

NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

NQF #: 0627	NQF Project: Renal Endorsement Maintenance 2011
(for Endorsement Maintenance Review)	
Original Endorsement Date: Dec 04, 2009 Most Recent Endorsement Date: Dec 04, 2009 Last Updated Date: May 08, 2012	
BRIEF MEASURE INFORMATION	
De.1 Measure Title: Chronic Kidney Disease with LDL Greater than or equal to 130 – Use of Lipid Lowering Agent	
Co.1.1 Measure Steward: ActiveHealth Management	
De.2 Brief Description of Measure: The percentage of patients with chronic kidney disease stage 5 and an LDL greater than or equal to 130 mg/dl that have a current refill for a lipid lowering agent.	
2a1.1 Numerator Statement: Patients with a current refill for a lipid lowering agent.	
2a1.4 Denominator Statement: All patients, ages 18 and older, diagnosed with chronic kidney disease stage 5, dialysis, or kidney transplant, and an LDL level above 130 mg/dL.	
2a1.8 Denominator Exclusions: Specific Exclusions: None General Exclusions: <ul style="list-style-type: none"> Evidence of metastatic disease or active treatment of malignancy (chemotherapy or radiation therapy) in the last 6 months; Patients who have been in a skilled nursing facility in the last 3 months Patient or provider feedback indicating allergy or intolerance to the drug in the past Patient or provider feedback indicating that there is a contraindication to adding the drug 	
1.1 Measure Type: Process 2a1. 25-26 Data Source: Claims, Electronic Health Data, Electronic Health Records, Instrument-Based Data, Other 2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Facility, Health Plan, Integrated Delivery System, Other, Population : Community, County or City, Population : Regional and State 1.2-1.4 Is this measure paired with another measure? No De.3 If included in a composite, please identify the composite measure (title and NQF number if endorsed): n/a	

STAFF NOTES (issues or questions regarding any criteria)

Comments on Conditions for Consideration:

Is the measure untested? Yes ☒ **No** ☒ **If untested, explain how it meets criteria for consideration for time-limited endorsement:**

1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (check De.5):

5. Similar/related [endorsed](#) or submitted measures (check 5.1):

Other Criteria:

Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. ([evaluation criteria](#))

1a. High Impact: **H O M O L O I O**

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

De.4 Subject/Topic Areas (Check all the areas that apply): Cardiovascular, Cardiovascular : Coronary Artery Disease, Cardiovascular : Hyperlipidemia, Renal, Renal : Chronic Kidney Disease (CKD), Renal : End Stage Renal Disease (ESRD)

De.5 Non-Condition Specific (Check all the areas that apply): Population Health

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, Patient/societal consequences of poor quality, Severity of illness

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (Provide epidemiologic or resource use data):

The incidence of Atherosclerotic Cardiovascular Disease (ACVD) is significantly higher in patients with Chronic Kidney Disease (CKD) compared to the general population, and is similar to patients with previous Cardiovascular Disease (CVD). Moreover, the survival of patients with CKD is poor, in large part due to ACVD. There is strong evidence that dyslipidemia is one of the leading causes of ACVD.

1a.4 Citations for Evidence of High Impact cited in 1a.3: • Chronic kidney disease: effects on the cardiovascular system. Schiffrin EL, Lipman ML, Mann JF. Circulation. 2007 Jul 3;116(1):85-97.

• K/DOQI Clinical Practice Guidelines for Managing Dyslipidemias in Chronic Kidney Disease. National Kidney Foundation American Journal of Kidney Diseases, Vol 41, No 4, Suppl 3 (April), 2003: pp S8-S9.

• Expert Panel on Detection Evaluation and Treatment of High Blood Cholesterol in Adults: Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). JAMA 285:2486-2497, 2001.

• United States Renal Data System: USRDS 2000 Annual Data Report: Atlas of End-Stage Renal Disease in the United States (ed 12th Annual Report). Bethesda, MD, Division of Kidney, Urologic, and Hematological Diseases, National Institute of Diabetes and Digestive Kidney Diseases, National Institutes of Health, 2000.

• Controlling the epidemic of cardiovascular disease in chronic renal disease: what do we know? What

do we need to learn? Where do we go from here? National Kidney Foundation Task Force on Cardiovascular Disease. Levey AS, Beto JA, Coronado BE, Eknoyan G, Foley RN, Kasiske BL, Klag MJ, Mailloux LU, Manske CL, Meyer KB, Parfrey PS, Pfeffer MA, Wenger NK, Wilson PW, Wright JT Jr. Am J Kidney Dis. 1998 Nov;32(5):853-906.

•Primary care management of chronic kidney disease. Allen AS, Forman JP, Orav EJ, Bates DW, Denker BM, Sequist TD. J Gen Intern Med. 2011 Apr;26(4):386-92.

