## Advanced Certification Heart Failure Outpatient (ACHFOP)

### Set Measures

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACHFOP-01</td>
<td>Hospital Outpatient Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate) Prescribed for LVSD</td>
</tr>
<tr>
<td>ACHFOP-02</td>
<td>Hospital Outpatient ACEI or ARB Prescribed for LVSD</td>
</tr>
<tr>
<td>ACHFOP-03</td>
<td>Hospital Outpatient Aldosterone Receptor Antagonists Prescribed for LVSD</td>
</tr>
<tr>
<td>ACHFOP-04</td>
<td>Hospital Outpatient New York Heart Association (NYHA) Classification Assessment</td>
</tr>
<tr>
<td>ACHFOP-05</td>
<td>Hospital Outpatient Activity Recommendations</td>
</tr>
<tr>
<td>ACHFOP-06</td>
<td>Hospital Outpatient Discussion of Advance Directives/Advance Care Planning</td>
</tr>
<tr>
<td>ACHFOP-07</td>
<td>Hospital Outpatient Advance Directive Executed</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, Optional for All HBIPS Records; Used in algorithm for PC-01, 02, 04 and 05;</td>
</tr>
<tr>
<td>ICD-9-CM Other Procedure Codes</td>
<td>All Records, Optional for All HBIPS Records; Used in algorithm for PC-01, 02, 04 and 05;</td>
</tr>
<tr>
<td>ICD-9-CM Principal Diagnosis Code</td>
<td>All Records, Optional for HBIPS-2 and HBIPS-3; Used in algorithm for PC-01, 02, 03, 04, 05 and PBM-03</td>
</tr>
<tr>
<td>ICD-9-CM Principal Procedure Code</td>
<td>All Records, Optional for All HBIPS Records; Used in algorithm for PC-01, 02, 04 and 05</td>
</tr>
<tr>
<td>ICD-9-CM Principal Procedure Date</td>
<td>All Records, Optional for All HBIPS and PBM 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>ACEI Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-02,</td>
</tr>
<tr>
<td>ARB Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-02,</td>
</tr>
<tr>
<td>Activity Recommendation – Duration of Activity</td>
<td>ACHFOP-05,</td>
</tr>
<tr>
<td>Activity Recommendation – Intensity of Activity</td>
<td>ACHFOP-05,</td>
</tr>
<tr>
<td>Activity Recommendation – Type of Activity</td>
<td>ACHFOP-05,</td>
</tr>
<tr>
<td>Advance Directive Executed</td>
<td>ACHFOP-07,</td>
</tr>
<tr>
<td>Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-03,</td>
</tr>
<tr>
<td>Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07,</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Discharge Code</td>
<td></td>
</tr>
<tr>
<td>Discussion of Advance Directives/Advance Care Planning</td>
<td>ACHFOP-06, ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07,</td>
</tr>
<tr>
<td>E/M Code</td>
<td></td>
</tr>
<tr>
<td>LVSD &lt; 40%</td>
<td>ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07,</td>
</tr>
<tr>
<td>New York Heart Association (NYHA) Classification</td>
<td></td>
</tr>
<tr>
<td>Outpatient Encounter Date</td>
<td>ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07,</td>
</tr>
<tr>
<td>Reason for No ACEI and No ARB Prescribed for LVSD in Outpatient Setting</td>
<td>ACHFOP-02,</td>
</tr>
<tr>
<td>Reason for No Activity Recommendations in the Outpatient Setting</td>
<td>ACHFOP-05,</td>
</tr>
<tr>
<td>Reason for No Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-03,</td>
</tr>
<tr>
<td>Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting</td>
<td>ACHFOP-01,</td>
</tr>
</tbody>
</table>

**Initial Patient Population**
Advanced Certification Heart Failure Outpatient

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

E/M Code

On OP Table 1.0
(OP Appendix A)

Discharge Code

Not = 20

Patient Age on Outpatient Encounter Date (in years) =

Outpatient Encounter Date minus Birthdate

< 18 years

Patient Age on Outpatient Encounter Date

> = 18 years

ICD-9-CM Principal Diagnosis Code

On Table 2.1
(Appendix A)

ICD-9-CM Principal or Other Procedure Codes

Not on Table 2.1
(Appendix A)

At least one on Table 2.2 (Appendix A)

All Missing or None on Table 2.2 (Appendix A)

Patient Not in ACHFOP Population

Patient is in ACHFOP measure Population

Patient is eligible to be sampled for ACHFOP Measure Set

Set OP Population Reject Case Flag = "No"

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

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

End
**HF Sample Size Requirements**

Hospitals that choose to sample have the option of sampling quarterly or sampling monthly. A hospital may choose to use a larger sample size than is required. Hospitals whose Initial Patient Population size is less than the minimum number of cases per quarter for the measure set cannot sample. Hospitals that have five or fewer HF discharges (both Medicare and non-Medicare combined) in a quarter are not required to submit HF patient level data to the QIO Clinical Warehouse and Joint Commission’s Data Warehouse.

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.

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 HF must ensure that its Initial Patient Population and sample size meet the following conditions:

### Quarterly Sample Size

Based on Initial Patient Population Size for the HF Measure Set

<table>
<thead>
<tr>
<th>Hospital’s Measure</th>
<th>Average Quarterly Initial Patient Population Size “N”</th>
<th>Minimum Required Sample Size “n”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥ 1516</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>381 – 1515</td>
<td>20% of Initial Patient Population size</td>
</tr>
<tr>
<td></td>
<td>76 – 380</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>6 – 75</td>
<td>No sampling; 100% Initial Patient Population required</td>
</tr>
<tr>
<td></td>
<td>0 - 5</td>
<td>Submission of patient level data is encouraged but not required:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CMS: if submission occurs, 1-5 cases of Initial Patient Population may be submitted¹</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The Joint Commission: if submission occurs, 100% Initial Patient Population required</td>
</tr>
</tbody>
</table>

**Monthly Sampling**

Hospitals performing monthly sampling for HF must ensure that its Initial Patient Population and sample size meet the following conditions:
Monthly Sample Size
Based on Initial Patient Population Size for the HF Measure Set

Hospital’s Measure

<table>
<thead>
<tr>
<th>Average Monthly Initial Patient Population Size “N”</th>
<th>Minimum Required Sample Size “n”</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 506</td>
<td>102</td>
</tr>
<tr>
<td>131 – 505</td>
<td>20% of Initial Patient Population size</td>
</tr>
<tr>
<td>26 – 130</td>
<td>26</td>
</tr>
<tr>
<td>&lt;26</td>
<td>No sampling; 100% Initial Patient Population required</td>
</tr>
</tbody>
</table>

Sample Size Examples

- Quarterly sampling:
  - The HF Initial Patient Population size for a hospital has been 500 patients per quarter during the past year. The required quarterly sample size would be 100 (twenty percent of 500) heart failure patients per quarter -- as this number is smaller than the maximum condition (i.e., 304 cases) and larger than the minimum condition (i.e., 76 cases).
  - A hospital’s HF Initial Patient Population size is 1,482 patients during the third quarter. The required sample size is 20% of the patient population or 297 cases for the quarter (twenty percent of 1,482 equals 296.4 rounded to the next highest whole number equals 297).
  - A hospital’s HF Initial Patient Population size is 5 patients during the first quarter. Submission of patient level data is not required. If the hospital chooses to submit patient level data:
    - CMS: the quarterly sample size would be 1 – 5 cases for the quarter.¹
    - The Joint Commission: the required quarterly sample size would be 100% of the patient population or 5 cases for the quarter.

- Monthly sampling:
  - A hospital’s HF Initial Patient Population size is 25 patients during March. Since this is less than the minimum condition (i.e., 26 cases), no sampling is allowed or 100% of the patient population of 25 cases is required.
  - A hospital’s HF Initial Patient Population size is 503 patients during July. The required sample size is 20% of the patient population or 101 cases for the month (twenty percent of 503 equals 100.6 rounded to the next highest whole number equals 101).

