



## Complete Summary

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### TITLE

Heart failure: percentage of patients aged greater than or equal to 18 years with diagnosed heart failure who also have left ventricular systolic dysfunction (LVSD) who were prescribed beta-blocker therapy.

### SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: heart failure. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2003. 8 p.

## Brief Abstract

### DESCRIPTION

This measure assesses the percentage of patients aged greater than or equal to 18 years with diagnosed heart failure who also have left ventricular systolic dysfunction (LVSD) who were prescribed beta-blocker therapy.

### RATIONALE

According to American College of Cardiology/American Heart Association (ACC/AHA) guidelines, for patients with asymptomatic left ventricular systolic dysfunction (LVSD) (Stage B), beta-blocker therapy is recommended for all heart failure (HF) patients with recent myocardial infarction (MI) and for patients with reduced ejection fraction.

For patients with symptomatic LVSD (Stage C), beta-adrenergic blockade in all stable patients is recommended, unless contraindicated.

### PRIMARY CLINICAL COMPONENT

Heart failure; left ventricular systolic dysfunction; beta-blocker therapy

### DENOMINATOR DESCRIPTION

All heart failure (HF) patients aged greater than or equal to 18 years with left ventricular systolic dysfunction (LVSD) and with left ventricular ejection fraction (LVEF) less than 40 percent, or with moderately or severely depressed left ventricular systolic function

### NUMERATOR DESCRIPTION

Patients in the denominator who were prescribed beta-blocker therapy

### Evidence Supporting the Measure

#### PRIMARY MEASURE DOMAIN

Process

#### SECONDARY MEASURE DOMAIN

Not applicable

#### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

#### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [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 \(Committee to Revise the 1995 Guidelines for the Evaluation and Management of Heart Failure\).](#)

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Wide variation in quality for the performance measured

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Gheorghide M, Gattis WA, O'Connor CM. Treatment gaps in the pharmacologic management of heart failure. Rev Cardiovasc Med 2002; 3(Suppl 3):S11-9. [27 references] [PubMed](#)

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. Bethesda (MD): American College of Cardiology Foundation (ACCF); 2001 Sep. 56 p. [573 references]

Jencks SF, Huff ED, Cuerdon T. Change in the quality of care delivered to Medicare beneficiaries, 1998-1999 to 2000-2001. JAMA 2003 Jan 15; 289(3): 305-12. [PubMed](#)

## State of Use of the Measure

### STATE OF USE

Pilot testing

### CURRENT USE

Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care  
Community Health Care  
Managed Care Plans  
Physician Group Practices/Clinics  
Rural Health Care

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physician Assistants  
Physicians

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

### TARGET POPULATION AGE

Age greater than or equal to 18 years

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

A person aged 40 years or older has a 1 in 5 chance of developing heart failure (HF). Currently about 5 million Americans are living with HF, and about 550,000

new cases are diagnosed each year. The high prevalence combined with multiple complications from this condition increase health care costs significantly.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Lloyd-Jones DM, Larson MG, Leip EP, Beiser A, D'Agostino RB, Kannel WB, Murabito JM, Vasan RS, Benjamin EJ, Levy D. Lifetime risk for developing congestive heart failure: the Framingham Heart Study. *Circulation* 2002 Dec 10;106(24):3068-72. [PubMed](#)

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

#### BURDEN OF ILLNESS

From 1979 to 2000, heart failure (HF) deaths increased 148%.

About 22% of male and 46% of female heart attack victims will be disabled with HF within 6 years.

In individuals diagnosed with HF, sudden cardiac death occurs at 6 to 9 times the rate in the general population.

#### EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

#### UTILIZATION

Unspecified

#### COSTS

In 2003, the annual direct and indirect costs of heart failure (HF) in the United States are expected to exceed \$24 billion.

#### EVIDENCE FOR COSTS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Institute of Medicine National Healthcare Quality Report Categories

#### IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

### Data Collection for the Measure

#### CASE FINDING

Users of care only

#### DESCRIPTION OF CASE FINDING

All heart failure (HF) patients aged greater than or equal to 18 years with left ventricular systolic dysfunction (LVSD) and with left ventricular ejection fraction (LVEF) less than 40 percent, or with moderately or severely depressed left ventricular systolic function

#### DENOMINATOR SAMPLING FRAME

Patients associated with provider

#### DENOMINATOR (INDEX) EVENT

Clinical Condition

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

All heart failure (HF) patients aged greater than or equal to 18 years with left ventricular systolic dysfunction (LVSD) and with left ventricular ejection fraction (LVEF) less than 40 percent, or with moderately or severely depressed left ventricular systolic function

##### Exclusions

Documentation that a beta-blocker was not indicated; documentation of medical reason(s)\* for not prescribing beta-blocker; documentation of patient reason(s)\*\* for not prescribing beta-blocker

\*Medical reasons for not prescribing beta-blocker: bradycardia less than 50 beats per minute (bpm) without beta-blocker therapy, history of Class IV heart failure, history of second- or third-degree atrioventricular (AV) block without permanent pacemaker, etc.

\*\*Patient reasons for not prescribing beta-blocker: economic, social, and/or religious, etc.

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Patients in the denominator who were prescribed beta-blocker therapy

Exclusions  
None

#### DENOMINATOR TIME WINDOW

Time window follows index event

#### NUMERATOR TIME WINDOW

Episode of care

#### DATA SOURCE

Administrative data  
Medical record  
Pharmacy data

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### PRE-EXISTING INSTRUMENT USED

None

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

Heart failure: beta-blocker therapy.

### MEASURE COLLECTION

[The Physician Consortium for Performance Improvement Measurement Sets](#)

### MEASURE SET NAME

[American College of Cardiology, American Heart Association, and Physician Consortium for Performance Improvement: Heart Failure Core Physician Performance Measurement Set](#)

### SUBMITTER

American Medical Association on behalf of the American College of Cardiology, the American Heart Association, and the Physician Consortium for Performance Improvement

### DEVELOPER

American College of Cardiology  
American Heart Association  
Physician Consortium for Performance Improvement

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2003 Oct

### MEASURE STATUS

This is the current release of the measure.

### SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: heart failure. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2003. 8 p.

### MEASURE AVAILABILITY

The individual measure, "Heart Failure: Beta-Blocker Therapy," is published in the "Clinical Performance Measures: Heart Failure." This document is available from the American Medical Association (AMA) Division of Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## COMPANION DOCUMENTS

The following are available:

- Physician Consortium for Performance Improvement. Introduction to physician performance measurement sets. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2001 Oct. 21 p. This document is available from the American Medical Association (AMA) Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).
- Physician Consortium for Performance Improvement. Principles for performance measurement in health care. A consensus statement. [online]. Chicago (IL): American Medical Association (AMA), Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); [3 p]. This document is available from the AMA Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).
- Physician Consortium for Performance Improvement. Desirable attributes of performance measures. A consensus statement. [online]. American Medical Association (AMA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); 1999 Apr 19 [cited 2002 Jun 19]. [5 p]. This document is available from the AMA Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## NQMC STATUS

This NQMC summary was completed by ECRI on March 3, 2004. The information was verified by the measure developer on October 29, 2004.

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