenced by intraparenchymal (e.g., hemorrhagic conversion of prior stroke) intracranial hemorrhage, subarachnoid intracranial hemorrhage, and/or subdural intracranial hemorrhage.
- **TIA**
  - A focal neurologic abnormality of sudden onset and brief duration (i.e., lasting <24 hours) that reflects a dysfunction (presumed to be ischemic in origin) in the cerebral distribution of the affected artery. They are evidenced by neurological symptoms involving right or left retinal, right or left hemispheric, vertebrobasilar, and/or unknown territories.

**Required:**

Yes

---

## Territory of Neurologic Deficit

---

**Data Abstraction Instructions:**

Indicate the territory of the neurologic deficit post discharge. Select all that apply.

This information will need to be obtained through the patient's medical record or physician.

**Selections:**

- Yes
  - Right Retinal
  - Left Retinal
  - Right Hemispheric
  - Left Hemispheric
  - Vertebrobasilar
  - Unknown
- No

**Supporting Definitions:**

Symptoms of **ischemic stroke or TIA** in specific territories can include the following:

- - Ischemia in the **retinal territory** can be manifested as Transient monocular blindness (e.g., amaurosis fugax, defined as a transient episode of blindness or partial blindness, affecting one eye only).
  - Ischemia in the **hemispheric territory** supplied by the carotid artery can be manifested as:
    - language impairment
    - speech impairment or dysphasia
    - hemi-neglect
    - motor weakness
    - sensory loss

- slurred speech ("dysarthria")
- visual field cut (more common in the vertebrobasilar territory)
- clumsiness or incoordination (more common in the vertebrobasilar territory)
- Ischemia in the **vertebrobasilar territory** can be manifested as:
  - vertigo (spinning sensation)
  - cranial nerve abnormalities (an example is dysconjugate gaze, in which eyes are no longer yoked together)
  - "crossed" neurological symptoms, indicated by focal neurological deficits involving both sides of the body (example: sensory loss on the right and motor weakness on the left)
  - motor weakness
  - sensory loss
  - slurred speech ("dysarthria")
  - visual field cut (more common in the vertebrobasilar territory)

**Unknown** = The territory of the deficit is unknown or cannot be identified.

**Required:**

Yes

## Carotid Duplex

### Data Abstraction Instructions:

Indicate if a carotid duplex was performed post discharge. If yes, indicate the measurement of stenosis at the operative site. If the duplex results give a range for the operative site, use the largest value.

This information can be obtained from the carotid duplex report.

### Selections:

- Yes
  - ≤ 50%
  - > 50%
  - > 60%
  - > 70%
  - > 80%
  - Occluded
  - Not Occluded
- No
- Not documented

**Required:**

Yes

## Blood Pressure

### Data Abstraction Instructions:

Enter the systolic blood pressure (SBP) and diastolic blood pressure (DBP) documented at the time of follow-up. If the patient is in the hospital >30 days, enter the first blood pressure after the patient is discharged from the hospital for the 30-Day follow-up blood pressure.

### Selections:

- Yes
  - Enter value SBP
  - Enter value DBP
- Not documented

**Required:**

Yes

**Maximum Length:**

3

## Smoking (CEA)

### Data Abstraction Instructions:

Indicate if patient was smoking cigars, cigarettes (including e-cigarettes or vaping), pipe (tobacco), marijuana or chewing tobacco at the time of follow-up.

Smoking can be obtained through the medical record or a phone call to the patient.

**Selections:**

- Yes
- No
- Not Documented

**Required:**

Yes

---

## Antiplatelets

---

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of antiplatelet medications are

- Cilostazol (Pletal)
- Clopidogrel (Plavix)
- Prasugrel (Effient)
- Ticagrelor (Effient)

**Required:**

Yes

---

## Statin

---

**Data Abstraction Instructions:**

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

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

**Selections:**

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

**Supporting Definitions:**

Some examples of statins are

- Atorvastatin (Lipitor)
- Atorvastatin + Amlodipine\* (Caduet)
- Cerivastatin (Baycol)
- Fluvastatin (Lescol)
- Lovastatin (Mevacor)
- Lovastatin + Niacin\* (Advicor)
- Pitavastatin (Livalo)
- Pravastatin (Pravachol)
- Rosuvastatin (Crestor)
- Simvastatin (Zocor)
- Simvastatin + Ezetimibe \* (Vytorin)
- Simvastatin + Niacin \* (Simcor)

\*Denotes a combination medication

**Required:**

Yes

## Aspirin

### Data Abstraction Instructions:

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

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

### Selections:

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

**Required:**

Yes

## Beta Blocker

### Data Abstraction Instructions:

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

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

### Selections:

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

### Supporting Definitions:

Examples of beta blockers are

- ACEBUTOLOL (SECTRAL)
- ATENOLOL (TENORMIN)
- ATENOLOL + CHLORTHALIDONE \* (TENORETIC)