¹ The Heart Failure (HF) core measure sampling methodology is applicable to both the HF core measures as well as the ACHF measures. The HF sampling methodology is shared by CMS and The Joint Commission; however, data collection for the ACHF measures is required by Joint Commission Disease-Specific Care Certification only.
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient (ACHFOP)

Set Measure ID: ACHFOP-01

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

Description: Beta-blocker therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) is prescribed for heart failure patients with LVSD. 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 has been well demonstrated in large-scale clinical trials of symptomatic patients with New York Heart Association (NYHA) class II-IV heat 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 prescribed bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD when seen in the outpatient setting

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting

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

Included Populations:

- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 1.0
- An ICD-9-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1, and
• Documentation of LVSD < 40%

**Excluded Populations:**

- Patients enrolled in a Clinical Trial
- Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-9-CM 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 Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate prescribed for LVSD in the Outpatient Setting

**Data Elements:**

- **Birthdate**
- **Clinical Trial**
- **Discharge Code**
- **E/M Code**
- **ICD-9-CM Other Procedure Codes**
- **ICD-9-CM Principal Diagnosis Code**
- **ICD-9-CM Principal Procedure Code**
- **ICD-9-CM Principal Procedure Date**
- **LVSD < 40%**
- **Outpatient Encounter Date**
- **Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD 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-9-CM 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-01: Hospital Outpatient Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate) Prescribed for LVSD

**Numerator:** Patients who are prescribed bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD when seen in the outpatient setting.

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

---

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.

Clinical Trial

= Y

LVSD < 40%

= N

Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting

= Y

In Numerator Population

= N

ACHFOP-01 Z

Case will be rejected

In Measure Population

= Y

ACHFOP-01 Z

Not In Measure Population

STOP
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient (ACHFOP)

Set Measure ID: ACHFOP-02

Performance Measure Name: Hospital Outpatient ACEI or ARB Prescribed for LVSD

Description: Heart failure patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB in the outpatient setting. 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: ACE inhibitors reduce mortality and morbidity in patients with heart failure and left ventricular systolic dysfunction (The SOLVD Investigators, 1991 and CONSENSUS Trial Study Group, 1987) and are effective in a wide range of patients (Masoudi, 2004). Clinical trials have also established ARB therapy as an acceptable alternative to ACEI, especially in patients who are ACEI intolerant (Granger, 2003 and Pfeffer, 2003). National guidelines strongly recommend ACEIs for patients hospitalized with heart failure (Jessup, 2009 and HFSA, 2010). Guideline committees have also supported the inclusion of ARBs in performance measures for heart failure (Executive Council of the Heart Failure Society of America, 2004).

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Patients who are prescribed an ACEI or ARB for LVSD when seen in the outpatient setting

Included Populations: Not applicable

Excluded Populations: None

Data Elements:
  - ACEI Prescribed for LVSD in the Outpatient Setting
  - ARB Prescribed for LVSD in the Outpatient Setting

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

Included Populations:
  - E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 1.0
  - An ICD-9-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1, and
  - Documentation of LVSD < 40%

Excluded Populations:
Patients renrolled in a Clinical Trial
Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-9-CM 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 ACEI or ARB Prescribed for LVSD in the Outpatient Setting

Data Elements:

- Birthdate
- Clinical Trial
- Discharge Code
- E/M Code
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM Principal Procedure Date
- LVSD < 40%
- Outpatient Encounter Date
- Reason for No ACEI and No ARB Prescribed for LVSD in 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-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions:

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:

- Jessup M, Abraham WT, Casey DE, Feldman AM, Francis GS, Ganiats TG, et al, writing on behalf of the 2005 Guideline Update for the Diagnosis and Management of Chronic Heart


**Measure Algorithm:**
ACHFOP–02: Hospital Outpatient ACEI or ARB Prescribed for LVSD

**Numerator:** Patients who are prescribed an ACEI or ARB for LVSD when seen in the outpatient setting.

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

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.

- **Clinical Trial**
  - Yes ($Y$)
  - No ($N$)

- **LVSD < 40%**
  - Yes ($Y$)
  - No ($N$)

  - **ACEI Prescribed for LVSD in the Outpatient Setting**
    - Yes ($Y$)
    - No ($N$)

    - **ARB Prescribed for LVSD in the Outpatient Setting**
      - Yes ($Y$)
      - No ($N$)

      - **Reason for No ACEI and No ARB Prescribed for LVSD in Outpatient Setting**
        - Yes ($Y$)
        - No ($N$)

    - Case will be rejected

- **In Numerator Population**

- **In Denominator Population**

- **ACHFOP–02 Z**

- **STOP**
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient(ACHFOP)

Set Measure ID: ACHFOP-03

Performance Measure Name: Hospital Outpatient Aldosterone Receptor Antagonists Prescribed for LVSD

Description: Aldosterone receptor antagonist therapy prescribed for heart failure patients with LVSD. 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: 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. A more recent trial of a newer aldosterone antagonist, eplerenone, in patients with LVSD < 40% and clinical evidence of heart failure or diabetes mellitus within 14 days of myocardial infarction (MI) also demonstrated a reduction in mortality (13.6% to 11.8% at one year).

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 (spironolactone or eplerenone) when seen in the outpatient setting

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting

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

Included Populations:
• E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 1.0
• An ICD-9-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.1, and
• Documentation of LVSD < 40%

**Excluded Populations:**

• Clinical Trial
• Patients who had a left ventricular assist device (LVAD) or heart transplant procedure (ICD-9-CM 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-9-CM Other Procedure Codes
• ICD-9-CM Principal Diagnosis Code
• ICD-9-CM Principal Procedure Code
• ICD-9-CM Principal Procedure Date
• LVSD < 40%
• Outpatient Encounter Date
• Reason for No Aldosterone Receptor Antagonist Prescribed for LVSD 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-9-CM 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 (spironolactone or eplerenone) when seen in the outpatient setting.

**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 Outpatient (ACHFOP)

Set Measure ID: ACHFOP-04

Performance Measure Name: Hospital Outpatient New York Heart Association (NYHA) Classification Assessment

Description: A baseline assessment of functional outcome utilizing the New York Heart Association (NYHA) classification documented at the time of the initial outpatient visit.

Rationale: Physician-assigned New York Heart Association (NYHA) class has been shown to be predictive of outcomes in heart failure including hospitalization and mortality (Holland et al., 2010). Classification involves the physician’s subjective interpretation of patient symptoms and clinical data; therefore, variation in class assignment between different observers is common. To improve objectivity, the pairing of NYHA class with patient self-assessment of functional status has been recommended by some clinical studies (Coelho et al., 2005).

Treatment goals for heart failure patients include symptom relief and improved prognosis. Another major goal is to maximize function in activities of daily living and improve the quality of life within the limits imposed by the disease (Flynn et al., 2009).

Assessment activities consistent with clinical practice guidelines for a targeted population are an integral component of disease-specific patient care. For Advanced Certification in Heart Failure, these activities should include an assessment of functional capacity (The Joint Commission’s 2012 Disease-Specific Care Certification Manual Advanced Certification in Heart Failure standard DSDF.3 EP.1).

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Patients for whom a New York Heart Association (NYHA) Classification Assessment was documented at the time of the initial outpatient visit.

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- New York Heart Association (NYHA) Classification

Denominator Statement: All heart failure patients

Included Populations:

- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 1.0, and
An ICD-9-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-9-CM procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patients enrolled in a clinical trial

Data Elements:

- Birthdate
- Clinical Trial
- Discharge Code
- E/M Code
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM 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-9-CM 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–04: Hospital Outpatient New York Heart Association (NYHA) Classification

Numerator: Patients for whom a New York Heart Association (NYHA) Classification is documented in the outpatient record.

Denominator: All heart failure patients.
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient (ACHFOP)

Set Measure ID: ACHFOP-05

Performance Measure Name: Hospital Outpatient Activity Recommendations

Description: Outpatients who have received a document describing individualized activity recommendations including type of activity, duration and intensity, tailored to their needs. This document must be present in the outpatient record.

