Mandatory and Optional Comprehensive Cardiac Center Certification Performance Measures

September 9, 2019
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<table>
<thead>
<tr>
<th>Measure Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCIP-01</td>
<td>High-Intensity Statin Prescribed at Discharge</td>
</tr>
<tr>
<td>CCCIP-02</td>
<td>Aldosterone Antagonist Prescribed at Discharge</td>
</tr>
<tr>
<td>ACHF-01</td>
<td>Beta-Blocker Therapy (i.e. Bisoprolol, Carvedilol, or Sustained Release Metoprolol Succinate) Prescribed for LVSD at Discharge</td>
</tr>
<tr>
<td>ACHF-02</td>
<td>Post-Discharge Appointment for Heart Failure Patients</td>
</tr>
<tr>
<td>ACHF-06</td>
<td>Post-Discharge Evaluation for Heart Failure Patients</td>
</tr>
</tbody>
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**Optional Inpatient Comprehensive Cardiac Center Certification Performance Measures**

<table>
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<td>CCCIP-03</td>
<td>Cardiac Rehabilitation Referral from an Inpatient Setting</td>
</tr>
<tr>
<td>CCCIP-04</td>
<td>Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from Inpatient Setting</td>
</tr>
<tr>
<td>CCCIP-05</td>
<td>Cardiac Rehabilitation Enrollment - Inpatient</td>
</tr>
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<td>Cardiac Rehabilitation Referral from an Outpatient Setting</td>
</tr>
<tr>
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<td>Cardiac Rehabilitation Referral for Heart Failure patients with Reduced Ejection Fraction from an Outpatient Setting</td>
</tr>
<tr>
<td>CCCOP-03</td>
<td>Cardiac Rehabilitation Enrollment - Outpatient</td>
</tr>
<tr>
<td>ACHFOP-03</td>
<td>Hospital Outpatient Aldosterone Receptor Antagonists Prescribed for LVSD</td>
</tr>
<tr>
<td>ACHFOP-06</td>
<td>Hospital Outpatient Discussion of Advance Directives/Advance Care Planning</td>
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### Mandatory Inpatient Comprehensive Cardiac Center Certification Performance Measures

#### Set Measures

<table>
<thead>
<tr>
<th>Set Measure ID</th>
<th>Measure Short Name</th>
</tr>
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<tr>
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</tr>
</tbody>
</table>

#### General Data Elements

<table>
<thead>
<tr>
<th>Element Name</th>
<th>Collected For</th>
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</thead>
<tbody>
<tr>
<td>Admission Date</td>
<td>All Records,</td>
</tr>
<tr>
<td>Birthdate</td>
<td>All Records,</td>
</tr>
<tr>
<td>Discharge Date</td>
<td>All Records, Not collected for HBIPS-2 and HBIPS-3</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>All Records,</td>
</tr>
<tr>
<td>ICD-10-CM Other Diagnosis Codes</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-CM Principal Diagnosis Code</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Codes</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Dates</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Code</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Date</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>Race</td>
<td>All Records,</td>
</tr>
<tr>
<td>Sex</td>
<td>All Records,</td>
</tr>
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## Measure Set Specific Data Elements

<table>
<thead>
<tr>
<th>Element Name</th>
<th>Collected For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldosterone Receptor Antagonist Prescribed for LVSD at Discharge</td>
<td>CCCIP-02</td>
</tr>
<tr>
<td>Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge</td>
<td>ACHF-01</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>CCCIP-01, CCCIP-02, ACHF-01, ACHF-02, ACHF-06</td>
</tr>
<tr>
<td>Comfort Measures Only</td>
<td>CCCIP-01, CCCIP-02, ACHF</td>
</tr>
<tr>
<td>Discharge Disposition</td>
<td>CCCIP, ACHF</td>
</tr>
<tr>
<td>High-intensity Statin at Discharge</td>
<td>CCCIP-01</td>
</tr>
<tr>
<td>LVSD</td>
<td>CCCIP-02, ACHF-01</td>
</tr>
<tr>
<td>Post-Discharge Appointment Scheduled Within 7 Days</td>
<td>ACHF-02</td>
</tr>
<tr>
<td>Post-Discharge Evaluation Conducted Within 72 Hours</td>
<td>ACHF-06</td>
</tr>
<tr>
<td>Reason for No Aldosterone Receptor Antagonist Prescribed at Discharge</td>
<td>CCCIP-02</td>
</tr>
<tr>
<td>Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge</td>
<td>ACHF-01</td>
</tr>
<tr>
<td>Reason for No Post-Discharge Appointment Within 7 Days</td>
<td>ACHF-02</td>
</tr>
<tr>
<td>Reason for Not Prescribing a High-Intensity Statin</td>
<td>CCCIP-01</td>
</tr>
</tbody>
</table>
Initial Patient Population

Data collection for five new standardized performance measures are required for Comprehensive Cardiac Center (CCC) certification. In addition, a second set of optional measures are available. All currently certified CCC organizations, as well as those seeking initial certification, are required to implement data collection on the five mandatory standardized measures.

The measures chosen for implementation within the CCC certification program address major aspects of cardiac care, within the following 4 domains: cardiac rehabilitation, myocardial infarction (MI), heart failure (HF), and cardiac surgery (coronary artery bypass graft, cardiac valve repair/replacement and percutaneous coronary intervention [PCI]). The measures are separated into mandatory and optional measures and then again by inpatient and outpatient status. The certification program also includes 5 measures that are currently used in The Joint Commission’s Advanced Heart Failure Certification program (ACHF-01, ACHF-02, ACHF-06, ACHFOP-03, and ACHFOP-06). Organizations should follow the ACHF and ACHFOP initial patient population algorithm’s that are posted to The Joint Commission's Measure Specifications Manual to determine the patient population for the heart failure measures.

There are 5 mandatory measures: high-intensity statin, aldosterone antagonist, beta-blockers, post-discharge appointment and post-discharge evaluation that all certified organizations must abstract. The additional 3 inpatient and 5 outpatient measures are optional. It is highly recommended that the all organizations collect the optional measures to assist them with advancing quality of care for the cardiac patients they serve.

All the mandatory measures capture the quality of care provided to myocardial infarction (MI) and heart failure patients. Organizations are required to submit inpatient cases for their heart failure patient population and observation and inpatient cases for their MI patient population for the mandatory measures. If the organization submits data for the optional inpatient measures, submitting observation cases is optional.

In order to assist organizations in determining their patient populations for performance measurement, The Joint Commission has defined outpatient, inpatient, and observation.

Patients assigned as outpatients are defined as, a patient who is not hospitalized overnight but who visits a hospital, clinic, or associated facility for diagnosis or treatment. CPT® codes are utilized to bill outpatient cases when the patient undergoes a procedure. Any patient who has outpatient surgery that is billed using a CPT® code should be assigned to the outpatient bucket to determine cases for abstraction.

Patients assigned as inpatient or observation are defined as, a patient who is hospitalized overnight. ICD-10 PCS codes are utilized to bill inpatient and observation cases when the patient undergoes a procedure. Any patient who is listed as an inpatient or observation and has surgery that is billed using an ICD-10 PCS code should be assigned to the inpatient bucket to determine cases for abstraction.

Comprehensive Cardiac Care (CCC) Inpatient Initial Patient Population

The population for the inpatient measures is identified using the 5 data elements:

- Admission Date
- Birthdate
Patients admitted to the hospital for observation or inpatient acute care are included in the inpatient initial patient population if they have: Patient Age (Admission Date — Birthdate) ≥18 years old and a length of stay (Discharge Date - Admission Date) ≤120 days.

AND

- Subpopulation Medial-heart failure and myocardial infarction is identified by ICD-10-CM Principal Diagnosis Code as defined in:
  - (HF) Appendix A, Table 2.1, or
  - (MI) Appendix A, Table 2.3, or
- Surgical-PCI, CABG, Valve, is identified by ICD-10-PCS Principal or Other Procedure Code as defined in:
  - (PCI) Appendix A, Table 2.4, or
  - (CABG) Appendix A, Table 2.5, or
  - (Valve) Appendix A, Table 2.6

* Myocardial observation cases are required. Heart failure, PCI, CABG, and valve observation cases are optional.
Initial Patient Population Algorithm

Comprehensive Cardiac Center Inpatient Population Algorithm

Start Comprehensive Cardiac Center Inpatient Initial Patient Population logic sub-routine

Process all cases that have successfully reached the point in the Transmission Data Processing Flow: Clinical which calls this Initial Patient Population Algorithm. Do not process cases that have been rejected before this point in the Transmission Data Processing Flow: Clinical.

Patient Age on Inpatient Admission Date (in years) = Inpatient Admission Date minus Birthdate

Patient Age on Inpatient Admission Date

< 18 years

Length of Stay (in days) = Discharge Date minus Admission Date

Length of Stay

> 120 days

<= 120 days

ICD 10-PCS Principal or Other Procedure Code

Missing or Not on Table 2.2

Left Ventricular Assist Device (LVAD) or Heart Transplant

Missing or Not on Table 2.13

J

On Table 2.2

On Table 2.13

H

Variable Key:
CCG IP Initial Patient Population Reject Case Flag
Length of Stay
Patient Age on Inpatient Admission Date
HF Flag
MI Flag
CABO Flag
PCI Flag
Valve Flag

Note: To calculate age must use the month and day portion of the inpatient admission date and indubitably to yield the most accurate age.
CCC Sample Size Requirements

Hospitals that choose to sample have the option of sampling quarterly or monthly. A hospital may choose to use a larger sample size than is required. Hospitals whose patient population size is less than the minimum number of cases per quarter for the measure set cannot sample.

Regardless of the option used, hospital samples must be monitored to ensure that sampling procedures consistently produce statistically valid and useful data. Due to exclusions, hospitals selecting sample cases MUST submit AT LEAST the minimum required sample size.

Sample sizes are based on the hospital’s patient population for each measure category. Once the patient population for each measure category is determined the coinciding measures should be abstracted for the measure category population. An asterisk (*) after the listed measures denotes the mandatory standardized measures that certified organizations must abstract data for. The additional measures that are listed are optional.

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td>CCCIP-02*, ACHF-01*, ACHF-02*, ACHF-05*, CCCIP-04, CCCOP-02, ACHFOP-03, ACHFOP-06</td>
</tr>
<tr>
<td>MI</td>
<td>CCCIP-01*, CCCIP-03, CCCOP-01, CCCOP-03</td>
</tr>
<tr>
<td>PCI/CABG/Valve</td>
<td>CCCIP-03, CCCIP-05, CCCOP-01 (PCI only), CCCOP-03 (PCI only)</td>
</tr>
</tbody>
</table>

*Mandatory standardized measures that certified organizations must abstract.

Sampling is a process of selecting a representative part of a population to estimate the organization's performance without collecting data for its entire population. Using a statistically valid sample, an organization can measure its performance in an effective and efficient manner. Sampling is a particularly useful technique for performance measures that require primary data collection from a source, such as the medical record. Sampling should not be used unless the organization has a large number of cases in the measure population, because a fairly large number of sample cases is needed to achieve a representative sample of the population of interest. To obtain statistically valid sample data, the sample size should be carefully determined and the sample cases should be randomly selected in such a way that the individual cases in the population have an equal chance of being selected. Only when the sample data truly represent the whole population can the sample-based performance measure data be meaningful and useful.

Sampling Approach:

- Simple random sampling - selecting a sample size (n) from a population of size (N) in such a way that every case has the same chance of being selected. Systematic random sampling - selecting every kth record from a population of size N in such a way that a sample size of n is obtained, where k ≤ N/n. The first sample record (i.e., the starting point) must be randomly selected before taking every kth record. This is a two-step process: a) randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer-generated random number; and b) then select every kth record thereafter until the selection of the sample size is completed.
The following sample size tables for each option automatically build in the number of cases needed to obtain the required sample sizes. For information concerning how to perform sampling, refer to the Population and Sampling Specifications section in this manual.

**Quarterly Sampling** Hospitals performing quarterly sampling for CCC must ensure that it has determined a patient population for each measure category listed below and that the sample size per measure category meets the following conditions:

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Average Quarterly Patient Population Size &quot;N&quot;</th>
<th>Minimum Required Sample Size &quot;n&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Average Quarterly Patient Population Size &quot;N&quot;</th>
<th>Minimum Required Sample Size &quot;n&quot;</th>
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<tbody>
<tr>
<td>MI</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
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</thead>
<tbody>
<tr>
<td>PCI</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
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</tr>
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<td>0 - 75</td>
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<th>Minimum Required Sample Size &quot;n&quot;</th>
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</thead>
<tbody>
<tr>
<td>CABG</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
</tbody>
</table>
### Monthly Sampling

Hospitals performing monthly sampling for CCC must ensure that it has determined a patient population for each measure category listed below and that the sample size per measure category meets the following conditions:

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Average Quarterly Patient Population Size “N”</th>
<th>Minimum Required Sample Size “n”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valve</strong></td>
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<td></td>
</tr>
<tr>
<td>≥ 1516</td>
<td>304</td>
<td></td>
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<tr>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>76-380</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>Heart Failure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>MI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
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<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>PCI</strong></td>
<td></td>
<td></td>
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<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
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</tr>
<tr>
<td>Measure Category</td>
<td>Average Quarterly Patient Population Size “N”</td>
<td>Minimum Required Sample Size “n”</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------</td>
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</tr>
<tr>
<td>CABG</td>
<td>$\geq 506$</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
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<th>Measure Category</th>
<th>Average Quarterly Patient Population Size “N”</th>
<th>Minimum Required Sample Size “n”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve</td>
<td>$\geq 506$</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>26-130</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>$&lt;26$</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
</tbody>
</table>

Sample Size Examples

- Quarterly sampling:
  - A hospital's CCC patient population size per measure category, during the 2nd quarter, has been:
    - 2nd quarter patient populations
      - Heart Failure-650 patients
      - MI-345 patients
      - PCI-62 patients
      - CABG-80 patients
      - Valve-35 patients
    - The required sample size per measure category for the 2nd quarter, would be:
      - Heart Failure-130 patients (650 patients per quarter during the past quarter x 20%=130)
        - The hospital will abstract the following mandatory measures and if the organization chooses the additional optional measures for these 130 heart failure patients:
          - CCCIP-02 - mandatory
          - ACHF-01 - mandatory
          - ACHF-02 - mandatory
          - ACHF-06 - mandatory
          - CCCIP-04 -optional
          - CCCOP-02 - optional
• **ACHFOP-03** – optional
• **ACHFOP-06** - optional

**MI-76 patients**
- The hospital will abstract the following mandatory measures and if the organization chooses the additional optional measures for these 76 MI patients:
  - CCCIP-01 - mandatory
  - CCCIP-03 - optional
  - CCCOP-01 - optional
  - CCCOP-03 - optional

**PCI-26 patients**
- No sampling, 100% of patient population required if the organization chooses to abstract the following optional measures:
  - CCCIP-03 - optional
  - CCCIP-05 - optional
  - CCCOP-01 - optional
  - CCCOP-03 - optional

**CABG-76 patients**
- If the organization chooses, the following optional measures could be abstracted for these 76 CABG patients:
  - CCCIP-03 - optional
  - CCCIP-05 - optional

**Valve-35 patients**
- No sampling, 100% of patient population required if the organization chooses to abstract the following optional measures:
  - CCCIP-03 - optional
  - CCCIP-05 - optional

**Monthly sampling:**
- A hospital's CCC patient population size during the month of February, per measure category, has been:
  - **February patient populations**
    - Heart Failure-400 patients
    - MI-345 patients
    - PCI-80 patients
    - CABG-35 patients
    - Valve-20 patients
  - The required sample size, per measure category, for the February would be:
    - Heart Failure-80 patients (400 February patients x 20%=80)
    - The hospital will abstract the following mandatory measures and if the organization chooses, the additional optional measures for these 80 heart failure patients:
      - CCCIP-02 - mandatory
      - ACHF-01 - mandatory
      - ACHF-02 - mandatory
      - ACHF-06 - mandatory
      - CCCIP-04 -optional
      - CCCOP-02 - optional
• ACHFOP-03 – optional
• ACHFOP-06 - optional

• MI-76 patients
  • The hospital will abstract the following mandatory measures and if the organization chooses, the additional optional measures for these 76 MI patients:
    • CCCIP-01 - mandatory
    • CCCIP-03 - optional
    • CCCOP-01 - optional
    • CCCOP-03 - optional

• PCI-76 patients
  • If the organization chooses, the following optional measures could be abstracted for their 76 PCI patients:
    • CCCIP-03 - optional
    • CCCIP-05 - optional
    • CCCOP-01 - optional
    • CCCOP-03 - optional

• CABG-35 patients
  • No sampling, 100% of patient population required, if the organization chooses the following optional measures could be abstracted for all their CABG patients:
    • CCCIP-03 - optional
    • CCCIP-05 - optional

• Valve-20 patients
  • No sampling, 100% of patient population required, if the organization chooses to abstract the following optional measures could be abstracted for all their valve patients:
    • CCCIP-03 - optional
    • CCCIP-05 - optional
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Inpatient (CCCIP)

Set Measure ID: CCCIP-01

Performance Measure Name: High-intensity Statin Prescribed at Discharge

Description: Patients who are hospitalized with a diagnosis of an acute myocardial infarction (AMI) and were prescribed a high-intensity statin at hospital discharge.

Rationale: The 2013 ACC/AHA Guidelines on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults recommends that “high-intensity statin therapy should be initiated or continued as first-line therapy in women and men ≤75 years of age who have clinical atherosclerotic cardiovascular disease (ASCVD), unless contraindicated” (individualized treatment for patients over 75 years old is recommended). Despite this Class I, Level A guideline recommendation and that statins have been shown to reduce morbidity and mortality (Jneid et al., 2017), only 23% of AMI patients are discharged on maximal statin therapy (Arnold et al., 2014). Prescribing rates are also low for patients with acute coronary syndromes. A 2010 study found that only 38.3% of these patients are discharged with intensive lipid-lowering therapy (Javed et al., 2014).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Patients prescribed a high-intensity statin at hospital discharge (i.e. Atorvastatin 40-80mg OR Rosuvastatin 20-40mg).

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

• High-intensity Statin at Discharge

Denominator Statement: Patients who are discharged from the hospital with a diagnosis of an AMI.

Included Populations:

• Patients ≥18 years of age and ≤75 years of age
• Patients with a ICD-10-CM Principal Diagnosis Code for MI as defined in Appendix A, Table 2.3.

Excluded Populations:

• Patients less than 18 years of age
• Patients greater than 75 years of age
• Patients with a documented Reason for Not Prescribing a High Intensity Statin
• Patients who expired
• Patients who left against medical advice (AMA)
• Patients who are discharged to another hospital
• Patients who are discharged to hospice
• Patients who are discharged to a healthcare facility for hospice care
• Patients who have a Length of Stay greater than 120 days
• Patients enrolled in a Clinical Trial
• Patients with Comfort Measures Only documented
• Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

Data Elements:

• Admission Date
• Birthdate
• Clinical Trial
• Comfort Measures Only
• Discharge Date
• ICD-10-CM Other Diagnosis Codes
• ICD-10-CM Principal Diagnosis Code
• ICD-10-PCS Other Procedure Codes
• ICD-10-PCS Other Procedure Dates
• ICD-10-PCS Principal Procedure Code
• ICD-10-PCS Principal Procedure Date
• Reason for Not Prescribing a High-Intensity Statin

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:


Measure Algorithm:

**CCCIP-01: High-intensity Statin Prescribed at Discharge**

**Numerator:** Patients prescribed a high-intensity statin at hospital discharge (i.e. Atorvastatin 40-80mg OR Rosuvastatin 20-40mg).

**Denominator:** Patients who are discharged from the hospital with a diagnosis of an AMI.
Measure Information Form

**Measure Set:** Comprehensive Cardiac Center-Inpatient (CCCIP)

**Set Measure ID:** CCCIP-02

**Performance Measure Name:** Aldosterone Antagonist Prescribed at Discharge

**Description:** Patients with a diagnosis of heart failure with a left ventricular ejection fraction (LVSD) ≤35% who were prescribed an aldosterone antagonist at discharge.

**Rationale:** Use of aldosterone receptor antagonist, in eligible heart failure patients with no documented contraindications, intolerance, or other medical reason(s), is recommended to reduce morbidity and mortality. Both ACEIs and ARBs can lower circulating aldosterone with initial therapy; however, aldosterone suppression may not be sustained over time. Clinical studies have demonstrated that the addition of spironolactone to ACEI therapy for patients with NYHA class III or IV symptoms and recent hospitalization reduced the risk of death from 46% to 35% (30% relative risk reduction) over two years. Furthermore, a 35% reduction in heart failure hospitalization and improvement in functional class was noted.

Hyperkalemia is a major risk of aldosterone antagonist therapy. Potassium supplements should be discontinued after the initiation of therapy, and patients should be counseled to avoid high-potassium foods.

**Type Of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients who are prescribed an aldosterone receptor antagonist (i.e. Aldactone, Aldactazide [Hydrochlorothiazide + Spironolactone], Eplerenone, Inspra, Spironolactone) at hospital discharge.

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Aldosterone Receptor Antagonist Prescribed for LVSD at Discharge

**Denominator Statement:** Heart failure patients with current or prior documentation of left ventricular ejection fraction (LVSD) ≤35%.

