General

Title
Advanced chronic kidney disease (CKD): percent of patients with blood pressure checked at every erythropoietin or analogue dose.

Source(s)

Measure Domain

Primary Measure Domain
Process
The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

Secondary Measure Domain
Does not apply to this measure

Brief Abstract

Description
This measure assesses the percent of patients with blood pressure checked at every erythropoietin or analogue dose among patients with advanced chronic kidney disease (CKD) who are receiving erythropoietin or analogue.

Rationale
Anemia is common in patients with advanced chronic kidney disease (CKD) and can lead to a variety of detrimental effects. In addition to the direct effects of anemia on performance and ischemic symptoms, it has also been suggested that mortality and major complications during end-stage renal disease (ESRD) are associated with anemia that develops early in the course of CKD. Correcting anemia before the
initiation of renal replacement therapy (RRT) may improve health outcomes.

Blood pressure control often deteriorates with erythropoietin therapy. Seven small studies suggest at least some increase in the risk of developing hypertension or of suffering an exacerbation of hypertension associated with erythropoietin therapy.

**Primary Clinical Component**

Advanced chronic kidney disease; anemia; erythropoietin; blood pressure monitoring

**Denominator Description**

The number of adult patients with advanced chronic kidney disease (CKD) for at least three months, not currently receiving renal replacement therapy who are receiving an erythropoietin or analogue

**Numerator Description**

The number of patients from the denominator with blood pressure checked at every erythropoietin or analogue dose

**Evidence Supporting the Measure**

**Evidence Supporting the Criterion of Quality**

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

**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
Two studies have identified anemia as being prevalent in patients with advanced chronic kidney disease and it is also clear that the severity of anemia increases considerably with worsening renal function.

Evidence for Incidence/Prevalence


Association with Vulnerable Populations

Unspecified

Burden of Illness

Anemia is associated with increased mortality, detrimental effects on cardiac function, exercise capacity, quality of life, and cognitive function.

Evidence for Burden of Illness


Utilization

Unspecified

Costs

Unspecified

Institute of Medicine (IOM) 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) receiving erythropoietin or analogue

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) for at least three months not currently receiving renal replacement therapy who are receiving an erythropoietin or analogue

Exclusions

Unspecified

Relationship of Denominator to Numerator

All cases in the denominator are equally eligible to appear in the numerator

Denominator (Index) Event

Clinical Condition

Therapeutic Intervention

Denominator Time Window

Time window precedes index event

Numerator Inclusions/Exclusions

Inclusions

The number of patients from the denominator who have their blood pressure checked at every erythropoietin or analogue dose

Exclusions

Unspecified

Measure Results Under Control of Health Care Professionals,
Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

Numerator Time Window

Episode of care

Data Source

Administrative data
Laboratory data
Medical record
Pharmacy data

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
**Identifying Information**

**Original Title**
Number of patients with blood pressure checked at every erythropoietin or analogue dose / number of patients receiving an erythropoietin or analogue.

**Measure Collection Name**
Renal Physicians Association Clinical Performance Measures on Appropriate Patient Preparation for Renal Replacement Therapy

**Measure Set Name**
Clinical Performance Measures for Anemia Recommendations

**Submitter**
Renal Physicians Association - Medical Specialty Society

**Developer**
Renal Physicians Association - Medical Specialty Society

**Funding Source(s)**
Ortho Biotech Products, LP

**Composition of the Group that Developed the Measure**
W. Kline Bolton, MD, Working Group Chair, University of Virginia School of Medicine, Charlottesville, VA; William F. Owen, Jr., MD, President, RPA, Duke University School of Medicine Durham, NC; Baxter Healthcare Corp., McGaw Park, IL; Dale Singer, MHA, Executive Director, RPA.