Rationale: Heart failure is a progressive clinical syndrome in which damage to the myocardium impairs the ability of the ventricle to effectively pump blood throughout the body. It manifests by fluid congestion or inadequate blood flow to tissues. Dyspnea and fatigue are cardinal signs of the disease, which may limit exercise tolerance, and negatively impact the quality of life.

The Committee on Exercise, Rehabilitation, and Prevention of the American Heart Association Council on Clinical Cardiology has concluded that exercise training in patients with heart failure seems to be safe and beneficial overall in improving exercise capacity, as measured by peak VO2, peak workload, exercise duration, and parameters of submaximal exercise performance. Although studies addressing quality of life for heart failure patients participating in an exercise program are limited, findings suggest that quality of life improves proportionately with increased exercise capacity. Since there is currently a lack of consensus as to a universal exercise protocol for all heart failure patients, exercise programs should be tailored to the needs of the individual. Recommendations for exercise should include the setting, type of activity, duration, and intensity (Piña et al., 2003).

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: Outpatients who have received a document describing individualized activity recommendations including ALL of the following:

- Type of activity
- Duration of activity
- Intensity of activity

This document must be present in the outpatient record.

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- Activity Recommendation – Duration of Activity
- Activity Recommendation – Intensity of Activity
- Activity Recommendation – Type of Activity
Denominator Statement: All heart failure patients

Included Populations:
- E/M Code for hospital outpatient encounter as defined in OP Appendix A, OP Table 1.0, and
- An ICD-9-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-9-CM procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
- Patients less than 18 years of age
- Patients enrolled in clinical trials
- Patients with a documented Reason for No Activity Recommendations in the Outpatient Setting

Data Elements:
- Birthdate
- Clinical Trial
- Discharge Code
- E/M Code
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM Principal Procedure Date
- Outpatient Encounter Date
- Reason for No Activity Recommendations 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-9-CM 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–05: Hospital Outpatient Activity Recommendations

Numerator: Outpatients who have received a document describing individualized activity recommendations including ALL of the following:
- Type of activity
- Duration of activity
- Intensity of activity
This document must be present in the outpatient record.

Denominator: All heart failure patients.

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.

Decision tree diagram...
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 OP Appendix A, Table 1.0, and
• An ICD-9-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-9-CM 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-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM 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-9-CM 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–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.
Measure Information Form

Measure Set: Advanced Certification Heart Failure Outpatient (ACHFOP)

Set Measure ID: ACHFOP-07

Performance Measure Name: Hospital Outpatient Advance Directive Executed

Description: Outpatients who have documentation in the medical record that an advance directive was executed.

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 that an advance directive was executed.

- Included Populations: Not applicable
- Excluded Populations: None
- Data Elements: None
  - Advance Directive Executed

Denominator Statement: All heart failure patients.

- Included Populations:
  - E/M Code for hospital outpatient encounter as defined in OP Appendix A, Table 1.0, and
  - ICD-9-CM Principal Diagnosis Code for HF as defined in Appendix A, Table 2.2
- Excluded Populations:
  - Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-9-CM 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-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- ICD-9-CM 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-9-CM 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–07: Hospital Outpatient Advance Directive Executed

**Numerator:** Outpatients who have documentation in the outpatient medical record that an advance directive was executed.

**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.

Advance Directive Executed = N → In Measure Population

Advance Directive Executed = Y

In Numerator Population

Case will be rejected

STOP
Data Elements
Data Element Name: ACEI Prescribed for LVSD in the Outpatient Setting

Collected For: ACHFOP-02.

Definition: Documentation that an angiotensin converting enzyme inhibitor (ACEI) was prescribed for LVSD in the outpatient setting. ACEIs widen or dilate blood vessels, lowering blood pressure and making it easier for the heart to pump blood. They also inhibit the adverse effects of neurohormonal activation on the heart. These effects help reduce the risk of adverse outcomes such as death or hospitalization.

Suggested Data Collection Question: Was an angiotensin converting enzyme inhibitor (ACEI) prescribed for LVSD in the outpatient setting?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

- Y (Yes) ACEI was prescribed for LVSD in the outpatient setting, or the patient is currently on an ACEI.
- N (No) ACEI was not prescribed for LVSD in the outpatient setting, or unable to determine from medical record documentation.

Notes for Abstraction:

- All medications prescribed in the outpatient setting should be reviewed and taken into account by the abstractor.
- If the patient is currently on an ACEI, select “Yes”.

Suggested Data Sources:

- Discharge summary
- Discharge instruction sheet
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
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<tbody>
<tr>
<td>Refer to Appendix C, Table 1.2 for a comprehensive list of ACEIs.</td>
<td>None.</td>
</tr>
</tbody>
</table>
**Data Element Name:** ARB Prescribed for LVSD in the Outpatient Setting

**Collected For:** ACHFOP-02.

**Definition:** Documentation that an angiotensin receptor blocker (ARB) was prescribed for LVSD in the outpatient setting. ARBs widen or dilate blood vessels, lowering blood pressure and making it easier for the heart to pump blood. They also inhibit the adverse effects of neurohormonal activation on the heart. These effects help reduce the risk of adverse outcomes such as death or hospitalization.

**Suggested Data Collection Question:** Was an angiotensin receptor blocker (ARB) prescribed for LVSD in the outpatient setting?

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

**Allowable Values:**
- **Y (Yes)** ARB was prescribed for LVSD in the outpatient setting, or the patient is currently on an ARB.
- **N (No)** ARB was not prescribed for LVSD in the outpatient setting, or unable to determine from medical record documentation.

**Notes for Abstraction:**
- All medications prescribed in the outpatient setting should be reviewed and taken into account by the abstractor.
- If the patient is currently on an ARB, answer “Yes”.

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

**Additional Notes:**

**Guidelines for Abstraction:**

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<tr>
<td>Refer to Appendix C Table 1.7 for a comprehensive list of ARB’s.</td>
<td>None</td>
</tr>
</tbody>
</table>
**Data Element Name:** Activity Recommendation – Duration of Activity

**Collected For:** ACHFOP-05.

**Definition:** Written instructions or other documentation that individualized activity recommendations including the duration of activity recommended was given to the patient/caregiver.

**Suggested Data Collection Question:** Were the written instructions or other documentation that activity recommendation including the duration of activity tailored to the patient’s needs given to the patient/caregiver?

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

**Allowable Values:**
- Y (Yes) Written instructions or other documentation that individualized activity recommendations including the duration of activity tailored to the patient’s needs were given to the patient/caregiver.
- N (No) Written instructions or other documentation that individualized activity recommendations including the duration of activity tailored to the patient’s needs was not given to the patient/caregiver, or unable to determine from medical record documentation.

**Notes for Abstraction:**
Documentation must clearly convey that the patient/caregiver was given written recommendations including the duration of activity

- If the patient/caregiver refused written instructions which address recommendations for activity including the duration of activity, select “Yes”.
- A 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 the care of the patient.
- If duration of activity is not documented, select "No".

**Suggested Data Sources:**
- Discharge summary
- Outpatient record

**Additional Notes:**

**Guidelines for Abstraction:**

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<thead>
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</table>
Data Element Name: Activity Recommendation – Intensity of Activity

Collected For: ACHFOP-05.

Definition: Written instructions or other documentation that individualized activity recommendations including the intensity of activity recommended is given to the patient/caregiver.

Suggested Data Collection Question: Were the written instructions or other documentation that activity recommendation including the intensity of activity tailored to the patient’s needs was given to the patient/caregiver?

Format: Length: 1  
  Type: Alphanumeric  
  Occurs: 1

Allowable Values:  
  Y (Yes) Written instructions or other documentation that individualized activity recommendations including the intensity of activity tailored to the patient’s needs was given to the patient/caregiver.  
  N (No) Written instructions or other documentation that individualized activity recommendations including the intensity of activity tailored to the patient’s needs was not given to the patient/caregiver, or unable to determine from medical record documentation.

