

****NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE****

Measure Information Form

Measure Set: Heart Failure

Set Measure ID#: HF-3

Performance Measure Name: ACEI for LVSD

Description: Heart failure patients with left ventricular systolic dysfunction (LVSD) and without angiotensin converting enzyme inhibitor (ACEI) contraindications who are prescribed an ACEI 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 function (LVF) consistent with moderate or severe systolic dysfunction.

Rationale: ACEI therapy reduces mortality and morbidity in patients with heart failure and left ventricular systolic dysfunction (The SOLVD Investigators, 1991 and CONSENSUS Trial Study Group, 1987). National guidelines strongly recommend ACEIs for patients hospitalized with heart failure (Hunt, 2001 and HFSA, 1999). Despite these recommendations, ACEIs remain underutilized in older patients hospitalized with heart failure (Jencks, 2000).

Type of Measure: Process

Improvement Noted As: An increase in the rate

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

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:

ACEI Prescribed at Discharge

Denominator Statement: Heart failure patients with LVSD and without ACEI contraindications

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 LVEF consistent with moderate or severe systolic dysfunction.

Excluded Populations:

- Patients less than 18 years of age
- Patients transferred to another acute care hospital or federal hospital
- Patients who expired
- Patients who left against medical advice
- Patients discharged to hospice
- Patients with chart documentation of participation in a clinical trial testing alternatives to ACEIs as first-line heart failure therapy
- Patients with one or more of the following ACEI contraindications/reasons for not prescribing ACEI documented in the medical record:
 - ACEI allergy
 - Moderate or severe aortic stenosis
 - Other reasons documented by a physician, nurse practitioner, or physician assistant for not prescribing ACEI at discharge

Data Elements:

- *ACEI Clinical Trial*
- *Admission Date*
- *Birthdate*
- *Contraindication to ACEI at Discharge*
- *Discharge Status*
- *ICD-9-CM Principal Diagnosis Code*
- *LVSD*

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, for additional information see the Sampling section.

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

Selected References:

- Agency for Healthcare Research and Quality. Heart failure: evaluation and care of patients with left ventricular systolic dysfunction. U.S. Department of Health and Human Services. *Clinical Practice Guidelines*, Number 11. No 94-0612, June 1994.
- Effects of enalapril on mortality in severe congestive heart failure. Results of the Cooperative North Scandinavian Enalapril Survival Study (CONSENSUS). The CONSENSUS Trial Study Group. *N Engl J Med*. 1987;316:1429-1435.
- Heart Failure Society of America (HFSA) practice guidelines. HFSA guidelines for management of patients with heart failure caused by left ventricular systolic dysfunction-pharmacological approaches. *J Card Fail*. 1999 Dec;5(4):357-82.
- Hunt SA, Baker DW, Chin, MH, Cinquegrani MP, Feldman AM, Francis GS, Ganiats TG, Goldstein S, Gregoratos G, Jessup ML, Noble RJ, Packer M, Silver MA, Stevenson LW. ACC/AHA guidelines for the evaluation and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1995 Guidelines for the Evaluation and Management of Heart Failure). 2001 American College of Cardiology Web site. Available at: http://www.acc.org/clinical/guidelines/failure/pdfs/hf_fulltext.pdf
- Jencks SJ, Cuerdon T, Burwen DR, Fleming B, Houck PM, Kussmaul AE, Nilasena DS, Ordin DL, Arday DR. Quality of medical care delivered to Medicare beneficiaries: a profile at state and national levels. *JAMA*. 2000;284:1670-1676.
- The SOLVD Investigators. Effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure. *N Engl J Med*, 325:293-302, 1991.

HF-3: ACEI for LVSD

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

Denominator: Heart failure patients with LVSD and without ACEI contraindications.