*Content Experts*: Jack Coburn, MD, UCLA School of Medicine, West Los Angeles V.A. Healthcare Center, West Los Angeles, CA; William Haley, MD, Mayo Clinic, Jacksonville, FL; Annamaria Kausz, MD, New England Medical Center, Boston, MA; Adeera Levin, MD, St. Paul's Hospital, Vancouver, BC; William Mitch, MD, University of Texas Medical Branch, Galveston, TX; Patricia Painter, PhD, University of California, San Francisco, CA; Michael Rocco, MD, MSCE, Wake Forest University School of Medicine, Winston-Salem, NC.

*Association Representatives*: Carolyn Atkins, RN, BS, CCTC, National Kidney Foundation, Medical City Dallas Hospital, Dallas, TX; Shelley Clark, RN, National Renal Administrators Association, FMC North Roanoke Dialysis, Roanoke, VA; Paul Eggers, PhD, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, MD; Lori Fedje, RD, LD, NKF Council on Renal Nutrition, Pacific Northwest Renal Services, Portland, OR; Richard Goldman, MD, Renal Physicians Association, Renal Medicine Associates, Emeritus Albuquerque, NM; Joel Greer, PhD, Centers for Medicare and Medicaid Services, Baltimore, MD; Richard Lafayette, MD, American Society of Nephrology, Stanford University
School of Medicine, Stanford, CA; Eugene Z. Oddone, MD, American College of Physicians - American Society of Internal Medicine, Durham VA Medical Center, Durham, NC; Victoria Norwood, MD, American Society of Pediatric Nephrology, University of Virginia, Charlottesville, VA; Paul M. Palevsky, MD, Forum of ESRD Networks, University of Pittsburgh School of Medicine, VA Pittsburgh Health Care System, Pittsburgh, PA; Sandy Peckens, MSW, NKF Council of Nephrology Social Workers, Merrimack Valley Nephrology, Methuen, MA; Venkateswara Rao, MD, American Society of Transplantation, Hennepin County Medical Center, Minneapolis, MN; Charlotte Thomas Hawkins, PhD, RN, CNN, American Nephrology Nurses Association, Rutgers, The State University of New Jersey, Burlington, NJ; Joseph White, American Association of Kidney Patients.

Methodologists: David B. Matchar, MD, FACP, Director, Duke Center for Clinical Health Policy Research and Co-Director, Duke Evidence-based Practice Center, Durham, NC; Douglas C. McCrory, MD, MHS, Co-Director Duke Evidence-based Practice Center, Durham, NC; Joseph A. Coladonato, MD, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Preston S. Klassen, MD, MHS, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Meenal B. Patwardhan, MD, MHSA, Duke Center for Clinical Health Policy Research and Duke Evidence-based Practice Center, Durham, NC; Donal N. Reddan, MD, MHS, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Olivier T. Rutschmann, MD, MPH, Duke Center for Clinical Health Policy Research, Durham, NC; William S. Yancy, Jr., MD, MHS, Duke University Medical Center, Durham, NC.

Medical Editor: Rebecca N. Gray, DPhil, Duke Evidence-based Practice Center, Durham, NC.

Project Manager and Editor: Emily G. Shurr, MA, Duke Evidence-based Practice Center, Durham, NC.

Financial Disclosures/Other Potential Conflicts of Interest

There were none disclosed.

Adaptation

Measure was not adapted from another source.

Release Date

2002 Oct

Measure Status

This is the current release of the measure.

Source(s)


Measure Availability

The individual measure, "Number of patients with blood pressure checked at every erythropoietin or analogue dose / number of patients receiving an erythropoietin or analogue," is published in "Renal Physicians Association Clinical Practice Guideline #3: Appropriate Patient Preparation for Renal Replacement Therapy."
NQMC Status

This NQMC summary was completed by ECRI on May 2, 2003. The information was verified by the Renal Physicians Association on May 27, 2003.

Copyright Statement

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

Disclaimer

NQMC Disclaimer

The National Quality Measures Clearinghouseâ€”(NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.