**Included Populations:**

- An ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1
- Documentation of LVSD ≤35%

**Excluded Populations:**
• Patients less than 18 years of age
• Patients with a documented Reason for No Aldosterone Receptor Antagonist Prescribed at Discharge
• Patients who expired
• Patients who left against medical advice (AMA)
• Patients discharged to another hospital
• Patients discharged to home for hospice care
• Patients discharged to a healthcare facility for hospice care
• Patients who have a Length of Stay greater than 120 days
• Patients with Comfort Measures Only documented
• Patients enrolled in a Clinical Trial
• Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

Data Elements:

• Admission Date
• Birthdate
• Clinical Trial
• Comfort Measures Only
• Discharge Date
• Discharge Disposition
• ICD-10-CM Other Diagnosis Codes
• ICD-10-CM Principal Diagnosis Code
• ICD-10-PCS Other Procedure Codes
• ICD-10-PCS Other Procedure Dates
• ICD-10-PCS Principal Procedure Code
• ICD-10-PCS Principal Procedure Date
• LVSD
• Reason for No Aldosterone Receptor Antagonist Prescribed at Discharge

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:

Measure Algorithm:

**CCCIP-02: Aldosterone Antagonist Prescribed at Discharge**

**Numerator:** Patients who are prescribed an aldosterone receptor antagonist (i.e. Aldactone, Aldaclazide [Hydrochlorothiazide + Spironolactone], Eplerenone, Inspra, Spironolactone) at hospital discharge.

**Denominator:** Heart failure patients with current or prior documentation of left ventricular ejection fraction (LVSD) ≤35%.
ACHF Initial Patient Population Algorithm

Advanced Certification Heart Failure Population Algorithm

Start ACHF Measure Set Population Logic

Process all cases that have successfully reached the point in the Transmission Data Processing Flow: Clinical which calls this Initial Patient Population Algorithm. Do not process cases that have been rejected before this point in the Transmission Data Processing Flow: Clinical.

ICD-10-CM
Principal Diagnosis Code

On Table 2.1

ICD-10-PCS
Principal or Other Procedure Codes

At least one on Table 2.2

All Missing or None on Table 2.2

Patient Age

Patient Age

< 18 years

Length of Stay (n days) = Discharge Date minus Admission Date

Length of Stay

≤ 120 days

Patient is in ACHF Initial Population

Patient not in ACHF Initial Population

Patient is in ACHF Initial Measure Population

Patient is not in ACHF Initial Measure Population

Patient is eligible to be sampled for ACHF Measure Set

Patient is not eligible to be sampled for ACHF Measure Set

Set Initial Patient Population Reject Case Flags “No”

Set Initial Patient Population Reject Case Flags “Yes”

Return to Transmission Data Processing Flow: Clinical (Data Transmission section)

End
Measure Information Form

**Measure Set:** Advanced Certification Heart Failure (ACHF)

**Set Measure ID:** ACHF-01

**Performance Measure Name:** Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge)

**Description:** Beta-blocker therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) is prescribed for heart failure patients with LVSD at discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

**Rationale:** Beta-blocker therapy has been recommended for the treatment of patients with heart failure and reduced left ventricular ejection fraction (LVEF) since the 1970's (HFSA, 2010). Several large-scale clinical trials have provided unequivocal evidence of important reductions in both morbidity and mortality. The marked beneficial effects of beta blockade have been well demonstrated in large-scale clinical trials of symptomatic patients with New York Heart Association (NYHA) class II-IV heart failure and reduced LVEF using carvedilol, bisoprolol, and sustained-release metoprolol succinate (Hunt et al., 2009). These beta-blockers, in addition to ACE inhibitors and diuretics, are considered routine therapy for heart failure patients with reduced LVEF. Beta-blocker therapy is well tolerated by the majority of patients, even those with co-morbidities such as, diabetes mellitus, chronic obstructive lung disease, and peripheral vascular disease.

**Type Of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients who are prescribed bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD at hospital discharge.

- **Included Populations:** Not applicable
- **Excluded Populations:** None
- **Data Elements:**
  - Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge

**Denominator Statement:** Heart failure patients with current or prior documentation of left ventricular ejection fraction (LVSD) < 40%.

- **Included Populations:**
  - Discharges with ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1,
  - and Documentation of LVSD < 40%
Excluded Populations:

- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-10-PCS procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Patients with Comfort Measures Only documented
- Patients enrolled in a Clinical Trial
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients who expired
- Patients discharged to home for hospice care
- Patients discharged to a healthcare facility for hospice care
- Patients with a documented Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge

Data Elements:

- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- LVSD
- Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.
Selected References:


Measure Algorithm:

ACHF-01: Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate) Prescribed for LVSD at Discharge

**Numerator:** Patients who are prescribed bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD at discharge.

**Denominator:** Heart failure patients with current or prior documentation of left ventricular ejection fraction (LVSD) < 40%.
Measure Information Form

Measure Set: Advanced Certification Heart Failure (ACHF)

Set Measure ID: ACHF-02

Performance Measure Name: Post-Discharge Appointment for Heart Failure Patients

Description: Patients for whom a follow-up appointment for an office or home health visit for management of heart failure was scheduled within 7 days post-discharge and documented including location, date, and time.

Rationale: Care coordination is important for all patients, but especially for vulnerable populations, such as patients with heart failure and other chronic diseases. Today, the average Medicare patient sees two primary care and five specialists per year (NQF, 2010). For patients with multiple chronic conditions, the number of healthcare providers involved in the care of the patient is even higher.

The exchange of information from one healthcare provider to another should smooth the transition of care from the inpatient to outpatient setting. According to Bell and colleagues (2008), the separation of hospital and ambulatory care may result in significant care discontinuities after discharge. Therefore, it is paramount that discussions between providers summarize the patient's history and communicate the plan for follow-up care after discharge in order to be effective. When done well, this exchange of information can avoid conflicting plans of care; overuse, underuse, and misuse of medications, tests and therapies; reduce costs and potentially adverse events.

The Joint Commission's Disease-Specific Care Advanced Certification Heart Failure standards require: “The program [to provide] care coordination services across inpatient and outpatient settings.” Scheduling of the initial follow-up appointment with the primary care provider is a first-step to ensuring continuity of care. In addition, standards require that care, treatment, and services are provided in a planned and timely manner, which includes the arrangement of a follow-up appointment with a health care provider to occur within seven days after discharge.

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Patients for whom a follow-up appointment for an office or home health visit for management of heart failure was scheduled within 7 days post-discharge and documented including location, date, and time.

Included Populations: Not applicable Excluded

Populations: None

Data Elements:

- Post-Discharge Appointment Scheduled Within 7 Days

Denominator Statement: All heart failure patients discharged from a hospital inpatient setting to home or home care.
Included Populations:

- Discharges with ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1,
- and A discharge to home, home care, or court/law enforcement

Excluded Populations:

- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-10-PCS procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patient who have a Length of Stay greater than 120 days
- Patients with Comfort Measures Only documented
- Patients enrolled in a Clinical Trial
- Patients discharged to locations other than home, home care, or law enforcement
- Patients with a documented Reason for No Post-Discharge Appointment Within 7 Days
- Patients who left against medical advice (AMA)

Data Elements:

- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- Reason for No Post-Discharge Appointment Within 7 Days

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.
Selected References:

Measure Algorithm:

**ACHF-02: Post-Discharge Appointment for Heart Failure Patients**

**Numerator:** Patients for whom a follow-up appointment for an office or home health visit for management of heart failure was scheduled within 7 days post-discharge and documented including location, date, and time.

**Denominator:** All heart failure patients discharged from a hospital inpatient setting to home or home care.

```
START

Run cases that are included in the ACHF Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

Clinical Truth = Y

Discharge Disposition = 2, 3, 4, 5, 6, 7

Comfort Measures Only = 1, 8

In Numerator Population

ACHF-02 Z

No In Measure Population

Cannot be rejected

Stop

In Measure Population

ACHF-02 Z
```
Measure Information Form

Measure Set: Advanced Certification Heart Failure (ACHF)

Set Measure ID: ACHF-06

Performance Measure Name: Post-Discharge Evaluation for Heart Failure Patients

Description: Patients who receive a re-evaluation for symptoms worsening and treatment compliance by a program team member within 72 hours after inpatient discharge.

Rationale: Today, hospitals and providers in the United States are challenged to provide high-quality, cost-effective healthcare. Preventing readmissions to the hospital is one opportunity to control costs and deliver quality care. According to Hospital Compare (2010), the national 30-day readmission rate for heart failure is 24.7%. Jha and colleagues (2009) have concluded that data collection for discharge planning and instruction measures has not reduced unnecessary readmissions. Alternative interventions are needed to meet heart failure treatment goals post-discharge. Ongoing evaluation of patient symptoms and their functional consequences may help prevent hospital readmissions.

The Joint Commission's Disease-Specific Care Advanced Certification Heart Failure standards require:

- Assessment and reassessment are completed and that the patient is reevaluated within 72 hours after inpatient discharge.

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Patients who have a documented re-evaluation conducted via phone call or home visit within 72 hours after discharge.

Included Populations: Not applicable Excluded

Populations: None

Data Elements:

- Post-Discharge Evaluation Conducted Within 72 Hours

Denominator Statement: All heart failure patients discharged from a hospital inpatient setting to home or home care AND patients leaving against medical advice (AMA).

Included Populations:

- Discharges with ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1,
- and A discharge to home, home care, or court/law enforcement
Patients who left against medical advice (AMA)

Excluded Populations:

- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-10-PCS procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patient who have a Length of Stay greater than 120 days
- Patients with Comfort Measures Only documented
- Patients enrolled in a Clinical Trial
- Patients discharged to locations other than home, home care or law enforcement

Data Elements:

- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion. Aggregate rate generated from count data reported as a proportion

Selected References:


Measure Algorithm:

**ACHF-06: Post-Discharge Evaluation for Heart Failure Patients**

**Numerator:** Patients who have a documented re-evaluation conducted via phone call or home visit within 72 hours after discharge.

**Denominator:** All heart failure patients discharged from a hospital inpatient setting to home or home care AND patients leaving against medical advice (AMA).
## Optional Inpatient Comprehensive Cardiac Center Certification Performance Measures

### Set Measures

<table>
<thead>
<tr>
<th>Set Measure ID</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCIP-03</td>
<td>Cardiac Rehabilitation Referral from an Inpatient Setting</td>
</tr>
<tr>
<td>CCCIP-04</td>
<td>Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Inpatient Setting</td>
</tr>
<tr>
<td>CCCIP-05</td>
<td>Cardiac Rehabilitation Enrollment from an Inpatient Setting</td>
</tr>
</tbody>
</table>

### General Data Elements

<table>
<thead>
<tr>
<th>Element Name</th>
<th>Collected For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Date</td>
<td>All Records,</td>
</tr>
<tr>
<td>Birthdate</td>
<td>All Records,</td>
</tr>
<tr>
<td>Discharge Date</td>
<td>All Records, Not collected for HBIPS-2 and HBIPS-3</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>All Records,</td>
</tr>
<tr>
<td>ICD-10-CM Other Diagnosis Codes</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-CM Principal Diagnosis Code</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Codes</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Dates</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Code</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Date</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
</tbody>
</table>
### Measure Set Specific Data Elements

<table>
<thead>
<tr>
<th>Element Name</th>
<th>Collected For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Rehabilitation Attendance</td>
<td>CCCIP-05</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>CCCIP-01, CCCIP-02, CCCIP-03, CCCIP-04</td>
</tr>
<tr>
<td>Comfort Measures Only</td>
<td>CCCIP-01, CCCIP-02, CCCIP-03, CCCIP-04</td>
</tr>
<tr>
<td>Communication of Outpatient Referral to Patient</td>
<td>CCCIP-03, CCCIP-04</td>
</tr>
<tr>
<td>Discharge Disposition</td>
<td>CCCIP</td>
</tr>
<tr>
<td>LVSD</td>
<td>CCCIP-02, CCCIP-04</td>
</tr>
<tr>
<td>Reason for No Cardiac Rehabilitation Enrollment</td>
<td>CCCIP-05</td>
</tr>
<tr>
<td>Reason for No Referral to Outpatient Cardiac Rehabilitation Program</td>
<td>CCCIP-03, CCCIP-04</td>
</tr>
<tr>
<td>Referral to Outpatient Cardiac Rehabilitation</td>
<td>CCCIP-03, CCCIP-04, CCCIP-05</td>
</tr>
</tbody>
</table>
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Inpatient (CCCIP)

Set Measure ID: CCCIP-03

Performance Measure Name: Cardiac Rehabilitation Referral from an Inpatient Setting

Description: Patients who have had one of the following qualifying events/diagnosis during their current inpatient encounter are to be referred to an outpatient cardiac rehabilitation program. Qualifying events:

- Diagnosis of a myocardial infarction (MI)
- Coronary artery bypass graft (CABG) surgery
- Percutaneous coronary intervention (PCI)
- Cardiac valve repair/replacement

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017). In addition, referral to cardiac rehabilitation for patients undergoing PCI has been shown to be as low as 48% (Beatty et al., 2017). Hospitals can increase referral rates by discussing the importance of cardiac rehabilitation with their patients and ensuring outpatient facilities receive the necessary referral (Thomas et al., 2018).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of inpatients who have been referred to an outpatient cardiac rehabilitation program, which includes the following:

- Communication between the healthcare provider and the patient of the recommendation to attend an outpatient cardiac rehabilitation program AND referral sent to outpatient cardiac rehabilitation program

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Communication of Outpatient Referral to Patient
- Referral to Outpatient Cardiac Rehabilitation

Denominator Statement: Patients who are discharged from the hospital with a qualifying event/diagnosis (i.e. MI, PCI, CABG, valve repair/replacement).
**Included Populations:**

- Patients with a ICD-10-CM Principal Diagnosis Code for MI as defined in Appendix A, Table 2.3.
- Patients with an ICD-10-PCS Principal or Other Procedure Code for PCI as defined in Appendix A, Table 2.4.
- Patients with an ICD-10-PCS Principal or Other Procedure Code for CABG as defined in Appendix A, Table 2.5.
- Patients with an ICD-10-PCS Principal or Other Procedure Code for valve repair/replacement as defined in Appendix A, Table 2.6.

**Excluded Populations:**

- Patients less than 18 years of age
- Patients with a documented Reason for No Referral to Outpatient Cardiac Rehabilitation Program
- Patients who expired
- Patients who left against medical advice (AMA)
- Patients discharged to another hospital
- Patients discharged to another healthcare facility
- Patients discharged to home for hospice care
- Patients discharged to a healthcare facility for hospice care
- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in a Clinical Trial
- Patients with Comfort Measures Only documented
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

**Data Elements:**

- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-10-CM Other Diagnosis Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Other Procedure Dates
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- Reason for No Referral to Outpatient Cardiac Rehabilitation Program

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.
Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:


Measure Algorithm:

**CCCIP-03: Cardiac Rehabilitation Referral from an Inpatient Setting**

**Numerator:** Number of inpatients who have been referred to an outpatient cardiac rehabilitation program.

**Denominator:** Patients who are discharged from the hospital with a qualifying event/diagnosis (i.e., MI, PCI, CABG, valve repair/replacement) within the previous 12 months.

**Stratification Table:**

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCIP-03</td>
<td>Overall</td>
</tr>
<tr>
<td>CCCIP-03a</td>
<td>CABG</td>
</tr>
<tr>
<td>CCCIP-03b</td>
<td>PCI</td>
</tr>
<tr>
<td>CCCIP-03c</td>
<td>Valve</td>
</tr>
<tr>
<td>CCCIP-03d</td>
<td>MI</td>
</tr>
</tbody>
</table>

---

Start

Check if inpatient initial patient population and pass the edits defined in the Transmission Data Processing Flow Clinical through this measure.

- Missing Clinical Trial
  - Y
  - N

- Missing Discharge Diagnosis
  - = 1, 8

- Missing Contributing Measure Only
  - = 1, 2, 3

- ICD-10-CM Principal Diagnosis Code
  - None on Table 2.3

- Missing or None on Tables 2.4, 2.5 or 2.6

- MI
  - At least one on Table 2.3

- PCI, CABG, Valve
  - At least one on Table 2.4, 2.5 or 2.6

- CCCIP-03
  - X

- CCCIP-03
  - Y

- CCCIP-03
  - Z
For all Stratified Measures (CCCP-03a-d)

Overall Rate Assignment = E or D

Set the Measure Category Assignment for strata measures (CCCP-03a through CCCP-03d) = X

ICD-10-PCS Principal or Other Procedure Codes

CABG

Set the Measure Category Assignment for strata measure CCCP-03a = the Measure Category Assignment for CCCP-03

PCI

Set the Measure Category Assignment for strata measure CCCP-03b = the Measure Category Assignment for CCCP-03

Valve

Set the Measure Category Assignment for strata measure CCCP-03c = the Measure Category Assignment for CCCP-03

MI

Set the Measure Category Assignment for strata measure CCCP-03d = the Measure Category Assignment for CCCP-03

Note: Initialize the Measure Category Assignment for each strata measure (a-d) = 'B'.

Do not change the Measure Category Assignment that was calculated for the overall rate (CCCP-03).

The rest of the algorithm will reset the appropriate Measure Category Assignment to be equal to the overall rate's (CCCP-03) Measure Category Assignment.

Stop
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Inpatient (CCCIP)

Set Measure ID: CCCIP-04

Performance Measure Name: Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Inpatient Setting

Description: Patients with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) of ≤40% who are referred to outpatient cardiac rehabilitation.

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of inpatients who have been referred to an outpatient cardiac rehabilitation program, which includes the following:

- Communication between the healthcare provider and the patient of the recommendation to attend an outpatient cardiac rehabilitation program AND referral sent to outpatient cardiac rehabilitation program

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Communication of Outpatient Referral to Patient
- Referral to Outpatient Cardiac Rehabilitation

Denominator Statement: Patients who are discharged from the hospital with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) ≤40%.

Included Populations:

- An ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1
- Documentation of a reduced ejection fraction (EF) ≤40 %

Excluded Populations:
• Patients less than 18 years of age
• Patients with a documented Reason for No Referral to Outpatient Cardiac Rehabilitation Program
• Patients who have participated in or who have completed an outpatient cardiac rehabilitation program within the last 12 months
• Patients who expired
• Patients who left against medical advice (AMA)
• Patients discharged to another hospital
• Patients discharged to another Health Care Facility
• Patients discharged to home for hospice care
• Patients discharged to a healthcare facility for hospice care
• Patients who have a Length of Stay greater than 120 days
• Patients enrolled in a Clinical Trial
• Patients with Comfort Measures Only documented
• Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

Data Elements:

• Admission Date
• Birthdate
• Clinical Trial
• Comfort Measures Only
• Discharge Date
• Discharge Disposition
• ICD-10-CM Other Diagnosis Codes
• ICD-10-CM Principal Diagnosis Code
• ICD-10-PCS Other Procedure Codes
• ICD-10-PCS Other Procedure Dates
• ICD-10-PCS Principal Procedure Code
• ICD-10-PCS Principal Procedure Date
• LVSD
• Reason for No Referral to Outpatient Cardiac Rehabilitation Program

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.
Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:


Measure Algorithm:

**CCCIP-04: Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Inpatient Setting**

**Numerator:** Number of inpatients who have been referred to an outpatient cardiac rehabilitation program.

**Denominator:** Patients who are discharged from the hospital with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) ≤40%.
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Inpatient (CCCIP)

Set Measure ID: CCCIP-05

Performance Measure Name: Cardiac Rehabilitation Enrollment from an Inpatient Setting

Description: Patients with one of the qualifying events/diagnoses who attend at least one (1) cardiac rehabilitation session, within 90 calendar days of hospital discharge. Qualifying events:

- Diagnosis of a myocardial infarction (MI)
- Coronary artery bypass graft (CABG) surgery
- Percutaneous coronary intervention (PCI)
- Cardiac valve repair/replacement

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017). In addition, referral to cardiac rehabilitation for patients undergoing PCI has been shown to be as low as 48% (Beatty et al., 2017).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of patients who attend at least one (1) cardiac rehabilitation session within 90 calendar days of hospital discharge.

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Cardiac Rehabilitation Attendance
- Discharge Date

Denominator Statement: Patients with a qualifying event/diagnosis who received a referral to outpatient cardiac rehabilitation.

Included Populations:

- Patients with a ICD-10-CM Principal Diagnosis Code for MI as defined in Appendix A, Table 2.3.
Patients with an ICD-10-PCS Principal or Other Procedure Code for PCI as defined in Appendix A, Table 2.4.
Patients with an ICD-10-PCS Principal or Other Procedure Code for CABG as defined in Appendix A, Table 2.5.
Patients with an ICD-10-PCS Principal or Other Procedure Code for valve repair/replacement as defined in Appendix A, Table 2.6.

Excluded Populations:

- Patients less than 18 years of age
- Patients who expired
- Patients who have a Length of Stay greater than 120 days
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

Data Elements:

- Admission Date
- Birthdate
- ICD-10-CM Other Diagnosis Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Other Procedure Dates
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- Reason for No Cardiac Rehabilitation Enrollment
- Referral to Outpatient Cardiac Rehabilitation

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: None

Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:

  http://www.heart.org/HEARTORG/Conditions/More/CardiacRehab/What-is-Cardiac-Rehabilitation_UCM_307049_Article.jsp#.WuNs0C7waUI

Measure Algorithm:

CCCIP-05: Cardiac Rehabilitation Enrollment from an Inpatient Setting

**Numerator:** Number of patients who attend at least one (1) cardiac rehabilitation session within 90 calendar days of hospital discharge.

