

Quality Measures Fact Sheet

Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) (NQF #0083) *National Quality Strategy Domain: Prevention and Treatment*

Quality Measures Set: Alternate

Data Source: Registry

BPCI Advanced and Quality

The Center for Medicare & Medicaid Innovation's (the CMS Innovation Center's) BPCI Advanced Model rewards health care providers for delivering services more efficiently, supports enhanced care coordination, and recognizes high quality care. Hospitals and clinicians should work collaboratively to achieve these goals, which have the potential to improve the BPCI Advanced Beneficiary experience and align to the CMS Quality Strategy goals of promoting effective communication and care coordination, highlighting best practices, and making care safer and more affordable. A goal of the BPCI Advanced Model is to promote seamless, patient-centered care throughout each Clinical Episode, regardless of who is responsible for a specific element of that care.

Background on Therapy for Left Ventricular Systolic Dysfunction

Heart failure (HF) is a condition where the left ventricle is unable to pump well. Left ventricular systolic dysfunction (LVSD) is one form of the syndrome where the heart muscle is weakened. To diagnose and care for heart failure patients over time, clinicians typically conduct an echocardiogram to assess left ventricular ejection fraction (LVEF), a number which reflects the proportion of blood ejected with each heartbeat. Extensive evidence supports the use of beta blocker therapy for patients with an LVEF of less than 40 percent, which correlates to moderate to severe dysfunction.^{23,24}

²³ Yancy, C.W., Jessup, M., Bozkurt, B., Butler, J., Casey, D. E., Colvin, M. M., Drazner, M. H., Fillappatos, G. S., Fonarow, G. C., Givertz, M. M., Hollenberg, S. M., Lindenfeld, J., Masoudi, F. A., McBride, P. E., Peterson, P. N., Stevenson, L. W., Westlake, C. (2017). 2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America, *Circulation*, 136(60), 137-161. Retrieved from <https://www.ahajournals.org/doi/10.1161/cir.0000000000000509>.

²⁴ Measure information: #0083 heart failure (HF): beta-blocker therapy for left ventricular systolic dysfunction (LVSD). (2019). See link in Other Resources table below.

CMS Innovation Center Rationale for Including the HF: Beta-Blocker Therapy for LVSD Measure in BPCI Advanced

Beta blockers carry a Class IA (Strong recommendation, High quality evidence) recommendation in the guidelines for management of heart failure.²⁵ Providers should initiate beta-blocker treatment as soon as a patient is diagnosed with LVSD and does not have low blood pressure, fluid overload, or recent treatment with an intravenous positive inotropic agent.²⁵ Beta-blockers have been shown to lessen the symptoms of HF, improve the clinical status of patients, reduce future clinical deterioration, and decrease the risk of mortality and the combined risk of mortality and hospitalization.²⁶ Moreover, beta-blocker use in elderly patients hospitalized with HF and LVSD was associated with lower risks of death and rehospitalization.²⁷ The CMS Innovation Center is promoting the HF: Beta-Blocker Therapy for LVSD measure because focusing on this medication offers an opportunity to improve the quality of services provided for patients with HF and decreased LVSD. CMS has used or is currently using the measure in the Quality Payment Program, Merit-based Incentive Payment System (QPP MIPS) and other reporting programs.

Applicable Clinical Episodes

The HF: Beta-Blocker Therapy for LVSD measure is included in the Alternate Quality Measures Set and applies to the following inpatient Clinical Episode²⁸:

- Congestive Heart Failure: Medicare Severity–Diagnosis-Related Groups (MS-DRG) 291, 292, and 293

Measure Specifications

The HF: Beta-Blocker Therapy for LVSD measure selected for BPCI Advanced follows National Quality Forum (NQF) #0083 measure specifications. The HF: Beta-Blocker Therapy for LVSD measure estimates the percent of HF patients aged 18 years and older, with a HF diagnosis and a current or prior LVEF lower than 40%, whose physician prescribed beta-blocker therapy at hospital discharge. The registry will calculate Acute Care Hospital (ACH) level performance for all patients included in the denominator. The term “patients” refers to people 18 years and older who undergo a procedure at the hospital associated with the Clinical Episodes from the “Applicable Clinical Episodes” section, not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries. For Physician Group Practices (PGPs), the registry will calculate the measure as specified at individual hospitals and then the CMS Innovation

²⁵ Stevenson, L. W., & Westlake, C., (2017). 2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *Circulation*, 136(60), 137-161. Retrieved from <https://www.ahajournals.org/doi/10.1161/cir.0000000000000509>.

²⁶ Hobbs, F. D., Kenkre, J. E., Roalfe, A. K., Davis, R. C., Hare, R., & Davies, M. K. (2002). Impact of heart failure and left ventricular systolic dysfunction on quality of life. *European Heart Journal*, 23(23), 1867-1876. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12445536>.

²⁷ Hernandez, A. F., Hammill, B. G., O'Connor, C. M., Schulman, K. A., Curtis, L. H., & Fonarow, G. C. (2009). Clinical effectiveness of beta-blockers in heart failure. *Journal of the American College of Cardiology*, 53(2), 184-192. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513266/>.

²⁸ MS-DRGs are up to date as of Model Year 3 (2020) and will be updated for Model Year 4 as needed.

Center will weight measure performance based on PGP Clinical Episode volume for each ACH where a PGP triggers an episode.

Denominator

The denominator for the HF: Beta-Blocked Therapy for LVSD measure includes all patients 18 or older with a principle diagnosis of HF and a documented LVEF lower than 40% or a narrative description of LVEF consistent with moderate or severe systolic dysfunction. This measure is not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries.

All MS-DRG triggers apply, but this measure only applies to patients with LVSD.

The exclusions for this measure include patients:

- less than 18 years of age
- transferred to another acute care hospital
- who left against medical advice;
- who expired
- discharged to hospice with contraindications, patient or system reasons for not prescribing beta blockers at discharge
- who are on comfort measures only

Numerator

The numerator includes individuals in the previously defined denominator who have documentation in the hospital record of being prescribed evidence-based beta blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge.

Measure Submission

BPCI Advanced Participants may submit this measure through the American Heart Association® (AHA) Get With The Guidelines (GWTG)® Registry.

Revisions to the Published Specifications

There are no revisions from the current published specifications.

Composite Quality Score

The HF: Beta-Blocker Therapy for LVSD measure is one component of the BPCI Advanced Composite Quality Score (CQS) calculation. The CMS Innovation Center uses the CQS to adjust a portion of any Positive Total Reconciliation Amount and any Negative Total Reconciliation Amount. The CQS adjustment will not adjust the Positive Total Reconciliation Amount down by more than 10 percent, nor will it adjust the Negative Total Reconciliation Amount up by more than 10 percent. More information is available at the BPCI Advanced website provided below.

Other Resources

Organization/Resource	Website Address
NQF #0083 specifications	https://www.qualityforum.org/QPS/0083
BPCI Advanced	https://innovation.cms.gov/initiatives/bpci-advanced
CMS Quality Payment Program measure specifications	https://qpp.cms.gov/docs/QPP_quality_measure_specifications/CQM-Measures/2020_Measure_008_MIPSCQM.pdf
AHA® GTWG®	https://www.heart.org/en/professional/quality-improvement
AHA® GTWG®-Heart Failure	https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-heart-failure