



Complete Summary

TITLE

Adult diabetes: percentage of patients with no urinalysis or urinalysis with negative or trace urine protein, who received a test for microalbumin.

SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

Brief Abstract

DESCRIPTION

This measure assesses the percentage of adult diabetes patients aged 18-75 years with no urinalysis or urinalysis with negative or trace urine protein, who received a test for microalbumin.

This measure is used for the purpose of quality improvement.

RATIONALE

Diabetes is the leading cause of end-stage renal disease (ESRD). In the United States, diabetic nephropathy accounts for about one-third of all cases of ESRD. The earliest clinical evidence of nephropathy is the appearance of low, but abnormal levels of albumin (protein) in the urine, referred to as microalbuminuria. Early detection and treatment may prevent or slow the progression of diabetic nephropathy.

American Association of Clinical Endocrinologists/American College of Endocrinology (AACE/ACE) recommends that the initial assessment should include a urinalysis, test for microalbuminuria and creatinine clearance. The renal complication module should be performed annually and includes a test for microalbuminuria and creatinine clearance.

American Diabetes Association (ADA) recommends that a routine urinalysis be performed at diagnosis in patients with type 2 diabetes. If the urinalysis is positive for protein, a quantitative measure is frequently helpful in the development of a treatment plan. If the urinalysis is negative for protein, a test of the presence of microalbumin is necessary.

Microalbuminuria rarely occurs with short duration of type 1 diabetes; therefore, screening in individuals with type 1 diabetes should begin after 5 years' disease

duration. However, some evidence suggests that the prepubertal duration of diabetes may be important in the development of microvascular complications; therefore, clinical judgment should be exercised when individualizing these recommendations. Because of the difficulty in precise dating of the onset of type 2 diabetes, such screening should begin at the time of diagnosis. After the initial screening and in the absence of previously demonstrated microalbuminuria, a test for the presence of microalbumin should be performed annually.

National Kidney Foundation (NKF) recommends that individuals at increased risk, but found not to have chronic kidney disease, should be advised to follow a program of risk factor reduction, if appropriate, and undergo repeat periodic evaluation.

PRIMARY CLINICAL COMPONENT

Diabetes mellitus; nephropathy; microalbuminuria; urinalysis; urine protein screening

DENOMINATOR DESCRIPTION

All patients diagnosed with diabetes aged 18-75 years

NUMERATOR DESCRIPTION

The number of patients from the denominator with no urinalysis or urinalysis with negative or trace urine protein, who received a test for microalbumin

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

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

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [The American Association of Clinical Endocrinologists medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update.](#)
- [K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Wide variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. *Endocr Pract* 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

American Diabetes Association. Clinical practice recommendations 2002. Diabetic nephropathy (position statement). *Diabetes Care* 2002 Jan 1;25(Suppl 1):S85-S89.

K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification. Kidney Disease Outcome Quality Initiative. *Am J Kidney Dis* 2002 Feb;39(2 Suppl 2):S1-246. [PubMed](#)

United States Renal Data System (USRDS), National Institutes of Health (NIH), National Institute of Diabetes and Digestive and Kidney Diseases. USRDS 1999 annual data report. Bethesda (MD): United States Renal Data System; 1999 Apr. 994 p.

State of Use of the Measure

STATE OF USE

Current routine use

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 18-75 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

- Total: 18.2 million people - 6.3% of the population - have diabetes
- Diagnosed: 13 million people
- Undiagnosed: 5.2 million people
- New cases diagnosed per year: 1.3 million
- About one third of these individuals do not know that they have the disease.

EVIDENCE FOR INCIDENCE/PREVALENCE

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

- Diabetes is the leading cause of end-stage renal disease, accounting for 43% of new cases. Adults with diabetes account for more than 60% of nontraumatic lower limb amputations and are also twice as likely to have heart disease than people without diabetes.
- Diabetes is the sixth leading cause of death listed on U.S. death certificates in 2000. This is based on the 69,301 death certificates in which diabetes was listed as the underlying cause of death. Altogether, diabetes contributed to 213,062 deaths.
- Complications from diabetes include heart disease, stroke, hypertension, retinopathy, end-stage renal disease, peripheral neuropathy, non-traumatic lower limb amputations, periodontal disease, pregnancy complications affecting mother and fetus, ketoacidosis, and coma.
- Diabetes is the leading cause of end-stage renal disease (ESRD). In the United States, diabetic nephropathy accounts for about one-third of all cases of ESRD.

EVIDENCE FOR BURDEN OF ILLNESS

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. *Endocr Pract* 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

American Diabetes Association. Clinical practice recommendations 2002. Diabetic nephropathy (position statement). *Diabetes Care* 2002 Jan 1;25(Suppl 1):S85-S89.

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

Standards of medical care for patients with diabetes mellitus. *Diabetes Care* 2002 Jan;25(Suppl 1):S33-49. [91 references]

United States Renal Data System (USRDS), National Institutes of Health (NIH), National Institute of Diabetes and Digestive and Kidney Diseases. USRDS 1999 annual data report. Bethesda (MD): United States Renal Data System; 1999 Apr. 994 p.

UTILIZATION

Unspecified

COSTS

- 2002 cost of diabetes in the United States: \$132 billion
- Direct medical costs: \$92 billion
- Indirect costs: \$40 billion (disability, work loss, premature mortality)

EVIDENCE FOR COSTS

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 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 patients diagnosed with diabetes aged 18-75 years

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

All patients diagnosed with diabetes aged 18-75 years

Exclusions

Patients who have documented evidence of a diagnosis of nephropathy or

documentation of microalbuminuria or albuminuria are excluded from this measure.

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

The number of patients from the denominator with no urinalysis or urinalysis with negative or trace urine protein, who received a test for microalbumin

Exclusions

None

DENOMINATOR TIME WINDOW

Time window follows index event

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data

Laboratory data

Medical record

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

Percentage of patients with no urinalysis or urinalysis with negative or trace urine protein, who received a test for microalbumin.

MEASURE COLLECTION

[National Diabetes Quality Improvement Alliance Performance Measures](#)

MEASURE SET NAME

[National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes](#)

DEVELOPER

National Diabetes Quality Improvement Alliance

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 May

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

MEASURE AVAILABILITY

The individual measure, "Percentage of Patients with no Urinalysis or Urinalysis with Negative or Trace Urine Protein, Who Received a Test for Microalbumin," is published in the "National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes." This document is available in Portable Document Format (PDF) from the [National Diabetes Quality Improvement Alliance Web site](#).

NQMC STATUS

This NQMC summary was completed by ECRI on December 9, 2003. The information was verified by the measure developer on August 19, 2004.

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