**Denominator:** Patients with a qualifying event/diagnosis within the previous 12 months, who received a referral to outpatient cardiac rehabilitation.
For all Stratified Measures (CCCIP-05a-d)

Not in Measure Population

Overall Rate Assignment

= E or D

ICD-10-PCS Principal or Other Procedure Codes

On Table 2.5 CABG

Set the Measure Category Assignment for strata measure CCCIP-05a through CCCIP-05d = 'X'

ICD-10-PCS Principal or Other Procedure Codes

On Table 2.4 PCI

Set the Measure Category Assignment for strata measure CCCIP-05b = the Measure Category Assignment for CCCIP-05

ICD-10-PCS Principal or Other Procedure Codes

On Table 2.6 Valve

Set the Measure Category Assignment for strata measure CCCIP-05c = the Measure Category Assignment for CCCIP-05

ICD-10-CM Principal Diagnosis Codes

On Table 2.3 MI

Set the Measure Category Assignment for strata measure CCCIP-05d = the Measure Category Assignment for CCCIP-05

Stop
Optional Outpatient Comprehensive Cardiac Center Certification Performance Measures

Set Measures

<table>
<thead>
<tr>
<th>Set Measure ID</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCOP-01</td>
<td>Cardiac Rehabilitation Referral from an Outpatient Setting</td>
</tr>
<tr>
<td>CCCOP-02</td>
<td>Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Outpatient Setting</td>
</tr>
<tr>
<td>CCCOP-03</td>
<td>Cardiac Rehabilitation Enrollment from an Outpatient Setting</td>
</tr>
<tr>
<td>ACHFOP-03</td>
<td>Hospital Outpatient Aldosterone Receptor Antagonists</td>
</tr>
<tr>
<td>ACHFOP-06</td>
<td>Hospital Outpatient Discussion of Advance Directives/Advance Care Planning</td>
</tr>
</tbody>
</table>

General Data Elements

<table>
<thead>
<tr>
<th>Element Name</th>
<th>Collected For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birthdate</td>
<td>All Records,</td>
</tr>
<tr>
<td>CPT® Code</td>
<td>All Records,</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>All Records,</td>
</tr>
<tr>
<td>ICD-10-CM Other Diagnosis Codes</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-CM Principal Diagnosis Code</td>
<td>All Records, Optional for HBIPS-2, HBIPS-3</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Codes</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Other Procedure Dates</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Code</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>ICD-10-PCS Principal Procedure Date</td>
<td>All Records, Optional for All HBIPS Records</td>
</tr>
<tr>
<td>Race</td>
<td>All Records,</td>
</tr>
<tr>
<td>Sex</td>
<td>All Records,</td>
</tr>
<tr>
<td>Element Name</td>
<td>Collected For</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting</td>
<td>ACHFOP-03</td>
</tr>
<tr>
<td>CPT® Code Procedure Date</td>
<td>CCCOP-01, CCCOP-03</td>
</tr>
<tr>
<td>Cardiac Rehabilitation Attendance</td>
<td>CCCOP-03</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>CCCOP-01, CCCOP-02, ACHFOP-03</td>
</tr>
<tr>
<td>Comfort Measures Only</td>
<td>CCCOP-01, CCCOP-02</td>
</tr>
<tr>
<td>Communication of Outpatient Referral to Patient</td>
<td>CCCOP-01, CCCOP-02</td>
</tr>
<tr>
<td>Discharge Code</td>
<td>CCCOP-01, CCCOP-02, CCCOP-03</td>
</tr>
<tr>
<td>Discussion of Advance Directives/Advance Care Planning</td>
<td>ACHFOP-06</td>
</tr>
<tr>
<td>E/M Code</td>
<td>CCCOP</td>
</tr>
<tr>
<td>LVSD</td>
<td>CCCOP-02, CCCOP-04, ACHFOP-03</td>
</tr>
<tr>
<td>New York Heart Association (NYHA) Classification</td>
<td>ACHFOP-03, ACHFOP-04</td>
</tr>
<tr>
<td>Outpatient Encounter Date</td>
<td>CCCOP</td>
</tr>
<tr>
<td>Reason for No Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting</td>
<td>ACHFOP-03</td>
</tr>
<tr>
<td>Reason for No Cardiac Rehabilitation Enrollment</td>
<td>CCCOP-03</td>
</tr>
<tr>
<td>Reason for No Referral to Outpatient Cardiac Rehabilitation Program</td>
<td>CCCOP-01, CCCOP-03</td>
</tr>
<tr>
<td>Referral to Outpatient Cardiac Rehabilitation</td>
<td>CCCOP-01, CCCOP-02, CCCOP-03</td>
</tr>
</tbody>
</table>
Data collection for five new standardized performance measures are required for Comprehensive Cardiac Center (CCC) certification. In addition, a second set of optional measures are available. All currently certified CCC organizations, as well as those seeking initial certification, are required to implement data collection on the five mandatory standardized measures.

The measures chosen for implementation within the CCC certification program address major aspects of cardiac care, within the following 4 domains: cardiac rehabilitation, myocardial infarction (MI), heart failure (HF), and cardiac surgery (coronary artery bypass graft, cardiac valve repair/replacement and percutaneous coronary intervention [PCI]). The measures are separated into mandatory and optional measures and then again by inpatient and outpatient status. The certification program also includes 5 measures that are currently used in The Joint Commission’s Advanced Heart Failure Certification program (ACHF-01, ACHF-02, ACHF-06, ACHFOP-03, and ACHFOP-06). Organizations should follow the ACHF and ACHFOP initial patient population algorithm’s that are posted to The Joint Commission’s Measure Specifications Manual to determine the patient population for the heart failure measures.

There are 5 mandatory measures: high-intensity statin, aldosterone antagonist, beta-blockers, post-discharge appointment and post-discharge evaluation that all certified organizations must abstract. The additional 3 inpatient and 5 outpatient measures are optional. It is highly recommended that the all organizations collect the optional measures to assist them with advancing quality of care for the cardiac patients they serve.

All the mandatory measures capture the quality of care provided to myocardial infarction (MI) and heart failure patients. Organizations are required to submit inpatient cases for their heart failure patient population and observation and inpatient cases for their MI patient population for the mandatory measures. If the organization submits data for the optional inpatient measures, submitting observation cases is optional.

In order to assist organizations in determining their patient populations for performance measurement, The Joint Commission has defined outpatient, inpatient, and observation. Patients assigned as outpatients are defined as, a patient who is not hospitalized overnight but who visits a hospital, clinic, or associated facility for diagnosis or treatment. CPT® codes are utilized to bill outpatient cases when the patient undergoes a procedure. Any patient who has outpatient surgery that is billed using a CPT® code should be assigned to the outpatient bucket to determine cases for abstraction.

Patients assigned as inpatient or observation are defined as, a patient who is hospitalized overnight. ICD-10 PCS codes are utilized to bill inpatient and observation cases when the patient undergoes a procedure. Any patient who is listed as an inpatient

**Comprehensive Cardiac Care (CCC) Outpatient Initial Patient Population**
The population for this outpatient measure set is identified using the following 5 data elements:

- **Birthdate**
- **EM Code**
- **ICD-10-PCS Principal Diagnosis Code**
- **Patients with an HCPCS/CPT® Procedure Code**
- **Outpatient Encounter Date**

Patients seen in the outpatient setting are included in the outpatient initial patient population if they have: Patient Age (Outpatient Encounter Date − Birthdate) ≥18 years old and an E/M Code on Appendix A, Table 2.0 for a hospital outpatient encounter.
Subpopulation Medial - heart failure and myocardial infarction identified by:

- ICD-10-CM Principal Diagnosis Code as defined in (HF) Appendix A, Table 2.1, or (MI) Appendix A,

Table 2.3 Surgical -PCI, ICD identified by:

- HCPCS/CPT® code defined in Appendix A, Table 2.11 (PCI)
Initial Patient Population Algorithm

Comprehensive Cardiac Center Outpatient
Initial Patient Population Algorithm

Start Comprehensive Cardiac Center Outpatient; Initial Patient Population logic sub-routine

Process all cases that have successfully reached the point in the Transmission Data Processing Flow: Clinical which calls this Initial Patient Population Algorithm. Do not process cases that have been rejected before this point in the Transmission Data Processing Flow: Clinical.

Variable Key:
- CCC OP Initial Patient Population Reject Case Flag
- Patient Age on Outpatient Encounter Date
- HF Flag
- MI Flag
- PCI Flag

Note: To calculate age, use the month and day portion of the Outpatient Encounter Date and Birthdate to yield the most accurate age.

On Table 2.0

Patient Age on Outpatient Encounter Date (in years) = Outpatient Encounter Date minus Birthdate

On Table 2.1

Patient Age on Outpatient Encounter Date

< 18 years

On Table 2.2

Left Ventricular Assist Device (LVAD) or Heart Transplant

Missing or Not on Table 2.2

On Table 2.1 or 2.3

On Table 2.11

CPT® Codes with Modifier

Missing or Not on Table 2.11

On Table 2.1 or 2.3

Patient is in the Comprehensive Cardiac Center Outpatient Population

Set CCC OP Initial Patient Population Reject Case Flag = "No"

J

Patient not in the Comprehensive Cardiac Center Outpatient Population

Set CCC OP Initial Patient Population Reject Case Flag = "Yes"

H

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CCC Sample Size Requirements

Hospitals that choose to sample have the option of sampling quarterly or monthly. A hospital may choose to use a larger sample size than is required. Hospitals whose patient population size is less than the minimum number of cases per quarter for the measure set cannot sample.

Regardless of the option used, hospital samples must be monitored to ensure that sampling procedures consistently produce statistically valid and useful data. Due to exclusions, hospitals selecting sample cases MUST submit AT LEAST the minimum required sample size.

Sample sizes are based on the hospital’s patient population for each measure category. Once the patient population for each measure category is determined the coinciding measures should be abstracted for the measure category population. An asterisk (*) after the listed measures denotes the mandatory standardized measures that certified organizations must abstract data for. The additional measures that are listed are optional.

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td>CCCIP-02*, ACHF-01*, ACHF-02*, ACHF-06*, CCCIP-04, CCCOP-02, ACHFOP-03, ACHFOP-06</td>
</tr>
<tr>
<td>MI</td>
<td>CCCIP-01*, CCCIP-03, CCCOP-01, CCCOP-03</td>
</tr>
<tr>
<td>PCI/CABG/Valve</td>
<td>CCCIP-03, CCCIP-05, CCCOP-01 (PCI only), CCCOP-03 (PCI only)</td>
</tr>
</tbody>
</table>

*Mandatory standardized measures that certified organizations must abstract.

Sampling is a process of selecting a representative part of a population to estimate the organization’s performance without collecting data for its entire population. Using a statistically valid sample, an organization can measure its performance in an effective and efficient manner. Sampling is a particularly useful technique for performance measures that require primary data collection from a source, such as the medical record. Sampling should not be used unless the organization has a large number of cases in the measure population, because a fairly large number of sample cases is needed to achieve a representative sample of the population of interest. To obtain statistically valid sample data, the sample size should be carefully determined and the sample cases should be randomly selected in such a way that the individual cases in the population have an equal chance of being selected. Only when the sample data truly represent the whole population can the sample-based performance measure data be meaningful and useful.

Sampling Approach:

- Simple random sampling - selecting a sample size (n) from a population of size (N) in such a way that every case has the same chance of being selected. Systematic random sampling - selecting every kth record from a population of size N in such a way that a sample size of n is obtained, where k ≤ N/n. The first sample record (i.e., the starting point) must be randomly selected before taking every kth record. This is a two-step process: a) randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer-generated random number; and b) then select every kth record thereafter until the selection of the sample size is completed.

The following sample size tables for each option automatically build in the number of cases needed to obtain the required sample sizes. For information concerning how to perform sampling, refer to the Population and Sampling Specifications section in this manual.

**Quarterly Sampling** Hospitals performing quarterly sampling for CCC must ensure that it has determined a patient population for each measure category listed below and that the sample size per measure category meets the following conditions:
<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Average Quarterly Patient Population Size &quot;N&quot;</th>
<th>Minimum Required Sample Size &quot;n&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
<tr>
<td>MI</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
<tr>
<td>PCI</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
<tr>
<td>CABG</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
<tr>
<td>Valve</td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 - 1515</td>
<td>20% of Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76-380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>0 - 75</td>
<td>No sampling; 100% Patient Population required</td>
</tr>
</tbody>
</table>
**Monthly Sampling** Hospitals performing monthly sampling for CCC must ensure that it has determined a patient population for each measure category listed below and that the sample size per measure category meets the following conditions:

<table>
<thead>
<tr>
<th>Measure Category</th>
<th>Average Quarterly Patient Population Size &quot;N&quot;</th>
<th>Minimum Required Sample Size &quot;n&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heart Failure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>MI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>PCI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>CABG</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26-130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Patient Population required</td>
<td></td>
</tr>
<tr>
<td><strong>Valve</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 506</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Patient Population size</td>
<td></td>
</tr>
</tbody>
</table>
Sample Size Examples

- Quarterly sampling:
  - A hospital's CCC patient population size per measure category, during the 2nd quarter, has been:
    - 2nd quarter patient populations
      - Heart Failure-650 patients
      - MI-345 patients
      - PCI-62 patients
      - CABG-80 patients
      - Valve-35 patients
    - The required sample size per measure category for the 2nd quarter, would be:
      - Heart Failure-130 patients (650 patients per quarter during the past quarter x 20% = 130)
        - The hospital will abstract the following mandatory measures and if the organization chooses the additional optional measures for these 130 heart failure patients:
          - CCCIP-02 - mandatory
          - ACHF-01 - mandatory
          - ACHF-02 - mandatory
          - ACHF-06 - mandatory
          - CCCIP-04 - optional
          - CCCOP-02 - optional
          - ACHFOP-03 – optional
          - ACHFOP-06 - optional
    - MI-76 patients
      - The hospital will abstract the following mandatory measures and if the organization chooses the additional optional measures for these 76 MI patients:
        - CCCIP-01 - mandatory
        - CCCIP-03 - optional
        - CCCOP-01 - optional
        - CCCOP-03 - optional
    - PCI - 26 patients
      - No sampling, 100% of patient population required if the organization chooses to abstract the following optional measures:
        - CCCIP-03 - optional
        - CCCIP-05 - optional
        - CCCOP-01 - optional
        - CCCOP-03 - optional
    - CABG-76 patients
      - If the organization chooses, the following optional measures could be abstracted for these 76 CABG patients:
        - CCCIP-03 - optional
        - CCCIP-05 - optional
  - Monthly sampling:
    - A hospital's CCC patient population size during the month of February, per measure category, has been:
February patient populations

- Heart Failure-400 patients
- MI-345 patients
- PCI-80 patients
- CABG-35 patients
- Valve-20 patients

The required sample size, per measure category, for the February would be:

- Heart Failure-80 patients (400 February patients x 20%=80)
  - The hospital will abstract the following mandatory measures and if the organization chooses, the additional optional measures for these 80 heart failure patients:
    - CCCIP-02 - mandatory
    - ACHF-01 - mandatory
    - ACHF-02 - mandatory
    - ACHF-06 - mandatory
    - CCCIP-04 - optional
    - CCCOP-02 - optional
    - ACHFOP-03 – optional
    - ACHFOP-06 - optional

- MI-76 patients
  - The hospital will abstract the following mandatory measures and if the organization chooses, the additional optional measures for these 76 MI patients:
    - CCCIP-01 - mandatory
    - CCCIP-03 - optional
    - CCCOP-01 - optional
    - CCCOP-03 - optional

- PCI- 76 patients
  - If the organization chooses, the following optional measures could be abstracted for their 76 PCI patients:
    - CCCIP-03 - optional
    - CCCIP-05 - optional
    - CCCOP-01 - optional
    - CCCOP-03 - optional

- CABG-35 patients
  - No sampling, 100% of patient population required, if the organization chooses the following optional measures could be abstracted for all their CABG patients:
    - CCCIP-03 - optional
    - CCCIP-05 - optional

- Valve-20 patients
  - No sampling, 100% of patient population required, if the organization chooses to abstract the following optional measures could be abstracted for all their valve patients:
    - CCCIP-03 - optional
    - CCCIP-05 - optional
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Outpatient (CCCOP)

Set Measure ID: CCCOP-01

Performance Measure Name: Cardiac Rehabilitation Referral from an Outpatient Setting

Description: Patients evaluated in an outpatient setting, who have had one of the following qualifying events/diagnosis are to be referred to an outpatient cardiac rehabilitation program. Qualifying events:

- Diagnosis of myocardial infarction (MI)
- Percutaneous coronary intervention (PCI)

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017). In addition, referral to cardiac rehabilitation for patients undergoing PCI has been shown to be as low as 48% (Beatty et al., 2017).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of outpatients who have been referred to an outpatient cardiac rehabilitation program, which includes the following:

- Communication between the healthcare provider and the patient of the recommendation to attend an outpatient cardiac rehabilitation program AND referral sent to outpatient cardiac rehabilitation program.

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Communication of Outpatient Referral to Patient
- Referral to Outpatient Cardiac Rehabilitation

Denominator Statement: Patients with a qualifying event/diagnosis who are seen in the outpatient setting.

Included Populations:

- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 2.0
- Patients with a ICD-10-CM Principal Diagnosis Code for MI as defined in Appendix A, Table 2.3.
- Patients with a CPT® code for PCI as defined in Appendix A, Table 2.11.
- Patients discharged to home or unable to determine discharge code

**Excluded Populations:**

- Patients less than 18 years of age
- Patients with a documented Reason for No Referral to Outpatient Cardiac Rehabilitation Program
- Patients enrolled in a Clinical Trial
- Patients with Comfort Measures Only documented
- Patients discharged to home for hospice care
- Patient discharged to an acute care facility
- Patients discharged to another health care facility
- Patients who expire
- Patients who left AMA
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

**Data Elements:**

- Birthdate
- CPT® Code
- CPT® Code Procedure Date
- Clinical Trial
- Comfort Measures Only
- Discharge Code
- E/M Code
- ICD-10-CM Other Diagnosis Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Other Procedure Dates
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- Outpatient Encounter Date
- Reason for No Referral to Outpatient Cardiac Rehabilitation Program

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** None
Sampling: Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:


**Measure Algorithm:**

### CCCOP-01: Cardiac Rehabilitation Referral from an Outpatient Setting

**Numerator:** Number of inpatients who have been referred to an outpatient cardiac rehabilitation program.

**Denominator:** Patients with a qualifying event/diagnosis (i.e., MI, PCI) within the previous 12 months who are seen in an outpatient setting.

#### Stratification Table:

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCOP-01</td>
<td>Overall</td>
<td>Table 2.11</td>
</tr>
<tr>
<td>CCCOP-01a</td>
<td>PCI</td>
<td>Table 2.11</td>
</tr>
<tr>
<td>CCCOP-01b</td>
<td>MI</td>
<td>Table 2.3</td>
</tr>
</tbody>
</table>

---
For all Stratified Measures (CCOP-01a-b):

Not in Measure Population

Overall Rate Assignment

= X

= E or D

CPT® Codes

Not on Table 2.11

ICD-10-CM Principal Diagnosis Codes

Not on Table 2.3

Note: Initialize the Measure Category Assignment for each strata measure (a-b) = B.

Do not change the Measure Category Assignment that was calculated for the overall rate (CCOP-01).

The rest of the algorithm will reset the appropriate Measure Category Assignment to be equal to the overall rate’s (CCOP-01) Measure Category Assignment.

Set the Measure Category Assignment for strata measures (CCOP-01a and CCOP-01b) = X

Set the Measure Category Assignment for strata measure CCOP-01a = the Measure Category Assignment for CCOP-01

Set the Measure Category Assignment for strata measure CCOP-01b = the Measure Category Assignment for CCOP-01

Stop
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Outpatient (CCCOP)

Set Measure ID: CCCOP-02

Performance Measure Name: Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Outpatient Setting

Description: Outpatients with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) of ≤40% who are referred to outpatient cardiac rehabilitation.

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of outpatients who have been referred to an outpatient cardiac rehabilitation program which includes the following:

- Communication between the healthcare provider and the patient of the recommendation to attend an outpatient cardiac rehabilitation program AND referral sent to outpatient cardiac rehabilitation program.

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Communication of Outpatient Referral to Patient
- Referral to Outpatient Cardiac Rehabilitation

Denominator Statement: Outpatients with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) of ≤40%.

