ENDORSEMENT SUMMARY: Renal Measures

APRIL 2012

Purpose of the Project

An estimated 31 million adults in the United States suffer from chronic kidney disease, making renal-related diseases one of the leading causes of morbidity and mortality. Often brought on by existing conditions such as cardiovascular disease, diabetes, hypertension, and obesity, chronic kidney disease accounted for close to 25 percent of all Medicare expenditures in 2008.

Untreated chronic kidney disease can lead to end stage renal disease (ESRD) – also known as permanent kidney failure – where patients need dialysis treatments or kidney transplants to survive. More than half a million Americans have been diagnosed with ESRD, with treatment costs as high as \$26 billion in recent years. Minority populations also disproportionally suffer from this disease. ESRD is diagnosed in African American and Native American populations at rates significantly higher than Caucasians; in addition, ESRD is diagnosed in Hispanics at a rate 1.5 times higher than that of non-Hispanic populations.

These statistics make improving quality of care for ESRD and other renal disease patients a significant priority. Developing and endorsing performance measures that can assess care of these patients are a critical part of this effort.

Over the past several years, NQF has endorsed 32 performance measures related to renal disease. In May 2011, NQF – at the request of the Department of Health and Human Services – began a project focused on identifying, endorsing, and updating a broader set of renal performance measures. Specifically, the project sought to endorse measures that addressed chronic kidney disease, ESRD, and other related conditions such as polycystic kidney disease, nephrolithiasis, and lupus nephritis.

The resulting endorsed measures will help providers ensure renal patients receive the high quality care they deserve.

What Was Endorsed

Summary of Renal Endorsement Maintenance Measures Project

Measures submitted for consideration	33
Measures recommended for endorsement	12
Measures not recommended for endorsement	21

Under the renal endorsement project, NQF endorsed 12 measures suitable for accountability and quality improvement. Of the 12 measures, nine were previously endorsed and granted continued endorsement status; three were newly submitted measures.

Measure stewards included the Centers for Medicare & Medicaid Services, the Physician Consortium for Performance Improvement convened by the American Medical Association, and the Kidney Care Quality Alliance. A full list of measures is available at the end of this report.

The Need these Measures Fill

This project sought to identify and endorse measures that specifically address renal disease for accountability and quality improvement. The resulting measures focus on a wide range of care processes and outcomes of care, including mortality rates in dialysis facilities; measured hemoglobin levels in patients at risk for anemia; annual lipid profiles; dialysis effectiveness; mineral metabolism; and catheter use in dialysis patients.



As increasing numbers of Americans are treated for renal-related diseases, it is critical that providers have the right measurement tools to help ensure patients receive safe, high-quality, and compassionate care. These measures span a range of clinical care, and provide a solid foundation for measuring and improving care quality.

Potential Use

These measures are applicable for use in several clinical settings, which will help improve quality across the healthcare spectrum. Settings include acute care hospitals, dialysis facilities, physician offices, and in-home care.

Project Perspectives

With so many individuals in the United States suffering from renal-related conditions, it is imperative that healthcare providers are able to evaluate the quality of care delivered to patients. This set of measures will be critical to that evaluation; more importantly, these measures will give providers the information they need to ultimately improve care quality.

Throughout the course of the project, NQF successfully worked with measure developers to harmonize similar measures focused on dialysis adequacy for both individual clinicians and dialysis facilities. NQF also identified where further work is needed to more fully address care quality concerns for renal patients. Notably, patient education is very important for informed choice of renal replacement therapy and managing chronic kidney disease, but should be measured from the patient's perspective. For example, assessing a patient's understanding of renal replacement therapy options is more important than checking off that information on such options was provided.

Endorsed Measures

0369: Dialysis Facility Risk-adjusted Standardized Mortality Ratio (CMS)

Description: Risk-adjusted standardized mortality ratio for dialysis facility patients.

