Specifications Manual for National Inpatient Hospital Quality Measures

Version 4.2b
Applicable 1/1/2013 to 12/31/2013
Discharges
<table>
<thead>
<tr>
<th>Set Measure ID #</th>
<th>Measure Short Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF-1</td>
<td>Discharge Instructions</td>
</tr>
<tr>
<td>HF-2</td>
<td>Evaluation of LVS Function</td>
</tr>
<tr>
<td>HF-3</td>
<td>ACEI or ARB for LVSD</td>
</tr>
</tbody>
</table>
# HF DATA ELEMENT LIST

<table>
<thead>
<tr>
<th>General Data Element Name</th>
<th>Collected For:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Date</td>
<td>All Records</td>
</tr>
<tr>
<td>Birthdate</td>
<td>All Records</td>
</tr>
<tr>
<td>Discharge Date</td>
<td>All Records</td>
</tr>
<tr>
<td>First Name</td>
<td>All Records (Used in Algorithm for All HF Measures)</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>All Records</td>
</tr>
<tr>
<td>ICD-9-CM Other Diagnosis Codes</td>
<td>All Records</td>
</tr>
<tr>
<td>ICD-9-CM Other Procedure Codes</td>
<td>All Records</td>
</tr>
<tr>
<td>ICD-9-CM Other Procedure Dates</td>
<td>All Records</td>
</tr>
<tr>
<td>ICD-9-CM Principal Diagnosis Code</td>
<td>All Records</td>
</tr>
<tr>
<td>ICD-9-CM Principal Procedure Code</td>
<td>All Records (Used in Algorithm for All HF Measures)</td>
</tr>
<tr>
<td>ICD-9-CM Principal Procedure Date</td>
<td>All Records</td>
</tr>
<tr>
<td>Last Name</td>
<td>All Records (Used in Algorithm for All HF Measures)</td>
</tr>
<tr>
<td>Patient HIC #</td>
<td>All Records Collected by CMS for patients with a standard HIC#</td>
</tr>
<tr>
<td>Patient Identifier</td>
<td>All Records (Optional for All Records)</td>
</tr>
<tr>
<td>Payment Source</td>
<td>All Records</td>
</tr>
<tr>
<td>Physician 1</td>
<td>Optional for All Records (Used in Algorithm for All HF Measures)</td>
</tr>
<tr>
<td>Physician 2</td>
<td>Optional for All Records (Used in Algorithm for All HF Measures)</td>
</tr>
<tr>
<td>Postal Code</td>
<td>All Records</td>
</tr>
<tr>
<td>Race</td>
<td>All Records</td>
</tr>
<tr>
<td>Sample</td>
<td>Used in transmission of the Joint Commission's aggregate data file and the Hospital Clinical Data file</td>
</tr>
<tr>
<td>Sex</td>
<td>All Records</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Algorithm Output Data Element Name</th>
<th>Collected For:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Category Assignment</td>
<td>Used in the calculation of the Joint Commission's aggregate data and in the transmission of the Hospital Clinical Data file</td>
</tr>
</tbody>
</table>

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
# HF DATA ELEMENT LIST

<table>
<thead>
<tr>
<th>HF Data Element Name</th>
<th>Collected For:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEI Prescribed at Discharge</td>
<td>HF-3</td>
</tr>
<tr>
<td>ARB Prescribed at Discharge</td>
<td>HF-3</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>All HF Measures</td>
</tr>
<tr>
<td>Comfort Measures Only</td>
<td>All HF Measures</td>
</tr>
<tr>
<td>Discharge Disposition</td>
<td>All HF Measures</td>
</tr>
<tr>
<td>Discharge Instructions Address Activity</td>
<td>HF-1</td>
</tr>
<tr>
<td>Discharge Instructions Address Diet</td>
<td>HF-1</td>
</tr>
<tr>
<td>Discharge Instructions Address Follow-up</td>
<td>HF-1</td>
</tr>
<tr>
<td>Discharge Instructions Address Medications</td>
<td>HF-1</td>
</tr>
<tr>
<td>Discharge Instructions Address Symptoms Worsening</td>
<td>HF-1</td>
</tr>
<tr>
<td>Discharge Instructions Address Weight Monitoring</td>
<td>HF-1</td>
</tr>
<tr>
<td>LVF Assessment</td>
<td>HF-2</td>
</tr>
<tr>
<td>LVSD</td>
<td>HF-3</td>
</tr>
<tr>
<td>Reason for No ACEI and No ARB at Discharge</td>
<td>HF-3</td>
</tr>
</tbody>
</table>

1. CMS Only  
2. Transmission Data Element  
3. The Joint Commission ONLY
Heart Failure (HF) Initial Patient Population

The population of the HF measure set is identified using 6 data elements:

- **ICD-9-CM Principal Diagnosis Code**
- **ICD-9-CM Principal Procedure Code**
- **ICD-9-CM Other Procedure Codes**
- **Admission Date**
- **Birthdate**
- **Discharge Date**

Patients admitted to the hospital for inpatient acute care with an **ICD-9-CM Principal Diagnosis Code** for HF as defined in Appendix A, Table 2.1, no **ICD-9-CM Principal or Other Procedure Code** of Left Ventricular Assistive Device (LVAD) or Heart Transplant as defined in Appendix A, Table 2.2, a Patient Age (**Admission Date minus Birthdate**) greater than or equal to 18 years, and a Length of Stay (**Discharge Date minus Admission Date**) less than or equal to 120 days are included in the HF Initial Patient Population and are eligible to be sampled.
HF Initial Patient Population Algorithm

Start HF Initial Patient Population logic sub-routine

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

ICD-9-CM Principal Diagnosis Code

Not on Table 2.1

On Table 2.1

ICD-9-CM Principal or Other Procedure Codes

At least one on Table 2.2

All Missing or None on Table 2.2

Patient Age (in years) = Admission Date – Birthdate

Use the month and day portion of admission date and birthdate to yield the most accurate age.

Patient Age

< 18 years

>= 18 years

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

Length of Stay

> 120 days

<= 120 days

Patient is in the HF Initial Patient Population

Patient is eligible to be sampled* for the HF measure set

Set Initial Patient Population Reject Case Flag = "No"

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

Patient not in the HF Initial Patient Population

Patient is not eligible to be sampled for the HF measure set

Set Initial Patient Population Reject Case Flag = "Yes"

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
Heart Failure (HF) Initial Patient Population Algorithm

Variable Key: Patient Age, Initial Patient Population Reject Case Flag, and Length of Stay

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

2. Check ICD-9-CM Principal Diagnosis Code
   a. If the ICD-9-CM Principal Diagnosis Code is not on Table 2.1, the patient is not in the HF Initial Patient Population and is not eligible to be sampled for the HF measure set. Set the Initial Patient Population Reject Case Flag to equal Yes. Return to Transmission Data Processing Flow: Clinical in the Data Transmission section.
   b. If the ICD-9-CM Principal Diagnosis Code is on Table 2.1, continue processing and proceed to ICD-9-CM Principal or Other Procedure Codes.

3. Check ICD-9-CM Principal or Other Procedure Codes
   a. If at least one of the ICD-9-CM Principal or Other Procedure Codes is on Table 2.2, the patient is not in the HF Initial Patient Population and is not eligible to be sampled for the HF measure set. Set the Initial Patient Population Reject Case Flag to equal Yes. Return to Transmission Data Processing Flow: Clinical in the Data Transmission section.
   b. If all of the ICD-9-CM Principal or Other Procedure Codes is missing or none are on Table 2.2, continue processing and proceed to the patient age calculation.

4. Calculate Patient Age. Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age.

5. Check Patient Age
   a. If the Patient Age is less than 18 years, the patient is not in the HF Initial Patient Population and is not eligible to be sampled for the HF measure set. Set the Initial Patient Population Reject Case Flag to equal Yes. Return to Transmission Data Processing Flow: Clinical in the Data Transmission section.
   b. If the Patient Age is greater than or equal to 18 years, continue processing and proceed to Length of Stay Calculation.
6. Calculate the Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.

7. Check Length of Stay
   a. If the Length of Stay is greater than 120 days, the patient is not in the HF Initial Patient Population and is not eligible to be sampled for the HF measure set. Set the Initial Patient Population Reject Case Flag to equal Yes. Return to Transmission Data Processing Flow: Clinical in the Data Transmission section.
   b. If the Length of Stay is less than or equal to 120 days, the patient is in the HF Initial Patient Population and is eligible to be sampled for the HF measure set. Set Initial Patient Population Reject Case Flag to equal No. Return to Transmission Data Processing Flow: Clinical in the Data Transmission section.
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>&gt; 1516</td>
<td>304</td>
<td></td>
</tr>
<tr>
<td>381 - 1515</td>
<td>20% of Initial Patient Population size</td>
<td></td>
</tr>
<tr>
<td>76 - 380</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>6 - 75</td>
<td>No sampling; 100% Initial Patient Population required</td>
<td></td>
</tr>
<tr>
<td>0 - 5</td>
<td>Submission of patient level data is encouraged but not required:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• CMS: if submission occurs, 1 – 5 cases of the Initial Patient Population may be submitted</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The Joint Commission: if submission occurs, 100% Initial Patient Population required</td>
<td></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

<table>
<thead>
<tr>
<th>Hospital's Measure</th>
<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>
<td></td>
</tr>
<tr>
<td>131 - 505</td>
<td>20% of Initial Patient Population size</td>
<td></td>
</tr>
<tr>
<td>26 - 130</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&lt; 26</td>
<td>No sampling; 100% Initial Patient Population required</td>
<td></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.
    - 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).
Measure
Information
Forms
Measure Information Form

Measure Set: Heart Failure (HF)

Set Measure ID#: HF-1

Performance Measure Name: Discharge Instructions

Description: Heart failure patients discharged home with written instructions or educational material given to patient or caregiver at discharge or during the hospital stay addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen.

Rationale: Patient non-compliance with diet and medications is an important reason for changes in clinical status. Health care professionals should ensure that patients and their families understand their dietary restrictions, activity recommendations, prescribed medication regimen, and the signs and symptoms of worsening heart failure. National guidelines strongly support the role of patient education (Jessup, 2009 and HFSA, 2010).

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: Heart failure patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following:
1. activity level
2. diet
3. discharge medications
4. follow-up appointment
5. weight monitoring
6. what to do if symptoms worsen

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:
- Discharge Instructions Address Activity
- Discharge Instructions Address Diet
• Discharge Instructions Address Follow-up
• Discharge Instructions Address Medications
• Discharge Instructions Address Symptoms Worsening
• Discharge Instructions Address Weight Monitoring

Denominator Statement: Heart failure patients discharged home

Included Populations: Discharges with:
• An ICD-9-CM Principal Diagnosis Code for heart failure as defined in Appendix A, Table 2.1
  AND
• A discharge to home, home care, or court/law enforcement

Excluded Populations:
• Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-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 who have a Length of Stay greater than 120 days
• Patients enrolled in clinical trials
• Patients with Comfort Measures Only documented

Data Elements:
• Admission Date
• Birthdate
• Clinical Trial
• Comfort Measures Only
• Discharge Date
• Discharge Disposition
• ICD-9-CM Other Procedure Codes
• ICD-9-CM Principal Diagnosis Code
• ICD-9-CM Principal Procedure Code

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: The data elements for each of the six discharge instruction elements provide the opportunity to assess each component individually. However, completion of all six instruction categories is required for this composite measure.

Sampling: Yes, please refer to the measure set specific sampling requirements and for Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
additional information see the Population and Sampling Specifications Section.

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

Selected References:
HF-1: Discharge Instructions

Numerator: Heart failure patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring and what to do if symptoms worsen.

Denominator: Heart failure patients discharged home.
Initialize Discharge Counter = 0 (zero)
Set Missing Flag = No

Discharge Instructions
Address Activity

Set Missing Flag = Yes

Add 1 to Discharge Counter

HF-1
Heart Failure (HF)-1: Discharge Instructions

Numerator: Heart failure patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring and what to do if symptoms worsen.

Denominator: Heart failure patients discharged to home.

Variable Key: Discharge Counter and Missing Flag

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

2. Check Clinical Trial
   a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Clinical Trial equals No, continue processing and proceed to Discharge Disposition.

3. Check Discharge Disposition
   a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Discharge Disposition equals 2, 3, 4, 5, 6 or 7, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Discharge Disposition equals 1 or 8, continue processing and proceed to Comfort Measures Only.

4. Check Comfort Measures Only
   a. If Comfort Measures Only is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Comfort Measures Only equals 1, 2 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Comfort Measures Only equals 4, continue processing.