Notes for Abstraction: Documentation must clearly convey that the patient/caregiver was given written activity recommendations including the intensity of activity

  • If the patient/caregiver refused written instructions which address recommendations for activity including the intensity of activity, select “Yes”.
  • A 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 the care of the patient.
  • If intensity of the activity is not documented, select "No".

Suggested Data Sources:  
  • Discharge summary  
  • Outpatient record

Additional Notes:  

Guidelines for Abstraction:
Data Element Name: Activity Recommendation – Type of Activity

Collected For: ACHFOP-05.

Definition: Written instructions or other documentation that individualized activity recommendations including the type of activity recommended is given to the patient/caregiver.

Suggested Data Collection Question: Were the written instructions or other documentation that activity recommendation including type of activity tailored to the patient’s needs given to the patient/caregiver?

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

Allowable Values:
- Y (Yes) Written instructions or other documentation that individualized activity recommendations including the type of activity tailored to the patient’s needs was given to the patient/caregiver.
- N (No) Written instructions or other documentation that individualized activity recommendations including the type of activity tailored to the patient’s needs was not given to the patient/caregiver, or unable to determine from medical record documentation.

Notes for Abstraction: Documentation must clearly convey that the patient/caregiver was given written recommendations including the type of activity.

- If the patient/caregiver refused written instructions which address recommendations for activity recommendations including the type of activity, select “Yes”.
- A 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 the care of the patient.
- If type of activity is not documented, select "No".

Suggested Data Sources:
- Discharge summary
- Outpatient record

Additional Notes:

Guidelines for Abstraction:

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</table>
Data Element Name:  Advance Directive Executed

Collected For:  ACHF-05, ACHFOP-07.

Definition:  Documentation in the medical record that an advance directive was executed. An advance directive are instructions given by 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 appoints a person to make such decisions on their behalf.

Suggested Data Collection Question:  Was documentation present in the medical record that an advance directive was executed?

Format:

Length:  1
Type:  Alphanumeric
Occurs:  1

Allowable Values:

Y (Yes) There was documentation present in the medical record of an advance directive.

N (No) There was no documentation present in the medical record of an advance directive, or unable to determine from medical record documentation.

Notes for Abstraction:

• If there is documentation of an advance directive present in the medical record, select “Yes”.
• See inclusion list for acceptable documentation of advance directive.

Suggested Data Sources:

• History and physical
• Progress notes
• Physician orders
• Discharge summary
• Care Transition Record
• Consultation form
• Discharge planning form
• MOLST/POLST Forms
• Hospice referral
• Outpatient medical record

Additional Notes:

• Collected for both inpatient and outpatient

Guidelines for Abstraction:

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<tr>
<td>Advance care plan</td>
<td>DNR orders</td>
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<tr>
<td>----------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Advance decision</td>
<td>Do Not Resuscitate Orders</td>
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<tr>
<td>Advance directive</td>
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<tr>
<td>Advance healthcare directive</td>
<td></td>
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<tr>
<td>Health care proxy</td>
<td></td>
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<tr>
<td>Living will</td>
<td></td>
</tr>
<tr>
<td>MOLST (Medical Orders for Life-Sustaining Treatment)</td>
<td></td>
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<tr>
<td>Personal directive</td>
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<tr>
<td>POLST (Physician Orders for Life-Sustaining Treatment)</td>
<td></td>
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<tr>
<td>Power of attorney for healthcare</td>
<td></td>
</tr>
</tbody>
</table>
Data Element Name: Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting

Collected For: ACHFOP-03

Definition: Documentation that aldosterone receptor antagonist was prescribed for LVSD in the outpatient setting. The main action of aldosterone is to increase sodium re-absorption by the kidneys. At the same time it increases the excretion of hydrogen and potassium ions. Aldosterone receptor antagonists block the effects of aldosterone, therefore decreasing sodium re-absorption and water retention by the kidneys and consequently lead to a decrease in blood pressure. Aldosterone receptor antagonists are used to treat hypertension.

Suggested Data Collection Question: Was an aldosterone receptor antagonist prescribed for LVSD in the outpatient setting?

Format: 
Length: 1  
Type: Alphanumeric  
Occurs: 1

Allowable Values:

Y (Yes) An aldosterone receptor antagonist was prescribed for LVSD in the outpatient setting, or the patient is currently on this medication.

N (No) An aldosterone receptor antagonist was not prescribed for LVSD 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.
• If the patient is currently on an aldosterone receptor antagonist, answer "Yes".
• If the patient does not have LVSD or an ejection fraction <40%, select "No".

Suggested Data Sources:

• Discharge summary
• Discharge instruction sheet
• Outpatient medical record

Additional Notes:

Guidelines for Abstraction:
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<tbody>
<tr>
<td>• Spironolactone</td>
<td>All other aldosterone receptor antagonist medications other than those</td>
</tr>
<tr>
<td>• Eplerenone</td>
<td>listed as inclusions.</td>
</tr>
</tbody>
</table>

---

**Inclusion Exclusion**

- Spironolactone
- Eplerenone
- All other aldosterone receptor antagonist medications other than those listed as inclusions.
Data Element 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, 4, 5, 6, 7, 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.

Suggested Data Collection 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, Field Location: 10

Additional Notes:

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>• None</td>
<td>• None</td>
</tr>
</tbody>
</table>
Data Element Name: Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting

Collected For: ACHFOP-01.

Definition: Documentation that bisoprolol, carvedilol, or sustained-release metoprolol was prescribed in the outpatient setting. 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.

Suggested Data Collection Question: Was bisoprolol, carvedilol, or sustained-release metoprolol prescribed for LVSD in the outpatient setting?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
Y (Yes) Bisoprolol, carvedilol, or sustained-release metoprolol was prescribed for LVSD in the outpatient setting, or the patient is currently on one of these beta-blockers.

N (No) Bisoprolol, carvedilol, or sustained-release metoprolol was not prescribed for LVSD in the outpatient setting 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 "

- 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:**
- Discharge summary
- Discharge Instruction sheet
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

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<tr>
<th>Inclusion</th>
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<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>
</tbody>
</table>
- Carvedilol
- Carvedilol phosphate
- Coreg
- Coreg CR
- Metoprolol succinate
- Toprol-XL
- Zebeta
- Ziac
**Data Element Name:** Discharge Code

**Collected For:** ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07.

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

**Suggested Data Collection 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”.
  - To select value “7” there must be explicit documentation that the patient left against medical advice.
  - Examples:
    - Progress notes state that patient requests to be discharged but that discharge was medically contraindicated at this time. Nursing notes reflect that patient left against medical advice and AMA papers were signed, select value “7”.
Physician order written to discharge to home. Nursing notes reflect that 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:

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<tr>
<td>For Value 1:</td>
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</tr>
<tr>
<td>• Assisted Living Facilities</td>
<td></td>
</tr>
<tr>
<td>• Court/Law Enforcement – includes detention facilities, jails, and prison</td>
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</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>For Value 3:</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>For Value 5:</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>
</tbody>
</table>
- Nursing Home or Facility including Veteran’s Administration Nursing Facility
- Psychiatric Hospital or Psychiatric Unit of a Hospital
- Rehabilitation Facility including Inpatient Rehabilitation Facility/Hospital or Rehabilitation Unit of a Hospital
- Skilled Nursing Facility (SNF), Sub-Acute Care or Swing Bed
- Transitional Care Unit (TCU)
Data Element Name: Discussion of Advance Directives/Advance Care Planning

Collected For: ACHF-04, ACHFOP-06.

Definition: Documentation in the medical record of a one-time discussion of advance directives/advance care planning with a healthcare provider. An advance directive are instructions given by 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 appoints a person to make such decisions on their behalf.

Suggested Data Collection 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.
- 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”.

Advanced Certification Heart Failure Outpatient Performance Measurement Implementation Guide 50
### 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>
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<tr>
<td>• Health care proxy</td>
<td></td>
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<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>
Data Element Name: E/M Code


Definition: The code used to report evaluation and management services provided in the outpatient department clinic or emergency department.