Included Populations:

- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 2.0
- An ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1
- Documentation of LVSD ≤40%
- Patients discharged to home or unable to determine discharge code
**Excluded Populations:**

- Patients less than 18 years of age
- Patients with a documented Reason for No Referral to Outpatient Cardiac Rehabilitation Program
- Patients enrolled in a Clinical Trial
- Patients with Comfort Measures Only documented
- Patients discharged to home for hospice care
- Patient discharged to an acute care facility
- Patients discharged to another health care facility
- Patients who expire
- Patients who left AMA
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

**Data Elements:**

- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Code
- E/M Code
- ICD-10-CM Other Diagnosis Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Other Procedure Dates
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- LVSD
- Outpatient Encounter Date
- Reason for No Referral to Outpatient Cardiac Rehabilitation Program

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** None

**Sampling:** Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.
Selected References:


**Measure Algorithm:**

**CCCOP-02: Cardiac Rehabilitation Referral for Heart Failure Patients with Reduced Ejection Fraction from an Outpatient Setting**

**Numerator:** Number of inpatients who have been referred to an outpatient cardiac rehabilitation program.

**Denominator:** Outpatients with a diagnosis of heart failure with a reduced ejection fraction (HFrEF) of ≤40%.

---

```
START
---
Run cases that are included in the CCC Inpatient Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow. Clinical through this measure.
---
```

```
Missing Discharge Code 2, 3, 4a, 4b, 4c, 4d, 5, 6, 7
---
```

```
Missing Clinical Trial Y
---
```

```
Missing Cardiac Measures Only
---
```

```
ICD-10-CM Principal Diagnosis Codes
```none on Table 2.1
HF

```

```
At least one on Table 2.1
CCCOP-02
---
```

```
Missing LVSD = 5
---
```

```
CCCOP-02 X
---
```

```
CCCOP-02 H
---
```

```
CCCOP-02 B
---
```
Measure Information Form

Measure Set: Comprehensive Cardiac Center-Outpatient (CCCOP)

Set Measure ID: CCCOP-03

Performance Measure Name: Cardiac Rehabilitation Enrollment from an Outpatient Setting

Description: Patients with one of the qualifying events/diagnoses who attend at least one (1) cardiac rehabilitation session, within 90 calendar days of an outpatient procedure or office visit. Qualifying events:

- Diagnosis of a myocardial infarction (MI)
- Percutaneous coronary intervention (PCI)

Rationale: Studies have shown that cardiac rehabilitation reduces mortality, disease recurrence, and hospital readmission after a cardiovascular event (Thomas et al., 2018). Cardiac rehabilitation consists of exercise, education, and counseling (American Heart Association, 2018). Guidelines recommend referral to cardiac rehabilitation for certain qualifying cardiovascular conditions (Amsterdam et al., 2014), however, despite these benefits and recommendations, cardiac rehabilitation participation rates are low and range from 20-30% (Ades et al., 2017). In addition, referral to cardiac rehabilitation for patients undergoing PCI has been shown to be as low as 48% (Beatty et al., 2017).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Number of patients who attend at least one (1) cardiac rehabilitation session within 90 calendar days of the date of a qualifying outpatient procedure or office visit.

Included Populations: Not applicable

Excluded Populations: Not applicable

Data Elements:

- Cardiac Rehabilitation Attendance
- Outpatient Encounter Date

Denominator Statement: Patients with a qualifying event/diagnosis who received a referral to outpatient cardiac rehabilitation.

Included Populations:

- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 2.0
- Patients with a ICD-10-CM Principal Diagnosis Code for MI as defined in Appendix A, Table 2.3.
- Patients with a CPT® Code for PCI as defined in Appendix A, Table 2.11.
**Excluded Populations:**

- Patients less than 18 years of age
- Patients who expired
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2 or Table 2.13)

**Data Elements:**

- Birthdate
- CPT® Code
- CPT® Code Procedure Date
- E/M Code
- ICD-10-CM Other Diagnosis Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Other Procedure Dates
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- Outpatient Encounter Date
- Reason for No Cardiac Rehabilitation Enrollment
- Referral to Outpatient Cardiac Rehabilitation

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency

**Measure Analysis Suggestions:** None

**Sampling:** Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**


Measure Algorithm:

CCCOP-03: Cardiac Rehabilitation Enrollment from an Outpatient Setting

Numerator: Number of patients who attend at least one (1) cardiac rehabilitation session within 90 calendar days of an outpatient procedure or office visit.

Denominator: Patients with a qualifying event/diagnosis within the previous 12 months, who received a referral to outpatient cardiac rehabilitation.

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCCOP-03</td>
<td>Overall</td>
</tr>
<tr>
<td>CCCOP-03a</td>
<td>PCI</td>
</tr>
<tr>
<td>CCCOP-03b</td>
<td>MI</td>
</tr>
</tbody>
</table>

### Stratification Table:

- **CCCOP-03**: Overall
- **CCCOP-03a**: PCI
- **CCCOP-03b**: MI
For all Stratified Measures (CCCP-03a-b)

Not in Measure Population

Overall Rate Assignment = X

=E or D

CPT® Codes

PCI

On Table 2.11

Set the Measure Category Assignment for strata measures (CCCP-03a and CCCP-03b) = 'X'

ICD-10-CM Principal Diagnosis Codes

MI

On Table 2.3

Set the Measure Category Assignment for strata measure CCCP-03b = the Measure Category Assignment for CCCP-03

Note: Initialize the Measure Category Assignment for each strata measure (a/b) = 'B'.

Do not change the Measure Category Assignment that was calculated for the overall rate (CCCP-03).

The rest of the algorithm will reset the appropriate Measure Category Assignment to be equal to the overall rate's (CCCP-03) Measure Category Assignment.

Stop
Advanced Certification Heart Failure Outpatient Population Algorithm

Start ACHFOP Measure Set Population Logic

Process all cases that have successfully reached the point in the Transmission Data Processing Flow: Clinical which calls this Initial Patient Population Algorithm. Do not process cases that have been rejected before this point in the Transmission Data Processing Flow: Clinical

Not on Table 2.0

Discharge Code

Patient Age on Outpatient Encounter Date (in years) = Outpatient Encounter Date minus Birthdate

Note: To calculate age must use the month and day portion of the outpatient encounter date and birthday to yield the most accurate age.

< 18 years

ICD-10-CM Principal Diagnosis Code

Not on Table 2.1

At least one on Table 2.2

All Missing or None on Table 2.2

Note: For information concerning sample size requirements for ACHFOP, refer to the Population and Sampling Specifications section in this manual.

Patient is in ACHFOP measure Population

Patient is eligible to be sampled for ACHFOP Measure Set

Set OP Population Reject Case Flag = "No"

Return to Transmission Data Processing Flow: Clinical (Data Transmission section)

End

Variable Key:
Patient Age on Outpatient Encounter Date
OP Population Reject Case Flag

Patient Not in ACHFOP Population

Patient is not in ACHFOP measure Population

Patient is not eligible to be sampled for ACHFOP Measure Set

Set OP Population Reject Case Flag = "Yes"
Measure Information Form

**Measure Set:** Advanced Certification Heart Failure Outpatient (ACHFOP)

**Set Measure ID:** ACHFOP-03

**Performance Measure Name:** Hospital Outpatient Aldosterone Receptor Antagonists

**Description:** Patients with a diagnosis of heart failure, a New York Heart Association (NYHA) class III-IV, and heart failure with a left ventricular ejection fraction (LVSD) ≤35% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction who are prescribed an aldosterone receptor antagonist.

**Rationale:** Use of aldosterone receptor antagonist in eligible HF patients with LVSD and no documented contraindications, intolerance, or other medical reason(s) is recommended to reduce heart failure hospitalization and mortality. Both ACEIs and ARBs can lower circulating aldosterone with initial therapy; however, aldosterone suppression may not be sustained over time. Clinical studies have demonstrated that the addition of spironolactone to ACEI therapy for patients with NYHA class III or IV symptoms and recent hospitalization reduced the risk of death from 46% to 35% (30% relative risk reduction) over two years. Furthermore, a 35% reduction in heart failure hospitalization and improvement in functional class was noted.

Hyperkalemia is a major risk of aldosterone antagonist therapy. Potassium supplements should be discontinued after the initiation of therapy, and patients should be counseled to avoid high-potassium foods.

**Type Of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients who are prescribed an aldosterone receptor antagonist (i.e. Aldactone, Aldactazide [Hydrochlorothiazide + Spironolactone], Eplerenone, Inspra, Spironolactone) when seen in the outpatient setting.

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting

**Denominator Statement:** Heart failure patients with a NYHA class III-IV and current or prior documentation of left ventricular ejection fraction (LVSD) ≤35%.

**Included Populations:**

- E/M Code for hospital outpatient encounter as defined in Appendix A, Table 2.0
- An ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1, and
- Documentation of LVSD ≤35%
- New York Heart Association (NYHA) Functional Classification III-IV

**Excluded Populations:**

- Clinical Trial
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-10-PCS Procedure Code for LVAD or heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patients with a documented Reason for No Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting

**Data Elements:**

- Birthdate
- Clinical Trial
- Discharge Code
- E/M Code
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Principal Procedure Code
- ICD-10-PCS Principal Procedure Date
- LVSD
- New York Heart Association (NYHA) Classification
- Outpatient Encounter Date
- Reason for No Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** None.

**Sampling:** Yes. Please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**


Measure Algorithm:

ACHFOP–03: Hospital Outpatient Aldosterone Receptor Antagonist Prescribed for LVSD

**Numerator:** Patients who are prescribed an aldosterone receptor antagonist (i.e., Aldactone, Aldactazide [Hydrochlorothiazide + Spironolactone], Eplerenone, Inspra, Spironolactone) when seen in the outpatient setting.

**Denominator:** Heart failure patients with a NYHA class III-IV and current or prior documentation of left ventricular ejection fraction (LVSD) ≤35%.

![Algorithm Diagram](image-url)
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient (ACHFOP)

Set Measure ID: ACHFOP-06

Performance Measure Name: Hospital Outpatient Discussion of Advance Directives/Advance Care Planning

Description: Outpatients who have documentation in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider.

Rationale: Heart failure is a progressive, debilitating disease which carries with it a poor prognosis over time and high mortality rate. Physicians should acknowledge the life-threatening nature of the disease and discuss with patients and/or their caregivers prognosis, quality of life, pharmacologic and device therapies, self-management, and supportive care options (HFSA, 2010).

According to Heffner and Barbieri, most patients at fourteen cardiac rehabilitation programs across the United States, presumed the need for life-support at some point in the future and wanted to make their own decisions about end-of-life care. Most of the patients were aware of advance directives, desired more information, and preferred to get more information from their lawyers, families, physicians, or cardiac rehabilitation programs (Perkins, 2000). Despite this receptiveness, only 15% of patients had discussed advance directives with their physicians, and 10% had confidence that their physicians understood their wishes (Heffner and Barbieri, 2000).

Type Of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Outpatients who have documentation in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider.

Included Populations: Not applicable Excluded

Populations: None

Data Elements:
  - Discussion of Advance Directives/Advance Care Planning

Denominator Statement: All heart failure patients

Included Populations:
  - E/M Code for hospital outpatient encounter as defined in Appendix A, Table 2.0, and An ICD-10-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1

Excluded Populations:
Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-10-PCS procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)

• Patients less than 18 years of age

**Data Elements:**

• Birthdate
• Discharge Code
• E/M Code
• ICD-10-CM Principal Diagnosis Code
• ICD-10-PCS Other Procedure Codes
• ICD-10-PCS Principal Procedure Code
• ICD-10-PCS Principal Procedure Date
• Outpatient Encounter Date

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-10 codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** None.

**Sampling:** Yes. please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

• Hefner JE, Barberi C. End-of-life care preferences of patients enrolled in cardiovascular rehabilitation programs. Chest. 2000;117(5);1474-1481.
• Perkins HS. Time to move advance care planning beyond advance directives. Chest. 2000;117(5);128-1231.
Measure Algorithm:

**ACHFOP–06: Hospital Outpatient Discussion of Advance Directives/Advance Care Planning**

**Numerator:** Outpatients who have documentation in the outpatient medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider.

**Denominator:** All heart failure patients.

```
START

Run cases that are included in the ACHFOP Initial OutPatient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