5. Initialize Discharge Counter to equal zero. Set Missing Flag to equal No. Continue processing and proceed to Discharge Instructions Address Activity.
6. Check Discharge Instructions Address Activity
   a. If Discharge Instructions Address Activity is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Discharge Instructions Address Diet.
   b. If Discharge Instructions Address Activity equals No, continue processing and proceed to Discharge Instructions Address Diet.
   c. If Discharge Instructions Address Activity equals Yes, add one to the Discharge Counter. Continue processing and proceed to Discharge Instructions Address Diet.

7. Check Discharge Instructions Address Diet
   a. If Discharge Instructions Address Diet is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Discharge Instructions Address Follow-up.
   b. If Discharge Instructions Address Diet equals No, continue processing and proceed to Discharge Instructions Address Follow-up.
   c. If Discharge Instructions Address Diet equals Yes, add one to the Discharge Counter. Continue processing and proceed to Discharge Instructions Address Follow-up.

8. Check Discharge Instructions Address Follow-up
   a. If Discharge Instructions Address Follow-up is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Discharge Instructions Address Medications.
   b. If Discharge Instructions Address Follow-up equals No, continue processing and proceed to Discharge Instructions Address Medications.
   c. If Discharge Instructions Address Follow-up equals Yes, add one to the Discharge Counter. Continue processing and proceed to Discharge Instructions Address Medications.

9. Check Discharge Instructions Address Medications
   a. If Discharge Instructions Address Medications is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Discharge Instructions Address Symptoms Worsening.
   b. If Discharge Instructions Address Medications equals No, continue processing and proceed to Discharge Instructions Address Symptoms Worsening.
   c. If Discharge Instructions Address Medications equals Yes, add one to the Discharge Counter. Continue processing and proceed to Discharge Instructions Address Symptoms Worsening.

10. Check Discharge Instructions Address Symptoms Worsening
a. If Discharge Instructions Address Symptoms Worsening is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Discharge Instructions Address Weight Monitoring.
b. If Discharge Instructions Address Symptoms Worsening equals No, continue processing and proceed to Discharge Instructions Address Weight Monitoring.
c. If Discharge Instructions Address Symptoms Worsening equals Yes, add one to the Discharge Counter. Continue processing and proceed to Discharge Instructions Address Weight Monitoring.

11. Check Discharge Instructions Address Weight Monitoring
a. If Discharge Instructions Address Weight Monitoring is missing, set the Missing Flag to equal Yes. Continue processing and proceed to Missing Flag check.
b. If Discharge Instructions Address Weight Monitoring equals No, continue processing and proceed to Missing Flag check.
c. If Discharge Instructions Address Weight Monitoring equals Yes, add one to the Discharge Counter. Continue processing and proceed to Missing Flag check.

12. Check Missing Flag
a. If Missing Flag equals Yes, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
b. If Missing Flag equals No, continue processing and proceed to Discharge Counter.

13. Check Discharge Counter
a. If Discharge Counter is not equal to six, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
b. If Discharge Counter equals six, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE

Measure Information Form

Measure Set: Heart Failure (HF)

Set Measure ID#: HF-2

Performance Measure Name: Evaluation of LVS Function

Description: Heart failure patients with documentation in the hospital record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

Rationale: Appropriate selection of medications to reduce morbidity and mortality in heart failure requires the identification of patients with impaired left ventricular systolic function. National guidelines advocate the evaluation of left ventricular systolic function as the single most important diagnostic test in the management of all patients with heart failure (Jessup, 2009 and HFSA, 2010).

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: Heart failure patients with documentation in the hospital record that LVS function was evaluated before arrival, during hospitalization, or is planned for after discharge.

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:

LVF Assessment

Denominator Statement: Heart failure patients.

Included Populations:
Discharges with an ICD-9-CM Principal Diagnosis Code for heart failure 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

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)  HF-2-1
- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients who expired
- Patients discharged to home for hospice care
- Patients discharged to a health care facility for hospice care
- Patients with Comfort Measures Only documented
- Patients with reasons documented by a physician/advanced practice nurse/physician assistant for no LVS function evaluation

**Data Elements:**
- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- LVF Assessment

**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:**

HF-2: Evaluation of LVS Function

**Numerator:** Heart failure patients with documentation in the hospital record that LVS function was evaluated before arrival, during hospitalization, or is planned for after discharge.

**Denominator:** Heart failure patients.

---

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
Heart Failure (HF)-2: Evaluation of Left Ventricular Systolic Function

Numerator: Heart failure patients with documentation in the hospital record that Left Ventricular Systolic function was evaluated before arrival, during hospitalization, or is planned for after discharge.

Denominator: Heart failure patients.

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

2. Check Clinical Trial
   a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Clinical Trial equals No, continue processing and proceed to Discharge Disposition.

3. Check Discharge Disposition
   a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Discharge Disposition equals 2, 3, 4, 6 or 7, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Discharge Disposition equals 1, 5 or 8, continue processing and proceed to Comfort Measures Only.

4. Check Comfort Measures Only
   a. If Comfort Measures Only is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Comfort Measures Only equals 1, 2 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Comfort Measures Only equals 4, continue processing and proceed to Left Ventricular Function (LVF) Assessment.

5. Check LVF Assessment
   a. If LVF Assessment is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If LVF Assessment equals R, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
c. If LVF Assessment equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

d. If LVF Assessment equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE

Measure Information Form

Measure Set: Heart Failure (HF)

Set Measure ID#: HF-3

Performance Measure Name: ACEI or ARB for LVSD

Description: Heart failure patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

Rationale: 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 (JJessup, 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: An increase in the rate

Numerator Statement: Heart failure patients who are prescribed an ACEI or ARB at hospital discharge.

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:
- ACEI Prescribed at Discharge
- ARB Prescribed at Discharge

Denominator Statement: Heart failure patients with LVSD.

Included Populations: Discharges with:
- An ICD-9-CM Principal Diagnosis Code for heart failure as defined in Appendix A, Table 2.1
AND
- Chart documentation of a LVEF less than 40% or a narrative description of LVS function consistent with moderate or severe systolic dysfunction

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 who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients who expired
- Patients discharged to home for hospice care
- Patients discharged to a health care facility for hospice care
- Patients with Comfort Measures Only documented
- Patients with a documented Reason for No ACEI and No ARB at Discharge

Data Elements:
- Admission Date
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Disposition
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- LVSD
- Reason for No ACEI and No ARB at Discharge

Risk Adjustment: No

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

Data Accuracy: Variation may exist in the assignment of ICD-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:


HF-3: ACEI or ARB for LVSD
Numerator: Heart failure patients who are prescribed an ACEI or ARB at hospital discharge.
Denominator: Heart failure patients with LVSD.

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

HF-3
Missing Clinical Trial = Y

HF-3
B

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

= 1, 5, 8

HF-3
X

Comfort Measures Only
= 1, 2, 3

= 4

HF-3
H

HF-3
B
Heart Failure (HF)-3: Angiotensin Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) for Left Ventricular Systolic Dysfunction (LVSD)

Numerator: Heart failure patients who are prescribed an ACEI or ARB at hospital discharge.

Denominator: Heart failure patients with LVSD.

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

2. Check Clinical Trial
   a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Clinical Trial equals No, continue processing and proceed to Discharge Disposition.

3. Check Discharge Disposition
   a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Discharge Disposition equals 2, 3, 4, 6 or 7, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Discharge Disposition equals 1, 5 or 8, continue processing and proceed to Comfort Measures Only.

4. Check Comfort Measures Only
   a. If Comfort Measures Only is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Comfort Measures Only equals 1, 2 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
   c. If Comfort Measures Only equals 4, continue processing and proceed to LVSD.

5. Check LVSD
   a. If LVSD is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
b. If LVSD equals No, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c. If LVSD equals Yes, continue processing and proceed to ACEI Prescribed at Discharge.

6. Check ACEI Prescribed at Discharge
   a. If ACEI Prescribed at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If ACEI Prescribed at Discharge is Yes, the case will proceed to a Measure Category Assignment of E and will be in the numerator population. Stop processing.
   c. If ACEI Prescribed at Discharge is No, continue processing and proceed to ARB Prescribed at Discharge.

7. Check ARB Prescribed at Discharge
   a. If ARB Prescribed at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If ARB Prescribed at Discharge is Yes, the case will proceed to a Measure Category Assignment of E and will be in the numerator population. Stop processing.
   c. If ARB Prescribed at Discharge is No, continue processing and proceed to Reason for No ACEI or No ARB at Discharge.

8. Check Reason for No ACEI and No ARB at Discharge
   a. If Reason for No ACEI and No ARB at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Reason for No ACEI and No ARB at Discharge is No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
   c. If Reason for No ACEI and No ARB at Discharge is Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
Data
Element Definitions
Data Element Name: **ACEI Prescribed at Discharge**

**Collected For:** CMS/The Joint Commission: HF-3

**Definition:** Documentation that an angiotensin converting enzyme inhibitor (ACEI) was prescribed at hospital discharge. 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 at discharge?

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

**Allowable Values:**
- **Y** (Yes)  ACEI prescribed at discharge.
- **N** (No)  ACEI not prescribed at discharge, or unable to determine from medical record documentation.

**Notes for Abstraction:**
- In determining whether an ACEI was prescribed at discharge, it is not uncommon to see conflicting documentation amongst different medical record sources. For example, the discharge summary may list an ACEI 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 an ACEI 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 Zestril” in the discharge orders, but Zestril is listed in the discharge summary’s discharge medication list), or after careful examination of circumstances, context, timing, etc., documentation raises enough questions, the case should be deemed “unable to determine” (select “No”).
  - Consider documentation of a hold on an ACEI after discharge in one location and a listing of that ACEI as a discharge medication in another location as contradictory ONLY if the timeframe on the hold is not **defined** (e.g., “Hold Zestril”). Examples of a hold with a defined timeframe include “Hold captopril x2 days” and “Hold Quinaretic until after stress test.”
o If an ACEI is NOT listed as a discharge medication, and there is only documentation of a hold or plan to delay initiation/restarting of an ACEI after discharge (e.g., “Hold captopril x2 days,” “Start ACEI as outpatient,” “Hold Zestril”), select “No”.

o 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 an ACEI medication documented only as a recommended medication for discharge (e.g., “Recommend sending patient home on Vasotec”). Documentation must be clearer that the ACEI was actually prescribed at discharge.
- Disregard documentation of ACEI prescribed at discharge when noted only by medication class (e.g., “ACEI Prescribed at Discharge: Yes” on a core measures form). The ACEI must be listed by name.

Suggested Data Sources:
- Discharge instruction sheet
- Discharge summary
- Medication reconciliation form
- Nursing discharge notes
- Physician orders sheet
- Transfer sheet

Inclusion Guidelines for Abstraction:
Refer to Appendix C, Table 1.2 for a comprehensive list of ACEIs.

Exclusion Guidelines for Abstraction:
None
Data Element Name: Admission Date

Collected For: CMS/The Joint Commission: All Records

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

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

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

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

Note: For CMS, only dates that are equal to or less than 120 days from the Discharge Date will be accepted into the QIO Clinical Warehouse. Refer to the Data Transmission section of this manual for further guidance related to data transmission.

Notes for Abstraction:
- The intent of this data element is to determine the date that the patient was actually admitted to acute inpatient care. Because this data element is critical in determining the population for all measures, the abstractor should NOT assume that the claim information for the admission date is correct. If the abstractor determines through chart review that the date from billing is incorrect, for purposes of abstraction, she/he should correct and override the downloaded value.
  If using claim information, the ‘Statement Covers Period’ is not synonymous with the ‘Admission Date’ and should not be used to abstract this data element. These are two distinctly different identifiers:
  - The Admission Date (Form Locator 12) is purely the date the patient was admitted as an inpatient to the facility.
  - The Statement Covers Period ("From" and "Through" dates in Form Locator 6) identifies the span of service dates included in a particular claim. The "From" Date is the earliest date of service on the claim.
- For patients who are admitted to Observation status and subsequently admitted to acute inpatient care, abstract the date that the determination was made to admit to acute inpatient care and the order was written. Do not abstract the date that the patient was admitted to Observation.
  Example:
  - Medical record documentation reflects that the patient was admitted to observation on 04-05-20xx. On 04-06-20xx the physician writes an order
to admit to acute inpatient effective 04-05-20xx. The Admission Date would be abstracted as 04-06-20xx; the date the determination was made to admit to acute inpatient care and the order was written.