- BETAXOLOL (KERLONE)
- BISOPROLOL (ZEBETA)
- BISOPROLOL + HCTZ \* (ZIAC)
- CARVEDILOL (COREG)
- ESMOLOL (BREVIBLOC)
- LABETALOL (TRANDATE)
- METOPROLOL (LOPRESSOR, TOPROL)
- METOPROLOL + HCTZ \* (LOPRESSOR HCT, DUTROPROL)
- NADOLOL (CORCARD)
- NADOLOL + BENDROFLUMETHIAZIDE \* (CORZIDE)
- NEBIVOLOL (BYSTOLIC)
- PENBUTOLOL (LEVATOL)
- PINDOLOL (VISKEN)
- PROPRANOLOL (INDERAL, INNOPRAN)
- PROPRANOLOL + HCTZ \* (INDERIDE)
- TIMOLOL (BLOCADREN)
- TIMOLOL + HCTZ \* (TIMOLIDE)

\*Denotes a combination medication

**Required:**

Yes

## ACE Inhibitor

### Data Abstraction Instructions:

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

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

### Selections:

- Yes
- No
  - Contraindicated for ACE Inhibitors:
    - Yes
    - No
- Not documented

### Supporting Definitions:

Examples of ACE Inhibitors are

- BENAZEPRIL (LOTENSIN)
- BENAZEPRIL + HCTZ \* (LOTENSIN HCT)
- BENAZEPRIL + AMLODIPINE \* (LOTREL)
- CAPTOPRIL (CAPOTEN)
- CAPTOPRIL + HCTZ \* (CAPTOZIDE)
- CILAZAPRIL (INHIBACE)
- CILAZAPRIL + HCTZ \* (INHIBACE PLUS)
- ENALAPRIL (VASOTEC, ENALAPRILAT)
- ENALAPRIL + HCTZ \* (VASERETIC)
- ENALAPRIL + FELODIPINE \* (LEXXEL)
- FOSINOPRIL (MONOPRIL)
- FOSINOPRIL + HCTZ \* (MONOPRIL HCT)
- LISINOPRIL (ZESTRIL, PRINIVIL)
- LISINOPRIL + HCTZ \* (PRINZIDE, ZESTORETIC)
- MOEXIPRIL (UNIVASC)
- MOEXIPRIL + HCTZ \* (UNIRETIC)
- PERINDOPRIL (ACEON)
- QUINAPRIL (ACCUPRIL)
- QUINAPRIL + HCTZ \* (ACCURETIC)
- TRANDOLAPRIL (MAVIK)
- TRANDOLAPRIL + VERAPAMIL \* (TARKA)

\*Denotes a combination medication.

**Required:**

Yes

---

## Calcium Channel Blocker

---

**Data Abstraction Instructions:**

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

Current medications may be obtained from a phone call if the patient is asked to gather their medication bottles and read them.

**Selections:**

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

**Supporting Definitions:**

Examples of Calcium Channel Blockers are:

- AMLODIPINE (NORVASC)
- AMLODIPINE + ATORVASTATIN \* (CADUET)
- AMLODIPINE + BENAZAPRIL \* (LOTREL)
- AMLODIPINE + OLMESARTAN (AZOR)
- AMLODIPINE + OLMESARTAN + HCTZ \* (TRIBENZOR)
- AMLODIPINE + TELMISARTAN \* (TWINSTA)
- AMLODIPINE + VALSARTAN \* (EXFORGE)
- CLEVIDIPINE (CLEVIPREX)
- DILTIAZEM (CARDIZEM, DALACOR)
- DILTIAZEM HCL (CARTIA)
- FELODIPINE (PLENDIL)
- FELODIPINE + ENALAPRIL \* (LEXXEL)
- ISRADIPINE (DYNACIRC)
- NICARDIPINE CARDENE
- NIFEDIPINE (ADALAT, PROCARDIA)
- NISOLDIPINE (SULAR)
- VERAPAMIL (CALAN, ISOPTIN, VERELAN)
- VERAPAMIL + TRANDOLAPRIL (TARKA)

\* Denotes a combination medication

**Required:**

Yes

---

## Thiazides

---

**Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
  - Contraindicated for Thiazides:
    - Yes

- No
- Not documented

### Supporting Definitions:

Some examples of Thiazides are:

- Bendoflumethiazide (naturetin)
- Chlorothiazide (diuril, diuril sodium)
- Chlorthalidone (hygroton, chlorthalid)
- chlorthalidone + atenolol \* (tenoretic)
- chlorthalidone + azilsartan medoxomil \* (edarbyclor)
- hydrochlorothiazide (HCTZ) (microzide, hydrodiuril, oretic esidrix, aquazide)
- hydroflumethiazide (saluron)
- indapamide (lozol)
- methyclothiazide (enduron, aquatensen)
- metolazone (zaroxolyn, mykrox)

\*Denotes a combination medication.