Discussion of Advance Directives/Advance Care Planning

x Y

In N gave Population

Cases will be reedited

STOP
```
Name: Admission Date

Collected For: All Records

Definition: The month, day, and year of admission to acute inpatient care.

Question: What is the date the patient was admitted to acute inpatient care?

Format: 
Length: 10 — MM-DD-YYYY (includes dashes)
Type: Date
Occurs: 1

Allowable Values:
MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (20xx)

Notes for Abstraction:
• The intent of this data element is to determine the date that the patient was actually admitted to acute inpatient care. Because this data element is critical in determining the population for all measures, the abstractor should NOT assume that the claim information for the admission date is correct. If the abstractor determines through chart review that the date is incorrect, for purposes of abstraction, she/he should correct and override the downloaded value.
• If using claim information, the “Statement Covers Period” is not synonymous with the “Admission Date” and should not be used to abstract this data element. These are two distinctly different identifiers:
  ○ The Admission Date is purely the date the patient was admitted as an inpatient to the facility.
  ○ The Statement Covers Period (“From” and “Through” dates) identifies the span of service dates included in a particular claim. The “From” Date is the earliest date of service on the claim.
• For patients who are admitted to Observation status and subsequently admitted to acute inpatient care, abstract the date that the determination was made to admit to acute inpatient care and the order was written. Do not abstract the date that the patient was admitted to Observation.
Example: Medical record documentation reflects that the patient was admitted to observation on 04-05-20xx. On 04-06-20xx the physician writes an order to admit to acute inpatient effective 04-05-20xx. The Admission Date would be abstracted as 04-06-20xx; the date the determination was made to admit to acute inpatient care and the order was written.
• The admission date should not be abstracted from the earliest admission order without regards to substantiating documentation. If documentation suggests that the earliest admission order does not reflect the date the patient was admitted to inpatient care, this date should not be used.
Example: Preoperative Orders are dated as 04-06-20xx with an order to admit to Inpatient. Postoperative Orders, dated 05-01-20xx, state to admit to acute inpatient. All other documentation supports that the patient presented to the hospital for surgery on 05-01-20xx. The Admission Date would be abstracted 05-01-20xx.
• If there are multiple inpatient orders, use the order that most accurately reflects the date that the patient was admitted.
For newborns that are born within this hospital, the Admission Date is the date the baby was born.

**Suggested Data Sources:**

**ONLY ALLOWABLE SOURCES**

- Physician orders
- Face sheet
- UB-04

**Note:** The physician order is the priority data source for this data element. If there is not a physician order in the medical record, use the other only allowable sources to determine the Admission Date.

**Excluded Data Sources**

- UB-04, “From” and “Through” dates

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Admit to observation</td>
</tr>
<tr>
<td></td>
<td>Arrival date</td>
</tr>
</tbody>
</table>
Name: Aldosterone Receptor Antagonist Prescribed for LVSD at Discharge

Collected For: CCCIP-02

Definition: Documentation that aldosterone receptor antagonist was prescribed for LVSD at discharge.

Question: Was an aldosterone receptor antagonist for an LVSD ≤35% prescribed at discharge?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
Y (Yes) An aldosterone receptor antagonist for an LVSD ≤35% was prescribed at discharge.
N (No) An aldosterone receptor antagonist an LVSD ≤35% was not prescribed at discharge or unable to determine from medical record documentation.

Notes for Abstraction:
- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- If the patient is currently on an aldosterone receptor antagonist, answer “Yes”.
- If the patient does not have LVSD or an ejection fraction ≤35, select “No”.

Suggested Data Sources:
- Discharge summary
- Discharge instruction sheet
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aldactone</td>
<td>• All other aldosterone receptor antagonist medications other than those listed as inclusions.</td>
</tr>
<tr>
<td>• Aldactazide (Hydrochlorothiazide + Spironolactone)</td>
<td></td>
</tr>
<tr>
<td>• Eplerenone</td>
<td></td>
</tr>
<tr>
<td>• Inspra</td>
<td></td>
</tr>
<tr>
<td>• Spironolactone</td>
<td></td>
</tr>
</tbody>
</table>
**Name:** Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting

**Collected For:** ACHFOP-03

**Definition:** Documentation that an aldosterone receptor antagonist was prescribed for New York Heart Association (NYHA) class III-IV and LVSD ≤35% in the outpatient setting.

**Question:** Was an aldosterone receptor antagonist prescribed for a NYHA class III-IV and LVSD ≤35% in the outpatient setting?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**
- **Y (Yes)** An aldosterone receptor antagonist was prescribed for a NYHA class III-IV and an LVSD ≤35%.
- **N (No)** An aldosterone receptor antagonist was not prescribed for a NYHA class III-IV and an LVSD ≤35% or unable to determine from medical record documentation.

**Notes for Abstraction:**
- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- If the patient is currently on an aldosterone receptor antagonist, select 1.

**Suggested Data Sources:**
- Discharge summary
- Discharge instruction sheet
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldactone</td>
<td>All other aldosterone receptor antagonist medications other than those listed as inclusions.</td>
</tr>
<tr>
<td>Aldactazide (Hydrochlorothiazide + Spironolactone)</td>
<td></td>
</tr>
<tr>
<td>Eplerenone</td>
<td></td>
</tr>
<tr>
<td>Inspra</td>
<td></td>
</tr>
<tr>
<td>Spironolactone</td>
<td></td>
</tr>
</tbody>
</table>
Name: Birthdate

Collected For: All Records

Definition: The month, day, and year the patient was born.

Note:

- Patient's age (in years) is calculated by Admission Date minus Birthdate. The algorithm to calculate age must use the month and day portion of admission date and birthdate to yield the most accurate age.
- For HBIPS discharge measures, i.e., HBIPS-1, 5, patient's age (in years) is calculated by Discharge Date minus Birthdate. For event measures, i.e., HBIPS-2, 3, patient's age at time of event (in years) is calculated by Event Date minus Birthdate. The algorithm to calculate age must use the month and day portion of birthdate, and discharge date or event, as appropriate to yield the most accurate age.

Question: What is the patient's date of birth?

Format: Length: 10 — MM-DD-YYYY (includes dashes)
Type: Date
Occurs: 1

Allowable Values:

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (1880-Current Year)

Notes for Abstraction: Because this data element is critical in determining the population for all measures, the abstractor should NOT assume that the claim information for the birthdate is correct. If the abstractor determines through chart review that the date is incorrect, she/he should correct and override the downloaded value. If the abstractor is unable to determine the correct birthdate through chart review, she/he should default to the date of birth on the claim information.

Suggested Data Sources:

- Emergency department record
- Face sheet
- Registration form
- UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• None</td>
<td>• None</td>
</tr>
</tbody>
</table>
**Name:** Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge

**Collected For:** ACHF-01

**Definition:** Documentation that bisoprolol, carvedilol, or sustained-release metoprolol succinate was prescribed at discharge. Beta-blockers are agents which block beta-adrenergic receptors, thereby decreasing the rate and force of heart contractions, and reducing blood pressure. Over time beta-blockers improve the heart's pumping ability. The marked beneficial effects of beta blockade has been well demonstrated in large-scale clinical trials of symptomatic patients with New York Heart Association (NYHA) class II-IV heart failure and reduced LVEF using bisoprolol, carvedilol, and sustained-release metoprolol succinate.

**Question:** Was bisoprolol, carvedilol, or sustained-release metoprolol succinate prescribed for LVSD at discharge?

**Format:**

<table>
<thead>
<tr>
<th>Length</th>
<th>Type</th>
<th>Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alphanumeric</td>
<td>1</td>
</tr>
</tbody>
</table>

**Allowable Values:**

Y (Yes) Bisoprolol, carvedilol, or sustained-release metoprolol succinate was prescribed for LVSD at discharge.

N (No) Bisoprolol, carvedilol, or sustained-release metoprolol succinate was not prescribed for LVSD at discharge or unable to determine from medical record documentation.

**Notes for Abstraction:**

- Only select "Yes" for those beta-blockers identified in the list of inclusions. No other beta-blockers will be accepted for this data element.
- In determining whether bisoprolol, carvedilol, or sustained-release metoprolol succinate was prescribed at discharge, it is not uncommon to see conflicting documentation amongst different medical record sources. For example, the discharge summary may list one of these beta-blockers that is not included in any of the other discharge medication sources (e.g., discharge orders). All discharge medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- In cases where there is bisoprolol, carvedilol, or sustained-release metoprolol succinate in one source that is not mentioned in other sources, it should be interpreted as a discharge medication (select "Yes") unless documentation elsewhere in the medical record suggests that it was NOT prescribed at discharge - Consider it a discharge medication in the absence of contradictory documentation.
- If documentation is contradictory (e.g., physician noted “d/c carvedilol” in the discharge orders, but carvedilol is listed in the discharge summary's discharge medication list), or after careful examination of circumstances, context, timing, etc, documentation raises enough questions, the case should be deemed unable to determine” (select "No").
- Consider documentation of a hold on bisoprolol, carvedilol, or sustained-release metoprolol succinate after discharge in one location and a listing of that beta-blocker as a discharge medication in another location as contradictory ONLY if the timeframe on the hold is not defined (e.g., “Hold bisoprolol”). Examples of a hold with a defined timeframe include “Hold Toprol-XL x 2 days” and “Hold Coreg until after stress test.”
If bisoprolol, carvedilol, or sustained-release metoprolol succinate is NOT listed as a discharge medication, and there is only documentation of a hold or plan to delay initiation/restarting of the beta-blocker after discharge (e.g., “Hold Toprol-XL x 2 days,” “Start Zebeta as outpatient;” “Hold Coreg”), select “No”.

If two discharge summaries are included in the medical record, use the one with the latest date/time. If one or both are not dated or timed, and you cannot determine which was done last, use both. This also applies to discharge medication reconciliation forms. Use the dictated date/time over transcribed date/time, file date/time, etc.

Examples:

- Two discharge summaries, one dictated 5/22 (day of discharge) and one dictated 5/27 - Use the 5/27 discharge summary.
- Two discharge medication reconciliation forms, one not dated and one dated 4/24 (day of discharge) - Use both.
- Disregard bisoprolol, carvedilol, or sustained-release metoprolol succinate documented only as a recommended medication for discharge (e.g., “Recommend sending patient home on Coreg”). Documentation must be more clear that the beta-blocker was actually prescribed at discharge.
- Disregard documentation of bisoprolol, carvedilol, or sustained-release metoprolol succinate prescribed at discharge when noted only by medication class (e.g., “Beta-Blocker Prescribed at Discharge: Yes” on a core measures form). The beta-blocker prescribed must be listed by name.

Suggested Data Sources:

- Nursing notes
- Progress notes
- Physician orders
- Physician's notes
- Discharge summary
- Medication administration record (MAR)
- Transfer sheet
- Discharge instruction sheet
- Medication reconciliation form

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisoprolol</td>
<td>All other beta-blocker medications other than those listed as inclusions.</td>
</tr>
<tr>
<td>Bisoprolol/fumarate</td>
<td></td>
</tr>
<tr>
<td>Bisoprolol/hydrochlorothiazide</td>
<td></td>
</tr>
<tr>
<td>Carvedilol</td>
<td></td>
</tr>
<tr>
<td>Carvedilol phosphate</td>
<td></td>
</tr>
<tr>
<td>Coreg</td>
<td></td>
</tr>
<tr>
<td>Coreg CR</td>
<td></td>
</tr>
<tr>
<td>Metoprolol succinate</td>
<td></td>
</tr>
<tr>
<td>Toprol-XL</td>
<td></td>
</tr>
<tr>
<td>Zebeta</td>
<td></td>
</tr>
</tbody>
</table>
• Ziac
Name: Cardiac Rehabilitation Attendance

Collected For: CCCIP-05, CCCOP-03

Definition: Patients with a qualifying event or diagnosis, who received a referral to CR and who attended at least one (1) CR session.

Question: Did the patient attend at least one (1) CR session within 90 days after hospital discharge, outpatient procedure, or office visit?

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- Y (Yes) The patient attended one (1) outpatient CR session within 90 days of hospital discharge, outpatient procedure, or office visit.
- N (No) The patient did not attend one (1) outpatient CR session within 90 days of hospital discharge, outpatient procedure, or office visit or unable to determine from medical record documentation.

Notes for Abstraction:
- Documentation that the patient attended at least one cardiac rehab session must include the date of the visit to select “Yes”. If the date of the visit is not documented, select “No.”
- Attendance of one cardiac rehab session must be documented by a physician/APN/PA/RN/social worker/physical therapist/occupational therapist/discharge planner.
- Clinicians may verify cardiac rehab attendance with the patient, as long as the date of the visit is documented in the medical record.

Suggested Data Sources:
- History and physical
- Nursing notes
- Progress notes
- Clinic physician notes
- Cardiac rehabilitation notes
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Name: Clinical Trial

Collected For: ACHF-01, ACHF-02, ACHF-03, ACHF-06, ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, CCCIP-01, CCCIP-02, CCCOP-01, CCCOP-02, CSTK-04, CSTK-06, STK, VTE-6

Definition: Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. STK, VTE).

Question: During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. STK, VTE)?

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- Y (Yes) There is documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. STK, VTE).
- N (No) There is no documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. STK, VTE), or unable to determine from medical record documentation.

Notes for Abstraction:
- To select “Yes” to this data element, BOTH of the following must be true:
  1. There must be a signed consent form for clinical trial. For the purposes of abstraction, a clinical trial is defined as an experimental study in which research subjects are recruited and assigned a treatment/intervention and their outcomes are measured based on the intervention received. Treatments/interventions most often include use of drugs, surgical procedures, and devices. Often a control group is used to compare with the treatment/intervention. Allocation of different interventions to participants is usually randomized.
  2. There must be documentation on the signed consent form that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. STK, VTE). Patients may either be newly enrolled in a clinical trial during the hospital stay or enrolled in a clinical trial prior to arrival and continued active participation in that clinical trial during this hospital stay.
- In the following situations, select “No”
  1. There is a signed patient consent form for an observational study only. Observational studies are non-experimental and involve no intervention (e.g., registries). Individuals are observed (perhaps with lab draws, interviews, etc.), data is collected, and outcomes are tracked by investigators. Although observational studies may include the assessment of the effects of an intervention, the study participants are not allocated into intervention or control groups.
  2. It is not clear whether the study described in the signed patient consent form is experimental or observational.
  3. It is not clear which study population the clinical trial is enrolling. Assumptions should not be made if it is not specified.
STK: Only capture patients enrolled in clinical trials studying patients with stroke.

VTE: Only capture patients enrolled in clinical trials studying patients with VTE (prevention or treatment interventions).

ACHF and ACHFOP: Only capture patients enrolled in clinical trials studying patients with heart failure.

Suggested Data Sources: **ONLY ACCEPTABLE SOURCES:**
Signed consent form for clinical trial

Additional Notes:

 Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: **Comfort Measures Only**

**Collected For:** ACHF, ASR-IP-2, ASR-IP-3, ASR-OP-2, CCCIP-01, CCCIP-02, CCCOP-01, CCCOP-02, CSTK-01, CSTK-03, CSTK-04, CSTK-06, STK-1, STK-10, STK-2, STK-3, STK-5, STK-6, STK-8, STK-OP-1, SUB-2, SUB-3, TOB-2, TOB-3, VTE-6

**Definition:** Comfort Measures Only refers to medical treatment of a dying person where the natural dying process is permitted to occur while assuring maximum comfort. It includes attention to the psychological and spiritual needs of the patient and support for both the dying patient and the patient's family. Comfort Measures Only is commonly referred to as “comfort care” by the general public. It is not equivalent to a physician order to withhold emergency resuscitative measures such as Do Not Resuscitate (DNR).

**Question:** When is the earliest physician/APN/PA documentation of comfort measures only?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**

1. **Day 0 or 1:** The earliest day the physician/APN/PA documented comfort measures only was the day of arrival (Day 0) or day after arrival (Day 1).

2. **Day 2 or after:** The earliest day the physician/APN/PA documented comfort measures only was two or more days after arrival day (Day 2+).

3. **Timing unclear:** There is physician/APN/PA documentation of comfort measures only during this hospital stay, but whether the earliest documentation of comfort measures only was on day 0 or 1 OR after day 1 is unclear.

4. **Not Documented/UTD:** There is no physician/APN/PA documentation of comfort measures only, or unable to determine from medical record documentation.

**Notes for Abstraction:**
- Only accept terms identified in the list of inclusions. No other terminology will be accepted.
- Physician/APN/PA documentation of comfort measures only (hospice, comfort care, etc.) mentioned in the following contexts suffices:
  - Comfort measures only recommendation
  - Order for consultation or evaluation by a hospice care service
  - Patient or family request for comfort measures only
  - Plan for comfort measures only
  - Referral to hospice care service
  - Discussion of comfort measures
- Determine the earliest day comfort measures only (CMO) was DOCUMENTED by the physician/APN/PA. If any of the inclusion terms are documented by the physician/APN/PA, select value “1,” “2,” or “3” accordingly.

  **Examples:**
  "Discussed comfort care with family on arrival” noted in day 2 progress note — Select “2.”
- **State-Authorized Portable Orders (SAPOs).**
- SAPOs are specialized forms or identifiers authorized by state law that translate a patient’s preferences about specific end-of-life treatment decisions into portable medical orders.
  Examples:
  - DNR-Comfort Care form
  - MOLST (Medical Orders for Life-Sustaining Treatment)
  - POLST (Physician Orders for Life-Sustaining Treatment)
  - Out-of-Hospital DNR (OOH DNR)
- If there is a SAPO in the record that is dated and signed prior to arrival with an option in which an inclusion term is found that is checked, select value “1.”
- If a SAPO lists different options for CMO and any CMO option is checked, select value “1,” “2,” or “3” as applicable.
- If one or more dated SAPOs are included in the record (and signed by the physician/APN/PA), use only the most recent one. Disregard undated SAPOs.
- For cases where there is a SAPO in the record with a CMO option selected: If the SAPO is dated prior to arrival and there is documentation on the day of arrival or the day after arrival that the patient does not want CMO, and there is no other documentation regarding CMO found in the record, disregard the SAPO.
  Example:
  Patient has a POLST dated prior to arrival in his chart and ED physician states in current record “Patient is refusing comfort measures, wants to receive full treatment and be a full code.”
- Documentation of an inclusion term in the following situations should be disregarded. Continue to review the remaining physician/APN/PA documentation for acceptable inclusion terms. If the ONLY documentation found is an inclusion term in the following situations, select value “4.”
  - Documentation (other than SAPOs) that is dated prior to arrival or documentation which refers to the pre-arrival time period.
  - Inclusion term clearly described as negative or conditional.
    Examples:
    - “No comfort care”
    - "Not appropriate for hospice care”
    - “Comfort care would also be reasonable - defer decision for now”
    - “DNRCCA” (Do Not Resuscitate — Comfort Care Arrest)
    - “Family requests comfort measures only should the patient arrest.”
  - Documentation of “CMO” should be disregarded if documentation makes clear it is not being used as an acronym for Comfort Measures Only (e.g., “hx dilated CMO” — Cardiomyopathy context).
  - If there is physician/APN/PA documentation of an inclusion term in one source that indicates the patient is Comfort Measures Only, AND there is physician/APN/PA documentation of an inclusion term in another source that indicates the patient is NOT CMO, the source that indicates the patient is CMO would be used to select value “1,” “2,”
or “3” for this data element.

Examples:
- Physician documents in progress note on day 1 “The patient has refused Comfort Measures” AND then on day 2 the physician writes an order for a Hospice referral. Select value “2.”
- ED physician documents in a note on day of arrival “Patient states they want to be enrolled in Hospice” AND then on day 2 there is a physician progress note with documentation of “Patient is not a Hospice candidate.” Select value “1.”

<table>
<thead>
<tr>
<th>Suggested Data Sources:</th>
<th>PHYSICIAN/APN/PA DOCUMENTATION ONLY IN THE FOLLOWING ONLY ACCEPTABLE SOURCES:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Consultation notes</td>
</tr>
<tr>
<td></td>
<td>• Discharge summary</td>
</tr>
<tr>
<td></td>
<td>• DNR/MOLST/POLST forms</td>
</tr>
<tr>
<td></td>
<td>• Emergency department record</td>
</tr>
<tr>
<td></td>
<td>• History and physical</td>
</tr>
<tr>
<td></td>
<td>• Physician orders</td>
</tr>
<tr>
<td></td>
<td>• Progress notes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Notes:</th>
<th>Excluded Data Sources:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Restraint order sheet</td>
</tr>
</tbody>
</table>

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brain dead</td>
<td>None</td>
</tr>
<tr>
<td>• Brain death</td>
<td></td>
</tr>
<tr>
<td>• Comfort care</td>
<td></td>
</tr>
<tr>
<td>• Comfort measures</td>
<td></td>
</tr>
<tr>
<td>• Comfort measures only (CMO)</td>
<td></td>
</tr>
<tr>
<td>• Comfort only</td>
<td></td>
</tr>
<tr>
<td>• DNR-CC</td>
<td></td>
</tr>
<tr>
<td>• End of life care</td>
<td></td>
</tr>
<tr>
<td>• Hospice</td>
<td></td>
</tr>
<tr>
<td>• Hospice care</td>
<td></td>
</tr>
<tr>
<td>• Organ harvest</td>
<td></td>
</tr>
<tr>
<td>• Terminal care</td>
<td></td>
</tr>
<tr>
<td>• Terminal extubation</td>
<td></td>
</tr>
</tbody>
</table>
Name: Communication of Outpatient Referral to Patient

Collected For: CCCIP-03, CCCIP-04, CCCOP-01, CCCOP-02

Definition: Documentation in the medical record that the patient's healthcare provider has discussed cardiac rehabilitation and informed the patient that this is being recommended.

Question: Is there documentation of communication between the healthcare provider and the patient recommending outpatient cardiac rehabilitation.

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation of communication between the healthcare provider and the patient recommending outpatient cardiac rehabilitation.

N (No) There is no documentation of communication between the healthcare provider and the patient recommending outpatient cardiac rehabilitation or it is unable to be determined.

Notes for Abstraction:

- A physician/APN/PA/RN/social worker/physical therapist/occupational therapist must document in the medical record that they discussed referral to cardiac rehabilitation with the patient.
- If the patient refuses discussion with the healthcare provider abstract “yes”.

Suggested Data Sources:

- Consultation notes
- Nursing notes
- Progress notes

Additional Notes: Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Name:** CPT® Code

**Collected For:** All Records

**Definition:** The Current Procedural Terminology (CPT®) code associated with this outpatient encounter.

**Question:** What was the CPT® code selected for this outpatient encounter?

**Format:**

- **Length:** 5
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**

Any valid CPT® code from the inclusion list below:

- 96360 Intravenous (IV) infusion, hydration
- 96365 Intravenous infusion, for therapy, prophylaxis, or diagnosis
- 96374 Therapeutic, prophylactic or diagnostic injection; IV push
- 96409 Chemotherapy administration; IV, push technique
- 96413 Chemotherapy administration, IV infusion technique
- 96416 Initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump

**Notes for Abstraction:** None

**Suggested Data Sources:**

- Nursing notes
- Progress notes
- Medication administration record (MAR)
- Billing records
- Chemotherapy flow sheets

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT® Code:</td>
<td>None</td>
</tr>
<tr>
<td>- 96360 Intravenous (IV) infusion, hydration</td>
<td></td>
</tr>
<tr>
<td>- 96365 Intravenous infusion, for therapy, prophylaxis, or diagnosis</td>
<td></td>
</tr>
<tr>
<td>- 96374 Therapeutic, prophylactic or diagnostic injection; IV push</td>
<td></td>
</tr>
<tr>
<td>- 96409 Chemotherapy administration; IV, push technique</td>
<td></td>
</tr>
<tr>
<td>- 96413 Chemotherapy administration, IV infusion technique</td>
<td></td>
</tr>
<tr>
<td>- 96416 Initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump</td>
<td></td>
</tr>
</tbody>
</table>
Name: CPT® Code Procedure Date

Collected For: CCCOP-01, CCCOP-03, THKR-OP-2, THKR-OP-4

Definition: The month, day, and year when the procedure was performed.

Question: What was the date the procedure was performed?

Format: Length: 10 – MM-DD-YYYY (includes dashes) or UTD
Type: Date
Occurs: 1

Allowable Values:

MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (20xx)
UTD = Unable to Determine

Notes for Abstraction: * If the procedure date is unable to be determined from medical record documentation, select “UTD.”

• The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid date/format) or is outside of the parameters of care (after Outpatient Departure Date) and no other documentation is found that provides this information, the abstractor should select “UTD.”

Example:

• Documentation indicates the CPT® Code Procedure Date was 02-*42*-20xx. No other documentation in the medical record provides a valid date. Since the CPT® Code Procedure Date is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD.”

Suggested Data Sources:

• Consultation notes
• Diagnostic test reports
• Discharge summary
• Face sheet
• Operative notes
• Procedure notes
• Progress notes
• UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: Discharge Code