- If there are multiple inpatient orders, use the order that most accurately reflects the date that the patient was admitted. The admission date should not be abstracted from the earliest admission order without regards to substantiating documentation. If documentation suggests that the earliest admission order does not reflect the date the patient was admitted to inpatient care, this date should not be used.
  Example:
  Preoperative Orders are dated as 04-06-20xx with an order to admit to Inpatient. Postoperative Orders, dated 05-01-20xx, state to admit to acute inpatient. All other documentation supports that the patient presented to the hospital for surgery on 05-01-20xx. The admission date would be abstracted as 05-01-20xx.

- For newborns that are born within this hospital, the admission date would be the date the baby was born.

**Suggested Data Sources:**
**ONLY ALLOWABLE SOURCES**
1. Physician orders
2. Face Sheet
3. UB-04, Field Location: 12

**Excluded Data Sources**
UB-04, Field Location: 06

**Inclusion Guidelines for Abstraction:**
None

**Exclusion Guidelines for Abstraction:**
- Admit to observation
- Arrival date
Data Element Name: ARB Prescribed at Discharge

Collected For: CMS/The Joint Commission: HF-3

Definition: Documentation that an angiotensin receptor blocker (ARB) was prescribed at hospital discharge. 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 at discharge?

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

Allowable Values:
- Y (Yes) ARB prescribed at discharge.
- N (No) ARB not prescribed at discharge, or unable to determine from medical record documentation.

Notes for Abstraction:
- In determining whether an ARB was prescribed at discharge, it is not uncommon to see conflicting documentation amongst different medical record sources. For example, the discharge summary may list an ARB 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 an ARB 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 losartan” in the discharge orders, but losartan is listed in the discharge summary’s discharge medication list), or after careful examination of circumstances, context, timing, etc, documentation raises enough questions, the case should be deemed "unable to determine" (select "No").
  - Consider documentation of a hold on an ARB after discharge in one location and a listing of that ARB as a discharge medication in another location as contradictory ONLY if the timeframe on the hold is not defined (e.g., "Hold losartan"). Examples of a hold with a defined timeframe include “Hold Diovan x2 days” and “Hold Verdia until after stress test.”
o If an ARB is NOT listed as a discharge medication, and there is only
documentation of a hold or plan to delay initiation/restarting of an ARB
after discharge (e.g., “Hold Diovan x2 days,” “Start ARB as outpatient,”
“Hold losartan”), select “No”.

o 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 an ARB medication documented only as a recommended medication
  for discharge (e.g., “Recommend sending patient home on candesartan”).
  Documentation must be clearer that the ARB was actually prescribed at
discharge.

- Disregard documentation of ARB prescribed at discharge when noted only by
  medication class (e.g., “ARB Prescribed at Discharge: Yes” on a core measures
  form). The ARB must be listed by name.

Suggested Data Sources:
- Discharge instruction sheet
- Discharge summary
- Medication reconciliation form
- Nursing discharge notes
- Physician orders sheet
- Transfer sheet

Inclusion Guidelines for Abstraction:
Refer to Appendix C, Table 1.7 for a comprehensive list of ARBs.

Exclusion Guidelines for Abstraction:
None
Data Element Name: Birthdate

Collected For: CMS/The Joint Commission: 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.

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

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: **Clinical Trial**

Collected For: **CMS/Joint Commission**: All HF Measures

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

**Suggested Data Collection Question**: During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. AMI, CAC, HF, PN, SCIP, STK, VTE)?

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

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

**Notes for Abstraction**:
- To select "Yes" to this data element, BOTH of the following must be true:
  1. **There must be a signed consent form for clinical trial.** For the purposes of abstraction, a clinical trial is defined as an *experimental study* in which research subjects are recruited and assigned a treatment/intervention and their outcomes are measured based on the intervention received. Treatments/interventions most often include use of drugs, surgical procedures, and devices. Often a control group is used to compare with the treatment/intervention. Allocation of different interventions to participants is usually randomized.
  2. **There must be documentation on the signed consent form that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied (i.e. AMI, CAC, HF, PN, SCIP, STK, VTE).** Patients may either be newly enrolled in a clinical trial during the hospital stay or enrolled in a clinical trial prior to arrival and continued active participation in that clinical trial during this hospital stay.
- In the following situations, select "No":

---

Specifications Manual for National Hospital Inpatient Quality Measures Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
1. There is a signed patient consent form for an observational study only. Observational studies are non-experimental and involve no intervention (e.g., registries). Individuals are observed (perhaps with lab draws, interviews, etc.), data is collected, and outcomes are tracked by investigators. Although observational studies may include the assessment of the effects of an intervention, the study participants are not allocated into intervention or control groups.

2. It is not clear whether the study described in the signed patient consent form is experimental or observational.

3. It is not clear which study population the clinical trial is enrolling. Assumptions should not be made if it is not specified.

AMI:
Only capture patients enrolled in clinical trials studying patients with acute myocardial infarction (AMI), ST-elevation myocardial infarction (STEMI), Non ST-elevation MI (NSTEMI), heart attack, or acute coronary syndrome (ACS).

CAC:
Only capture patients enrolled in clinical trials studying children with asthma.

HF:
Only capture patients enrolled in clinical trials studying patients with heart failure (HF).

PN:
Only capture patients enrolled in clinical trials studying patients with pneumonia.

SCIP:
The clinical trial should be relevant to one or more of the SCIP measures. Some examples may include but are not limited to:
- The clinical trial involved the use of antibiotics.
- The clinical trial involved testing a new beta-blocker.
- The clinical trial involved the use of VTE prophylaxis.

STK:
Only capture patients enrolled in clinical trials studying patients with stroke.

VTE:
Only capture patients enrolled in clinical trials studying patients with VTE (prevention or treatment interventions).
Suggested Data Sources:
ONLY ACCEPTABLE SOURCES
Signed consent form for clinical trial

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: Comfort Measures Only

Collected For: CMS/Joint Commission: All HF Measures

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

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

Format:
Length: 1
Type: Alphanumeric
Occurs: 1

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

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

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

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

Notes for Abstraction:
- Only accept terms identified in the list of inclusions. No other terminology will be accepted.
- Physician/APN/PA documentation of comfort measures only (hospice, comfort care, etc.) mentioned in the following contexts suffices:
  o Comfort measures only recommendation
  o Order for consultation or evaluation by a hospice care service
  o Patient or family request for comfort measures only
  o Plan for comfort measures only
  o Referral to hospice care service
- Determine the earliest day the physician/APN/PA DOCUMENTED comfort measures only in the ONLY ACCEPTABLE SOURCES. Do not factor in when comfort measures only was actually instituted.
  Examples:
  o “Discussed comfort care with family on arrival” noted in day 2 progress note – Select “2”.
  o POLST order for comfort care dated prior to arrival – Select “1”.
- If any of the inclusions are documented in the ONLY ACCEPTABLE SOURCES, select “1”, “2”, or “3” accordingly, unless otherwise specified in this data element.
- Documentation of an Inclusion term in the following situations should be disregarded. Continue to review the remainder of the ONLY ACCEPTABLE SOURCES for acceptable Inclusion terms. If the ONLY documentation found is an Inclusion term in the following situations, select value “4”:
  o Documentation that is dated prior to arrival or documentation which refers to the pre-arrival time period (e.g., comfort measures only order in previous hospitalization record, “Pt. on hospice at home” in MD ED note).

**EXCEPTION:**
State-authorized portable orders (SAPOs). SAPOs are specialized forms, Out-of-Hospital DNR (OOH DNR) or Do Not Attempt Resuscitation (DNAR) orders, or identifiers authorized by state law, that translate a patient’s preferences about specific-end-of-life treatment decisions into portable medical orders.
Examples:
- DNR-Comfort Care form
- MOLST (Medical Orders for Life-Sustaining Treatment)
- POLST (Physician Orders for Life-Sustaining Treatment)
  o Pre-printed order forms signed by the physician/APN/PA:
    - Disregard an Inclusion term in a statement that is not part of the order or that is not clearly selected (on a form that offers options to select from).
      Examples:
      ▪ Inclusion term used only in the title of the form (e.g., “DNR-Comfort Care” form, option “Comfort Care” is not checked)
      ▪ Inclusion term used only in the pre-printed instruction for completing the form (e.g., “Copy of form to hospice”, “Instructions” section of the form further defines the option “Comfort care”)
    - If there is a specific option for “Comfort Measures Only” (or other Inclusion term) that is unchecked, then disregard documentation on that form, regardless of whether that Inclusion term might be used in a different option that is checked.
      Example:
      ▪ POLST form - The “Limited Additional Interventions” option checked is described as “In addition to care described in Comfort Measures Only, use medical treatment, antibiotics, ...”.
  o Inclusion term clearly described as negative.
Examples:
- "No comfort care"
- "Not a hospice candidate"
- "Not appropriate for hospice care"
- "I offered hospice care consult to discuss end of life issues. Family did not show any interest."
- "Patient declines hospice care at this time but I feel this will be an important plan of care when his condition deteriorates further"
- "Comfort care would also be reasonable - defer decision for now"
  - Comfort measures made conditional upon whether or not the patient arrests. Examples:
    - "DNRCCA" (Do Not Resuscitate – Comfort Care Arrest)
    - "Comfort Care Protocol will be implemented in the event of a cardiac arrest or a respiratory arrest"
    - "Family requests comfort measures only should the patient arrest."
- Documentation of "CMO" should be disregarded if documentation makes clear it is not being used as an acronym for Comfort Measures Only (e.g., "hx dilated CMO" – Cardiomyopathy context).
- If there is documentation of an Inclusion term clearly described as negative in one source and an Inclusion term NOT described as negative in another source, that second source would still count for comfort measures only.
  Examples:
  - On Day 0 the physician documents "The patient is not a hospice candidate." On Day 3, the physician orders a hospice consult. Select "2".
  - On Day 1 the physician documents the patient is comfort measures only. On Day 2 the physician documents "The patient is refusing CMO." Select "1".

Suggested Data Sources:
PHYSICIAN/APN/PA DOCUMENTATION ONLY IN THE FOLLOWING ONLY ACCEPTABLE SOURCES:
- Discharge summary
- DNR/MOLST/POLST forms
- Emergency department record
- Physician orders
- Progress notes

Excluded Data Sources:
Restraint order sheet

Inclusion Guidelines for Abstraction:
- Brain dead
- Brain death
- Comfort care
- Comfort measures
- Comfort measures only (CMO)
- Comfort only
- DNR-CC
- End of life care
- Hospice
- Hospice care
- Organ harvest
- Terminal care

Exclusion Guidelines for Abstraction:
None
Data Element Name: Discharge Date

Collected For: CMS/Joint Commission: All Records

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

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

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

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

Note: The QIO Clinical Warehouse only allows data containing dates applicable to a specified quarter of data transmission. Data submitted for discharge quarters outside of the current submission deadline will be rejected. Refer to the Data Transmission section of this manual for further guidance related to data transmission.

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

Suggested Data Sources:
- Discharge summary
- Face sheet
- Nursing discharge notes
- Physician orders
- Progress notes
- Transfer note
- UB-04, Field Location: 6

Inclusion Guidelines for Abstraction:
None
Exclusion Guidelines for Abstraction:
None
Data Element Name: *Discharge Disposition*

Collected For: CMS/Joint Commission: All HF Measures

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

Suggested Data Collection Question: What was the patient’s discharge disposition on the day of discharge?

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

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

Notes for Abstraction:
- **Only use documentation from the day of or the day before discharge** when abstracting this data element.
  
  Example:
  Documentation in the Discharge Planning notes on 04-01-20xx state that the patient will be discharged back home. On 04-06-20xx the physician orders and nursing discharge notes on the day of discharge reflect that the patient was being transferred to skilled care. The documentation from 04-06-20xx would be used to select value “5” (Other Health Care Facility).

- Consider discharge disposition documentation in the discharge summary, a post-discharge addendum, or a late entry as day of discharge documentation, regardless of when it was dictated/written.

- The medical record must be abstracted as documented (taken at “face value”). Inferences should not be made based on internal knowledge.
If there is documentation that further clarifies the level of care that documentation should be used to determine the correct value to abstract. If documentation is contradictory, use the latest documentation.

Examples:
- Discharge summary dictated 2 days after discharge states patient went “home”. Physician note on day of discharge further clarifies that the patient will be going "home with hospice". Select value “2” ("Hospice - Home").
- Discharge planner note from day before discharge states “XYZ Nursing Home". Discharge order from day of discharge states “Discharge home". Contradictory documentation, use latest. Select value “1” ("Home").
- Physician order on discharge states “Discharge to ALF”. Discharge instruction sheet completed after the physician order states patient discharged to “SNF”. Contradictory documentation, use latest. Select value “5” ("Other Health Care Facility").

