

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

<b>EMeasure Name</b>	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	<b>EMeasure Id</b>	Pending
<b>Version Number</b>	1	<b>Set Id</b>	Pending
<b>Available Date</b>	No information	<b>Measurement Period</b>	January 1, 20xx through December 31, 20xx
<b>Measure Steward</b>	American Medical Association – Physician Consortium for Performance Improvement		
<b>Endorsed by</b>	National Quality Forum		
<b>Description</b>	Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed beta-blocker therapy.		
<b>Measure scoring</b>	Proportion		
<b>Measure type</b>	Process		
<b>Rationale</b>	Beta-blockers are recommended for all patients with symptoms of heart failure and left ventricular systolic dysfunction, unless contraindicated. Treatment with beta-blockers has been shown to provide multiple benefits to the patient, including reducing the symptoms of heart failure, improving the clinical status of patients, and decreasing the risk of mortality and hospitalizations.		
<b>Clinical Recommendation Statement</b>	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 HF and reduced LVEF, unless contraindicated. (Class I Recommendation, Level of Evidence: A) (ACC/AHA)		
<b>References</b>			
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*Please refer to the spreadsheet for this measure for detail regarding data criteria and code lists.*

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## Population criteria

- **Initial Patient Population =**
  - AND: "Patient characteristic: birth date" (age) $\geq$ 18 years;
  - AND: "Diagnosis active: heart failure";
  - AND:  $\geq$ 2 count(s) of:
    - OR: "Encounter: encounter outpatient";
    - OR: "Encounter: encounter nursing facility";
  
- **Denominator =**
  - AND: All patients in the initial patient population;
  - AND:
    - OR: "Diagnostic study result: LVF assessment" (value)  $<$ 40%;
    - OR: "Diagnostic study result: ejection fraction" (value)  $<$ 40%;
  
- **Numerator =**
  - AND:
    - OR: "Medication active: beta blocker therapy";
    - OR: "Medication order: beta blocker therapy";
  
- **Exclusions =**
  - AND:
    - OR: "Diagnosis active: arrhythmia";
    - OR: "Diagnosis active: hypotension";
    - OR: "Diagnosis active: asthma";
    - OR:
      - AND: "Diagnosis active: atrioventricular block";
      - AND NOT:
        - OR: "Diagnosis active; cardiac pacer in situ";
        - OR: "Device applied; cardiac pacer";
    - OR: "Medication not done: medical reason";
    - OR: "Medication not done: patient reason";
    - OR: "Medication not done: system reason";
    - OR: "Diagnosis active: bradycardia";
    - OR: "Physical exam finding: heart rate";
    - OR: "Medication allergy: beta blocker therapy";
    - OR: "Medication adverse event: beta blocker therapy";
    - OR: "Medication intolerance: beta blocker therapy";

## Data criteria (QDS data elements)

- **Initial Patient Population =**
  - "Patient characteristic: birth date" using "birth date code list" before the beginning of the "measurement period";

- “Diagnosis active: heart failure” using “heart failure code list grouping” before or simultaneously to an “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
  - “Encounter: encounter outpatient” using “encounter outpatient code list” during the “measurement period”;
  - “Encounter: encounter nursing facility” using “encounter nursing facility code list” during the “measurement period”;
- **Denominator =**
    - “Diagnostic study result: ejection fraction” using “ejection fraction code list” before to an “encounter: encounter outpatient setting” OR “encounter: encounter nursing facility”;
    - “Diagnostic study result: LVF assessment” using “LVF assessment code list” before “encounter: encounter outpatient” OR “encounter: encounter nursing facility”;
- **Numerator =**
    - “Medication active: beta blocker therapy” using “beta blocker therapy code list” during the “measurement period”;
    - “Medication order: beta blocker therapy” using “beta blocker therapy code list” during the “measurement period”;
- **Exclusions =**
    - “Diagnosis active: arrhythmia” using “arrhythmia code list grouping” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Diagnosis active: hypotension” using “hypotension code list grouping” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Diagnosis active: asthma” using “asthma code list grouping” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Diagnosis active: atrioventricular block” using “atrioventricular block code list grouping” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Diagnosis active: cardiac pacer in situ” using “cardiac pacer in situ code list grouping” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Device applied: cardiac pacer” using “cardiac pacer code list” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
    - “Medication not done: medical reason” using “medical reason code list” for “Medication active: beta blocker” OR “Medication order: beta blocker”;
    - “Medication not done: patient reason” using “patient reason code list” for “Medication active: beta blocker” OR “Medication order: beta blocker”;
    - “Medication not done: system reason” using “system reason code list” for “Medication active: beta blocker” OR “Medication order: beta blocker”;

- “Diagnosis active: bradycardia” using “bradycardia code list grouping” before or simultaneously to “Encounter: encounter outpatient setting” OR “Encounter: encounter nursing facility”;
- “Physical exam finding: heart rate” using “heart rate code list” before or simultaneously to “Encounter: encounter outpatient” OR “Encounter: encounter nursing facility”;
- “Medication allergy: beta blocker therapy” using “beta blocker therapy code list” before or simultaneously to “Encounter: encounter outpatient setting” OR “Encounter: encounter nursing facility”;
- “Medication adverse event: beta blocker therapy” using “beta blocker therapy code list” before or simultaneously to “Encounter: encounter outpatient setting” OR “Encounter: encounter nursing facility”;
- “Medication intolerance: beta blocker therapy” using “beta blocker therapy code list” before or simultaneously to “Encounter: encounter outpatient setting” OR “Encounter: encounter nursing facility”;

**Summary Calculation**

Calculation is generic to all measures:

- Calculate the final denominator by adding all that meet denominator criteria.
- Subtract from the final denominator all that do not meet numerator criteria yet also meet exclusion criteria. Note some measures do not have exclusion criteria.
- The performance calculation is the number meeting numerator criteria divided by the final denominator.
- For measures with multiple patient populations, repeat this process for each patient population and report each result separately.
- For measures with multiple numerators, calculate each numerator separately within each population using the paired exclusion.

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<b>Measure set</b>	CLINICAL QUALITY MEASURE SET 2011-2012
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