Measure #8 (NQF 0083): Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

2014 PQRS OPTIONS FOR INDIVIDUAL MEASURES: REGISTRY ONLY

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge.

INSTRUCTIONS:
This measure is to be reported for all heart failure patients a minimum of once per reporting period when seen in the outpatient setting AND reported at each hospital discharge (99238* and 99239*) during the reporting period. Only patients who had at least two denominator eligible visits during the reporting period will be counted for Reporting Criteria 1.

*NOTE: When reporting CPT code 99238 and 99239, it is recommended the measure be reported each time the code is submitted for hospital discharge.

This measure is intended to reflect the quality of services provided for patients with heart failure and decreased left ventricular systolic function. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. Only patients who had at least two denominator eligible visits during the reporting period will be counted for Reporting Criteria 1.

Measure Reporting via Registry:
ICD-9-CM/ICD-10-CM diagnosis codes, CPT codes, a quality-data code (Reporting Criteria 1 and 2), and patient demographics are used to identify patients who are included in the measure’s denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data. It is expected that a single performance rate will be calculated for this measure.

There are two reporting criteria for this measure:

1. Patients who are 18 years and older with a diagnosis of HF with a current or prior LVEF < 40% seen in the outpatient setting with two denominator eligible visits

   OR

2. Patients who are 18 years and older with a diagnosis of HF with a current or prior LVEF < 40% and discharged from hospital

REPORTING CRITERIA 1: All patients with a diagnosis of HF seen in the outpatient setting

DENOMINATOR (REPORTING CRITERIA 1):
All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR NOTE: LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe left ventricular systolic function. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of left ventricular contraction function.
systolic dysfunction or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

In order for the patient to be included in Reporting Criteria 1, the patient must have two denominator eligible visits.

**Denominator Criteria (Eligible Cases) 1:**
- Patients aged \( \geq 18 \) years on date of encounter
- AND
- Diagnosis for heart failure (ICD-9-CM) [for use 1/1/2014-9/30/2014]: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9
- AND
- Patient encounter(s) during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
- AND
- Two Denominator Eligible Visits
- AND
- Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8923

**Numerator (Reporting Criteria 1):**
- Patients who were prescribed beta-blocker therapy within a 12 month period when seen in the outpatient setting

**Definitions:**
- **Prescribed - Outpatient Setting** - May include prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.
- **Beta-blocker Therapy** - For patients with prior LVEF < 40%, beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

**Numerator Options:**
- Beta-blocker therapy prescribed (G8450)
- OR
- Beta-Blocker Therapy for LVEF < 40% not prescribed for reasons documented by the clinician (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons, patient declined, other patient reasons, or other reasons attributable to the healthcare system) (G8451)
- OR
- Beta-blocker therapy not prescribed (G8452)

**Reporting Criteria 2: All patients with a diagnosis of HF and discharged from hospital**

**Denominator (Reporting Criteria 2):**
- All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%
DENOMINATOR NOTE: LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe left ventricular systolic function. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of left ventricular systolic dysfunction or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

Denominator Criteria (Eligible Cases) 2:
Patients aged ≥ 18 years on date of encounter
AND
Diagnosis for heart failure (ICD-9-CM) [for use 1/1/2014-9/30/2014]: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9
AND
Patient encounter during reporting period (CPT): 99238*, 99239*
AND
Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: 3021F

NUMERATOR (REPORTING CRITERIA 2):
Patients who were prescribed beta-blocker therapy at hospital discharge

Definitions:
Prescribed – Inpatient Setting: May include prescription given to the patient for beta-blocker therapy at discharge OR beta-blocker therapy to be continued after discharge as documented in the discharge medication list.

Beta-blocker Therapy – For patients with prior LVEF < 40%, beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

Numerator Options:
Beta-blocker therapy prescribed (G8450)
OR
Beta-Blocker Therapy for LVEF < 40% not prescribed for reasons documented by the clinician (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons, patient declined, other patient reasons, other reasons attributable to the healthcare system) (G8451)
OR
Beta-blocker therapy not prescribed (G8452)

RATIONALE:
Beta-blockers are recommended for all patients with stable heart failure and left ventricular systolic dysfunction, unless contraindicated. Treatment should be initiated as soon as a patient is diagnosed with left ventricular systolic dysfunction and does not have low blood pressure, fluid overload, or recent treatment with an intravenous positive inotropic agent. Beta-blockers have been shown to lessen the symptoms of heart failure, improve the clinical status of patients, reduce future clinical deterioration, and decrease the risk of mortality and the combined risk of mortality and hospitalization.

CLINICAL RECOMMENDATION STATEMENTS:
Beta-blockers (using 1 of the 3 proven to reduce mortality, i.e., bisoprolol, carvedilol, and sustained release metoprolol succinate) are recommended for all stable patients with current or prior symptoms of [heart failure] and reduced LVEF, unless contraindicated. (Class I, Level of Evidence: A) (ACCF/AHA, 2009)

Treatment with a beta blocker should be initiated at very low doses [see excerpt from guideline table below], followed by gradual increments in dose if lower doses have been well tolerated physicians, especially cardiologists and primary care physicians, should make every effort to achieve the target doses of the beta blockers shown to be effective in major clinical trials. (ACCF/AHA, 2009)

Beta Blockers Commonly Used for the Treatment of Patients with [Heart Failure] with Low Ejection Fraction

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initial Daily Dose(s)</th>
<th>Maximum Doses(s)</th>
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</thead>
<tbody>
<tr>
<td>Bisoprolol</td>
<td>1.25 mg once</td>
<td>10 mg once</td>
</tr>
<tr>
<td>Carvedilol</td>
<td>3.125 mg twice</td>
<td>25 mg twice</td>
</tr>
<tr>
<td>Metoprolol succinate</td>
<td>12.5 to 25 mg once</td>
<td>200 mg once</td>
</tr>
<tr>
<td>extended release (metoprolol CR/XL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 mg twice for patients &gt; 85 kg</td>
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<td></td>
</tr>
</tbody>
</table>

For the hospitalized patient:

- In patients with reduced ejection fraction experiencing a symptomatic exacerbation of [heart failure] requiring hospitalization during chronic maintenance treatment with oral therapies known to improve outcomes, particularly [ACE inhibitors] or ARBs and beta-blocker therapy, it is recommended that these therapies be continued in most patients in the absence of hemodynamic instability or contraindications. (Class I, Level of Evidence: C) (ACCF/AHA, 2009)

- In patients hospitalized with [heart failure] with reduced ejection fraction not treated with oral therapies known to improve outcomes, particularly [ACE inhibitors] or ARBs and beta-blocker therapy, initiation of these therapies is recommended in stable patients prior to hospital discharge. (Class I, Level of Evidence: B) (ACCF/AHA, 2009)

- Initiation of beta-blocker therapy is recommended after optimization of volume status and successful discontinuation of intravenous diuretics, vasodilators, and inotropic agents. Beta-blocker therapy should be initiated at a low dose and only in stable patients. Particular caution should be used when initiating beta blockers in patients who have required inotropes during their hospital course. (Class I, Level of Evidence: B) (ACCF/AHA, 2009)