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

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

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

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

If the medical record states only that the patient is being “discharged” and does not address the place or setting to which the patient was discharged, select value “4” (“Home”).

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

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

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

**Inclusion Guidelines for Abstraction:**

**Home (Value 1):**
- Assisted Living Facilities (ALFs) – Includes ALFs and assisted living care at nursing home, intermediate care, and skilled nursing facilities
- Court/Law Enforcement – includes detention facilities, jails, and prison
- Home – includes board and care, foster or residential care, group or personal care homes, retirement communities, and homeless shelters
- Home with Home Health Services
- Outpatient Services including outpatient procedures at another hospital, Outpatient Chemical Dependency Programs and Partial Hospitalization

**Hospice – Home (Value 2):**
- Hospice in the home (or other “Home” setting as above in Value 1)

**Hospice – Health Care Facility (Value 3):**
- Hospice - General Inpatient and Respite
- Hospice - Residential and Skilled Facilities
- Hospice - Other Health Care Facilities

**Acute Care Facility (Value 4):**
- Acute Short Term General and Critical Access Hospitals
- Cancer and Children’s Hospitals
- Department of Defense and Veteran’s Administration Hospitals

**Other Health Care Facility (Value 5):**
- Extended or Intermediate Care Facility (ECF/ICF)
- Long Term Acute Care Hospital (LTACH)
- 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)
Exclusion Guidelines for Abstraction:
None
Data Element Name: Discharge Instructions Address Activity

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing the patient’s activity level after discharge.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address the patient’s activity level after discharge?

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

Allowable Values:
- **Y (Yes)** WRITTEN discharge instructions/educational material given to patient/caregiver address the patient’s activity level after discharge.
- **N (No)** WRITTEN discharge instructions/educational material do not address activity or unable to determine from medical record documentation.

Notes for Abstraction:
- Acceptable materials include discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient’s name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - **Use only documentation provided in the medical record itself.** Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
- Written instructions given anytime during the hospital stay are acceptable.
- If the patient refused written discharge instructions/material which addressed activity, select “Yes”.
- The caregiver is defined as the patient’s family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.
Suggested Data Sources:
- Discharge instruction sheet
- Home health referral form
- Nursing notes
- Physical therapy notes
- Teaching sheet

Inclusion Guidelines for Abstraction:
Activity level (examples)
- Activity as tolerated
- Cardiac rehab
- Exercise instructions
- No strenuous activity
- Physical therapy
- Regular activity
- Regular walking
- Rest
- Restrict activity

Exclusion Guidelines for Abstraction:
Unchecked checkbox next to instruction (e.g., blank checkbox on discharge instruction sheet next to “Up as tolerated”).
Data Element Name: *Discharge Instructions Address Diet*

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing diet/fluid intake instructions after discharge.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational materials given to the patient/caregiver address diet/fluid intake after discharge?

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

Allowable Values:
- **Y (Yes)** WRITTEN discharge instructions/educational material given to patient/caregiver address diet/fluid intake instructions after discharge.
- **N (No)** WRITTEN discharge instructions/educational material do not address diet/fluid intake or unable to determine from medical record documentation.

Notes for Abstraction:
- Diet/fluid intake instructions do not need to be specific to heart failure: ANY diet or fluid intake instructions are acceptable.
- Acceptable materials include discharge instructions sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - **Use only documentation provided in the medical record itself.** Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
- Written instructions given anytime during the hospital stay are acceptable.
- If the patient refused written discharge instructions/material which addressed diet, select "Yes".
The caregiver is defined as the patient's family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.

**Suggested Data Sources:**
- Dietary notes
- Discharge instruction sheet
- Home health referral form
- Nursing notes
- Teaching sheet

**Inclusion Guidelines for Abstraction:**
**Diet (examples)**
- Continue same diet
- Diet as instructed
- Diet as tolerated (DAT)
- Reg diet
- Restrict fluids
- Specific diet (e.g., 2 gm Sodium diet, 1800 ADA diet) noted
- Tube feedings

**Exclusion Guidelines for Abstraction:**
Unchecked checkbox next to instruction (e.g., blank checkbox on discharge instruction sheet next to "Diet: No added salt").
Data Element Name: Discharge Instructions Address Follow-up

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing follow-up with a physician/advanced practice nurse/physician assistant (physician/APN/PA) after discharge.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?

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

Allowable Values:
- Y (Yes)  WRITTEN discharge instructions/educational material given to patient/caregiver address follow-up with a physician/APN/PA after discharge.
- N (No)  WRITTEN discharge instructions/educational material do not address follow-up with a physician/APN/PA or unable to determine from medical record documentation.

Notes for Abstraction:
- In the absence of explicit documentation that follow-up involves contact with a physician/APN/PA, the abstractor may infer contact with a physician/APN/PA, unless documentation suggests otherwise (e.g., BP check, laboratory work only).
- Acceptable materials include discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient’s name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - **Use only documentation provided in the medical record itself.** Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
- Written instructions given anytime during the hospital stay are acceptable.
- If the patient refused written discharge instructions/material which addressed follow-up, select “Yes”.

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13) 25
- The caregiver is defined as the patient’s family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.

**Suggested Data Sources:**
- Discharge instruction sheet
- Home health referral form
- Nursing notes
- Teaching sheet

**Inclusion Guidelines for Abstraction:**
None

**Exclusion Guidelines for Abstraction:**
- Follow-up prescribed on PRN or as needed basis
- Follow-up noted only as Not Applicable (N/A), None, or left blank
- Pre-printed follow-up appointment instruction with all fields left blank (e.g., “Please return for follow up appointment with Dr. [blank line] on [blank line]”, “Make an appointment with your physician in [blank line] for follow up”), unless next to checked checkbox
- Unchecked checkbox next to instruction (e.g., blank checkbox on discharge instruction sheet next to “Call Dr.’s office for appointment within two weeks”)
Data Element Name: Discharge Instructions Address Medications

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing all discharge medications. Instructions must address at least the names of all discharge medications but may also include other usage instructions such as dosages, frequencies, side effects, etc.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?

Format:
   Length: 1
   Type: Alphanumeric
   Occurs: 1

Allowable Values:
   Y (Yes)   WRITTEN discharge instructions/educational material given to patient/caregiver address discharge medications.
   N (No)    WRITTEN discharge instructions/educational material do not address all discharge medications or unable to determine from medical record documentation.

Notes for Abstraction:
- Abstraction is a two-step process:
  1. Determine all of the medications being prescribed at discharge, based on available medical record documentation.
     o Discharge medication information included in a discharge summary dated after discharge should be used as long as it was added within 30 days after discharge.
     o 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.
     o If discharge medications are noted using only references such as "continue home meds," "resume other meds," or "same medications," rather than lists of the names of the discharge
medications, the abductor should use all sources to compile a list of medications the patient was on prior to arrival (or in the case of acute care transfers, use the medications the patient was on prior to arrival at the first hospital).

- Disregard all references to laxatives, antacids, vitamins, minerals (EXCEPT potassium), food supplements, and herbs, prn or not, AND disregard references to medications by class only (e.g., "calcium channel blocker") where the specific medication name is not specified. They are NOT required in the written instructions for the purposes of the Discharge Instructions measure (HF-1).

- PRN medications are required on the discharge instructions, with ONE exception: When discharge medications outside of the written discharge instructions are noted using ONLY references such as “continue current medications” or “continue present meds,” rather than lists of the names of the discharge medications, and the abductor is referencing what medications the patient was taking on the day of discharge (for comparison against the written discharge instructions, to confirm completeness of that list), medications which are clearly listed as prn (given on an as needed basis only) do NOT need to be included in the instructions.

- Oxygen should not be considered a medication.

- Medications which the patient will not be taking at home (and/or the caregiver will not be giving at home) are NOT required in the medication list included in the written discharge instructions (e.g., monthly B12 injections, intermittent IV dobutamine, Natrecor infusions, dialysis meds, chemotherapy).

2. Check this list against the written discharge instructions given to the patient to ensure that these instructions addressed at least the names of all of the discharge medications. If a list of discharge medications is not documented elsewhere in the record, and the completeness of the medication list in the instructions cannot be confirmed as complete, or it can be determined to be incomplete, select “No”.

- EXCEPTION: If a comparison list is not available, and the discharge list in the written discharge instructions cannot be determined to be complete or incomplete, but the written discharge instructions have the name or initials of the physician/advanced practice nurse/physician assistant (physician/APN/PA) signed on the form, presume the list of discharge medications in those instructions is complete. Signatures that are dated/timed after discharge are not acceptable.

- In making medication name comparisons, consider two medications that are brand/trade name vs. generic name in nature or that have the same generic equivalent as matches. Examples of matches:
  - Vasotec vs. Enalapril
  - Toprol vs. Toprol XL
  - ASA vs. EC ASA
  - Prinivil vs. Zestril
- Lopressor vs. Metoprolol
- Metoprolol vs. Metoprolol Succinate

Examples of mismatches:
- Lopressor vs. Toprol (metoprolol tartrate vs. metoprolol succinate)
- Prevacid vs. Protonix (lansoprazole vs. pantoprazole sodium)

- If there is documentation that the patient was discharged on insulin(s) of ANY kind, ANY reference to insulin as a discharge medication in the written discharge instructions can be considered a match, for the purposes of the Discharge Instructions measure (HF-1). E.g., D/C summary notes patient discharged on “Humulin Insulin” and “Insulin 70/30” is listed on the discharge instruction sheet – Consider this a match. However, contradictory documentation abstraction guidelines still apply to insulin cases (e.g., D/C summary notes patient discharged on “Novolog 50 units t.i.d.” and “Novolog 50 units t.i.d.” is discontinued on discharge medication reconciliation form – Select “No”).

In determining the medications prescribed at discharge (step 1 above), all discharge medication documentation available in the chart should be reviewed and taken into account by the abstractor.

- If there is a medication in one source that is not mentioned in other sources, take it as a discharge medication (i.e., required in the written discharge instructions) 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 ASA” in the discharge orders, but it is listed in the discharge summary’s discharge medication list), or after careful examination of circumstances, context, timing, etc., documentation raises enough questions about what medications are being prescribed at discharge, the case should be deemed “unable to determine” (select “No”), regardless of whether the medication in question is included in the written discharge instructions.

- If there is documentation of a plan to start/restart a medication after discharge or a hold on a medication for a defined timeframe after discharge (e.g., “Start Plavix as outpatient,” “Hold Lasix x 2 days,” “Hold ASA until after endoscopy”):
  - If it is NOT listed as a discharge medication elsewhere (e.g., “Lasix,” “Plavix”), it is not required in the discharge instructions (but if it is listed on the instructions, this is acceptable).
  - If it IS listed as a discharge medication elsewhere (e.g., “Lasix,” “Plavix”), do not regard this as contradictory documentation, and require the medication in the discharge instructions.

- Disregard a medication documented only as a recommended medication for discharge. E.g., “Recommend sending patient home on Vasotec” – Vasotec is not required in the discharge instructions (but if it is listed on the instructions, this is acceptable). Documentation must be more clear.
that such a medication was actually prescribed at discharge.

- Do not give credit in cases where the patient was given written discharge medication instructions only in the form of written prescriptions.
- Acceptable materials include discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - **Use only documentation provided in the medical record itself.** Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
- Written instructions given anytime during the hospital stay are acceptable.
- If the patient refused written discharge instructions/material which addressed discharge medications, select “Yes”.
- The caregiver is defined as the patient’s family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.

**Suggested Data Sources:**
- Discharge instruction sheet
- Discharge progress notes
- Discharge summary
- Home health referral form
- Medication reconciliation form
- Nursing notes
- Teaching sheet

**Inclusion Guidelines for Abstraction:**
None

**Exclusion Guidelines for Abstraction:**
Any general reference to a medication regimen (e.g., “continue home meds” listed on discharge instruction sheet), without specific documentation of medication names.
Data Element Name: Discharge Instructions Address Symptoms Worsening

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing what to do if heart failure symptoms worsen after discharge.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address what to do if heart failure symptoms worsen after discharge?

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

Allowable Values:
- Y (Yes)  WRITTEN discharge instructions/educational material given to patient/caregiver address what to do if heart failure symptoms worsen after discharge.

- N (No)  WRITTEN discharge instructions/educational material do not address symptoms worsening or unable to determine from medical record documentation.