Definition: The final place or setting to which the patient was discharged from the outpatient setting.

Question: What was the patient's discharge code from the outpatient setting?

Format: Length: 2
Type: Alphanumeric
Occurs: 1

Allowable Values:

- 1 Home
- 2 Hospice - Home
- 3 Hospice — Health Care Facility
- 4a Acute Care Facility- General Inpatient Care
- 4b Acute Care Facility- Critical Access Hospital
- 4c Acute Care Facility- Cancer Hospital or Children's Hospital
- 4d Acute Care Facility — Department of Defense or Veteran's Administration
- 5 Other Health Care Facility
- 6 Expired
- 7 Left Against Medical Advice/AMA
- 8 Not Documented or Unable to Determine (UTD)

Notes for Abstraction:

- If documentation is contradictory, use the latest documentation. If there is documentation that further clarifies the level of care that documentation should be used to determine the correct value to abstract.
  Example:
  - Nursing discharge note documentation reflects that the patient is being discharged to “XYZ” Hospital. The Social Service notes from the day before discharge further clarify that the patient will be transferred to the rehab unit of “XYZ” Hospital, select value “5”.
- If the medical record states only that the patient is being discharged to another hospital and does not reflect the level of care that the patient will be receiving, select value “4a”.
- When determining whether to select value 7 (“Left Against Medical Advise”):
  - A signed AMA form is not required for this data element, but in the absence of a signed form, the medical record must contain physician or nurse documentation that the patient left against medical advice or AMA.
  - For this data element, a signed AMA form is not required.
  - Do not consider AMA documentation and other disposition documentation as “contradictory.” If any source states the patient left against medical advice, select value 7, regardless of whether the AMA documentation was written last (e.g., AMA form signed and discharge instruction sheet states “Discharged home with belongings”—Select value 7).
  - Physician order written to discharge to home. Nursing notes reflect that the patient left before discharge instructions could be given; select value 1.

Suggested Data Sources:

- Discharge instruction sheet
- Emergency Department Record
• Nursing discharge notes
• Physician orders
• Progress notes
• Transfer record

Additional Notes: Excluded Data Sources:
• UB-04

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For Value 1:</strong></td>
<td>None</td>
</tr>
<tr>
<td>• Assisted Living Facilities</td>
<td></td>
</tr>
<tr>
<td>• Court/Law Enforcement – includes detention facilities, jails, and prison</td>
<td></td>
</tr>
<tr>
<td>• Home – includes board and care, foster or residential care, group or personal care homes, and homeless shelters</td>
<td></td>
</tr>
<tr>
<td>• Home with Home Health Services</td>
<td></td>
</tr>
<tr>
<td>• Outpatient Services including outpatient procedures at another hospital, Outpatient Chemical Dependency Programs and Partial Hospitalization</td>
<td></td>
</tr>
<tr>
<td><strong>For Value 3:</strong></td>
<td></td>
</tr>
<tr>
<td>• Hospice Care - General Inpatient and Respite</td>
<td></td>
</tr>
<tr>
<td>• Hospice Care - Residential and Skilled Facilities</td>
<td></td>
</tr>
<tr>
<td>• Hospice Care - Other Health Care Facilities (excludes home)</td>
<td></td>
</tr>
<tr>
<td><strong>For Value 5:</strong></td>
<td></td>
</tr>
<tr>
<td>• Extended or Intermediate Care Facility (ECF/ICF)</td>
<td></td>
</tr>
<tr>
<td>• Long Term Acute Care Hospital (LTACH)</td>
<td></td>
</tr>
<tr>
<td>• Nursing Home or Facility including Veteran’s Administration Nursing Facility</td>
<td></td>
</tr>
<tr>
<td>• Psychiatric Hospital or Psychiatric Unit of a Hospital</td>
<td></td>
</tr>
<tr>
<td>• Rehabilitation Facility including Inpatient Rehabilitation Facility/Hospital or Rehabilitation Unit of a Hospital</td>
<td></td>
</tr>
<tr>
<td>• Skilled Nursing Facility (SNF), Sub-Acute Care or Swing Bed</td>
<td></td>
</tr>
<tr>
<td>• Transitional Care Unit (TCU)</td>
<td></td>
</tr>
</tbody>
</table>
Name: Discharge Date

Collected For: All Records, Not collected for HBIPS-2 and HBIPS-3

Definition: The month, day, and year the patient was discharged from acute care, left against medical advice, or expired during this stay.

Question: What is the date the patient was discharged from acute care, left against medical advice (AMA), or expired?

Format:  

Length: 10 — MM-DD-YYYY (includes dashes)

Type: Date

Occurs: 1

Allowable Values:

MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (20xx)

Notes for Abstraction:

Because this data element is critical in determining the population for many measures, the abstractor should NOT assume that the claim information for the discharge date is correct. If the abstractor determines through chart review that the date is incorrect, she/he should correct and override the downloaded value. If the abstractor is unable to determine the correct discharge date through chart review, she/he should default to the discharge date on the claim information.

For HBIPS only, if the patient was in an acute-care hospital and had multiple admissions to the psychiatric unit during his or her hospitalization, this information should be abstracted only once at the time of discharge from the hospital.

Suggested Data Sources:

• Face sheet
• Progress notes
• Physician orders
• Discharge summary
• Nursing discharge notes
• Transfer note
• UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• None</td>
<td>• None</td>
</tr>
</tbody>
</table>
Name: Discharge Disposition

Collected For: ACHF, ASR-IP-3, CCCIP, CSTK-02, CSTK-10, HBIPS-5, IMM-2, PAL-05, PC-04, PC-05, PC-06, STK-10, STK-2, STK-3, STK-6, STK-8, SUB-3, THKR-IP-2, THKR-IP-3, TOB-3

Definition: The final place or setting to which the patient was discharged on the day of discharge.

Question: What was the patient's discharge disposition on the day of discharge?

Format: Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:
1 Home
2 Hospice - Home
3 Hospice —- Health Care Facility
4 Acute Care Facility
5 Other Health Care Facility
6 Expired
7 Left Against Medical Advice/AMA
8 Not Documented or Unable to Determine (UTD)

Notes for Abstraction: Only use documentation written on the day prior to discharge through 30 days after discharge when abstracting this data element.  
Example: Documentation in the Discharge Planning notes on 04-01-20xx state that the patient will be discharged back home. On 04-06-20xx the physician orders and nursing discharge notes on the day of discharge reflect that the patient was being transferred to skilled care. The documentation from 04-06-20xx would be used to select value “5” (Other Health Care Facility).  
The medical record must be abstracted as documented (taken at “face value”). Inferences should not be made based on internal knowledge.  
If there is documentation that further clarifies the level of care that documentation should be used to determine the correct value to abstract. If documentation is contradictory, use the latest documentation. Examples:  
- Discharge summary dictated 2 days after discharge states patient went “home”. Physician note on day of discharge further clarifies that the patient will be going home with hospice”. Select value “2” (“Hospice - Home”).  
- Discharge planner note from day before discharge states “XYZ Nursing Home”. Discharge order from day of discharge states “Discharge home”. Contradictory
documentation, use latest. Select value “1” (“Home”).

- Physician order on discharge states “Discharge to ALF”. Discharge instruction sheet completed after the physician order states patient discharged to “SNF”. Contradictory documentation, use latest. Select value “5” (“Other Health Care Facility”).

- If documentation is contradictory, and you are unable to determine the latest documentation, select the disposition ranked highest (top to bottom) in the following list. See Inclusion lists for examples.
  - Acute Care Facility
  - Hospice — Health Care Facility
  - Hospice — Home
  - Other Health Care Facility
  - Home

- Hospice (values “2” and “3”) includes discharges with hospice referrals and evaluations.

- If the medical record states only that the patient is being discharged to another hospital and does not reflect the level of care that the patient will be receiving, select value “4” (“Acute Care Facility”).

- If the patient is being discharged to assisted living care or an assisted living facility (ALF) that is located within a skilled nursing facility, and documentation in the medical record also includes nursing home, intermediate care or skilled nursing facility, select Value “1” (“Home”).

- If the medical record states the patient is being discharged to nursing home, intermediate care or skilled nursing facility without mention of assisted living care or assisted living facility (ALF), select Value “5” (“Other Health Care Facility”).

- If the medical record identifies the facility the patient is being discharged to by name only (e.g., “Park Meadows”), and does not reflect the type of facility or level of care, select value “5” (“Other Health Care Facility”).

- If the medical record states only that the patient is being “discharged” and does not address the place or setting to which the patient was discharged, select value “1” (“Home”).

- When determining whether to select value “7” (“Left Against Medical Advice/AMA”):
  - Explicit “left against medical advice” documentation is not required. E.g., “Patient is refusing to stay for continued care” — Select value “7”.
  - Documentation suggesting that the patient left before discharge instructions could be given does not count.
  - A signed AMA form is not required, for the purposes of this data element.
  - Do not consider AMA documentation and other disposition documentation as “contradictory”. If any source states the patient left against medical advice, select value “7”, regardless of whether the AMA documentation was written last. E.g., AMA form signed and discharge instruction sheet states “Discharged home with belongings” — Select “7”.

- **For PC Only**: Hospitals are encouraged to utilize a data source that reduces unnecessary medical record review e.g., using vital records, delivery logs or clinical information systems as a data source. Mapping from electronic administrative sources to the allowable values is acceptable.

- **For PC-06 Only**: If a newborn is transferred to another acute care facility for purposes other than medical treatment or the need for a higher level of care, and mother and baby
remain together, abstract allowable value 8. Examples include transfers:
- To another facility covered by their health plan
- For disaster evacuation
- Full census

**Suggested Data Sources:**
- Consultation notes
- Progress notes
- Physician orders
- Discharge summary
- Any DMAT documentation
- Discharge instruction sheet
- Discharge planning notes
- Nursing discharge notes
- Social service notes
- Transfer record

**Excluded Data Sources**
- Any documentation prior to the last two days of hospitalization
- Coding documents
- UB-04

**PC ONLY Excluded Data Source**
- Any documentation prior to the last two days of hospitalization

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Home (Value 1):</strong></td>
<td>None</td>
</tr>
<tr>
<td>- Assisted Living Facilities (ALFs) — Includes ALFs and assisted living</td>
<td></td>
</tr>
<tr>
<td>care at nursing home, intermediate care, and skilled nursing facilities</td>
<td></td>
</tr>
<tr>
<td>- Court/Law Enforcement — includes detention facilities, jails, and</td>
<td></td>
</tr>
<tr>
<td>prison</td>
<td></td>
</tr>
<tr>
<td>- Home — includes board and care, foster or residential care, group or</td>
<td></td>
</tr>
<tr>
<td>personal care homes, retirement communities, and homeless shelters</td>
<td></td>
</tr>
<tr>
<td>- Home with Home Health Services</td>
<td></td>
</tr>
<tr>
<td>- Outpatient Services including outpatient procedures at another</td>
<td></td>
</tr>
<tr>
<td>hospital, Outpatient Chemical Dependency Programs and Partial</td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td></td>
</tr>
</tbody>
</table>

**Hospice — Home (Value 2):**
- Hospice in the home (or other “Home” setting as above in Value 1)
<table>
<thead>
<tr>
<th>Hospice — Health Care Facility (Value 3):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hospice - General Inpatient and Respite</td>
</tr>
<tr>
<td>• Hospice - Residential and Skilled Facilities</td>
</tr>
<tr>
<td>• Hospice - Other Health Care Facilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute Care Facility (Value 4):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Acute Short Term General and Critical Access Hospitals</td>
</tr>
<tr>
<td>• Cancer and Children's Hospitals</td>
</tr>
<tr>
<td>• Department of Defense and Veteran's Administration Hospitals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Health Care Facility (Value 5):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Extended or Intermediate Care Facility (ECF/ICF)</td>
</tr>
<tr>
<td>• Long Term Acute Care Hospital (LTACH)</td>
</tr>
<tr>
<td>• Nursing Home or Facility including Veteran's Administration Nursing Facility</td>
</tr>
<tr>
<td>• Psychiatric Hospital or Psychiatric Unit of a Hospital</td>
</tr>
<tr>
<td>• Rehabilitation Facility including, but not limited to: Inpatient Rehabilitation Facility/Hospital, Rehabilitation Unit of a Hospital, Chemical Dependency/Alcohol Rehabilitation Facility</td>
</tr>
<tr>
<td>• Skilled Nursing Facility (SNF), Sub-Acute Care or Swing Bed</td>
</tr>
<tr>
<td>• Transitional Care Unit (TCU)</td>
</tr>
<tr>
<td>• Veterans Home</td>
</tr>
</tbody>
</table>
Discussion of Advance Directives/Advance Care Planning

Definition: Documentation in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider. Advance directives are instructions given to individuals specifying what actions should be taken for their health in the event that they are no longer able to make decisions due to illness or incapacity, and therefore appoints a person to make such decisions on their behalf.

Question: Was documentation present in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider?

Format:
Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
Y (Yes) There was documentation present in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider.

N (No) There was no documentation present in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider, or unable to determine from medical record documentation.

Notes for Abstraction:
- If documentation of a discussion of advance directives or advance care planning with the patient and/or caregiver is present in the medical record, select “Yes”.
- The caregiver is defined as the patient's family or other person (e.g. home health, VNA provider, prison official or law enforcement personnel) who will be responsible for care of the patient after discharge.
- Advance directive discussion may be with a physician/APN/PA, social worker, pastoral care, or nurse.
- A one-time discussion documented anywhere in the medical record is sufficient to select “Yes” for this data element.
- If the only documentation in the medical record is that the patient was asked if they have an advance directive and the patient response is no, select No.
- If there is documentation that the patient has an advance directive but a copy is not present in the medical record, select Yes.
- Documentation that the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan, select “Yes”.
- Documentation that the patient's cultural beliefs may be in conflict with the discussion of advance directives, e.g., Navajo Indian, select “Yes”.
- Documentation of patient/family refusal of a discussion, select “Yes”.
- If an advance directive is present in the medical record, select “Yes”.

Suggested Data Sources:
- History and physical
- Progress notes
- Discharge summary
- Care Transition Record
- Consultation form
- Discharge planning form
- MOLST/POLST Forms
- Hospice referral
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Advance care plan</td>
<td>None</td>
</tr>
<tr>
<td>- Advance decision</td>
<td></td>
</tr>
<tr>
<td>- Advance directive</td>
<td></td>
</tr>
<tr>
<td>- Advance healthcare directive</td>
<td></td>
</tr>
<tr>
<td>- DNR orders</td>
<td></td>
</tr>
<tr>
<td>- Do Not Resuscitate Orders</td>
<td></td>
</tr>
<tr>
<td>- Health care proxy</td>
<td></td>
</tr>
<tr>
<td>- Living will</td>
<td></td>
</tr>
<tr>
<td>- MOLST (Medical Orders for Life-Sustaining Treatment)</td>
<td></td>
</tr>
<tr>
<td>- Personal directive</td>
<td></td>
</tr>
<tr>
<td>- POLST (Physician Orders for Life-Sustaining Treatment)</td>
<td></td>
</tr>
<tr>
<td>- Power of attorney for healthcare</td>
<td></td>
</tr>
</tbody>
</table>
**Name:** E/M Code  
**Collected For:** ACHFOP, ASR-OP-1, ASR-OP-2, CCCOP, STK-OP-1  
**Definition:** The code used to report evaluation and management services provided in the outpatient department clinic or emergency department.  
**Question:** What was the E/M code documented for this outpatient encounter?  
**Format:**  
- **Length:** 5  
- **Type:** Alphanumeric  
- **Occurs:** 1  

**Allowable Values:**  
- For ASR-OP measures, select the E/M code from Appendix A, Table 1.0.  
- For STK-OP measures, select the E/M code from Appendix A, Table 1.0.  
- For ACHFOP measures, select the E/M code from Appendix A, Table 2.0.  
- For CCCOP measures, select the E/M code from Appendix A, Table 2.0.  

**Notes for Abstraction:** None  
**Suggested Data Sources:** Outpatient medical record  
**Additional Notes:**  
**Guidelines for Abstraction:**  

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>- For ASR-OP measures, refer to Appendix A, Table 1.0, E/M Codes for Emergency Department Encounters</td>
<td>None</td>
</tr>
<tr>
<td>- For STK-OP measures, refer to Appendix A, Table 1.0, E/M Codes for Emergency Department Encounters</td>
<td></td>
</tr>
<tr>
<td>- For ACHFOP measures, refer to Appendix A, Table 2.0, E/M Codes for Hospital Outpatient Encounters</td>
<td></td>
</tr>
<tr>
<td>- For CCC-OP measures, refer to Appendix A, Table 2.0, E/M Codes for Hospital Outpatient Encounters</td>
<td></td>
</tr>
</tbody>
</table>
**Name:** High-intensity Statin at Discharge  
**Collected For:** CCCIP-01  
**Definition:** Documentation that the acute myocardial infarction (AMI) patient was prescribed a high-intensity statin at hospital discharge.  
**Question:** Was Atorvastatin, between 40-80mg, or Rosuvastatin, between 20-40mg prescribed at hospital discharge for AMI?  
**Format:**  
- **Length:** 1  
- **Type:** Alphanumeric  
- **Occurs:** 1  
**Allowable Values:**  
- **Y (Yes)** Patient was prescribed either Atorvastatin 40-80mg or Rosuvastatin 20-40mg at hospital discharge.  
- **N (No)** Patient was not prescribed either Atorvastatin 40-80mg or Rosuvastatin 20-40mg at hospital discharge or it is unable to be determined from medical record documentation.  
**Notes for Abstraction:**  
- Only select "Yes" for those statins identified in the list of inclusions at the dosages listed. No other no other statins will be accepted for this data element.  
- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.  
- Select ‘Yes’, if the patient was discharged on Atorvastatin at a dose between 40-80mg or Rosuvastatin at a dose between 20-40mg or if the patient was on a high-intensity statin (i.e. Atorvastatin 40-80mg or Rosuvastatin 20-40mg) prior to admission and discharged on the same medication  
- Select ‘No’, if the patient was not discharged on Atorvastatin at a does between 40-80mg or Rosuvastatin at a dose between 20-40mg.  
**Suggested Data Sources:**  
- Progress notes  
- Discharge summary  
- Discharge instructions  
- Written or electronic prescriptions  
**Additional Notes:**  
**Guidelines for Abstraction:**  
<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Only Acceptable Medications and Doses</strong></td>
<td></td>
</tr>
</tbody>
</table>
- Atorvastatin 40mg - 80mg  
- Rosuvastatin 20mg - 40mg |  
- All other statin medications other than those listed as inclusions.  
- Atorvastatin or Rosuvastatin prescribed at dosages other than those listed as inclusions. |
Name: Hispanic Ethnicity

Collected For: All Records

Definition: Documentation that the patient is of Hispanic ethnicity or Latino.

Question: Is the patient of Hispanic ethnicity or Latino?

Format:
- Length: 1
- Type: Character
- Occurs: 1

Allowable Values:
- Y (Yes) Patient is of Hispanic ethnicity or Latino.
- N (No) Patient is not of Hispanic ethnicity or Latino or unable to determine from medical record documentation.

Notes for Abstraction: The data element, Race, is required in addition to this data element.

Suggested Data Sources:
- Emergency department record
- History and physical
- Face sheet
- Nursing admission assessment
- Progress notes

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.” Examples: • Black-Hispanic • Chicano • H • Hispanic • Latin American • Latino/Latina • Mexican-American • Spanish • White-Hispanic</td>
<td>None</td>
</tr>
</tbody>
</table>

Guidelines for Abstraction:
Name: ICD-10-CM Other Diagnosis Codes

Collected For: All Records, Optional for HBIPS-2, HBIPS-3

Definition: The other or secondary (ICD-10-CM) codes associated with the diagnosis for this hospitalization.

Question: What were the ICD-10-CM other diagnosis codes selected for this medical record?

Format: Length: 3-7 (without decimal point or dot; upper or lower case)
Type: Character
Occurs: 24


Notes for Abstraction: None

Suggested Data Sources:
- Discharge summary
- Face sheet
- UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: ICD-10-CM Principal Diagnosis Code

Collected For: All Records, Optional for HBIPS-2, HBIPS-3

Definition: The ICD-10-CM diagnosis code that is primarily responsible for the admission of the patient to the hospital for care during this hospitalization.

Question: What was the ICD-10-CM code selected as the principal diagnosis for this record?

Format:
- Length: 3-7 (without decimal point or dot; upper or lower case)
- Type: Character
-Occurs: 1

Allowable Values:

Notes for Abstraction: None

Suggested Data
- Discharge summary

Sources:
- Face sheet
- UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: ICD-10-PCS Other Procedure Codes

Collected For: All Records, Optional for All HBIPS Records

Definition: The other or secondary (ICD-10-PCS) codes identifying all significant procedures other than the principal procedure.

Note: If transmitted for the HBIPS measure set, all applicable edits (e.g., valid value, ICD-10-PCS Other Procedure Date exists, etc.) will apply.

Question: What were the ICD-10-PCS code(s) selected as other procedure(s) for this record?

Format: Length: 3-7 (without decimal point or dot; upper or lower case)
Type: Character
Occurs: 24

Allowable Values: Any valid procedure code as per the CMS ICD-10-PCS master code table (PCS Long and Abbreviated Titles): https://www.cms.gov/Medicare/Coding/ICD10/index.html

Notes for Abstraction: None

Suggested Data Sources:
- Discharge summary
- Face sheet
- UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Name:** ICD-10-PCS Other Procedure Dates

**Collected For:** All Records, Optional for All HBIPS Records

**Definition:** The month, day, and year when the associated procedure(s) was (were) performed.

**Note:** If transmitted for the HBIPS measure set, all applicable edits (e.g., valid value, ICD-10-PCS Other Procedure Codes exists, etc.) will apply.

**Question:** What were the date(s) the other procedure(s) were performed?

**Format:**

- **Length:** 10 – MM-DD-YYYY (includes dashes) or UTD
- **Type:** Date
- **Occurs:** 24

**Allowable Values:**

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (20xx)
- UTD = Unable to Determine

**Notes for Abstraction:**

- If the procedure date for the associated procedure is unable to be determined from medical record documentation, select “UTD.”
- The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid format/range or outside of the parameters of care [after Discharge Date]) and no other documentation is found that provides this information, the abstractor should select “UTD.”

Examples:

- Documentation indicates the ICD-10-PCS Other Procedure Dates was 02-42-20xx. No other documentation in the medical record provides a valid date. Since the ICD-10-PCS Other Procedure Dates is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD.”
- Patient expires on 02-12-20xx and documentation indicates the ICD-10-PCS Other Procedure Dates was 03-12-20xx. Other documentation in the medical record supports the date of death as being accurate. Since the ICD-10-PCS Other Procedure Dates is after the Discharge Date (death), it is outside of the parameters of care and the abstractor should select “UTD.”

**Note:** Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission's Data Warehouse. Use of “UTD” for ICD-10-PCS Other Procedure Dates allows the case to be accepted into the warehouse.

**Suggested Data Sources:**

- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
- Progress notes
• UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: ICD-10-PCS Principal Procedure Code

Collected For: All Records, Optional for All HBIPS Records

Definition: The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

Note: If transmitted for the HBIPS measure set, all applicable edits (e.g., valid value, ICD-10-PCS Principal Procedure Date exists, etc.) will apply.

Question: What was the ICD-10-PCS code selected as the principal procedure for this record?

Format: Length: 3-7 (without decimal point or dot; upper or lower case)  
Type: Character  
Occurs: 1

Allowable Values: Any valid procedure code as per the CMS ICD-10-PCS master code table (PCS Long and Abbreviated Titles): https://www.cms.gov/Medicare/Coding/ICD10/index.html

Notes for Abstraction: None

Suggested Data Sources:  
• Discharge summary  
• Face sheet  
• UB-04

Additional Notes:  
Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Name:** ICD-10-PCS Principal Procedure Date

**Collected For:** All Records, Optional for All HBIPS Records

**Definition:** The month, day, and year when the principal procedure was performed.

**Note:** If transmitted for the HBIPS measure set, all applicable edits (e.g., valid value, ICD-10-PCS Principal Procedure Code exists, etc.) will apply.

**Question:** What was the date the principal procedure was performed?

**Format:**
- **Length:** 10 – MM-DD-YYYY (includes dashes) or UTD
- **Type:** Date
- **Occurs:** 1

**Allowable Values:**
- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (20xx)
- UTD = Unable to Determine

**Notes for Abstraction:**
- If the principal procedure date is unable to be determined from medical record documentation, select “UTD.”
- The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid date/format or is outside of the parameters of care [after Discharge Date]) and no other documentation is found that provides this information, the abstractor should select “UTD.”

Examples:
- Documentation indicates the ICD-10-PCS Principal Procedure Date was 02-42-20xx. No other documentation in the medical record provides a valid date. Since the ICD-10-PCS Principal Procedure Date is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD.”
- Patient expires on 02-12-20xx and documentation indicates the ICD-10-PCS Principal Procedure Date was 03-12-20xx. Other documentation in the medical record supports the date of death as being accurate. Since the ICD-10-PCS Principal Procedure Date is after the Discharge Date (death), it is outside of the parameter of care and the abstractor should select “UTD.”

**Note:** Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse. Use of “UTD” for ICD-10-PCS Principal Procedure Date allows the case to be accepted into the warehouse.

**Suggested Data Sources:**
- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
• Progress notes
• UB-04

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**LVSD**

**Collected For:** ACHF-01, ACHFOP-01, ACHFOP-02, ACHFOP-03, CCCIP-02, CCCOP-02, CCCOP-04

**Definition:** Left ventricular systolic dysfunction (LVSD) is an impairment of left ventricular performance. An ejection fraction (EF) is an index of left ventricular systolic function (LVSF) and reflects the proportion of blood ejected during each ventricular contraction compared with the total ventricular filling volume.

**Question:** Is the left ventricular systolic function (LVSF) documented as an ejection fraction (EF) of <40% or ≤35% or a narrative description consistent with moderate or severe systolic dysfunction?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**
1. LVSF is documented as an EF ≤35%.
