



## Complete Summary

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### TITLE

Cholesterol management after acute cardiovascular events: percentage of patients who had a low-density lipoprotein cholesterol (LDL-C) screening and an LDL-C control below certain specified thresholds (less than 130 mg/dL; less than 100 mg/dL).

### SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

## Brief Abstract

### DESCRIPTION

This measure assesses the percentage of members 18 through 75 years as of December 31 of the measurement year who were discharged alive in the year prior to the measurement year for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) and had evidence of low-density lipoprotein cholesterol (LDL-C) screening and an LDL-C control below certain specified thresholds (less than 130 mg/dL; less than 100 mg/dL).

### RATIONALE

Total blood cholesterol is directly linked to the development of coronary artery disease and coronary heart disease (CHD), with most of the risk being associated with low-density lipoprotein cholesterol (LDL-C). LDL is the major cholesterol carrier in the blood. When LDL levels are high, cholesterol can build up within the walls of the arteries, causing atherosclerosis, the build-up of plaque. The National Cholesterol Education Program has identified a target plasma LDL-C level as the single most important parameter for the prevention of CHD. Therefore, the control of LDL-C for management of patients with prior CHD is an important step in the process of overall treatment, as it determines the effectiveness of current treatment and provides support for changes in treatment if target values are not reached.

### PRIMARY CLINICAL COMPONENT

Coronary artery disease; coronary heart disease; acute myocardial infarction; coronary artery bypass graft; percutaneous transluminal coronary angioplasty; low-density lipoprotein cholesterol; screening

## DENOMINATOR DESCRIPTION

Members age 18 through 75 years as of December 31 of the measurement year who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) during the year prior to the measurement year (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## NUMERATOR DESCRIPTION

LDL-C Screening: A low-density lipoprotein cholesterol (LDL-C) screening performed on or between 60 and 365 days after discharge for an acute cardiovascular event.

LDL-C Level: Any LDL-C level of less than 130 mg/dL on or between 60 and 365 days after discharge for an acute cardiovascular event.

LDL-C Level: Any LDL-C level of less than 100 mg/dL on or between 60 and 365 days after discharge for an acute cardiovascular event.

See the related "Numerator Inclusions/Exclusions" field in the Complete Summary.

## Evidence Supporting the Measure

### PRIMARY MEASURE DOMAIN

Process

### SECONDARY MEASURE DOMAIN

Outcome

### EVIDENCE SUPPORTING THE MEASURE

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

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

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

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Use of this measure to improve performance

### EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2003: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 61 p.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Accreditation

Decision-making by businesses about health-plan purchasing

Decision-making by consumers about health plan/provider choice

Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Managed Care Plans

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

Age 18 through 75 years

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

The American Heart Association estimates that 102.3 million American adults have total blood cholesterol levels of 200 mg/dL and higher. Of that group, 41.2 million adults have levels of 240 mg/dL or higher. 12,600,000 people alive today have a history of heart attack, angina pectoris or both. The gender breakdown is 6,200,000 males and 6,400,000 females.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association (AHA). 2002 heart and stroke statistical update. Dallas (TX): American Heart Association (AHA); 2001. 35 p.

#### ASSOCIATION WITH VULNERABLE POPULATIONS

The elderly population has greater rates of CHD than other groups. Eighty-five percent of people who die of CHD are age 65 or older and the average age of a person having a first heart attack is 65.8 for men and 70.4 for women.

#### EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

American Heart Association (AHA). 2002 heart and stroke statistical update. Dallas (TX): American Heart Association (AHA); 2001. 35 p.

#### BURDEN OF ILLNESS

Coronary heart disease (CHD) caused 529,659 deaths in the US in 1999, about 1 of every 5 deaths. CHD is the single largest killer of American males and females.

#### EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association (AHA). 2002 heart and stroke statistical update. Dallas (TX): American Heart Association (AHA); 2001. 35 p.

#### UTILIZATION

Unspecified

#### COSTS

The American Heart Association estimates that in the United States, the total cost of cardiovascular diseases and stroke in the US in 2002 is \$329.2 billion. This figure includes health expenditures and lost productivity resulting from morbidity and mortality.

#### EVIDENCE FOR COSTS

American Heart Association (AHA). 2002 heart and stroke statistical update. Dallas (TX): American Heart Association (AHA); 2001. 35 p.