Notes for Abstraction:
- Include instructions which address what to do if heart failure symptoms recur or do not improve after discharge.
  Examples:
  - “Call the office if weight gain greater than 2 pounds.”
  - “Come to the emergency room if you experience a problem with breathing.”
  - “Call physician/APN/PA if edema recurs.”
  - “Make an appointment if heart failure symptoms return.”
- Acceptable materials include discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - Use only documentation provided in the medical record itself. Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
• Written instructions given anytime during the hospital stay are acceptable.
• If the patient refused written discharge instructions/material which addressed worsening heart failure symptoms, select “Yes”.
• The caregiver is defined as the patient’s family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.

Suggested Data Sources:
• Discharge instruction sheet
• Home health referral form
• Nursing notes
• Teaching sheet

Inclusion Guidelines for Abstraction:
Heart failure symptoms
• Ankle/foot edema or swelling
• Breathing difficulty
• Decreased exercise tolerance
• Edema/swelling (location not specified)
• Fatigue
• Shortness of breath (SOB) or other breathing difficulty, in any context
• Weight gain

Exclusion Guidelines for Abstraction:
• Instructions on heart failure symptoms without mention of what to do if symptoms worsen
• Instructions on what to do to do if symptoms worsen, problems occur, the patient’s condition changes or worsens, etc., without being specified or described as heart failure in nature (e.g., “Call physician if symptoms get worse,” “Contact office with any problems”)
• Instructions on what to do with worsening symptoms noted only as Not Applicable (N/A), None, or left blank
• Pre-printed instruction with all fields left blank (e.g., “If you gain more than [blank line] lbs. in [blank line] days, you need to call your doctor”), unless next to checked checkbox
• Unchecked checkbox next to instruction (e.g., blank checkbox on discharge instruction sheet next to “Notify your doctor if you experience swelling in your feet”)
Data Element Name: Discharge Instructions Address Weight Monitoring

Collected For: CMS/The Joint Commission: HF-1

Definition: Written discharge instructions or other documentation of educational material given to patient/caregiver addressing weight monitoring instructions after discharge.

Suggested Data Collection Question: Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address weight monitoring after discharge?

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

Allowable Values:
- Y (Yes) WRITTEN discharge instructions/educational material given to patient/caregiver address weight monitoring instructions after discharge.
- N (No) WRITTEN discharge instructions/educational material do not address weight monitoring or unable to determine from medical record documentation.

Notes for Abstraction:
- Acceptable materials include discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, and DVDs.
  - Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material.
  - Use only documentation provided in the medical record itself. Do not review and use outside materials in abstraction. Do not make assumptions about what content may be covered in material documented as given to the patient/caregiver.
- Written instructions given anytime during the hospital stay are acceptable.
- If the patient refused written discharge instructions/material which addressed weight monitoring, select “Yes”.
- The caregiver is defined as the patient's family or any other person (e.g., home health, VNA provider, prison official or other law enforcement personnel) who will be responsible for care of the patient after discharge.
Suggested Data Sources:
- Discharge instruction sheet
- Home health referral form
- Nursing notes
- Teaching sheet

Inclusion Guidelines for Abstraction:
Weight monitoring (examples)
- Call in weights
- Check weight
- Contact physician/advanced practice nurse/physician assistant (physician/APN/PA) if sudden weight gain
- Daily weights
- Watch weight
- Weigh patient
- Weigh self
- Weight check

Exclusion Guidelines for Abstraction:
- Instructions directed toward weight loss only (e.g., "Lose weight" or "Report weight loss").
- Pre-printed instruction with all fields left blank (e.g., "Weigh yourself every [blank line] days", "If you gain more than [blank line] lbs. in [blank line] days, you need to call your doctor"), unless next to checked checkbox.
- Unchecked checkbox next to instruction (e.g., blank checkbox on discharge instruction sheet next to “Weigh yourself daily”).
Data Element Name: *First Name*

Collected For: **CMS Only**: All Records (Optional Element)

Definition: The patient's first name.

Suggested Data Collection Question: What is the patient's first name?

Format:
- **Length**: 30
- **Type**: Character
- **Occurs**: 1

Allowable Values:
Enter the patient's first name. Up to 30 letters, numbers, and/or special characters can be entered.

**NOTE**: Only the following special characters will be allowed:
~ ! @ # $ % ^ * ( ) _ + { } | : ? ` - = [ ] \\ ; ' , / and space

Notes for Abstraction:
None

Suggested Data Sources:
- Emergency department record
- Face sheet
- History and physical

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: Hispanic Ethnicity

Collected For: CMS/The Joint Commission: All Records

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

Suggested Data Collection Question: Is the patient of Hispanic ethnicity or Latino?

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

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

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

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

Inclusion Guidelines for Abstraction:
A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term “Spanish origin” can be used in addition to “Hispanic or Latino.”

Examples:
- Black-Hispanic
- Chicano
- H
- Hispanic
- Latin American
- Latino/Latina
- Mexican-American
- Spanish
- White-Hispanic

Exclusion Guidelines for Abstraction:
None
Data Element Name: ICD-9-CM Other Diagnosis Codes

Collected For: CMS/The Joint Commission: All Records

Definition: The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes associated with the diagnosis for this hospitalization.

Suggested Data Collection Question: What were the ICD-9-CM other diagnosis codes selected for this medical record?

Format:
   Length: 6 (with or without decimal point)
   Type: Alphanumeric
   Occurs: 24

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

Notes for Abstraction:
None

Suggested Data Sources:
   • Discharge summary
   • Face sheet
   • UB-04, Field Locations: 67A-Q
   Note: Medicare will only accept codes listed in fields A-H

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name:  *ICD-9-CM Other Procedure Codes*

Collected For:  *CMS/The Joint Commission: All Records*

Definition:  The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes identifying all significant procedures other than the principal procedure.

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:
- Discharge summary
- Face sheet
- UB-04, Field Location: 74A-E

Inclusion Guidelines for Abstraction:
For inclusion in the algorithms listed above, refer to Appendix A, for ICD-9-CM Code Tables (AMI, HF, IMM, SUB).

Exclusion Guidelines for Abstraction:
None
Data Element Name: ICD-9-CM Other Procedure Dates

Collected For: CMS/The Joint Commission: All Records

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

Suggested Data Collection Question: What were the date(s) the other procedure(s) were performed?

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

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

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

Examples:
- Documentation indicates the ICD-9-CM Other Procedure Dates was 02-42-20xx. No other documentation in the medical record provides a valid date. Since the ICD-9-CM Other Procedure Dates is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select “UTD”.
- Patient expires on 02-12-20xx and documentation indicates the ICD-9-CM Other Procedure Dates was 03-12-20xx. Other documentation in the medical record supports the date of death as being accurate. Since the ICD-9-CM Other Procedure Dates is after the Discharge Date (death), it is outside of the parameters of care and the abstractor should select “UTD”.

Note: Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse. Use of “UTD” for ICD-9-CM Other Procedure Dates allows the case to be accepted into the warehouse.
Suggested Data Sources:
- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
- Progress notes
- UB-04, Field Location: 74A-E

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: *ICD-9-CM Principal Diagnosis Code*

Collected For: CMS/The Joint Commission: All Records

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 (with or without 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:
- Discharge summary
- Face sheet
- UB-04, Field Location: 67

Inclusion Guidelines for Abstraction:
Refer to Appendix A, for ICD-9-CM Code Tables (AMI, ED, HF, IMM, PN, STK, SUB, TOB, VTE).

Exclusion Guidelines for Abstraction:
Refer to Appendix A, for ICD-9-CM Code Tables (ED, SCIP, IMM).
Data Element Name:  *ICD-9-CM Principal Procedure Code*

Collected For:  CMS/The Joint Commission:  All Records

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.

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:
- Discharge summary
- Face sheet
- UB-04, Field Location: 74

Inclusion Guidelines for Abstraction:
For inclusion in the algorithms listed above, refer to Appendix A, for ICD-9-CM Code Tables (AMI, HF, SCIP, VTE, IMM, SUB).

Exclusion Guidelines for Abstraction:
None
Data Element Name: ICD-9-CM Principal Procedure Date

Collected For: CMS/The Joint Commission: All Records

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

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

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

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

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

Examples:
  - Documentation indicates the ICD-9-CM Principal Procedure Date was 02-42-20xx. 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 select “UTD”.
  - Patient expires on 02-12-20xx and documentation indicates the ICD-9-CM Principal Procedure Date was 03-12-20xx. 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 select “UTD”.

Note: Transmission of a case with an invalid date as described above will be rejected from the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse. Use of “UTD” for ICD-9-CM Principal Procedure Date allows the case to be accepted into the warehouse.
Suggested Data Sources:
- Consultation notes
- Diagnostic test reports
- Discharge summary
- Face sheet
- Operative notes
- Procedure notes
- Progress notes
- UB-04, Field Location: 74

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: *Last Name*

Collected For: CMS Only: All Records (Optional Element)

Definition: The patient’s last name.

Suggested Data Collection Question: What is the patient's last name?

Format:
- *Length*: 60
- *Type*: Character
- *Occurs*: 1

Allowable Values:
Enter the patient’s last name. Up to 60 letters, numbers, and/or special characters can be entered.

**NOTE:** Only the following special characters will be allowed:
~ ! @ # $ % ^ * ( ) _ + { } | : ? ` - = [ ] ; ‘ , / and space

Notes for Abstraction:
None

Suggested Data Sources:
- Emergency department record
- Face sheet
- History and physical

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: LVF Assessment

Collected For: CMS/The Joint Commission: HF-2

Definition: Documentation that left ventricular systolic function (LVSF) was assessed either prior to arrival, during hospitalization, or is planned for after discharge or reason documented by physician/advanced practice nurse/physician assistant (physician/APN/PA) for not assessing LVSF.

Suggested Data Collection Question: Is there documentation of at least one of the following:
- Left ventricular systolic function (LVSF) assessment at anytime prior to arrival or during this hospitalization
- A plan for LVSF assessment after discharge
- A reason documented by a physician/APN/PA for not assessing LVSF

Format:
Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:

Y (Yes) Documentation in the medical record that the LVSF was assessed prior to arrival, during the hospital stay, or is planned for after discharge.

N (No) No documentation that LVSF was assessed either prior to arrival or during this hospital stay nor a plan to assess LVSF after discharge, AND there is no reason documented by a physician/APN/PA for not assessing LVSF, or unable to determine from medical record documentation.

R (Reason) Reason documented by physician/APN/PA for not assessing LVSF prior to arrival, during hospital stay, or planned after discharge.

Notes for Abstraction:
- LVSF assessments done anytime prior to hospital arrival are acceptable (see Inclusion list).
- Infer a test was done if the patient’s LVSF is documented (e.g., “Pt. admitted with severe LV dysfunction”).
- Consider LVSF assessment as planned for after discharge only if a definitive plan is documented (e.g., “Will do echo as outpatient”). Documentation which indicates only that an LVSF assessment after discharge will be considered is not sufficient.
- In determining whether there is a reason documented by a physician/APN/PA for not assessing LVSF:
- Reasons must be explicitly documented (e.g., “ESRD. Will not measure the ejection fraction,” echo results reported as “Technically difficult study. LVSF could not be measured.”) or clearly implied (e.g., “Patient refusing echo,” “Limited life expectancy. Will not do any further evaluation,” “Ejection fraction measurement not indicated”).
- Physician/APN/PA deferral of LVSF assessment to another physician/APN/PA does NOT count as a reason for not assessing LVSF unless the reason/problem underlying the deferral is also noted (e.g., “Consulting cardiologist to evaluate pt. for echo”, select “No”.

- If there is documentation of both a reason for not assessing LVSF AND documentation that LVSF was assessed or that assessment is planned for after discharge, select “Yes”.
- In determining whether there is a plan to assess LVSF after discharge, the plan must be documented as definitive (e.g., “Will measure the ejection fraction after discharge”). Documentation which indicates only that an LVSF assessment after discharge will be considered (e.g., “May do echo in 1 month”) is not sufficient.

