



Complete Summary

TITLE

Advanced chronic kidney disease (CKD): percent of patients with 25(OH) vit D levels measured.

SOURCE(S)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

Brief Abstract

DESCRIPTION

This measure assesses the percent of patients with 25(OH) vitamin D levels measured among patients with advanced chronic kidney disease (CKD) and immunoreactive parathyroid hormone (iPTH) greater than 65 pg/mL.

RATIONALE

Renal osteodystrophy is a complex and multifaceted disease process that begins early in the course of chronic kidney disease (CKD) and is a major, long-term complication associated with high rates of morbidity. The metabolic and skeletal derangements associated with renal osteodystrophy are not easily reversed and, therefore, early interventions are crucial.

Serum levels of 1,25(OH)₂D correlate with 25(OH)D in CKD stage 3 and 4, indicating that the generation of 1,25(OH)₂D in CKD patients depends on supply of 25(OH)D. Patients with CKD are more likely than non-CKD patients to have 25(OH)D levels less than 30 ng/mL. Levels of 25(OH) vitamin D less than 30 ng/mL but within the normal range have been associated with elevated immunoreactive parathyroid hormone (iPTH) levels in the elderly, and levels less than 15 ng/mL have been associated with a greater severity of secondary hyperparathyroidism (HPTH) in end-stage renal disease (ESRD) patients. Therapy may reduce fracture risk in the elderly.

PRIMARY CLINICAL COMPONENT

Advanced chronic kidney disease; renal osteodystrophy; immunoreactive parathyroid hormone; 25(OH) vitamin D; vitamin D insufficiency

DENOMINATOR DESCRIPTION

The number of adult patients with advanced chronic kidney disease (CKD), not currently receiving renal replacement therapy, with immunoreactive parathyroid hormone (iPTH) greater than 65 pg/mL

NUMERATOR DESCRIPTION

The number of patients from the denominator with 25(OH) vitamin D levels measured

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

A systematic review of the clinical literature

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Appropriate patient preparation for renal replacement therapy.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

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
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

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

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Levels of 25(OH) vitamin D less than 30 ng/mL but within the normal range have been associated with elevated immunoreactive parathyroid hormone (iPTH) levels in the elderly, and levels less than 15 ng/mL have been associated with a greater severity of secondary hyperparathyroidism (HPTH) in end-stage renal disease (ESRD) patients.

EVIDENCE FOR BURDEN OF ILLNESS

Ghazali A, Fardellone P, Pruna A, Atik A, Achard JM, Oprisiu R, Brazier M, Remond A, Moriniere P, Garabedian M, Eastwood J, Fournier A. Is low plasma 25 (OH)

vitamin D a major risk factor for hyperparathyroidism and Looser's zones independent of calcitriol?. *Kidney Int* 1999 Jun;55(6):2169-77. [PubMed](#)

UTILIZATION

Unspecified

COSTS

Unspecified

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

Adult patients 18 years and older with advanced chronic kidney disease (CKD) and immunoreactive parathyroid hormone (iPTH) greater than 65 pg/mL

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Adult patients age 18 years and older with chronic kidney disease stage 4 or 5 (glomerular filtration rate [GFR] less than or equal to 30 mL/min/1.73 m²), not currently receiving renal replacement therapy, with immunoreactive parathyroid hormone (iPTH) greater than 65 pg/mL

Exclusions

Unspecified

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

The number of patients from the denominator with 25(OH) vitamin D levels measured

Exclusions

Unspecified

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Administrative data

Laboratory data

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

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

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Number of patients with 25(OH) vit D levels measured / number of patients in advanced CKD and iPTH greater than 65 pg/mL.

MEASURE COLLECTION

[Renal Physicians Association Clinical Performance Measures on Appropriate Patient Preparation for Renal Replacement Therapy](#)

MEASURE SET NAME

[Renal Physicians Association Clinical Performance Measures for Bone Disease Recommendations](#)

DEVELOPER

Renal Physicians Association

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2002 Oct

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

MEASURE AVAILABILITY

The individual measure, "Number of patients with 25(OH) vit D levels measured / number of patients in advanced CKD and iPTH greater than 65 pg/mL," is

published in "Renal Physicians Association Clinical Practice Guideline #3:
Appropriate Patient Preparation for Renal Replacement Therapy."

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NQMC STATUS

This NQMC summary was completed by ECRI on May 23, 2003. The information
was verified by the Renal Physicians Association on June 17, 2003.

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