### Required:

Yes

## Anticoagulant

### Data Abstraction Instructions:

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

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

### Selections:

- Yes
- No
- Not documented

### Supporting Definitions:

Some examples of anticoagulants are

- Apixaban (Eliquis)
- Dabigatran (Pradaxa)
- Edoxaban (Savaysa)
- Fondaparinux (Arixtra)
- Rivaroxaban (Xarelto)
- Warfarin (Coumadin)

### Required:

Yes

## ARBs (Angiotensin II Receptor Blockers)

### Data Abstraction Instructions:

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

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

### Selections:

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of ARBs are

- AZILSARTAN (EDARBI)
- CANDESARTAN (ATACAND)
- CANDESARTAN + HCTZ \* (ATACAND HCT)
- EPROSARTAN (TEVETEN)
- EPROSARTAN + HCTZ \* (TEVETEN HTC)
- IRBESARTAN (AVAPRO)
- IRBESARTAN + HCTZ \* (AVALIDE)
- LOSARTAN (COZAAR)
- LOSARTAN + HCTZ \* (HYZAAR)
- OLMESARTAN (BENICAR)
- OLMESARTAN + AMLODIPINE \* (AZOR)
- OLMESARTAN + HCTZ \* (BENICAR HCT)
- OLMESARTAN + AMLODIPINE + HCTZ \* (TRIBENZOR)
- TELMISARTAN (MICARDIS)
- TELMISARTAN + HCTZ \* (MICARDIS HCT)
- VALSARTAN (DIOVAN)
- VALSARTAN + HCTZ \* (DIOVAN HCT)
- VALSARTAN + AMLODIPINE \* (EXFORGE)
- VALSARTAN + AMLODIPINE + HCTZ \* (EXFORGE HCT)

\*Denotes a combination medication

**Required:**

Yes

**Other Cholesterol Lowering Agent****Data Abstraction Instructions:**

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

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

**Selections:**

- Yes
- No
- Not documented

**Supporting Definitions:**

Examples of Other Cholesterol Lowering Medications are:

- Alirocumab (Praluent)
- Bezafibrate (Bezalip)
- Evolocumab (Repatha)
- Ezetimibe (Zetia, Ezetrol)
- Fenofibrate (Tricor, Antara, Lipofen, Triglide, Lipidil Micro, Lipidil Supra, Lipidil EZ)
- Fenofibric Acid (Fibricor, TriLipix)
- Gemfibrozil (Lopid)

**Required:**

Yes

**MI****Data Abstraction Instructions:**

Indicate if the patient was readmitted to the hospital for a myocardial infarction during the follow-up interval.

This information should be gathered from a patient's medical record, not from interviewing the patient.

Enter MI if the patient is diagnosed with Type 2 Myocardial Infarction, Type 1 NSTEMI, or STEMI. If no diagnosis is documented, enter

MI if the patient has an elevated cardiac troponin value(s) greater than the 99<sup>th</sup> percentile URL (upper reference limit) with a rise and/or fall in troponin and at least one of the following:

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

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

**Selections:**

- Yes
  - Enter date of MI
- No
- Not Documented

**Required:**

Yes

## Wound Complication

**Data Abstraction Instructions:**

Indicate if the patient has experienced an issue with surgical healing during the follow-up interval. This can be an infection, hematoma, or other issue with the surgical site.

Examples:

- An infection that does not require admission to the hospital, IV antibiotics or wound culture.
- A post-op hematoma that requires admission to the hospital to evacuate the hematoma. Enter Readmission to Hospital>Other AND Wound Complication for this scenario.

If the patient reports a wound complication, you should verify the extent/type with the medical record, or a call to their physician, or any actual documentation of the complication.

**Selections:**

- Yes
  - Infection
  - Hematoma
  - Other
- No

**Required:**

Yes

## Michigan OPEN (30-Day Follow-up Only)

### Patient still taking opioid

**Data Abstraction Instructions:**

Indicate if the patient is still taking an opioid at the 30-Day follow-up.

**Selections:**

- No
- Same as discharge
- New opioid/dose

**Required:**

Yes

---

## Type of opioid

---

### Data Abstraction Instructions:

Indicate the type of new opioid the patient is taking during the 30-day follow-up. 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 new opioid that was prescribed during the 30-day follow-up. If the dose is in a range, enter the lower dose.

### Selections:

Enter opioid dose

### Required:

Yes

---

## Opioid dose prescribed (unit)

---

### Data Abstraction Instructions:

Indicate the unit(s) for the dose of opioid prescribed during the 30-day follow-up.

### Selections:

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

### Required:

Yes

---

## Opioid prescribing provider type

---

### Data Abstraction Instructions:

Indicate the type of provider that wrote the opioid prescription during the 30-day follow-up.

### Selections:

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist
- Oncologist
- Other

**Required:**

Yes

---

**Refills requested**

---

**Data Abstraction Instructions:**

Indicate if the patient requested a refill of any opioid prescription during the 30-day follow-up.

**Selections:**

- Yes
- No

**Required:**

Yes

---

**Refills given**

---

**Data Abstraction Instructions:**

Indicate if the patient received additional refills of the opioid during the 30-day follow-up. These refills would be in addition to the refills that were prescribed at discharge.

**Selections:**

- Yes
- No

**Required:**

Yes

---

**Refill prescribing provider type**

---

**Data Abstraction Instructions:**

Indicate the type of provider that wrote the additional opioid refill during the 30-day follow-up.

**Selections:**

- Procedural physician/surgeon
- Primary care physician
- Other surgical physician
- Pain specialist
- Oncologist
- Other

**Required:**

Yes