Suggested Data Sources:
- Consultation notes
- Discharge instruction sheet
- Discharge summary
- History and physical
- Procedure notes
- Progress notes

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

Inclusion Guidelines for Abstraction:
Left ventricular systolic function (LVSF) assessment

Echocardiogram (echo)
- Cardiac ultrasound
- Transesophageal echo (TEE)
- Transthoracic echo (TTE)

Cardiac Catheterization (cath) with Left Ventriculogram (LV gram)
- Cardiac cath with mention of LVSF
- Cardiac/coronary angiogram/arteriogram with LV gram or mention of LVSF
- Left heart cath with mention of LVSF
- Left ventriculogram (LV gram)

Other LVSF Assessment Tests
- Cardiac MRI scan with mention of LVSF
- CT scan of chest with mention of LVSF

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13) 47
- Multiple gated acquisition scan (MUGA) or other cardiac imaging/testing described as gated or blood pool
- Other nuclear test (e.g., SPECT, PET) with mention of LVSF

**Left Ventricular Systolic Function (LVSF)**
- Akinesis described as left ventricular
- Diastolic dysfunction, failure, function, or impairment
- Dysfunction described as biventricular, left ventricular (LVD, LVSD), systolic, or ventricular
- Dyskinesis described as left ventricular
- Ejection fraction (EF, LVEF)
- Endstage cardiomyopathy
- Failure described as biventricular, left ventricular, systolic, or ventricular
- Function described as biventricular, left ventricular (LVF), systolic, or ventricular
- Hypokinesis described as left ventricular

**Exclusion Guidelines for Abstraction:**
**Left ventricular systolic function (LVSF)**
- Akinesis not described as left ventricular
- Cardiomyopathy not described as endstage
- Contractility/hypocontractility
- Dyskinesis not described as left ventricular
- Hypokinesis not described as left ventricular
- Left ventricular compliance
- Left ventricular dilatation/dilation
- Left ventricular hypertrophy (LVH)
Data Element Name: LVSD

Collected For: CMS/The Joint Commission: HF-3

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 (e.g., LVSF assessment was never done, “Echo done last March” [without mention of LVSF results]).

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

A. Methodology:
- Final findings take priority over preliminary findings. Applies to test reports and findings noted outside of reports. If not labeled “preliminary,” assume it is final.
- Conclusion section of report takes priority over other sections. Consider the “Impression,” “Interpretation,” and “Final Diagnosis” sections as equivalent with the “Conclusion” section.
Apply Section B Conflicting Documentation priority order in ANY step in Methodology section when there are two or more different descriptions of Ejection Fraction/LVSF.

Disregard the following terminology when reviewing the record for documentation of LVSF/LVSD. If documented, continue reviewing for LVSF/LVSD inclusions outlined in the Inclusion lists, as directed in the abstraction guidelines below.

- Diastolic dysfunction, failure, function, or impairment
- Ventricular dysfunction not described as left ventricular or systolic
- Ventricular failure not described as left ventricular or systolic
- Ventricular function not described as left ventricular or systolic

E.g., Impression section of echo report states only “diastolic dysfunction”. Findings section states “EF 35%”. Disregard “diastolic dysfunction” in the Impression section and answer “Yes” due to EF 35%.

1. If one or more in-hospital tests performed:
   a. Use report from most recent test* (test done closest to discharge).
   b. If no report or no Ejection Fraction/LVSF findings noted in report, use other sources (e.g., progress notes) that clearly reference the most recent test*.
   c. If no Ejection Fraction/LVSF results from the most recent test are documented anywhere, use the report from the second most recent test*.
   d. If no Ejection Fraction/LVSF findings from second most recent test are documented anywhere, use other sources (e.g., progress notes) that clearly reference the second most recent test*. Continue working backwards (if greater than 2 tests) and use Ejection Fraction/LVSF from the most recent test* that has Ejection Fraction/LVSF findings, using the report over non-report sources as above.
   e. If no Ejection Fraction/LVSF results from any in-hospital test are documented anywhere, skip to step 2a below.

*If you cannot determine between two in-hospital tests which was performed closest to the time of discharge, use BOTH tests:
   1) Use reports. Reports take priority over non-report sources.
   2) If no reports or no Ejection Fraction/LVSF findings on reports from any test, use other sources (e.g., progress notes) that clearly reference the tests.
   3) If no Ejection Fraction/LVSF results from either in-hospital test documented anywhere, go to step 2a below.

2. If in-hospital test not done, no Ejection Fraction/LVSF results from any in-hospital test documented, OR documentation is not clear that one was done (e.g., echo ordered but no documentation that it was done):
   a. Assume notations of Ejection Fraction/LVSF with no timeframe (“floating” Ejection Fractions/LVSFs) are from assessments done prior to arrival.
   b. If timeframe known for ALL pre-arrival Ejection Fractions/LVSFs (no “floaters”):

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13) 50
• Use results from the pre-arrival test known to be most recent (closest to hospital arrival). Use report over other sources, and Conclusion (Impression, etc.) over other sections of report, as above.

c. If one or more “floaters”:
• Compile all Ejection Fractions/LVSFs and eliminate those that you can determine are not the most recent, resulting in a list of Ejection Fraction/LVSF “Possibles.”
• If Ejection Fraction/LVSF from one test in the “Possibles” list is referenced both in a report and in another source, use the report, and use the Conclusion (Impression, etc.) over other sections of the report, as above, to determine which Ejection Fraction/LVSF from this test to add to the list of “Possibles.”
• Select final Ejection Fraction/LVSF from list of “Possibles” based on the Conflicting Documentation rules below.

B. Conflicting Documentation:
Apply the following priority order in cases of conflicting documentation within ANY ONE STEP in Methodology above, 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
• Discharge summary
• History and physical
• Procedure notes
• Progress notes
Inclusion Guidelines for Abstraction:
Inclusion list A: Moderate/severe LVSD
- Biventricular dysfunction described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe
- Biventricular heart failure described as moderate or severe
- Ejection fraction or left ventricular ejection fraction (LVEF) described as low, poor, or very low
- Endstage cardiomyopathy
- Hypokinesis described as diffuse, generalized, or global AND marked, moderate, moderate-severe, severe, significant, substantial, or very severe
- Left ventricular (LV) akinesis described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe
- Left ventricular (LV) hypokinesis described as marked, moderate, moderate-severe, severe, significant, substantial, or very severe in one or more segments of left ventricle
- Left ventricular dysfunction (LVD), left ventricular systolic dysfunction (LVSD), or systolic dysfunction described as marked, moderate, moderate-severe, 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

Exclusion Guidelines for Abstraction:
Moderate or severe systolic dysfunction
- 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
- Any term in Inclusion list A or B described as mild-moderate
Data Element Name: Measure Category Assignment

Collected For: The Joint Commission Only: Used in calculation of The Joint Commission's aggregate data and in the transmission of the Hospital Clinical Data file

Notes:
- Episode of care records that calculate with a Measure Category Assignment of "X" (missing data) for one or more measures will be rejected by the QIO Clinical Warehouse and the Joint Commission's Data Warehouse. Refer to the Missing and Invalid data section in this manual for more information.
- All hospital measures use this data element. The ORYX® Vendor's calculated Measure Category Assignment will be transmitted to The Joint Commission on a quarterly basis with the associated hospital clinical data. These measure results will be used in The Joint Commission's data quality analysis and continuous measure verification process. ORYX Vendors can refer to The Joint Commission's ORYX Data Quality Manual for more information.
- Measure Category Assignment must be transmitted to The Joint Commission but cannot be transmitted to CMS. Files transmitted to the QIO Clinical Warehouse that contain Measure Category Assignment will be rejected.

Definition: Calculated measures results for each episode of care (EOC) that is processed through a measure algorithm.

Used to summarize the outcome for an EOC that is processed through a specific measure algorithm.

Suggested Data Collection Question: Not Applicable

Format:
- Length: 1
- Type: Character
- Occurs: One Measure Category Assignment per EOC is expected for every measure that a hospital is participating in.

Allowable Values:
- B Category B - Not in Measure Population
  For rate-based and continuous variable measures: EOC record is not a member of a measure's population.

- D Category D - In Measure Population
  For rate-based measures: EOC record is a member of the measure's population and there has not been an occurrence of the measure.

  For continuous variable measures: EOC record is a member of the measure's population and has sufficient accurate and valid data to compute the measurement.
Note: For continuous variable measures, EOC records that have a Measure Category Assignment of “D” will have an associated Measurement Value.

E Category E - In Numerator Population
For rate-based measures: EOC record is a member of the measure’s population and there has been an occurrence of the measure.

For continuous variable measures: Does not apply.

X Category X – Data Are Missing
For rate-based and continuous variable measures: Data are missing that is required to calculate the measure. The record will be rejected by the QIO Clinical Warehouse and the Joint Commission’s Data Warehouse.

Y Category Y – UTD Allowable Value Does Not Allow Calculation of The Measure
For rate-based measures: Does not apply.

For continuous variable measures: EOC record contains a Date, Time, or Numeric data element with a value of “UTD”.

Note: For continuous variable measures, EOC records that have a Measure Category Assignment of “Y” will not have an associated Measurement Value.

Notes for Abstraction:
None

Suggested Data Sources:
Not Applicable

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: Patient HIC#

Collected For: CMS Only: All Records Collected by CMS for patients with a standard HIC #

Definition: The patient's Medicare health insurance claim number.

Suggested Data Collection Question: What is the patient's Medicare/HIC number?

Format:
- Length: 7-12
- Type: Character
- Occurs: 1

Allowable Values:

General Rules
- No embedded dashes or spaces or special characters
- Must have both alpha and numeric characters
- Alpha characters must be upper case
- Length cannot be more than 12 or less than 7 characters
- For alphanumeric values, do not allow all numeric values to be 9's For example do not allow 1 alpha + 9999999999, etc.

If First Character is Numeric

Suffix rules: If the first character is numeric, (0-9), then the first 9 characters must be numeric. For example:

<table>
<thead>
<tr>
<th>HIC # length</th>
<th>Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>9 numeric + 1 alpha</td>
</tr>
<tr>
<td>11</td>
<td>9 numeric + 1 alpha + 1 numeric</td>
</tr>
</tbody>
</table>

Or 9 numeric + 2 alpha

If First Character is Alpha

Prefix rules: If the first character is alpha, there must be 1-3 alpha characters followed by 6 or 9 numbers. For example:

<table>
<thead>
<tr>
<th>HIC # length</th>
<th>Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1 alpha + 6 numeric</td>
</tr>
<tr>
<td>8</td>
<td>2 alpha + 6 numeric</td>
</tr>
<tr>
<td>9</td>
<td>3 alpha + 6 numeric</td>
</tr>
<tr>
<td>10</td>
<td>1 alpha + 9 numeric</td>
</tr>
<tr>
<td>11</td>
<td>2 alpha + 9 numeric</td>
</tr>
<tr>
<td>12</td>
<td>3 alpha + 9 numeric</td>
</tr>
</tbody>
</table>

Notes for Abstraction:
- Patient HIC# is required for data transmission of all cases that have a standard HIC#.
- Refer to the CMS National Hospital Quality Measure Data Transmission subsection, within the Transmission section, for further guidance.

**Suggested Data Sources:**
- Emergency department record
- Face sheet
- UB-04, Field Location: 60A, B or C, whichever line corresponds to the Medicare entry

**Inclusion Guidelines for Abstraction:**
None

**Exclusion Guidelines for Abstraction:**
None
Data Element Name: Patient Identifier

Collected For: CMS Only: All Records

NOTE: Refer to the Hospital Clinical Data XML File Layout in the Transmission section of this manual.

Definition: The number used by the hospital to identify this patient’s stay. The number provided will be used to identify the patient in communications with the hospital, e.g., Medical Record Number, Account Number, Unique Identifiable Number as determined by the facility, etc.

A patient identifier is required for data submitted to the QIO Clinical Data Warehouse.

Suggested Data Collection Question: What was the number used by the hospital to identify this patient’s stay?

Format:
    Length: 40
    Type: Character
    Occurs: 1

Allowable Values:
    Up to 40 letters, numbers, and/or characters.

    NOTE: The only characters that will be allowed are spaces, hyphens, dashes and under-scores.

Notes for Abstraction:
 None

Suggested Data Sources:
 None

Inclusion Guidelines for Abstraction:
 None

Exclusion Guidelines for Abstraction:
 None
Data Element Name: Payment Source

Collected For: CMS/The Joint Commission: All Records

Definition: The source of payment for this episode of care.

Suggested Data Collection Question: What is the patient's source of payment for this episode of care?

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

Allowable Values:
1. Source of payment is Medicare.
2. Source of payment is Non-Medicare.

Notes for Abstraction:
- If Medicare is listed as the primary, secondary, tertiary, or even lower down on the list of payers, select “1”.
- If the patient has Medicaid only or Medicaid and another insurance type, other than Medicare, select “2”. If the patient has Medicaid and Medicare, select “1”.
- If the patient is an Undocumented Alien or Illegal immigrant, select “1”.
  Undocumented Alien: Section 1011 of the Medicare Modernization Act of 2003 allows for reimbursement for services rendered to patients who are: Undocumented or illegal aliens (immigrants), Aliens who have been paroled into a United States port of entry and Mexican citizens permitted to enter the United States on a laser visa.