1666: Patients on Erythropoiesis Stimulating Agent (ESA)—Hemoglobin Level > 12.0 g/dL (AMA-PCPI) Description: Percentage of calendar months within a 12-month period during which a Hemoglobin is measured for patients aged 18 years and older with a diagnosis of advanced CKD (stage 4 or 5, not receiving RRT) or ESRD (who are on hemodialysis or peritoneal dialysis) who are also receiving ESA therapy and have a Hemoglobin Level > 12.0 g/dL.

1667: (Pediatric) ESRD Patients Receiving Dialysis: Hemoglobin Level < 10g/dL (AMA-PCPI)

Description: Percentage of calendar months within a 12-month period during which patients aged 17 years and younger with a diagnosis of ESRD receiving hemodialysis or peritoneal dialysis have a Hemoglobin level <10 g/dL.

1668: Laboratory Testing (Lipid Profile) (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of CKD (stage 3, 4 or 5, not receiving RRT) who had a fasting lipid profile performed at least once within a 12-month period.

O249: Hemodialysis Adequacy Clinical Performance Measure III: Hemodialysis Adequacy—HD Adequacy—Minimum Delivered Hemodialysis Dose (CMS)

Description: Percentage of all adult (>=18 years old) patients in the sample for analysis who have been on hemodialysis for 6 months or more and dialyzing thrice weekly whose average delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a spKt/V >= 1.2 during the study period.

0323: Hemodialysis Adequacy: Solute (AMA-PCPI)

Description: Percentage of calendar months within a 12-month period during which patients aged 18 years and older with a diagnosis of ESRD receiving hemodialysis three times a week for \geq 90 days have a spKt/V > or = 1.2.

O318: Peritoneal Dialysis Adequacy Clinical Performance Measure III - Delivered Dose of Peritoneal Dialysis Above Minimum (CMS)

Description: Percentage of all adult (>= 18 years old) peritoneal dialysis patients whose delivered peritoneal dialysis dose was a weekly Kt/Vurea of at least 1.7 (dialytic + residual) during the four month study period.

0321: Peritoneal Dialysis Adequacy: Solute (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of ESRD receiving peritoneal dialysis who have a total Kt/V > or = 1.7 per week measured once every 4 months.

0255: Measurement of Serum Phosphorus Concentration (CMS)

Description: Percentage of all adult (>= 18 years of age) peritoneal dialysis and hemodialysis patients included in the sample for analysis with serum phosphorus measured at least once within month.

0251: Vascular Access—Functional AVF or AV Graft or Evaluation for Placement (Kidney Care Quality Alliance)

Description: Percentage of end stage renal disease (ESRD) patients aged 18 years and older receiving hemodialysis during the 12-month reporting period and on dialysis >90 days who:

- have a functional autogenous AVF (defined as two needles used or a single-needle device [NOT one needle used in a two-needle device]) (computed and reported separately);
- 2. have a functional AV graft (computed and reported separately); or
- 3. have a catheter but have been seen/ evaluated by a vascular surgeon, other surgeon qualified in the area of vascular access, or interventional nephrologist trained in the primary placement of vascular access for a functional autogenous AVF or AV graft at least once during the 12-month reporting period (computed and reported separately).

The total numerator and each of the numerator subgroups (the outcomes subgroups and the process subgroup) will be reported separately. Reporting should be stratified by incident versus prevalent patients, as defined by USRDS.

O256: Hemodialysis Vascular Access- Minimizing use of catheters as Chronic Dialysis Access (CMS)

Description: Percentage of patients on maintenance hemodialysis during the last HD treatment of study period with a chronic catheter continuously for 90 days or longer prior to the last hemodialysis session.

O257: Hemodialysis Vascular Access- Maximizing Placement of Arterial Venous Fistula (AVF) (CMS)

Description: Percentage of patients on maintenance hemodialysis during the last HD treatment of month using an autogenous AV fistula with two needles.



1030 15TH STREET, NW, SUITE 800 WASHINGTON, DC 20005 WWW.QUALITYFORUM.ORG