2. LVSF is documented as an EF equal to 36-39%.
3. LVSF is documented as an EF equal to 40%.
4. Documentation of a narrative description consistent with moderate or severe systolic dysfunction.
5. EF or a narrative description consistent with moderate or severe systolic dysfunction is not documented, or EF ≥ 41% or unable to determine from medical record documentation.

**Notes for Abstraction:**
- Utilize documentation from the most recent test/procedure performed (i.e. test or procedure performed closest to discharge).
  - If a test/procedure was not performed to determine EF, other documentation within the medical record may be used (e.g. H&P, progress report, consolation report).
    - Test and procedure report results take priority over non-report sources (e.g. progress notes).
  - Final findings from a test or procedure report take priority over preliminary findings.
    - If documentation is not labeled as a “preliminary result”, assume it is a final result.
    - Conclusion section of a report takes priority over other sections. Consider the “Impression,” “Interpretation,” and “Final Diagnosis” sections as equivalent with the “Conclusion” section.
    - Results from in-hospital test or procedure filed in the medical record after the patient’s discharge can be utilized.
    - If the most recent test/procedure does not include documentation of an EF utilize the second most recent test or procedure (i.e. test/procedure performed closest to discharge), and so on.
    - Documentation from a test/procedure performed prior to arrival for this hospital or outpatient encounter maybe utilized, if no testing/procedures were performed during this encounter. Use results from the pre-arrival test known to be most recent (i.e. closest to hospital or outpatient arrival).
If the EF is documented as a range, document lowest value (e.g. EF between 38% and 41%. Assign 38%).

- Narrative descriptions
  - Use worst narrative description with severity specified.
  - Select 4 if description is synonymous with term from Inclusion list A.
  - Select 5 if description with severity specified is NOT synonymous with term from Inclusion List A (e.g., normal, mild, preserved).
  - Use narrative description without severity specified. Select 4 if description is synonymous with term from Inclusion list B. Otherwise, select 5.

**Suggested Data Sources:**
- Consultation notes
- History and physical
- Progress notes
- Discharge summary
- Procedure notes
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion list A: Moderate/severe LVSD</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biventricular dysfunction described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe</td>
<td>Moderate or severe systolic dysfunction</td>
</tr>
<tr>
<td>Biventricular heart failure described as moderate or severe</td>
<td>Any term in Inclusion list A or B described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table</td>
</tr>
<tr>
<td>Ejection fraction or left ventricular ejection fraction (LVEF) described as low, poor, or very low</td>
<td>Any term in Inclusion list A or B described as mild-moderate</td>
</tr>
<tr>
<td>Endstage cardiomyopathy</td>
<td></td>
</tr>
<tr>
<td>Hypokinesis described as diffuse, generalized, or global AND marked, moderate, moderate-severe, severe, significant, substantial, or very severe</td>
<td></td>
</tr>
<tr>
<td>Left ventricular (LV) akinesis described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe</td>
<td></td>
</tr>
<tr>
<td>Left ventricular (LV) hypokinesis described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe in one or more segments of left ventricle</td>
<td></td>
</tr>
<tr>
<td>Left ventricular dysfunction (LVD), left ventricular systolic dysfunction (LVSD), or systolic dysfunction described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe</td>
<td></td>
</tr>
<tr>
<td>Left ventricular function (LVF), left ventricular systolic function (LVSF), or systolic function</td>
<td></td>
</tr>
</tbody>
</table>
described as low, poor, or very low

- Systolic failure described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe AND not described as right ventricular

**Inclusion list B: LVSD – Severity not specified**

- Biventricular dysfunction where severity is not specified
- Ejection fraction or left ventricular ejection fraction (LVEF) described as abnormal, compromised, decreased, depressed, diminished, impaired, or reduced
- Hypokinesis described as diffuse, generalized, or global where severity is not specified
- Left ventricular (LV) hypokinesis described as involving the entire left ventricle
- Left ventricular dysfunction (LVD), left ventricular systolic dysfunction (LVSD), or systolic dysfunction where severity is not specified
- Left ventricular function (LVF), left ventricular systolic function (LVSF), or systolic function described as abnormal, compromised, decreased, depressed, diminished, impaired, or reduced
- Systolic failure where severity is not specified AND not described as right ventricular
**Name:** New York Heart Association (NYHA) Classification

**Collected For:** ACHFOP-03, ACHFOP-04, CCCOP-04

**Definition:** The New York Heart Association (NYHA) Classification provides a simple way of classifying the extent of heart failure. It classifies patients in one of four categories based on their limitations during physical activity; the limitations/symptoms are in regards to normal breathing and varying degrees in shortness of breath and or angina pain.

**Question:** What is the patient's New York Heart Association (NYHA) Functional Classification?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**

1. Class I
2. Class II
3. Class III
4. Class IV
5. Not Documented or Unable to determine (UTD)

**Notes for Abstraction:**
- The NYHA Functional Classification must be specifically documented in the medical record and not coded by the abstractor based upon patient symptoms.
- NYHA Classification - The Stages of Heart Failure:
  - Class I - No symptoms and no limitation in ordinary physical activity, e.g. shortness of breath when walking, climbing stairs etc.
  - Class II - Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, or dyspnea.
  - Class III - Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea.
  - Class IV - Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms are present even at rest or minimal exertion. If any physical activity is undertaken, discomfort is increased.

**Suggested Data Sources:**
- Physician's notes
- Discharge summary
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Name: Outpatient Encounter Date

Collected For: ACHFOP, ASR-OP-1, ASR-OP-2, CCCOP, STK-OP-1, THKR-OP

Definition: The documented month, day, and year the patient arrived in the outpatient setting.

Question: What was the date the patient arrived in the outpatient setting?

Format: Length: 10-MM-DD-YYYY
Type: Date
Occurs: 1

Allowable Values:
- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (2008-Current Year)

Notes for Abstraction:
- The intent of this data element is to determine the date the patient arrived in the outpatient setting.
- UTD is NOT an allowable value.
- Consider the outpatient encounter date as the earliest documented date the patient arrived in the applicable hospital outpatient setting. If the patient had preoperative laboratory or other screening tests performed prior to the date of surgery, use the date the patient arrived for surgery.

Suggested Data Sources:
- Emergency department record
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Preoperative tests or screening</td>
</tr>
</tbody>
</table>
Name: Post-Discharge Appointment Scheduled Within 7 Days

Collected For: ACHF-02

Definition: Documentation that a follow-up appointment for an office or home health visit for management of heart failure was scheduled within 7 days post-discharge and documented including location, date, and time.

Question: Was a follow-up appointment for an office or home health visit for management of heart failure scheduled within 7 days post-discharge and documented including location, date, and time?

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- Y (Yes) A follow-up appointment for an office or home health visit for management of heart failure was scheduled within 7 days post-discharge and documented including location, date, and time.
- N (No) A follow-up appointment for an office or home health visit for management of heart failure was not scheduled within 7 days post-discharge and documented including location, date, and time, OR unable to determine from medical record documentation.

Notes for Abstraction:
- A follow-up appointment is an appointment with a physician/APN/PA in a physician office or ambulatory care clinic OR a home health visit with a RN/APN for professional nursing services that occurs within 7 days of discharge from the inpatient setting.
- Follow-up scheduled within 7 days via telemedicine/teleconference to assess the patient in the home setting should be treated as a home health visit, select “Yes”.
- Documentation of the scheduled office appointment must include location, date and time in order to select “Yes”. If all three pieces of information are not documented, select “No”.
- Documentation of a home health visit must include the date in order to select Yes. Documentation of the time is optional only for a home health visit, as the time of the visit may vary.
- If the follow-up appointment is scheduled beyond 7 days post-discharge, select “No”.

Suggested Data Sources:
- Nursing notes
- Progress notes
- Physician orders
- Discharge summary
- Discharge instruction sheet
- Home health referral form

Additional Notes:

Guidelines for Abstraction:

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<thead>
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<th>Exclusion</th>
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</thead>
<tbody>
<tr>
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<td>None</td>
</tr>
</tbody>
</table>
Post-Discharge Evaluation Conducted Within 72 Hours

ACHF-06

Documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours following hospital discharge.

Was there documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge?

Length: 1
Type: Alphanumeric
Occurs: 1

Y (Yes) There is documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge.

N (No) There is no documentation that the post-discharge evaluation was conducted with the patient and/or caregiver(s) within 72 hours of hospital discharge OR unable to determine from medical record documentation.

Notes for Abstraction:
• The caregiver is defined as the patient’s family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.

• The post-discharge evaluation must be conducted within 72 hours by a heart failure program team member following the patient’s discharge from the hospital in order to select “Yes.” To compute 72 hours, count the day after hospital discharge as day 1.

• Documentation of a post-discharge evaluation conducted any time up to 23:59 of day 3, select “YES” for this data element.

• If the post-discharge evaluation was conducted beyond the 72 hour timeframe, select “No.”

• A post-discharge evaluation conducted within 72 hours via telephone or electronically, i.e., e-mail is sufficient to select “Yes” for this data element.

• Documentation that there was phone contact made with the patient/caregiver but the post-discharge evaluation could not be conducted, select “Yes.”

  EXAMPLES
  o Patient/caregiver refuse to cooperate with evaluation.
  o Patient unable to participate in evaluation.

• Documentation of a home health evaluation or office appointment scheduled within 72 hours is also acceptable to select “Yes”.

• Documentation that the patient presents to the ED or is readmitted within 72 hours, select “Yes.”
• If documentation reflects that after 3 attempts to contact the patient and/or caregiver, the post-discharge evaluation could not be conducted because attempts to contact the patient and/or caregiver were unsuccessful, select “Yes”. The 3 attempted contacts must be made within 72 hours after discharge.

EXAMPLES:
- Home phone number provided at discharge is a wrong number, AND no e-mail address or other contact information was provided by the patient and/or caregiver at discharge.
- Calls placed go to a voicemail system. Message left for patient and/or caregiver requesting a return phone call, but no return call received.
- E-mail address generates an “undeliverable” message and no phone number is available for the patient and/or caregiver.
- E-mail message delivered with no return response from the patient and/or caregiver.

Suggested Data Sources:
- Home Health Forms,
- Logs from follow-up phone calls or other logs that record follow-up information

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
</table>
| None      | • Automated generic phone calls/messages  
|           | • Computerized self-management services/remote patient monitoring products |
Name: Race
Collected For: All Records
Definition: Documentation of the patient's race.
Question: What is the patient's race?
Format: Length: 1
Type: Character
Occurs: 1
Allowable Values:

Select one:

1 White: Patient's race is White or the patient has origins in Europe, the Middle East, or North Africa.

2 Black or African American: Patient's race is Black or African American.

3 American Indian or Alaska Native: Patient's race is American Indian/Alaska Native.

4 Asian: Patient's race is Asian.

5 Native Hawaiian or Pacific Islander: Patient's race is Native Hawaiian/Pacific Islander.

6 RETIRED VALUE (effective 07-01-05 discharges)

7 UTD: Unable to determine the patient's race or not stated (e.g., not documented, conflicting documentation or patient unwilling to provide).

Notes for Abstraction:
- The data element Hispanic Ethnicity is required in addition to this data element.
- If documentation indicates the patient has more than one race (e.g., Black-White, Indian-White), select the first listed race.
- Although the terms "Hispanic" and "Latino" are actually descriptions of the patient's ethnicity, it is not uncommon to find them referenced as race. If the patient's race is documented only as Hispanic/Latino, select "White." If the race is documented as mixed Hispanic/Latino with another race, use whatever race is given (e.g., Black-Hispanic — select "Black"). Other terms for Hispanic/Latino include Chicano, Cuban, H (for Hispanic), Latin American, Latina, Mexican, Mexican-American, Puerto Rican, South or Central American, and Spanish.

Suggested Data Sources:
- Emergency department record
- History and physical
- Face sheet
- Nursing admission assessment
- Progress notes

Additional Notes:

Guidelines for Abstraction:
<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black or African American</strong> A person having origins in any of the black racial groups of Africa. Terms such as “Haitian” or “Negro” can be used in addition to “Black or African American.”</td>
<td>• None</td>
</tr>
<tr>
<td><strong>American Indian or Alaska Native</strong> A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment (e.g., any recognized tribal entity in North and South America [including Central America], Native American.)</td>
<td></td>
</tr>
<tr>
<td><strong>Asian</strong> A person having origins in any of the original 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.</td>
<td></td>
</tr>
<tr>
<td><strong>White</strong> A person having origins in any of the original peoples of Europe, the Middle East, or North Africa (e.g., Caucasian, Iranian, White).</td>
<td></td>
</tr>
<tr>
<td><strong>Native Hawaiian or Pacific Islander</strong> A person having origins in any of the other original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.</td>
<td></td>
</tr>
</tbody>
</table>
Reason for No Aldosterone Receptor Antagonist Prescribed at Discharge

Collected For: CCCIP-02

Definition: Documentation of reasons for not prescribing an aldosterone antagonist at discharge by a physician/APN/PA or pharmacist.

Question: Did a physician/APN/PA or pharmacist document a contraindication to or reason against an aldosterone antagonist prescription at discharge?

Format:

Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation by a physician/APN/PA or pharmacist of a contraindication to or reason against an aldosterone antagonist prescription at discharge.

N (No) There is no documentation by a physician/APN/PA or pharmacist of a contraindication to or reason against an aldosterone antagonist prescription at discharge, or unable to determine from medical record documentation.

Notes for Abstraction:

- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- Reasons for not prescribing an aldosterone antagonist at discharge must be documented by a physician/APN/PA or pharmacist.
- Reasons for no aldosterone antagonist must be explicitly documented or clearly implied.
  - If reasons are not mentioned in the context of aldosterone antagonist, do not make inferences (e.g., do not assume that an aldosterone antagonist is not prescribed because of the patient's chronic renal disease alone).

Examples

- “Cr 2.6 mg/dL – No aldosterone antagonist” * “Severe hyperkalemia with aldosterone antagonist in past”
- “No aldosterone – patient non-compliant with labs”
- “Aldosterone antagonist contraindicated”
- “Supportive care only – no medications”
- “Aldosterone antagonist therapy not indicated”
- Aldosterone antagonist on pre-printed order form is crossed out
- “No aldosterone antagonist” (reason not given).

- Physician/APN/PA or pharmacist documentation of a hold on an aldosterone antagonist or discontinuation of an aldosterone antagonist that occurs during the hospital stay constitutes a “clearly implied” reason for not prescribing an aldosterone antagonist at discharge.
  - A hold/discontinuation of all p.o. medications counts if an aldosterone antagonist p.o. was on order at the time of the notation.
  - If there is documentation of a plan to initiate/restart an aldosterone antagonist, and the reason/problem underlying the delay in starting/restarting the aldosterone

Notes for Abstraction:

- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- Reasons for not prescribing an aldosterone antagonist at discharge must be documented by a physician/APN/PA or pharmacist.
- Reasons for no aldosterone antagonist must be explicitly documented or clearly implied.
  - If reasons are not mentioned in the context of aldosterone antagonist, do not make inferences (e.g., do not assume that an aldosterone antagonist is not prescribed because of the patient's chronic renal disease alone).

Examples

- “Cr 2.6 mg/dL – No aldosterone antagonist” * “Severe hyperkalemia with aldosterone antagonist in past”
- “No aldosterone – patient non-compliant with labs”
- “Aldosterone antagonist contraindicated”
- “Supportive care only – no medications”
- “Aldosterone antagonist therapy not indicated”
- Aldosterone antagonist on pre-printed order form is crossed out
- “No aldosterone antagonist” (reason not given).

- Physician/APN/PA or pharmacist documentation of a hold on an aldosterone antagonist or discontinuation of an aldosterone antagonist that occurs during the hospital stay constitutes a “clearly implied” reason for not prescribing an aldosterone antagonist at discharge.
  - A hold/discontinuation of all p.o. medications counts if an aldosterone antagonist p.o. was on order at the time of the notation.
  - If there is documentation of a plan to initiate/restart an aldosterone antagonist, and the reason/problem underlying the delay in starting/restarting the aldosterone
antagonist is also noted, this constitutes a “clearly implied” reason for not prescribing an aldosterone antagonist at discharge.

- Documentation of a conditional hold/discontinuation of an aldosterone antagonist does not count as a reason for not prescribing a aldosterone antagonist at discharge.
- Deferral of an aldosterone antagonist from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing an aldosterone antagonist at discharge unless the problem underlying the deferral is also noted.

- Reasons do NOT need to be documented at discharge or otherwise linked to the discharge time frame: documentation of reasons anytime during the hospital stay is acceptable.
- An aldosterone antagonist “allergy” or “sensitivity” documented at any time during the hospital stay counts as an allergy regardless of what type of reaction might be noted (e.g., “Allergies: aldosterone antagonist – select “Yes”).
- Documentation of an allergy/sensitivity to one particular aldosterone antagonist is acceptable to take as an allergy to the entire class of aldosterone antagonist (e.g., “Allergic to Spironolactone”).
- Aldosterone antagonist (along with ACEI and ARBs) are sometimes described as RAS (renin-angiotensin system) or RAAS (renin-angiotensin-aldosterone system) blockers/inhibitors. Documentation of a reason for not prescribing "RAS" or "RAAS" blockers or inhibitors should be considered implicit documentation of a reason for no aldosterone antagonist at discharge (e.g., "Hold all RAS blockers").
- Documentation that refers to a more general medication class, such as “avoid all nephrotoxic medications” or “Hold BP Meds” is not acceptable as a reason for not prescribing aldosterone antagonist at discharge. Reason documentation must mention aldosterone antagonist as a class or a specific aldosterone antagonist medication.

Suggested Data Sources:
- Consultation notes
- History and physical
- Progress notes
- Physician's notes
- Discharge summary

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aldactone</td>
<td>• All other aldosterone receptor antagonist medications other than those listed as inclusions.</td>
</tr>
<tr>
<td>• Aldactazide (Hydrochlorothiazide + Spironolactone)</td>
<td></td>
</tr>
<tr>
<td>• Eplerenone</td>
<td></td>
</tr>
<tr>
<td>• Inspra</td>
<td></td>
</tr>
<tr>
<td>• Spironolactone</td>
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</tbody>
</table>
Name: Reason for No Aldosterone Receptor Antagonist Prescribed in the Outpatient Setting

Collected For: ACHFOP-03, CCCOP-04

Definition: Documentation of a reason for not prescribing an aldosterone antagonist in the outpatient setting by a physician/APN/PA or pharmacist.

Question: Did a physician/APN/PA or pharmacist document a contraindication to or a reason against an aldosterone antagonist prescription in the outpatient setting?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
Y (Yes) There is documentation by a physician/APN/PA or pharmacist of a contraindication to or a reason for not prescribing an aldosterone receptor antagonist in the outpatient setting.

N (No) There is no documentation by a physician/APN/PA or pharmacist of a contraindication to or a reason for not prescribing an aldosterone receptor antagonist in the outpatient setting or unable to determine from medical record documentation.

Notes for Abstraction:
- All medication documentation available in the chart should be reviewed and taken into account by the abstractor.
- Reasons for not prescribing an aldosterone antagonist must be documented by a physician/APN/PA or pharmacist.
- Reasons for no aldosterone antagonist must be explicitly documented or clearly implied.
  - If reasons are not mentioned in the context of aldosterone antagonist, do not make inferences (e.g., do not assume that an aldosterone antagonist is not prescribed because of the patient’s chronic renal disease alone).

Examples
- “Cr 2.6 mg/dL – No aldosterone antagonist” * “Severe hyperkalemia with aldosterone antagonist in past”
- “No aldosterone – patient non-compliant with labs”
- “Aldosterone antagonist contraindicated”
- “Supportive care only – no medications”
- “Aldosterone antagonist therapy not indicated”
- “No aldosterone antagonist” (reason not given).

- Physician/APN/PA or pharmacist documentation of a hold on an aldosterone antagonist or discontinuation of an aldosterone antagonist constitutes a “clearly implied” reason for not prescribing an aldosterone antagonist.
  - A hold/discontinuation of all p.o. medications counts if an aldosterone antagonist p.o. was on order at the time of the notation.
  - If there is documentation of a plan to initiate/restart an aldosterone antagonist, and the reason/problem underlying the delay in starting/restarting the aldosterone antagonist is also noted, this constitutes a “clearly implied” reason for not prescribing an aldosterone antagonist at discharge.
○ Documentation of a conditional hold/discontinuation of an aldosterone antagonist does not count as a reason for not prescribing an aldosterone antagonist
○ Deferral of an aldosterone antagonist from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing an aldosterone antagonist, unless the problem underlying the deferral is also noted.
• An aldosterone antagonist “allergy” or “sensitivity” documented in the medical record counts as an allergy regardless of what type of reaction might be noted (e.g., “Allergies: aldosterone antagonist – select “Yes”).
○ Documentation of an allergy/sensitivity to one particular aldosterone antagonist is acceptable to take as an allergy to the entire class of aldosterone antagonist (e.g., “Allergic to Spironolactone”).
• Aldosterone antagonist (along with ACEI and ARBs) are sometimes described as RAS (reninangiotensin system) or RAAS (renin-angiotensin-aldosterone system) blockers/inhibitors. Documentation of a reason for not prescribing “RAS” or “RAAS” blockers or inhibitors should be considered implicit documentation of a reason for no aldosterone antagonist (e.g., “Hold all RAS blockers”).
• Documentation that refers to a more general medication class, such as “avoid all nephrotoxic medications” or “Hold BP Meds” is not acceptable as a reason for not prescribing aldosterone antagonist. Reason documentation must mention aldosterone antagonist as a class or a specific aldosterone antagonist medication.

Suggested Data Sources:
• Discharge summary
• Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
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<tbody>
<tr>
<td>• Aldactone</td>
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</tr>
<tr>
<td>• Aldactazide (Hydrochlorothiazide + Spironolactone)</td>
<td></td>
</tr>
<tr>
<td>• Eplerenone</td>
<td></td>
</tr>
<tr>
<td>• Inspra</td>
<td></td>
</tr>
<tr>
<td>• Spironolactone</td>
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</table>
Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate Prescribed for LVSD at Discharge

ACHF-01

Reasons for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge:

- Beta-blocker allergy
- Second or third-degree heart block on ECG on arrival or during hospital stay and does not have a pacemaker
- Other reasons documented by physician/advanced practice nurse/physician assistant (physician/APN/PA) or pharmacist

Bisoprolol, carvedilol, and sustained-release metoprolol succinate are agents which block beta-adrenergic receptors, thereby decreasing the rate and force of heart contractions, and reducing blood pressure. Over time beta-blockers improve the heart's pumping ability.

Is there documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge? (Y/Yes) There is documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge.

(Y/Yes) There is documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge.

N (No) There is no documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge, OR unable to determine from medical record documentation.

Notes for Abstraction:

- If there is documentation in the medical record of LVSD greater than or equal to 40%, this data element is not required.
- A beta-blocker “allergy” or “sensitivity” documented at anytime during the hospital stay counts as an allergy regardless of what type of reaction might be noted (e.g., “Allergies: Beta-blockers – Impotence” – select “Yes”).
- Documentation of an allergy/sensitivity to one particular beta-blocker is acceptable to take as an allergy to the entire class of beta-blockers (e.g., “Allergic to Toprol-XL”).
- When conflicting information is documented in a medical record, select “Yes”.