Suggested Data Sources:
- Face sheet
- UB-04, Field Location: 50A, B or C

Inclusion Guidelines for Abstraction:
Medicare includes, but is not limited to:
- Medicare Fee for Service (includes DRG or PPS)
- Black Lung
- End Stage Renal Disease (ESRD)
- Railroad Retirement Board (RRB)
- Medicare Secondary Payer
- Medicare HMO/Medicare Advantage

Exclusion Guidelines for Abstraction:
None
Data Element Name: Physician 1

Collected For: CMS Only: Optional for All Records

Definition: The first physician identifier

Suggested Data Collection Question: What is the first physician identifier?

Format:
   Length: 50
   Type: Character
   Occurs: 1

Allowable Values:
   Enter the first physician identifier, as directed. Up to 50 letters, numbers, and/or special characters can be entered.

   NOTE: Only the following special characters will be allowed:
   ~ ! @ # $ % ^ * ( ) _ + { } | : ? ` - = [ ] \ ; ' , / and space

Notes for Abstraction:
This data element may be used to capture physician information that might be helpful in internal analysis. This information is for internal analysis only and will not be shared with any external parties in any data output.

Suggested Data Sources:
None

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: Physician 2

Collected For: CMS Only: Optional for All Records

Definition: A second physician identifier

Suggested Data Collection Question: What is the second physician identifier?

Format:
   Length: 50
   Type: Character
   Occurs: 1

Allowable Values:
   Enter the second physician identifier, as directed. Up to 50 letters, numbers, and/or special characters can be entered.

   NOTE: Only the following special characters will be allowed:
   ~ ! @ # $ % ^ * ( ) _ + { } | : ? ` - = [ ] \ ; ' , / and space

Notes for Abstraction:
This data element may be used to capture physician information that might be helpful in internal analysis. This information is for internal analysis only and will not be shared with any external parties in any data output.

Suggested Data Sources:
None

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: *Postal Code*

Collected For: CMS Only: All Records

Definition: The postal code of the patient's residence. For the United States zip codes the hyphen is implied. If the patient is determined to not have a permanent residence, then the patient is considered homeless.

Suggested Data Collection Question: What is the postal code of the patient’s residence?

Format:
- **Length:** 9
- **Type:** Character
- **Occurs:** 1

Allowable Values:
- Any valid five or nine digit postal code or "HOMELESS" if the patient is determined not to have a permanent residence. If the patient is not a resident of the United States, use "NON-US."

Notes for Abstraction:
If the postal code of the patient is unable to be determined from medical record documentation, enter the provider's postal code.

Suggested Data Sources:
- Face sheet
- UB-04, Field Location: 09 (line 2d)

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
Data Element Name: Race

Collected For: CMS/The Joint Commission: All Records

Definition: Documentation of the patient’s race.

Suggested Data Collection Question: What is the patient’s race?

Format:
   Length: 1
   Type: Character
   Occurs: 1

Allowable Values:
Select one:
1  White: Patient's race is White or the patient has origins in Europe, the Middle East, or North Africa.
2  Black or African American: Patient’s race is Black or African American.
3  American Indian or Alaska Native: Patient’s race is American Indian/Alaska Native.
4  Asian: Patient’s race is Asian.
5  Native Hawaiian or Pacific Islander: Patient’s race is Native Hawaiian/Pacific Islander.
6  RETIRED VALUE (effective 07-01-05 discharges)
7  UTD: Unable to determine the patient’s race or not stated (e.g., not documented, conflicting documentation or patient unwilling to provide).

Notes for Abstraction:
• The data element Hispanic Ethnicity is required in addition to this data element.
• If documentation indicates the patient has more than one race (e.g., Black-White, Indian-White), select the first listed race.
• Although the terms “Hispanic” and “Latino” are actually descriptions of the patient’s ethnicity, it is not uncommon to find them referenced as race. If the patient’s race is documented only as Hispanic/Latino, select “White.” If the race is documented as mixed Hispanic/Latino with another race, use whatever race is given (e.g., Black-Hispanic – select “Black”). Other terms for Hispanic/Latino include Chicano, Cuban, H (for Hispanic), Latin American, Latina, Mexican, Mexican-American, Puerto Rican, South or Central American, and Spanish.
Suggested Data Sources:
- Emergency department record
- Face sheet
- History and physical
- Nursing admission assessment
- Progress notes

Inclusion Guidelines for Abstraction:
Black or African American: A person having origins in any of the black racial groups of Africa. Terms such as “Haitian” or “Negro” can be used in addition to “Black or African American”.

American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment (e.g., any recognized tribal entity in North and South America [including Central America], Native American).

Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa (e.g., Caucasian, Iranian, White).

Native Hawaiian or Pacific Islander: A person having origins in any of the other original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Exclusion Guidelines for Abstraction:
None
Data Element Name: Reason for No ACEI and No ARB at Discharge

Collected For: CMS/The Joint Commission: HF-3

Definition: Reasons for not prescribing either an angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) at discharge:
- 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 at discharge.

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 at discharge AND an ACEI allergy
- Reason documented by physician/APN/PA or pharmacist for not prescribing an ACEI at discharge 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 at discharge AND a reason for not prescribing an ARB at discharge?

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

Allowable Values:
- Y (Yes) There is documentation of BOTH a reason for not prescribing an ACEI at discharge AND a reason for not prescribing an ARB at discharge.
- N (No) There is no documentation of BOTH a reason for not prescribing an ACEI at discharge AND a reason for not prescribing an ARB at discharge, or unable to determine from medical record documentation.
Notes for Abstraction:

- An “allergy” or “sensitivity” documented at anytime during the hospital stay counts as an allergy regardless of what type of reaction might be noted (e.g., “Allergies: 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 at discharge:
  - 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 at discharge:
  - “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).

- Physician/APN/PA or pharmacist documentation of a hold on an ACEI or discontinuation of an ACEI that occurs during the hospital stay constitutes a “clearly implied” reason for not prescribing an ACEI at discharge. A hold/discontinuation of all p.o. medications counts if an ACEI p.o. was on order at the time of the notation. Same for ARBs.

**EXCEPTIONS:**
- Documentation of a conditional hold/discontinuation of an ACEI/ARB does not count as a reason for not prescribing an ACEI/ARB at discharge UNLESS (1) it exists as an order to hold/discontinue the ACEI/ARB if the blood pressure (BP) falls outside certain parameters, AND (2) the ACEI/ARB was held due to a BP outside the parameters. Nursing documentation is acceptable. E.g., "Hold perindopril for SBP less than 100" ordered and the nurse documents that the perindopril was held for a BP of 90/50 – select "Yes".

- Discontinuation of a particular ACEI medication documented in combination with the start of a different ACEI medication (i.e., switch in type of ACEI medication) does not count as a reason for not prescribing an ACEI at discharge. Same for ARBs.
  Examples:
  - "Stop benazepril" and "Start captopril 50 mg po bid" in same physician order
  - "Change Diovan to Verdia" in progress note
  - "Do not continue after discharge" checked for Lotensin and "Continue after discharge" checked for Zestril on a physician-signed discharge medication reconciliation form

- Discontinuation of an ACEI medication at a particular dose documented in combination with the start of a different dose of that ACEI (i.e., change in dosage) does not count as a reason for not prescribing an ACEI at discharge. Same for ARBs.
  Examples:
  - "Stop lisinopril 20 mg po q am" and "Start lisinopril 30 mg po q am" in same physician order
  - "Increase Altace 5 mg to 10 mg" in progress note
  - "Do not continue after discharge" check for Cozaar 25 mg and "Continue after discharge" checked for Cozaar 50 mg on a physician-signed discharge medication reconciliation form
  - Reason documentation which refers to a more general medication class is not acceptable (e.g., "Hold all BP meds").
  - Deferral of an ACEI from one physician/APN/PA or pharmacist to another does NOT count as a reason for not prescribing an ACEI at discharge 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 at discharge).
    - "Pt. hypotensive. Start ARB if OK with cardiology." - select "Yes" (Consider as reason for not prescribing ACEI and reason for not prescribing ARB at discharge).

- 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 at discharge. Same for ARBs.
  Acceptable examples (select "Yes"): 
  - "Pt. hemodynamically unstable. May start ACEI/ARB as outpatient."
- "Add ARB if hyperkalemia resolves"
Unacceptable examples (select "No"):
- "Consider starting Cozaar in a.m." (Do NOT consider as reason for not prescribing ARB at discharge).
- "May add accupril when pt. can tolerate" (Do NOT consider as reason for not prescribing ACEI at discharge).

  o Reasons do NOT need to be documented at discharge or otherwise linked to the discharge timeframe: Documentation of reasons anytime during the hospital stay are acceptable (e.g., mid-hospitalization note stating "no ACEIs due to acute renal failure" - consider as reason for not prescribing ACEI and reason for not prescribing ARB at discharge, even if documentation indicates that the acute renal failure had resolved by the time of discharge and ACEI was restarted).
  o Crossing out of an ACEI counts as a "clearly implied reason" for not prescribing an ACEI at discharge only if on a pre-printed form. Same for ARBs.
  o 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 at discharge (e.g., "Hold all RAS blockers").

- When the current record includes documentation of a pre-arrival reason for no ACEI or no ARB, the following counts regardless of whether this documentation is included in a pre-arrival record made part of the current record or whether it is noted by hospital staff during the current hospital stay:
  o Pre-arrival ACEI allergy (reason for not prescribing ACEI) or ARB allergy (reason for not prescribing ARB).
  o Pre-arrival moderate/severe aortic stenosis (reason for not prescribing an ACEI and a reason for not prescribing an ARB).
  o Pre-arrival hold/discontinuation of an ACEI or notation such as "No ACEIs" IF the underlying reason/problem is also noted (e.g., "Prinivil held in transferring hospital due to hypotension"). Same for ARBs.
  o Pre-arrival "other reason" (other than hold/discontinuation or notation of "No ACEIs") (e.g., "Hx severe hypotension with enalapril" in transferring ED record). Same for ARBs.

Suggested Data Sources:

- Consultation notes
- Diagnostic test reports
- Discharge instruction sheet
- Discharge summary
- Emergency department record
- History and physical
- Medication administration record
- Nursing notes
- Physician orders
- Progress notes
- Transfer sheet
Excluded Data Sources: Any documentation dated/timed after discharge, except discharge summary and operative/procedure/diagnostic test reports (from procedure done during hospital stay).

Inclusion Guidelines for Abstraction:

Angioedema
- Angioneurotic edema
- Edema of the eyelid, glottis, larynx, nasopharynx, or pharynx
- Periorbital edema described as acute

Hyperkalemia
- 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.")
- 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.

**Exclusion Guidelines for Abstraction:**

**ACEI allergy**
ACEI allergy described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table

**ARB allergy**
ARB allergy described using one of the negative modifiers or qualifiers listed in Appendix H, Table 2.6, Qualifiers and Modifiers Table

**Moderate/severe aortic stenosis (AS)**
- 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
Data Element Name: *Sample*

Collected For: CMS/The Joint Commission: Used in transmission of The Joint Commission's aggregate data file and the Hospital Clinical Data file.

Notes:
- Required for transmission of individual case data to the QIO Clinical Warehouse. Refer to the Hospital Clinical Data XML File Layout in the Transmission section of this manual.
- Required for transmission of aggregate data to The Joint Commission. Refer to the ORYX Technical Implementation Guide for more information.

Definition: Indicates if the data being transmitted for a hospital has been sampled, or represent an entire population for the specified time period.

Suggested Data Collection Question: Does this case represent part of a sample?

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

Allowable Values:
- Y (Yes) The data represents part of a sample.
- N (No) The data is not part of a sample; this indicates the hospital is performing 100 percent of the discharges eligible for this measure set.

Notes for Abstraction:
When Sampling Frequency equals “3” (No, the hospital is not sampling) or “4” (N/A, submission of patient level data is not required), then abstract Sample as “No”.