Suggested Data Collection Question: What was the E/M code documented for this outpatient encounter?

Format: Length: 5
Type: Alphanumeric
Occurs: 1

Allowable Values: Select the E/M code from Appendix A, Table 1.0.

Notes for Abstraction: None

Suggested Data Sources: • Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
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<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to Appendix A, Table 1.0, E/M Codes</td>
<td>None</td>
</tr>
</tbody>
</table>
Data Element Name: ICD-9-CM Other Procedure Codes

Collected For: All Records, Optional for All HBIPS Records; Used in algorithm for PC-01, 02, 04 and 05;

Definition: The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) 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-9-CM Other Procedure Date exists, etc.) will apply.

Suggested Data Collection Question: What were the ICD-9-CM code(s) selected as other procedure(s) for this record?

Format:
- Length: 5 (with or without decimal point)
- Type: Alphanumeric
- Occurs: 24

Allowable Values: Any valid ICD-9-CM procedure code

Notes for Abstraction: None

Suggested Data Sources:
- Face sheet
- Discharge summary
- UB-04, Field Location: 74A-E
- 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>• None</td>
</tr>
</tbody>
</table>
**Data Element Name:** ICD-9-CM Principal Diagnosis Code

**Collected For:** All Records, Optional for HBIPS-2 and HBIPS-3; Used in algorithm for PC-01, 02, 03, 04, 05 and PBM-03

**Definition:** The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

**Suggested Data Collection Question:** What was the ICD-9-CM code selected as the principal diagnosis for this record?

**Format:**
- **Length:** 6 (implied decimal point)
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:** Any valid ICD-9-CM diagnosis code

**Notes for Abstraction:** The principal diagnosis is defined in the Uniform Hospital Discharge Data Set (UHDDS) as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”

**Suggested Data Sources:**
- Face sheet
- Discharge summary
- UB-04, Field Location: 67
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
<tr>
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<th>Exclusion</th>
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</thead>
<tbody>
<tr>
<td>• Refer to Appendix A, for ICD-9-CM Code Tables.</td>
<td>• Refer to Appendix A, for ICD-9-CM Code Tables.</td>
</tr>
</tbody>
</table>
**Data Element Name:** ICD-9-CM Principal Procedure Code

**Collected For:** All Records, Optional for All HBIPS Records; Used in algorithm for PC-01, 02, 04 and 05

**Definition:** The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code that identifies the principal procedure performed during this hospitalization. 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-9-CM Principal Procedure Date exists, etc.) will apply.

**Suggested Data Collection Question:** What was the ICD-9-CM code selected as the principal procedure for this record?

**Format:**
- **Length:** 5 (with or without decimal point)
- **Type:** Alphanumeric
- **Occurs:** 1

**Allowable Values:** Any valid ICD-9-CM procedure code.

**Notes for Abstraction:** The principal procedure as described by the Uniform Hospital Discharge Data Set (UHDDS) is one performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

**Suggested Data Sources:**
- Face sheet
- Discharge summary
- UB-04, Field Location: 74
- Outpatient medical record

**Additional Notes:**

**Guidelines for Abstraction:**

<table>
<thead>
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<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• None</td>
<td>• None</td>
</tr>
</tbody>
</table>
Data Element Name: ICD-9-CM Principal Procedure Date

Collected For: All Records, Optional for All HBIPS and PBM 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-9-CM Principal Procedure Code exists, etc.) will apply.

Suggested Data Collection Question: What was the date the principal procedure was performed?

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

Allowable Values:

<table>
<thead>
<tr>
<th>MM</th>
<th>Month (01-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD</td>
<td>Day (01-31)</td>
</tr>
<tr>
<td>YYYY</td>
<td>Year (20xx)</td>
</tr>
</tbody>
</table>

Leave Blank if Unable to Determine

Notes for Abstraction:

- If the principal procedure date is unable to be determined from medical record documentation, leave blank.
- 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 leave blank.
- Examples:
  - Documentation indicates the ICD-9-CM Principal Procedure Date was 02-42-2008. No other documentation in the medical record provides a valid date. Since the ICD-9-CM 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 leave blank.
  - Patient expires on 02-12-2008 and documentation indicates the ICD-9-CM Principal Procedure Date was 03-12-2008. Other documentation in the medical record supports the date of death as being accurate. Since the ICD-9-CM Principal Procedure Date is after the Discharge Date (death), it is outside of the parameter of care and the abstractor should leave blank.

**Note:** Transmission of a case with an invalid date as described above will be rejected from the Joint Commission’s Data Warehouse.
Suggested Data Sources:
- Consultation notes
- Face sheet
- Progress notes
- Discharge summary
- Diagnostic test reports
- Operative notes
- Procedure notes
- UB-04, Field Location: 74
- 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>None</td>
</tr>
</tbody>
</table>
Data Element Name: **LVSD < 40%**

Collected For: **ACHF-01, ACHFOP-01, ACHFOP-02, ACHFOP-03.**

Definition: Left ventricular systolic dysfunction (LVSD) documented in medical record. LVSD is defined as a left ventricular ejection fraction less than 40% or a narrative description consistent with moderate or severe 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.

Suggested Data Collection Question: Is the left ventricular systolic function (LVSF) documented as an ejection fraction (EF) less than 40% or a narrative description consistent with moderate or severe systolic dysfunction?

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

Allowable Values:
- **Y (Yes)** LVSF is documented as an ejection fraction (EF) less than 40% or a narrative description consistent with moderate or severe systolic dysfunction.

- **N (No)** LVSF is not documented as an ejection fraction (EF) less than 40% or a narrative description consistent with moderate or severe systolic dysfunction, or unable to determine from medical record documentation.

Notes for Abstraction:
- Results from in-hospital LVSF assessments filed into the chart after discharge should still be used.

Conflicting Documentation: Apply the following where there are two or more different descriptions of Ejection Fraction/LVSF:

1. Use **lowest calculated ejection fraction.** Presume calculated unless described as estimated (e.g., “Ejection fraction 30%”).
   - If calculated ejection fraction less than 40% select “Yes”. If calculated ejection fraction greater than or equal to 40%, select “No”.

2. Use **lowest estimated ejection fraction.** E.g., “Ejection fraction about 40%,” “Ejection fraction approximately 30%,” “Ejection fraction appears to be 35%,” “Visually ejection fraction is 45%,” “Ejection fraction 35-40%” (use mid-point), “Ejection fraction less than 40%.”
   - If estimated ejection fraction less than 40%, select “Yes”. If estimated ejection fraction greater than or equal to 40%, select “No”.
3. Use **worst** narrative description with severity specified.
   ◦ Select “Yes” if description is synonymous with term from Inclusion list A.
   ◦ Select “No” if description with severity specified is NOT synonymous with term from Inclusion List A (e.g., normal, mild, preserved).

4. Use narrative description without severity specified. Select “Yes” if description is synonymous with term from Inclusion list B. Otherwise, select “No”.

**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</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inclusion list A: Moderate/severe LVSD</strong></td>
<td><strong>Moderate or severe systolic dysfunction</strong></td>
</tr>
<tr>
<td>• Biventricular dysfunction described as marked, moderate, moderate-severe, severe, significant, substantial, or very 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>• Biventricular heart failure described as moderate or severe</td>
<td>• Any term in Inclusion list A or B described as mild-moderate</td>
</tr>
<tr>
<td>• Ejection fraction or left ventricular ejection fraction (LVEF) described as low, poor, or very low</td>
<td></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,</td>
<td></td>
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</tbody>
</table>
severe, significant, substantial, or very severe
• Left ventricular function (LVF), left ventricular systolic function (LVSF), or systolic function 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
New York Heart Association (NYHA) Classification

Collected For: ACHFOP-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.

Suggested Data Collection Question: Is there documentation of the use of the NYHA Classification as an assessment tool to measure the functional status for this patient?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation of the use of the NYHA Classification as an assessment tool to measure the functional status for this patient.