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Members age 18 through 75 years as of December 31 of the measurement year who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) during the year prior to the measurement year and who were continuously enrolled for one year (i.e., 365 days) after discharge with no more than one gap in enrollment of up to 45 days during the measurement year

DENOMINATOR (INDEX) EVENT

Clinical Condition  
Institutionalization  
Therapeutic Intervention

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Members age 18 through 75 years as of December 31 of the measurement year who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) during the year prior to the measurement year. All cases of PTCA should be included regardless of setting (e.g., inpatient, outpatient, emergency room). AMI and CABG cases should be from inpatient claims only. If one member has several qualifying discharges, managed care organizations (MCOs) should count only the last eligible discharge.

Refer to the original measure documentation for Current Procedure Terminology (CPT), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and Diagnosis-Related Groups (DRGs) codes to identify AMI, PTCA and CABG.

Exclusions

Unspecified

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

LDL-C Screening: A low-density lipoprotein cholesterol (LDL-C) screening performed on or between 60 and 365 days after discharge for an acute cardiovascular event. Data for the numerator are drawn from claims/encounter or automated laboratory data. Refer to the original measure documentation for Current Procedure Terminology (CPT) codes to identify LDL-C screening.

LDL-C Level: Any LDL-C level of less than 130 mg/dL on or between 60 and 365 days after discharge for an acute cardiovascular event. The LDL-C level must be recorded on or after 60 days after the discharge date due to temporary decreases in LDL-C levels immediately following reperfusion and revascularization.

LDL-C Level: Any LDL-C level of less than 100 mg/dL on or between 60 and 365 days after discharge for an acute cardiovascular event. The LDL-C level must be recorded on or after 60 days after the discharge date due to temporary decreases in LDL-C levels immediately following reperfusion and revascularization.

A managed care organization (MCO) needs to document only one lab value of LDL-C less than 130 mg/dL or less than 100 mg/dL any time between 60 and 365 days after discharge. Data for this numerator are drawn from laboratory data. If there is no valid LDL-C value on or between 60 and 365 days following discharge, the value is recorded as exceeding the threshold.

MCOs may calculate LDL-C levels from total cholesterol, high-density lipoprotein cholesterol (HDL-C) and triglycerides using the Friedewald equation only if the triglycerides are less than or equal to 400 mg/dL.

$$(\text{LDL-C}) = (\text{total cholesterol}) - (\text{HDL}) - (\text{triglycerides}/5)$$

If lipoprotein (a) is measured, the calculation is:

$$(\text{LDL-C}) = (\text{total cholesterol}) - (\text{HDL}) - (\text{triglycerides}/5) - 0.3[\text{lipoprotein (a)}]$$

Note: These formulae are used when all levels are expressed in mg/dL. These equations are not applicable if triglycerides are greater than 400 mg/dL. In cases where the triglyceride is greater than 400 mg/dL or "triglycerides are too high to calculate," the member is compliant for numerator 1 and not compliant for numerator 2.

### Exclusions

Unspecified

## DENOMINATOR TIME WINDOW

Time window precedes index event

## NUMERATOR TIME WINDOW

Fixed time period

#### DATA SOURCE

Administrative data  
Laboratory data  
Medical record

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### OUTCOME TYPE

Clinical Outcome

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors)

#### DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for commercial, Medicare, and Medicaid plans.

#### STANDARD OF COMPARISON

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

Cholesterol management after acute cardiovascular events.

### MEASURE COLLECTION

[HEDIS® 2004: Health Plan Employer Data and Information Set](#)

### DEVELOPER

National Committee for Quality Assurance - Private Nonprofit Organization

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

1999 Jan

### REVISION DATE

2002 Jan

### MEASURE STATUS

This is the current release of the measure.

### SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

### MEASURE AVAILABILITY

The individual measure, "Cholesterol Management After Acute Cardiovascular Events," is published in "HEDIS 2004. Health Plan Employer Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org).

### NQMC STATUS

This NQMC summary was completed by ECRI on July 18, 2003. The information was verified by the measure developer on August 29, 2003.

#### COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to HEDIS Volume 2: Technical Specifications, available from the NCQA Web site at [www.ncqa.org](http://www.ncqa.org).

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