Suggested Data Sources:
Not Applicable

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
**Data Element Name:**  Sex

**Collected For:**  CMS/The Joint Commission:  All Records

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

**Suggested Data Collection Question:**  What was the patient's sex on arrival?

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

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

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

**Suggested Data Sources:**
- Consultation notes
- Emergency department record
- Face sheet
- History and physical
- Nursing admission notes
- Progress notes
- UB-04, Field Location: 11

**Inclusion Guidelines for Abstraction:**
None

**Exclusion Guidelines for Abstraction:**
None
Appendices
### Table 2.1 Heart Failure (HF)

<table>
<thead>
<tr>
<th>Code</th>
<th>Shortened Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402.01</td>
<td>MAL HYPERT HRT DIS W HF</td>
</tr>
<tr>
<td>402.11</td>
<td>BENIGN HYP HT DIS W HF</td>
</tr>
<tr>
<td>402.91</td>
<td>HYP HT DIS NOS W HT FAIL</td>
</tr>
<tr>
<td>404.01</td>
<td>MAL HYP HT/KD I-IV W HF</td>
</tr>
<tr>
<td>404.03</td>
<td>MAL HYP HT/KD STG V W HF</td>
</tr>
<tr>
<td>404.11</td>
<td>BEN HYP HT/KD I-IV W HF</td>
</tr>
<tr>
<td>404.13</td>
<td>BEN HYP HT/KD STG V W HF</td>
</tr>
<tr>
<td>404.91</td>
<td>HYP HT/KD NOS I-IV W HF</td>
</tr>
<tr>
<td>404.93</td>
<td>HYP HT/KD NOS ST V W HF</td>
</tr>
<tr>
<td>428.0</td>
<td>CHF NOS</td>
</tr>
<tr>
<td>428.1</td>
<td>LEFT HEART FAILURE</td>
</tr>
</tbody>
</table>

### Table 2.1 Heart Failure (HF)

<table>
<thead>
<tr>
<th>Code</th>
<th>Shortened Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>428.20</td>
<td>SYSTOLIC HRT FAILURE NOS</td>
</tr>
<tr>
<td>428.21</td>
<td>AC SYSTOLIC HRT FAILURE</td>
</tr>
<tr>
<td>428.22</td>
<td>CHR SYSTOLIC HRT FAILURE</td>
</tr>
<tr>
<td>428.23</td>
<td>AC ON CHR SYST HRT FAIL</td>
</tr>
<tr>
<td>428.30</td>
<td>DIASTOLC HRT FAILURE NOS</td>
</tr>
<tr>
<td>428.31</td>
<td>AC DIASTOLIC HRT FAILURE</td>
</tr>
<tr>
<td>428.32</td>
<td>CHR DIASTOLIC HRT FAIL</td>
</tr>
<tr>
<td>428.33</td>
<td>AC ON CHR DIAST HRT FAIL</td>
</tr>
<tr>
<td>428.40</td>
<td>SYST/DIAST HRT FAIL NOS</td>
</tr>
<tr>
<td>428.41</td>
<td>AC SYST/DIASTOL HRT FAIL</td>
</tr>
<tr>
<td>428.42</td>
<td>CHR SYST/DIASTL HRT FAIL</td>
</tr>
<tr>
<td>428.43</td>
<td>AC/CHR SYST/DIA HRT FAIL</td>
</tr>
<tr>
<td>428.9</td>
<td>HEART FAILURE NOS</td>
</tr>
</tbody>
</table>

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
Table 2.2  Left Ventricular Assistive Device (LVAD) and Heart Transplant

<table>
<thead>
<tr>
<th>Code</th>
<th>Shortened Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.6</td>
<td>COMB HEART/LUNG TRANSPLA</td>
</tr>
<tr>
<td>37.51</td>
<td>HEART TRANSPLANTATION</td>
</tr>
<tr>
<td>37.52</td>
<td>IMP TOT INT BI HT RP SYS</td>
</tr>
<tr>
<td>37.53</td>
<td>REPL/REP THR UNT TOT HRT</td>
</tr>
<tr>
<td>37.54</td>
<td>REPL/REP OTH TOT HRT SYS</td>
</tr>
<tr>
<td>37.60</td>
<td>IMP BIVN EXT HRT AST SYS</td>
</tr>
<tr>
<td>37.62</td>
<td>INSRT NON-IMPL CIRC DEV</td>
</tr>
<tr>
<td>37.63</td>
<td>REPAIR HEART ASSIST SYS</td>
</tr>
<tr>
<td>37.65</td>
<td>IMP VENT EXT HRT AST SYS</td>
</tr>
<tr>
<td>37.66</td>
<td>IMPLANTABLE HRT ASSIST</td>
</tr>
<tr>
<td>37.68</td>
<td>PERCUTAN HRT ASSIST SYST</td>
</tr>
</tbody>
</table>
### Table 1.2 ACEIs

<table>
<thead>
<tr>
<th>Drug Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accupril</td>
</tr>
<tr>
<td>Accuretic</td>
</tr>
<tr>
<td>Aceon</td>
</tr>
<tr>
<td>Altace</td>
</tr>
<tr>
<td>Benazepril</td>
</tr>
<tr>
<td>Benazepril Hydrochloride</td>
</tr>
<tr>
<td>Benazepril/amlopidine</td>
</tr>
<tr>
<td>Benazepril/hydrochlorothiazide</td>
</tr>
<tr>
<td>Capoten</td>
</tr>
<tr>
<td>Capozone</td>
</tr>
<tr>
<td>Capozone 25/15</td>
</tr>
<tr>
<td>Capozone 25/25</td>
</tr>
<tr>
<td>Capozone 50/15</td>
</tr>
<tr>
<td>Capozone 50/25</td>
</tr>
<tr>
<td>Captopril</td>
</tr>
<tr>
<td>Captopril HCT</td>
</tr>
<tr>
<td>Captopril/hydrochlorothiazide</td>
</tr>
<tr>
<td>Enalapril</td>
</tr>
<tr>
<td>Enalapril Maleate/hydrochlorothiazide</td>
</tr>
<tr>
<td>Enalapril/hydrochlorothiazide</td>
</tr>
<tr>
<td>Enalaprilat</td>
</tr>
<tr>
<td>Fosinopril</td>
</tr>
<tr>
<td>Fosinopril Sodium/hydrochlorothiazide</td>
</tr>
<tr>
<td>Lisinopril</td>
</tr>
<tr>
<td>Lisinopril/hydrochlorothiazide</td>
</tr>
<tr>
<td>Lotensin</td>
</tr>
<tr>
<td>Lotensin HCT</td>
</tr>
<tr>
<td>Lotrel</td>
</tr>
<tr>
<td>Mavik</td>
</tr>
<tr>
<td>Moexipril</td>
</tr>
<tr>
<td>Moexipril Hydrochloride</td>
</tr>
<tr>
<td>Moexipril Hydrochloride/hydrochlorothiazide</td>
</tr>
<tr>
<td>Moexipril/hydrochlorothiazide</td>
</tr>
<tr>
<td>Monopril</td>
</tr>
<tr>
<td>Perindopril</td>
</tr>
<tr>
<td>Perindopril Erbumine</td>
</tr>
<tr>
<td>Prinivil</td>
</tr>
<tr>
<td>Prinzide</td>
</tr>
<tr>
<td>Quinapril</td>
</tr>
<tr>
<td>Quinapril HCL</td>
</tr>
<tr>
<td>Quinapril HCL/HCT</td>
</tr>
<tr>
<td>Quinapril Hydrochloride/hydrochlorothiazide</td>
</tr>
<tr>
<td>Quinapril/hydrochlorothiazide</td>
</tr>
</tbody>
</table>
### Table 1.7 ARBs

<table>
<thead>
<tr>
<th>ARBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atacand</td>
</tr>
<tr>
<td>Atacand HCT</td>
</tr>
<tr>
<td>Avalide</td>
</tr>
<tr>
<td>Avapro</td>
</tr>
<tr>
<td>Azilsartan</td>
</tr>
<tr>
<td>Azilsartan/chlorthalidone</td>
</tr>
<tr>
<td>Azor</td>
</tr>
<tr>
<td>Benicar</td>
</tr>
<tr>
<td>Benicar HCT</td>
</tr>
<tr>
<td>Candesartan</td>
</tr>
<tr>
<td>Candesartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Cozaar</td>
</tr>
<tr>
<td>Diovan</td>
</tr>
<tr>
<td>Diovan HCT</td>
</tr>
<tr>
<td>Edarbi</td>
</tr>
<tr>
<td>Edarbyclor</td>
</tr>
<tr>
<td>Eprosartan</td>
</tr>
<tr>
<td>Eprosartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Exforge</td>
</tr>
<tr>
<td>Hyzaar</td>
</tr>
<tr>
<td>Irbesartan</td>
</tr>
<tr>
<td>Irbesartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Losartan</td>
</tr>
<tr>
<td>Losartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Micardis</td>
</tr>
<tr>
<td>Micardis HCT</td>
</tr>
<tr>
<td>Olmesartan</td>
</tr>
<tr>
<td>Olmesartan/amlodipine</td>
</tr>
<tr>
<td>Olmesartan/amlodipine/hydrochlorothiazide</td>
</tr>
<tr>
<td>Olmesartan Medoxomil</td>
</tr>
<tr>
<td>Olmesartan Medoxomil/amlodipine</td>
</tr>
<tr>
<td>Olmesartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Tasosartan</td>
</tr>
<tr>
<td>Telmisartan</td>
</tr>
<tr>
<td>Telmisartan/amlodipine</td>
</tr>
<tr>
<td>Telmisartan/hydrochlorothiazide</td>
</tr>
</tbody>
</table>
Table 1.7 ARBs

<table>
<thead>
<tr>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teveten</td>
</tr>
<tr>
<td>Teveten HCT</td>
</tr>
<tr>
<td>Tribenzor</td>
</tr>
<tr>
<td>Twynsta</td>
</tr>
<tr>
<td>Valsartan</td>
</tr>
<tr>
<td>Valsartan/aliskiren</td>
</tr>
<tr>
<td>Valsartan/amldipine</td>
</tr>
<tr>
<td>Valsartan/hydrochlorothiazide</td>
</tr>
<tr>
<td>Valturna</td>
</tr>
<tr>
<td>Verdia</td>
</tr>
</tbody>
</table>
## Table 2.6 Qualifiers and Modifiers Table

<table>
<thead>
<tr>
<th>Qualifiers</th>
<th>Modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifiers are words used as adjectives to indicate some uncertainty about whether or not a condition really exists.</td>
<td>Quantitative modifiers are adjectives that quantitatively describe a condition.</td>
</tr>
<tr>
<td>The following qualifiers should be abstracted as <strong>negative findings</strong>, unless otherwise specified in a data element's guidelines—Consider this list all-inclusive:</td>
<td>The following quantitative modifiers should be abstracted as <strong>negative findings</strong>, unless otherwise specified in a data element's guidelines—Consider this list all-inclusive:</td>
</tr>
<tr>
<td>o And/or (+/-; e.g., &quot;ST abnormalities consistent with ischemia and/or injury&quot;), except when comparing only inclusions (e.g., &quot;ST segment elevation and/or STEMI&quot;)</td>
<td>o Borderline</td>
</tr>
<tr>
<td>o Cannot exclude</td>
<td>o Insignificant/not significant/no significant</td>
</tr>
<tr>
<td>o Cannot rule out</td>
<td>o Minor</td>
</tr>
<tr>
<td>o Could/may/might be</td>
<td>o Scant</td>
</tr>
<tr>
<td>o Could/may/might have</td>
<td>o Slight</td>
</tr>
<tr>
<td>o Could/may/might have been</td>
<td>o Sub-clinical</td>
</tr>
<tr>
<td>o Could/may/might have had</td>
<td>o Subtle</td>
</tr>
<tr>
<td>o Could/may/might indicate</td>
<td>o Trace</td>
</tr>
<tr>
<td>o Or, except when comparing only inclusions</td>
<td>o Trivial</td>
</tr>
<tr>
<td>o Possible</td>
<td></td>
</tr>
<tr>
<td>o Questionable (?)</td>
<td></td>
</tr>
<tr>
<td>o Risk of</td>
<td></td>
</tr>
<tr>
<td>o Ruled out (r’d/o, r/o’d)</td>
<td></td>
</tr>
<tr>
<td>o Suggestive of</td>
<td></td>
</tr>
<tr>
<td>o Suspect</td>
<td></td>
</tr>
<tr>
<td>o Suspicious</td>
<td></td>
</tr>
<tr>
<td>o Vs., except when comparing only inclusions</td>
<td></td>
</tr>
</tbody>
</table>

**Example:**

If the in-hospital echocardiogram report documents "questionable LVSD," this should be abstracted as a **negative finding**.

**Note:** These guidelines apply only to those data elements that refer to them in their Guidelines for Abstraction Exclusion list(s).