N (No) There is no documentation of the use of the NYHA Classification as an assessment tool to measure the functional status for this patient or unable to determine from medical record documentation.

Notes for Abstraction:

NYHA Classification - The Stages of Heart Failure:

1. Class I - No symptoms and no limitation in ordinary physical activity, e.g. shortness of breath when walking, climbing stairs etc.
2. Class II - Mild symptoms (mild shortness of breath and/or angina) and slight limitation during ordinary activity.
3. Class III - Marked limitation in activity due to symptoms, even during less-than-ordinary activity, e.g. walking short distances (20–100 m). Comfortable only at rest.
4. Class IV - Severe limitations. Experiences symptoms even while at rest. Mostly bedbound patients.
5. No NYHA class listed or unable to determine.

Suggested Data Sources:

- Discharge summary
- 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>None</td>
</tr>
</tbody>
</table>
Data Element Name: **Outpatient Encounter Date**

Collected For: ACHFOP-01, ACHFOP-02, ACHFOP-03, ACHFOP-04, ACHFOP-05, ACHFOP-06, ACHFOP-07.

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

Suggested Data Collection 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.

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>None</td>
<td>• Outpatient record</td>
</tr>
</tbody>
</table>
Data Element Name: Reason for No ACEI and No ARB Prescribed for LVSD in Outpatient Setting

Collected For: ACHFOP-02.

Definition: Reasons for not prescribing either an angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) for LVSD in the outpatient setting:

- ACEI allergy AND ARB allergy
- Moderate or severe aortic stenosis
- Other reasons documented by physician/advanced practice nurse/physician assistant (physician/APN/PA) or pharmacist for not prescribing an ACEI AND not prescribing an ARB for this patient.

Note: Documentation of a reason for not prescribing one class (either ACEI or ARB) should be considered implicit documentation of a reason for not prescribing the other class for the following five conditions only:

- Angioedema
- Hyperkalemia
- Hypotension
- Renal artery stenosis
- Worsening renal function/renal disease/dysfunction

- Reason documented by physician/APN/PA or pharmacist for not prescribing an ARB AND an ACEI allergy
- Reason documented by physician/APN/PA or pharmacist for not prescribing an ACEI AND an ARB allergy

ACEIs and ARBs widen or dilate blood vessels, lowering blood pressure and making it easier for the heart to pump blood. They also inhibit the adverse effects of neurohormonal activation on the heart. These effects help reduce the risk of adverse outcomes such as death or hospitalization.

Suggested Data Collection Question: Is there documentation of BOTH a reason for not prescribing an ACEI AND a reason for not prescribing an ARB for LVSD in the outpatient setting?

Format:

Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) There is documentation of BOTH a reason for not prescribing an ACEI AND a reason for not prescribing an ARB for LVSD in the outpatient setting.

N (No) There is no documentation of BOTH a reason for not prescribing an ACEI AND a reason for not prescribing an ARB for LVSD in the outpatient setting, or unable to determine from medical record documentation.
Notes for Abstraction:

- An “allergy” or “sensitivity” documented counts as an allergy regardless of what type of reaction might be noted (e.g., “Allergies: ACEIs – Cough” – consider as ACEI allergy).
- Documentation of an allergy/sensitivity to one particular ACEI is acceptable to take as an allergy to the entire class of ACEIs. Same for ARBs (e.g., “Allergic to Valsartan” - consider as ARB allergy).
- When conflicting information is documented in a medical record, select “Yes”.
- In the absence of explicit documentation that the patient has current moderate/severe aortic stenosis, this should be inferred when there is documentation of a history of moderate/severe aortic stenosis without mention of repair or replacement, valvuloplasty, or commissurotomy.
- When determining whether there is a reason documented by a physician/APN/PA or pharmacist for not prescribing an ACEI or an ARB:
  - Documentation of a reason for not prescribing one class (either ACEI or ARB) should be considered implicit documentation of a reason for not prescribing the other class for the following five conditions ONLY:
    - Angioedema
    - Hyperkalemia
    - Hypotension
    - Renal artery stenosis
    - Worsening renal function/renal disease/dysfunction
  - Examples of statements that count as a reason for not prescribing ACEI and a reason for not prescribing ARB:
    - “Creatinine high. Hold losartan.”
    - “Hx angioedema with ACEIs.”
    - “No ACEI. Bilateral renal artery stenosis.”
    - “BPs running low. Discontinue losartan.”
    - “Potassium 5.5 – No ACEI.”
    - “Severe hypotension with ACEIs in past.”
    - “Add ARB if hyperkalemia resolves.”
- Reasons for no ACEIs and reasons for no ARBs must be explicitly documented (e.g., “POTASSIUM 5.5 – No ACEI”) or clearly implied (e.g., “Severe hypotension with ACEIs in past,” “Hx ACEI-induced cough,” “ARBs contraindicated,” “Pt. refusing all medications,” “Supportive care only – no medications,” “ACEI therapy not indicated,” “ACEI on pre-printed order form is crossed out,” “No ACEI/ARB [reason not given]). If reasons are not mentioned in the context of ACEIs/ARBs, do not make inferences (e.g., Do not assume that an ACEI/ARB is not prescribed because of the patient’s chronic renal disease alone).
  - Deferral of an ACEI from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing an ACEI unless the problem underlying the deferral is also noted. Same for ARBs. Examples:
    - “Consulting cardiologist to evaluate pt. for ACEI therapy” - select “No” (Do NOT consider as reason for not prescribing ACEI).
Pt. hypotensive. Start ARB if OK with cardiology." - select "Yes" (Consider as reason for not prescribing ACEI and reason for not prescribing ARB).

If there is documentation of a plan to initiate/restart an ACEI, and the reason/problem underlying the delay in starting/restarting the ACEI is also noted, this constitutes a "clearly implied" reason for not prescribing ACEI. Same for ARBs. Acceptable examples (select "Yes"):  
- "Pt. hemodynamically unstable. May start ACEI/ARB as outpatient."
- "Add ARB if hyperkalemia resolves"

ACEIs/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 ACEI and no ARB (e.g., "Hold all RAS blockers").

Suggested Data Sources:
- Consultation notes
- Emergency department record
- History and physical
- Progress notes
- Physician orders
- Discharge summary
- Diagnostic test reports
- Transfer sheet
- Discharge instruction sheet
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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</thead>
</table>
| **Angioedema** | • ACEI allergy  
• ACEI allergy described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table |
| • Angioneurotic edema  
• Edema of the eyelid, glottis, larynx, nasopharynx, or pharynx  
• Periorbital edema described as acute | |
| **Hyperkalemia** | • Aortic insufficiency only  
• Aortic regurgitation only  
• Aortic stenosis described as 1+ or 2+  
• Moderate/severe aortic stenosis, or any of the other moderate/severe aortic stenosis inclusion terms, described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table |
| • Patient's potassium (K+) level noted (e.g., "Last Potassium 6.5. Will hold off on ACEI therapy")  
• Potassium level described as elevated  
• References to potassium not specified or described as hyperkalemia (e.g., "Hold off on ACEI therapy. Check potassium.", "Start candesartan once potassium improved") | |
Hypotension

- Blood pressure (BP) described as low
- Patient's blood pressure measurement noted (e.g., "BP systolic running in 80s. Will not prescribe ARBs at this time")
- References to blood pressure not specified or described as hypotension (e.g., "Hold off on ACEI therapy. Check BP in a.m.", "Start candesartan after BP normalizes")
- Shock

Moderate/severe aortic stenosis (AS)

- Aortic stenosis described as 3+, 4+, critical, or significant
- Aortic stenosis, degree of severity not specified
- Aortic valve area of less than 1.0 square cms
- Subaortic stenosis, moderate/severe or degree of severity not specified

Worsening renal function/renal disease/dysfunction

- Acute kidney injury (AKI)
- Azotemia
- Chronic kidney disease (CKD)
- Dialysis
- End stage renal disease (ESRD)
- Nephritis
- References to creatinine not specified or described as elevated (e.g., "Hold off on ACEI therapy. Check creatinine.", "Start candesartan once creatinine improved"). References to renal/renal function not specified or described as renal dysfunction (e.g., "Hold on ACEI pending kidney function panel in a.m.", "Start candesartan after nephrology sees")
- Renal failure, acute or chronic (ARF, RF, CRF)
- Renal insufficiency (RI, CRI)
- Renal/kidney transplant (RT, RTx, s/p renal transplant, KT)
- Serum creatinine (Cr, Cre) level described as abnormal or elevated
- Serum creatinine (Cr, Cre) noted (e.g., "No ACEIs. Creatinine 2.0")
Refer to Appendix C, Table 1.2 for a comprehensive list of ACEIs and Table 1.7 for a comprehensive list of ARBs.
Data Element Name: Reason for No Activity Recommendations in the Outpatient Setting

Collected For: ACHFOP-05.