- When determining whether there is second or third-degree heart block on ECG on arrival or during hospital stay AND does not have pacemaker:
  - Consider this true if (1) there are findings of second or third-degree heart block on the ECG AND this same ECG does NOT show pacemaker findings, OR (2) There is documentation of a finding of second or third-degree heart block (not specifically referenced as an ECG finding) without mention of the presence of pacemaker findings (e.g., “Second-degree heart block” per ER report).
  - Disregard pacemaker findings if documentation suggests the patient has a non-functioning pacemaker.
• Second or third-degree heart block and pacemaker ECG findings can be taken from unsigned ECG reports. Physician/APN/PA documentation is not required.
• Second or third-degree heart block findings and pacemaker findings from telemetry and rhythm strips are acceptable.
• In cases where ECG findings of second- or third-degree heart block are referenced and documentation does not address the presence or absence of pacemaker findings, infer no pacemaker findings. E.g., “ECG on arrival showed second-degree heart block” per H&P.
• When determining whether there is a reason documented by a physician/APN/PA or pharmacist for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge:
  - Reasons must be explicitly documented (e.g., “COPD - No BBs”, “HR running in 50s. Hold off on beta-blocker therapy”) or clearly implied (e.g., “Severe hypotension with beta-blockers in past,” “BBs contraindicated,” “Pt. refusing all medications,” “Supportive care only — no medications;” “BBs not indicated;” beta-blocker on pre-printed order form is crossed out, “No beta-blockers” [no reason given]). If reasons are not mentioned in the context of beta-blockers, do not make inferences (e.g., Do not assume that bisoprolol, carvedilol, or sustained-release metoprolol succinate is not being prescribed because of the patient’s history of Peripheral Vascular Disease alone).
  - Physician/APN/PA or pharmacist documentation of a hold on bisoprolol, carvedilol, or sustained-release metoprolol succinate or discontinuation of one of these beta-blockers that occurs during the hospital stay constitutes a “clearly implied” reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge. A hold/discontinuation of all p.o. medications counts if bisoprolol, carvedilol, or sustained-release metoprolol succinate p.o. was on order at the time of the notation.
EXCEPTION:
  - Documentation of a conditional hold/discontinuation of bisoprolol, carvedilol, or sustained-release metoprolol succinate does not count as a reason for not prescribing one of these beta-blockers at discharge UNLESS (1) it exists as an order to hold/discontinue the beta-blocker if the blood pressure (BP) or heart rate (HR) falls outside certain parameters, AND (2) the beta-blocker was held due to a BP/HR outside the parameters. Nursing documentation is acceptable. E.g., “Hold bisoprolol for SBP less than 100” ordered and the nurse documents that the bisoprolol was held for a BP of 90/50 — select “Yes”.
• Discontinuation of bisoprolol, carvedilol, or sustained-release metoprolol succinate documented in combination with the start of a another one of these beta-blockers (i.e., switch from bisoprolol to carvedilol) does not count as a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge. Examples:
  - “Stop carvedilol” and “Start Coreg 12.5 mg po bid” in same physician order
  - “Change metoprolol succinate to Coreg” in progress note
  - “Do not continue after discharge” checked for metoprolol succinate and “Continue after discharge” checked for Toprol-XL on a physician-signed discharge medication reconciliation form
Discontinuation of bisoprolol, carvedilol, or sustained-release metoprolol succinate at a particular dose documented in combination with the start of a different dose of that beta-blocker (i.e., change in dosage) does not count as a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge.

Examples:
- “Stop sustained-release metoprolol succinate 25 mg po” and “Start sustained-release metoprolol succinate 50 mg po” in same physician order
- “Increase bisoprolol 5 mg to 10 mg” in progress note
- “Do not continue after discharge” checked for Coreg 3.125 mg bid and “Continue after discharge” checked for Coreg 6.25 mg bid on a physician-signed discharge medication reconciliation form

- Reason documentation which refers to a more general medication class is not acceptable (e.g., “Hold all BP meds”).
- Deferral from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate at discharge unless the problem underlying the deferral is also noted.

Examples:
- “Consulting cardiologist to evaluate pt. for beta-blocker treatment” - select “No”.
- “Pt. hypotensive. Start Coreg if OK with cardiology” - select “Yes”.

If there is documentation of a plan to initiate/restart bisoprolol, carvedilol, or sustained-release metoprolol succinate, and the reason/problem underlying the delay in starting/restarting the beta-blocker is also noted, this constitutes a “clearly implied” reason for not prescribing a beta-blocker discharge.

- Acceptable examples (select “Yes”):
  - “BP’s running low. May start Zebeta as outpatient.”
  - “Add Toprol-XL if HR stabilizes”
- Unacceptable examples (select “No”):
  - “Consider starting Coreg in a.m.”
  - “May add beta-blockers when pt. can tolerate”

Reasons do NOT need to be documented at discharge or otherwise linked to the discharge timeframe: Documentation of reasons anytime during the hospital stay are acceptable (e.g., mid-hospitalization note stating “no bisoprolol due to hypotension” - select “Yes,” even if documentation indicates that the hypotension had resolved by the time of discharge and the beta-blocker was restarted).

- Crossing out of bisoprolol, carvedilol, or sustained-release metoprolol succinate counts as a “clearly implied reason” for not prescribing one of these beta-blockers at discharge only if on a pre-printed form.

- When the current record includes documentation of a pre-arrival reason for no bisoprolol, carvedilol, or sustained-release metoprolol succinate, the following counts regardless of whether this documentation is included in a pre-arrival record made part of the current record or whether it is noted by hospital staff during the current hospital stay:
  - Pre-arrival beta-blocker allergy
  - Pre-arrival hold/discontinuation or notation such as “No carvedilol” IF the underlying reason/problem is also noted (e.g., “Coreg discontinued in transferring hospital secondary to hypotension”).

Suggested Data
- Emergency department record
Sources:
- History and physical
- Nursing notes
- Physician orders
- Physician's notes
- Discharge summary
- Medication administration record (MAR)
- Transfer sheet
- Consultation notes
- ECG reports
- Vital signs graphic record

Additional Notes:
Excluded Data Sources: Any documentation dated/timed after discharge, except discharge summary and operative/procedure/diagnostic test reports (from procedure done during hospital stay).

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2nd/3rd degree heart block (HB)</strong> Note: The following inclusive terms may stand alone or be modified by “variable” or “intermittent.”</td>
<td>Beta-blocker allergy</td>
</tr>
<tr>
<td>- Atrioventricular (AV) block described as 2 to 1, 3 to 1, second-degree, or third-degree</td>
<td>- Allergy to beta-blocker eye drops (e.g., Cosopt)</td>
</tr>
<tr>
<td>- Atrioventricular (AV) dissociation</td>
<td>- Beta-blocker allergy described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table</td>
</tr>
<tr>
<td>- Heart block (HB) described as 2 to 1, 3 to 1, complete (CHB), high degree, high grade, second-degree, or third-degree</td>
<td>2nd/3rd degree heart block (HB)</td>
</tr>
<tr>
<td>- Mobitz Type 1 or 2</td>
<td>- 2nd/3rd degree heart block (HB), or any of the other 2nd/3rd degree heart block inclusion terms, described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table</td>
</tr>
<tr>
<td>- Wenckebach</td>
<td>- Atrial flutter</td>
</tr>
<tr>
<td>Pacemaker findings</td>
<td>- Atrioventricular (AV) block or conduction block, type/degree not specified</td>
</tr>
<tr>
<td>- Paced rhythm</td>
<td>- First-degree atrioventricular (AV) block</td>
</tr>
<tr>
<td>- Paced spikes</td>
<td>- First-degree heart block (HB)</td>
</tr>
<tr>
<td>- Pacing described as atrial, AV, dual chamber, or ventricular</td>
<td>- Heart block, type/degree not specified</td>
</tr>
<tr>
<td></td>
<td>- Intraventricular conduction delay (IVCD)</td>
</tr>
</tbody>
</table>
Name: Reason for No Cardiac Rehabilitation Enrollment

Collected For: CCCIP-05, CCCOP-03

Definition: Documentation by a physician/APN/PA/RN in the medical record of a reason why the patient did not attend at least one cardiac rehabilitation session.

Question: Is there documentation by a physician/APN/PA/RN in the medical record of a reason why the patient did not attend at least one cardiac rehabilitation session.

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation of a reason why the patient did not attend at least one cardiac rehabilitation session.

N (No) There is no documentation of a reason why the patient did not attend at least one cardiac rehabilitation session or unable to determine from medical record documentation.

Notes for Abstraction:
- Reasons for not attending one cardiac rehabilitation session must be documented by the physician/APN/PA/RN.
- Patient death within 90 days of discharge is an acceptable reason for no cardiac rehab enrollment.
- When conflicting information is documented in the medical record, select “Yes”.

Suggested Data Sources:
- Nursing notes
- Progress notes
- Physician orders
- Discharge summary
- Discharge instruction sheet
- Home health referral form

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
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</table>
Name: Reason for No Post-Discharge Appointment Within 7 Days

Collected For: ACHF-02

Definition: Documentation by a physician/APN/PA in the medical record of a reason for not scheduling a post-discharge appointment within 7 days.

Question: Is there documentation by a physician/APN/PA in the medical record of a reason for not scheduling a post-discharge appointment within 7 days?

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- Y (Yes) There is documentation of a reason for not scheduling a post-discharge appointment within 7 days.
- N (No) There is no documentation of a reason for not scheduling a post-discharge appointment within 7 days, OR unable to determine from medical record documentation.

Notes for Abstraction:
- Reasons for not scheduling a post-discharge appointment within 7 days must be documented by the physician/APN/PA.
- If reasons are not mentioned in the context of 7 days after discharge, do not make inferences (e.g., do not assume that an appointment was scheduled for 14 days post-discharge because one was not available within 7 days unless documentation explicitly states so.)
  - Reasons must be explicitly documented (e.g., “4 week wait at county clinic. Follow-up scheduled with Dr. X at 10:30 on X/XX/XXXX.”)
- When conflicting information is documented in the medical record, select “Yes”.
- If documentation indicates that the follow-up appointment was not scheduled because the patient is cognitively impaired, (e.g., comatose, obtunded, confused, short-term memory loss) and has no caregiver available to receive the details of the scheduled appointment, select “Yes”.
- The caregiver is defined as the patient’s family or other person (e.g. home health, VNA provider, prison official or law enforcement personnel) who will be responsible for care of the patient after discharge.
- The following do not require physician/APN/PA documentation:
  - Patient is a visitor from another country or a state or region outside of the provider’s scope of referral
  - Patient refusal of follow-up appointment
  - Patient is discharged to a court/law enforcement setting

Suggested Data Sources:
- Nursing notes
- Progress notes
- Physician orders
- Discharge summary
- Discharge instruction sheet,
- Home health referral form

Additional Notes:
Guidelines for Abstraction:

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<tbody>
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</tbody>
</table>
**Name:** Reason for Not Prescribing a High-Intensity Statin

**Collected For:** CCCIP-01

**Definition:** Documentation of a reason for not prescribing a high-intensity statin at hospital discharge by a physician/APN/PA or pharmacist.

**Question:** Did a physician/APN/PA or pharmacist document a contraindication to or a reason for not prescribing a high-intensity statin at hospital discharge?

**Format:**
- **Length:** 1
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:**
- **Y (Yes)** There is documentation by a physician/APN/PA or pharmacist of a contraindication to or a reason for not prescribing a high-intensity statin at hospital discharge.
- **N (No)** There is no documentation by a physician/APN/PA or pharmacist of a contraindication to or a reason for not prescribing a high-intensity statin at hospital discharge or unable to determine from medical record documentation.

**Notes for Abstraction:**
- Reasons that precludes prescribing a high-intensity statin must be documented by a physician/APN/PA or pharmacist.
- Reasons for not prescribing a high-intensity statin must be explicitly documented or clearly implied.
  - Physician/APN/PA or pharmacist documentation of a hold of a high-intensity statin or discontinuation of a high-intensity statin constitutes a “clearly implied” reason for not prescribing a high-intensity statin at hospital discharge.
  - A hold/discontinuation of all p.o. medications counts if the high-intensity statin was on order at the time of the notation.
  - If there is documentation of a plan to initiate/restart a high-intensity statin and the reason/problem underlying the delay in starting/restarting the high-intensity statin is also noted, this constitutes a “clearly implied” reason for not prescribing a high-intensity statin at discharge.
  - Documentation of a conditional hold/discontinuation of a high-intensity statin does NOT count as a reason for NOT prescribing a high-intensity statin.
  - Deferral of prescribing a high-intensity statin from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing a high-intensity statin, unless the problem underlying the deferral is also noted.
- A statin “allergy” or “sensitivity” documented in the medical record counts as an allergy regardless of what type of reaction might be noted.
  - Documentation of an allergy/sensitivity to one particular statin is acceptable to take as an allergy to the entire class of statin medications.

**Suggested Data Sources:**
- Consultation notes
- History and physical
- Progress notes
- Physician's notes
- Discharge summary
- ICU notes
- Inpatient medical record

Additional Notes:

Guidelines for Abstraction:

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</table>
Name: Reason for No Referral to Outpatient Cardiac Rehabilitation Program

Collected For: CCCIP-03, CCCIP-04, CCCOP-01, CCCOP-03

Definition: Reason for not referring a patient to an outpatient cardiac rehabilitation program.

Question: Is there a documented reason for not referring the patient to an outpatient cardiac rehabilitation program?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation of a reason for not referring the patient to an outpatient cardiac rehabilitation program.

N (No) There is no documentation of a reason for not referring the patient to an outpatient cardiac rehabilitation program or unable to determine from medical record documentation.

Notes for Abstraction: Reasons that preclude a referral to an outpatient cardiac rehabilitation program may be must be documented by a physician/APN/PA/physical therapist/occupational therapist/case manager/RN. Examples:

- Patient lacks medical coverage for cardiac rehabilitation
- There is no traditional cardiac rehabilitation program (health care facility-based program) close to the patient’s home or the patient does not have access to an alternative model of cardiac rehabilitation (e.g. virtual or home health model).
- The patient was already participating in a cardiac rehabilitation prior to the current hospitalization or has completed an outpatient cardiac rehabilitation program within the last 12 months
- The patient has a lack of transportation
- Patients deemed by a medical provider to have a medically unstable, life-threatening condition or has other cognitive or physical impairments that preclude participation in cardiac rehabilitation
- Physical therapy documents in their assessment note that they recommend acute rehab for the patient

Suggested Data Sources:

- Medical Record

Additional Notes:

Guidelines for Abstraction:

<table>
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</table>
Name: Referral to Outpatient Cardiac Rehabilitation

Collected For: CCCIP-03, CCCIP-04, CCCIP-05, CCCOP-01, CCCOP-02, CCCOP-03

Definition: Documentation that a referral was made to an outpatient cardiac rehabilitation program. The referral is defined as a written or electronic communication between the healthcare provider or healthcare system and the cardiac rehabilitation program that includes the patient's enrollment information for the program.

Question: Was a written or electronic referral submitted to the outpatient cardiac rehabilitation program on behalf of the patient?

Format:
- Length: 1
- Type: Alphanumeric
- Occurs: 1

Allowable Values:
- Y (Yes) A written or electronic referral was submitted to the outpatient cardiac rehabilitation program
- N (No) A written or electronic referral was not submitted to the outpatient cardiac rehabilitation program or unable to be determined from medical record documentation

Notes for Abstraction:
- The CR referral can be made by a physician/APN/PA/RN
- Providing the patient with information (written or verbal) about an available cardiac rehabilitation program is not sufficient. A referral/order for cardiac rehabilitation must be sent to the outpatient cardiac rehabilitation facility
- Referral should include the patient's enrollment information for the program

Suggested Data Sources:
- Physician orders

Additional Notes:

Guidelines for Abstraction:

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<thead>
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</table>
Name: Sex

Collected For: All Records

Definition: The patient's documented sex on arrival at the hospital.

Question: What is the patient's sex on arrival?

Format: Length: 1
Type: Character
Occurs: 1

Allowable Values:
- M = Male
- F = Female
- U = Unknown

Notes for Abstraction:
- Collect the documented patient's sex at admission or the first documentation after arrival.
- Consider the sex to be unable to be determined and select “Unknown” if:
  - The patient refuses to provide their sex.
  - Documentation is contradictory.
  - Documentation indicates the patient is a Transexual.
  - Documentation indicates the patient is a Hermaphrodite.
  - Documentation indicates the patient is Non-binary.

Suggested Data Sources:
- Consultation notes
- Emergency department record
- History and physical
- Face sheet
- Progress notes
- Nursing admission notes
- UB-04

Additional Notes:

Guidelines for Abstraction:

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<td>• None</td>
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Table Number 2.0: CCC E/M Codes for Hospital Outpatient Encounters CPT® codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Shortened Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99201</td>
<td>OFFICE OUTPATIENT NEW 10 MINUTES</td>
</tr>
<tr>
<td>99202</td>
<td>OFFICE OUTPATIENT NEW 20 MINUTES</td>
</tr>
<tr>
<td>99203</td>
<td>OFFICE OUTPATIENT NEW 30 MINUTES</td>
</tr>
<tr>
<td>99204</td>
<td>OFFICE OUTPATIENT NEW 45 MINUTES</td>
</tr>
<tr>
<td>99205</td>
<td>OFFICE OUTPATIENT NEW 60 MINUTES</td>
</tr>
<tr>
<td>99211</td>
<td>OFFICE OUTPATIENT VISIT 5 MINUTES</td>
</tr>
<tr>
<td>99212</td>
<td>OFFICE OUTPATIENT VISIT 10 MINUTES</td>
</tr>
<tr>
<td>99213</td>
<td>OFFICE OUTPATIENT VISIT 15 MINUTES</td>
</tr>
<tr>
<td>99214</td>
<td>OFFICE OUTPATIENT VISIT 25 MINUTES</td>
</tr>
<tr>
<td>99215</td>
<td>OFFICE OUTPATIENT VISIT 40 MINUTES</td>
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Table Number 2.1: Heart Failure

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>I110</td>
<td>Hypertensive heart disease with heart failure</td>
</tr>
<tr>
<td>I130</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease</td>
</tr>
<tr>
<td>I132</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease</td>
</tr>
<tr>
<td>I501</td>
<td>Left ventricular failure, unspecified</td>
</tr>
<tr>
<td>I5020</td>
<td>Unspecified systolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5021</td>
<td>Acute systolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5022</td>
<td>Chronic systolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5023</td>
<td>Acute on chronic systolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5030</td>
<td>Unspecified diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5031</td>
<td>Acute diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5032</td>
<td>Chronic diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5033</td>
<td>Acute on chronic diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5040</td>
<td>Unspecified combined systolic (congestive) and diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5041</td>
<td>Acute combined systolic (congestive) and diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>Code</td>
<td>Shortened Description</td>
</tr>
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</tr>
<tr>
<td>I5042</td>
<td>Chronic combined systolic (congestive) and diastolic (congestive) heart failure</td>
</tr>
<tr>
<td>I5043</td>
<td>Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure</td>
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<td>I50810</td>
<td>Right heart failure, unspecified</td>
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<td>I50811</td>
<td>Acute right heart failure</td>
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<td>I50812</td>
<td>Chronic right heart failure</td>
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<td>I50813</td>
<td>Acute on chronic right heart failure</td>
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<td>I50814</td>
<td>Right heart failure due to left heart failure</td>
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<td>I5082</td>
<td>Biventricular heart failure</td>
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<td>I5083</td>
<td>High output heart failure</td>
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<td>I5084</td>
<td>End stage heart failure</td>
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<td>I5089</td>
<td>Other heart failure</td>
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<tr>
<td>I509</td>
<td>Heart failure, unspecified</td>
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</tbody>
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**Table Number 2.2: Left Ventricular Assistive Device (LVAD) and Heart Transplant**

<table>
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<tr>
<th>Code</th>
<th>Shortened Description</th>
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<tbody>
<tr>
<td>02HA0QZ</td>
<td>Insertion of Implantable Heart Assist System into Heart, Open Approach</td>
</tr>
<tr>
<td>02HA0RJ</td>
<td>Insertion of Short-term External Heart Assist System into Heart, Intraoperative, Open Approach</td>
</tr>
<tr>
<td>02HA0RS</td>
<td>Insertion of Biventricular Short-term External Heart Assist System into Heart, Open Approach</td>
</tr>
<tr>
<td>02HA0RZ</td>
<td>Insertion of Short-term External Heart Assist System into Heart, Open Approach</td>
</tr>
<tr>
<td>02HA3QZ</td>
<td>Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach</td>
</tr>
<tr>
<td>02HA3RJ</td>
<td>Insertion of Short-term External Heart Assist System into Heart, Intraoperative, Percutaneous Approach</td>
</tr>
<tr>
<td>02HA3RS</td>
<td>Insertion of Biventricular Short-term External Heart Assist System into Heart, Percutaneous Approach</td>
</tr>
<tr>
<td>02HA3RZ</td>
<td>Insertion of Short-term External Heart Assist System into Heart, Percutaneous Approach</td>
</tr>
<tr>
<td>02HA4QZ</td>
<td>Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach</td>
</tr>
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<td>02HA4RJ</td>
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**Table Number 2.3: Myocardial Infarction**

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**Table Number 2.4: Percutaneous Coronary Intervention (PCI)**

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**Table Number 2.5: Coronary Artery Bypass Graft (CABG)**

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### Table Number 2.6: Valve Repair/Replacement

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<td>Repair Pulmonary Valve, Open Approach</td>
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Table Number 2.11: Percutaneous Coronary Intervention (PCI) CPT® codes

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<td>92920</td>
<td>Percutaneous transluminal coronary angioplasty; single major coronary artery or branch</td>
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<tr>
<td>92921</td>
<td>Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery</td>
</tr>
<tr>
<td>92924</td>
<td>Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch</td>
</tr>
<tr>
<td>92925</td>
<td>Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; each additional branch of a major coronary artery</td>
</tr>
<tr>
<td>92928</td>
<td>Percutaneous transcatheater placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch</td>
</tr>
<tr>
<td>92929</td>
<td>Percutaneous transcatheater placement of intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery</td>
</tr>
<tr>
<td>92933</td>
<td>Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch</td>
</tr>
<tr>
<td>92934</td>
<td>Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery</td>
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<tr>
<td>92937</td>
<td>Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel</td>
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<tr>
<td>92938</td>
<td>Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft</td>
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<td>92943</td>
<td>Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel</td>
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<tr>
<td>92944</td>
<td>Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft</td>
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<td>92978</td>
<td>Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; initial vessel [only as an adjunct to angioplasty, stent,</td>
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<tr>
<td>92979</td>
<td>Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; each additional vessel [only as an adjunct to angioplasty]</td>
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<td>Drug eluting stent, additional branch</td>
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<tr>
<td>C9602</td>
<td>Atherectomy + drug eluting stent, single vessel</td>
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<td>Atherectomy + drug eluting stent, additional branch</td>
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<td>PCI of or through bypass, any method(s), with drug-eluting stent, additional</td>
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<td>PCI of acute MI, all interventions, with drug-eluting stent, single vessel</td>
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<td>PCI of chronic total occlusion, any method(s), with drug-eluting stent</td>
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Table Number 2.13: Previous LVAD or Heart Transplant

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<th>Shortened Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z941</td>
<td>Heart transplant status</td>
</tr>
<tr>
<td>Z95811</td>
<td>Presence of heart assist device</td>
</tr>
<tr>
<td>Z95812</td>
<td>Presence of fully implantable artificial heart</td>
</tr>
<tr>
<td>Z95818</td>
<td>Presence of other cardiac implants and grafts</td>
</tr>
</tbody>
</table>