Definition: Documentation of the reason that written instructions or other documentation that individualized activity recommendations tailored to the patient’s needs were NOT given to the patient/caregiver.

Suggested Data Collection Question: Is there documentation in the medical record of a reason for no activity recommendations including duration of activity, intensity of activity and type of activity in the outpatient setting?

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

Allowable Values:
- Y (Yes) There is documentation of a reason for not giving written instructions including duration of activity, intensity of activity and type of activity in the medical record.
- N (No) There is no documentation of a reason for not giving written instructions including duration of activity, intensity of activity and type of activity or unable to determine from medical record documentation.

Notes for Abstraction:
- If the patient/caregiver refused written instructions which address recommendations for level of activity, select “Yes”.
- A 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 the care of the patient.
- If the activity recommendations do not include all the following, duration of activity, intensity of activity and type of activity, select "No".

Suggested Data Sources:
- Discharge summary
- Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

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<th>Exclusion</th>
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<tbody>
<tr>
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</tbody>
</table>
Data Element Name: Reason for No Aldosterone Receptor Antagonist Prescribed for LVSD in the Outpatient Setting

Collected For: ACHFOP-03.

Definition: Reasons for not prescribing aldosterone receptor antagonist for LVSD in the outpatient setting. The main action of aldosterone is to increase sodium re-absorption by the kidneys. At the same time it increases the excretion of hydrogen and potassium ions. Aldosterone receptor antagonists block the effects of aldosterone, therefore decrease sodium re-absorption and water retention by the kidneys and consequently lead to a decrease in blood pressure. Other reasons include hyperkalemia or renal dysfunction or dialysis.

Suggested Data Collection Question: Is there documentation of a reason for not prescribing aldosterone receptor antagonist for LVSD in the outpatient setting or a history of hyperkalemia or renal dysfunction or dialysis?

Format: Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
- Y (Yes) There is documentation of a reason for not prescribing aldosterone receptor antagonist for LVSD in the outpatient setting.
- N (No) There is no documentation of a reason for not prescribing aldosterone receptor antagonist for LVSD 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.
- If the patient is currently on an aldosterone receptor antagonist, answer "Yes".

Suggested Data Sources: Discharge summary
Outpatient medical record

Additional Notes:

Guidelines for Abstraction:

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<th>Exclusion</th>
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| Spironolactone  
Eplerenone | None |
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<th>Data Element Name:</th>
<th>Reason for No Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Prescribed for LVSD in the Outpatient Setting</th>
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<tbody>
<tr>
<td>Collected For:</td>
<td>ACHFOP-01.</td>
</tr>
<tr>
<td>Definition:</td>
<td>Reasons for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD in the outpatient setting:</td>
</tr>
<tr>
<td></td>
<td>• Beta-blocker allergy</td>
</tr>
<tr>
<td></td>
<td>• Second or third-degree heart block on ECG and does not have a pacemaker</td>
</tr>
<tr>
<td></td>
<td>• Other reasons documented by physician/advanced practice nurse/physician assistant (physician/APN/PA) or pharmacist</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Data Collection Question:</th>
<th>Is there documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD in the outpatient setting?</th>
</tr>
</thead>
</table>
| Format:                            | Length: 1  
|                                    | Type: Alphanumeric  
|                                    | Occurs: 1  |

| Allowable Values: |  
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | Y (Yes) There is documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD in the outpatient setting.  
|                    | N (No) There is no documentation of a reason for not prescribing bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD in the outpatient setting, or unable to determine from medical record documentation. |

| Notes for Abstraction: |  
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | • A beta-blocker “allergy” or “sensitivity” documented 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 in the outpatient setting 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 in the outpatient setting:
  - 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).
  - Discontinuation of bisoprolol, carvedilol, or sustained-release metoprolol succinate documented in combination with the start of 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 in the outpatient setting. Examples:
    - “Stop carvedilol” and “Start Coreg 12.5 mg po bid” in same physician order
    - “Change metoprolol to Coreg” in progress note
  - 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 in the outpatient setting. Examples:
    - “Stop metoprolol succinate 25 mg po” and “Start metoprolol succinate 50 mg po” in same physician order
    - “Increase bisopropolol 5 mg to 10 mg” in progress note
“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 in the outpatient setting 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 in the outpatient setting.

- Acceptable examples (select “Yes”):
  - “BPs running low. May start Zebeta as outpatient.”
  - "Add Toprol-XL if HR stabilizes"
- Unacceptable examples (select “No”):
  - “Consider starting Coreg next appointment .”
  - “May add beta-blockers when pt. can tolerate”

---

**Suggested Data Sources:**

- Consultation notes
- Emergency department record
- History and physical
- Progress notes
- Physician orders
- Discharge summary
- Transfer sheet
- Outpatient medical record

**Additional Notes:**

### Guidelines for Abstraction:

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<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2nd/3rd degree heart block (HB) Note:</strong> The following inclusive terms may stand alone or be modified by “variable” or “intermittent.”</td>
<td><strong>Beta-blocker allergy</strong></td>
</tr>
<tr>
<td>• Atroventricular (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>
</tbody>
</table>
| • Heart block (HB) described as 2 to 1, 3 to 1, complete (CHB), high degree, high grade, second-degree, or third-degree | 2nd/3rd degree heart block (HB)
| • Mobitz Type 1 or 2                                                     | • 2nd/3rd degree heart block (HB), or any of the other 2nd/3rd degree heart block inclusion terms, described using one of |
### Pacemaker findings

- Paced rhythm
- Paced spikes
- Pacing described as atrial, AV, dual chamber, or ventricular

the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table

- Atrial flutter
- Atrioventricular (AV) block or conduction block, type/degree not specified
- First-degree atrioventricular (AV) block
- First-degree heart block (HB)
- Heart block, type/degree not specified
- Intraventricular conduction delay (IVCD)
Tables
### Appendix A

#### Table 1.0 - Outpatient

<table>
<thead>
<tr>
<th>Outpatient E/M Code</th>
<th>Description</th>
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<td>Table 1.0 99201</td>
<td>Office or other outpatient visit for evaluation and management of a new patient which requires these 3 key components: A problem focused history; a problem focused examination; and a straightforward medical decision making. Physicians typically spend 10 minutes face-to-face with patient and/or family.</td>
</tr>
<tr>
<td>Table 1.0 99202</td>
<td>Office or other outpatient visit for evaluation and management of a new patient which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; and straightforward medical decision making. Physicians typically spend 20 minutes face-to-face with patient and/or family.</td>
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<td>Table 1.0 99203</td>
<td>Office or other outpatient visit for evaluation and management of a new patient which requires these 3 key components: A detailed history; A detailed examination; and medical decision making of low complexity. Physicians typically spend 30 minutes face-to-face with patient and/or family.</td>
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<td>Table 1.0 99204</td>
<td>Office or other outpatient visit for evaluation and management of a new patient which requires these 3 key components: A comprehensive history; A comprehensive examination; and medical decision making of moderate complexity. Physicians typically spend 45 minutes face-to-face with patient and/or family.</td>
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<td>Table 1.0 99205</td>
<td>Office or other outpatient visit for evaluation and management of a new patient which requires these 3 key components: A comprehensive history; A comprehensive examination; and medical decision making of high complexity. Physicians typically spend 60 minutes face-to-face with patient and/or family.</td>
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<tr>
<td>Table 1.0 99211</td>
<td>Office or other outpatient visit for evaluation and management of an established patient, that may or may not require the presence of a physician. Typically, 5 minutes are spent performing or supervising these services.</td>
</tr>
<tr>
<td>Table 1.0 99212</td>
<td>Office or other outpatient visit for evaluation and management of an established patient which requires 2 of these 3 key components: A problem focused history; a problem focused examination; and a straightforward medical decision making. Physicians typically spend 10 minutes face-to-face with patient and/or family.</td>
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<tr>
<td>Table 1.0 99213</td>
<td>Office or other outpatient visit for evaluation and management of an established patient which requires 2 of these 3 key components: An expanded problem focused history; An expanded problem focused examination; and medical decision making of low complexity. Physicians typically spend 15 minutes face-to-face with patient and/or family.</td>
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<td>Table 1.0 99214</td>
<td>Office or other outpatient visit for evaluation and management of an established patient which requires 2 of these 3 key components: A detailed history; A detailed examination; and medical decision making of moderate complexity. Physicians typically spend 25 minutes face-to-face with patient and/or family.</td>
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<td>Office or other outpatient visit for evaluation and management of a new patient which requires 2 of these 3 key components: A comprehensive history; A comprehensive examination; and medical decision making of high complexity. Physicians typically spend 40 minutes face-to-face with patient and/or family.</td>
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Table 2.1 - Heart Failure (HF)

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<td>MAL HYP HT/KD STG V W HF</td>
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<td>BEN HYP HT/KD I-IV W HF</td>
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Table 2.2 - LVAD and Heart Transplant

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# Appendix C

## Table 1.2 - Medications - ACEIs

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</tr>
<tr>
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<tr>
<td>VASOTEC</td>
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<tr>
<td>ZESTORETIC</td>
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<td>ZESTRIL</td>
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**Table 1.7 - Medications - ARBs**

<table>
<thead>
<tr>
<th>Medications - ARBs</th>
<th>Medication Name</th>
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</thead>
<tbody>
<tr>
<td>ATACAND</td>
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<tr>
<td>ATACAND HCT</td>
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</tr>
<tr>
<td>AVALIDE</td>
<td></td>
</tr>
<tr>
<td>AVAPRO</td>
<td></td>
</tr>
<tr>
<td>AZILSARTAN</td>
<td></td>
</tr>
<tr>
<td>AZILSARTAN/CHLORTHALIDONE</td>
<td></td>
</tr>
<tr>
<td>AZOR</td>
<td></td>
</tr>
<tr>
<td>BENICAR</td>
<td></td>
</tr>
<tr>
<td>BENICAR HCT</td>
<td></td>
</tr>
<tr>
<td>CANDESARTAN</td>
<td></td>
</tr>
<tr>
<td>Candesartan/Hydrochlorothiazide</td>
<td></td>
</tr>
<tr>
<td>COZAAR</td>
<td></td>
</tr>
<tr>
<td>DIOVAN</td>
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</tr>
<tr>
<td>DIOVAN HCT</td>
<td></td>
</tr>
<tr>
<td>EDARBI</td>
<td></td>
</tr>
<tr>
<td>EDARBYCLOR</td>
<td></td>
</tr>
<tr>
<td>EPROSARTAN</td>
<td></td>
</tr>
<tr>
<td>EPROSARTAN/HYDROCHLOROTHIAZIDE</td>
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</tr>
<tr>
<td>EXFORGE</td>
<td></td>
</tr>
<tr>
<td>HYZAAR</td>
<td></td>
</tr>
<tr>
<td>IRBESARTAN</td>
<td></td>
</tr>
<tr>
<td>IRBESARTAN/HYDROCHLOROTHIAZIDE</td>
<td></td>
</tr>
<tr>
<td>LOSARTAN</td>
<td></td>
</tr>
<tr>
<td>LOSARTAN/HYDROCHLOROTHIAZIDE</td>
<td></td>
</tr>
<tr>
<td>MICARDIS</td>
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<td>MICARDIS HCT</td>
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<tr>
<td>OLMESARTAN</td>
<td></td>
</tr>
<tr>
<td>OLMESARTAN/AMLODIPINE</td>
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<tr>
<td>OLMESARTAN/AMLODIPINE/HYDROCHLOROTHIAZIDE</td>
<td></td>
</tr>
<tr>
<td>OLMESARTAN MEDOXOMIL</td>
<td></td>
</tr>
<tr>
<td>OLMESARTAN MEDOXOMIL/AMLODIPINE</td>
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<tr>
<td>TASOSARTAN</td>
<td></td>
</tr>
<tr>
<td>TELMISARTAN</td>
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</tr>
<tr>
<td>TELMISARTAN/AMLODIPINE</td>
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<tr>
<td>Table 1.7</td>
<td>TELMISARTAN/HYDROCHLOROTHIAZIDE</td>
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<td>Table 1.7</td>
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<td>TRIBENZOR</td>
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<td>Table 1.7</td>
<td>TWYNSTA</td>
</tr>
<tr>
<td>Table 1.7</td>
<td>VALSARTAN</td>
</tr>
<tr>
<td>Table 1.7</td>
<td>VALSARTAN/ALISKIREN</td>
</tr>
<tr>
<td>Table 1.7</td>
<td>VALSARTAN/AMLODIPINE</td>
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<tr>
<td>Table 1.7</td>
<td>VALSARTAN/HYDROCHLOROTHIAZIDE</td>
</tr>
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<td>Table 1.7</td>
<td>VALTURNA</td>
</tr>
<tr>
<td>Table 1.7</td>
<td>VERDIA</td>
</tr>
</tbody>
</table>
Appendix H

Table 2.6.1 Qualifiers

- Qualifiers are words used as adjectives to indicate some uncertainty about whether or not a condition really exists.
- The following qualifiers should be abstracted as negative findings, unless otherwise specified in a data element's guidelines - Consider this list all-inclusive:

<table>
<thead>
<tr>
<th>Qualifier Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>And/or (+/-; e.g., “ST abnormalities consistent with ischemia and/or injury”), except when comparing only Inclusions (e.g., “ST segment elevation and/or STEMI”)</td>
</tr>
<tr>
<td>Cannot exclude</td>
</tr>
<tr>
<td>Cannot rule out</td>
</tr>
<tr>
<td>Could/may/might be</td>
</tr>
<tr>
<td>Could/may/might have</td>
</tr>
<tr>
<td>Could/may/might have been</td>
</tr>
<tr>
<td>Could/may/might have had</td>
</tr>
<tr>
<td>Could/may/might indicate</td>
</tr>
<tr>
<td>Or, except when comparing only Inclusions</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Questionable (?)</td>
</tr>
<tr>
<td>Risk of</td>
</tr>
<tr>
<td>Ruled out (r’d/o, r/o’d)</td>
</tr>
<tr>
<td>Suggestive of</td>
</tr>
<tr>
<td>Suspect</td>
</tr>
<tr>
<td>Suspicious</td>
</tr>
<tr>
<td>Vs., except when comparing only Inclusions</td>
</tr>
</tbody>
</table>

Table 2.6.2 Modifiers

- Quantitative modifiers are adjectives that quantitatively describe a condition.
- The following quantitative modifiers should be abstracted as negative findings, unless otherwise specified in a data element's guidelines - Consider this list all-inclusive:

<table>
<thead>
<tr>
<th>Modifier Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borderline</td>
</tr>
<tr>
<td>Insignificant/not significant/no significant</td>
</tr>
<tr>
<td>Minor</td>
</tr>
<tr>
<td>Scant</td>
</tr>
<tr>
<td>Slight</td>
</tr>
<tr>
<td>Sub-clinical</td>
</tr>
<tr>
<td>Subtle</td>
</tr>
<tr>
<td>Trace</td>
</tr>
<tr>
<td>Trivial</td>
</tr>
</tbody>
</table>