1b. Opportunity for Improvement: H● M● L● I●

(There is a demonstrated performance gap - variability or overall less than optimal performance)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:

Elevated LDL cholesterol levels in patients with CKD are associated with increased mortality and morbidity from CVD. Treatment of patients with elevated LDL cholesterol with lipid lowering therapy reduces the risk of adverse cardiovascular events. Several national guidelines advocate for the use of lipid lowering therapy in patients with CKD and elevated LDL levels.

The benefits of using this measure is increased awareness of the need to screen for and to treat dyslipidemia according to national guidelines. Appropriate compliance with this measure should result in an increase in the treatment of patient with CKD and increased cardiovascular risk, and a reduction in morbidity and mortality for this group of patients.

1b.2 Summary of Data Demonstrating Performance Gap (Variation or overall less than optimal performance across providers): [**For Maintenance** – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.] Despite the presence of evidence for the importance of appropriate management of hyperlipidemia in CKD, and national guidelines recommending the use of lipid lowering therapy in patients with LDL levels greater than 100mg/dl, the proportion of CKD patients with LDL cholesterol levels at goal shows significant room for improvement.

Based on our data collected from a population of 13 million, we found 185 people, for whom we received both diagnoses and lab data, who fulfilled the denominator. Out of these, the compliance for use of a lipid-lowering agent in people with chronic kidney disease and an LDL greater than or equal to 130 was found to be 54%.

This was also demonstrated in a study, which included 166 primary care physicians caring for over 300,000 adult patients, including 11,774 patients with CKD. Overall, less than half of patients with CKD had LDL cholesterol levels less than 100mg/dl.

1b.3 Citations for Data on Performance Gap: [**For Maintenance** – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]

Based on our data collected across our entire population of 13 million, we found 185 people, for whom we received both diagnoses and lab data, who fulfilled the denominator. Out of these, the compliance for use of a lipid-lowering agent in people with chronic kidney disease and an LDL greater than or equal to 130 was found to be 54%.

In the study mentioned in section 1b.2, the data included a sample of 11,774 patients with Stage 3 and Stage 4 CKD, being followed by one of 166 primary care physicians in one of 15 ambulatory health centers in Massachusetts. There were quality of care measures in four primary domains. The domains included (1) monitoring stage of CKD, (2) cardiovascular risk management, (3) metabolic bone disease and anemia monitoring and (4) drug safety. All measures were assessed in the year following July 1, 2008 to allow a

minimum of 1 year following the initial diagnosis of CKD prior to assessing clinical performance.

1b.4 Summary of Data on Disparities by Population Group: *[For Maintenance – Descriptive statistics for performance results for this measure by population group]*

There was statistically significant variability in the number of patients adequately treated for dyslipidemia in different groups based on ethnicity (black, 32.3% vs. white, 45.6%), gender (male, 51.4% vs. female, 39.7%), type of insurance (commercial, 43.2% vs. uninsured, 25.8%), and presence of co-morbid conditions (e.g. diabetes, hypertension, CVD).

1b.5 Citations for Data on Disparities Cited in 1b.4: *[For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]*

The data included a sample of 11,774 patients with Stage 3 and Stage 4 CKD, being followed by one of 166 primary care physicians in one of 15 ambulatory health centers in Massachusetts. There were quality of care measures in four primary domains. The domains included (1) monitoring stage of CKD, (2) cardiovascular risk management, (3) metabolic bone disease and anemia monitoring and (4) drug safety. All measures were assessed in the year following July 1, 2008 to allow a minimum of 1 year following the initial diagnosis of CKD prior to assessing clinical performance.

Primary care management of chronic kidney disease. Allen AS, Forman JP, Orav EJ, Bates DW, Denker BM, Sequist TD. J Gen Intern Med. 2011 Apr;26(4):386-92.

1c. Evidence *(Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)*

Is the measure focus a health outcome? Yes ☐ No ☐ **If not a health outcome, rate the body of evidence.**

Quantity: H ☐ M ☐ L ☐ I ☐ **Quality:** H ☐ M ☐ L ☐ I ☐ **Consistency:** H ☐ M ☐ L ☐ I ☐

Quantity	Quality	Consistency	Does the measure pass subcriterion 1c?
M-H	M-H	M-H	Yes <input type="radio"/>
L	M-H	M	Yes <input type="radio"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="radio"/>
M-H	L	M-H	Yes <input type="radio"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="radio"/>
L-M-H	L-M-H	L	No <input type="radio"/>

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service

Does the measure pass subcriterion 1c?
Yes ☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process-health outcome; intermediate clinical outcome-health outcome):*

The focus of this measure is primarily improvement in health outcome. The link is process --> health outcome.

1c.2-3 Type of Evidence *(Check all that apply):*

Clinical Practice Guideline, Selected individual studies (rather than entire body of evidence)

1c.4 Directness of Evidence to the Specified Measure (*State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population*):

Dyslipidemia in chronic kidney disease is a central topic and relates directly to the measure. The measure evaluates the same population recommended in the literature.

1c.5 Quantity of Studies in the Body of Evidence (*Total number of studies, not articles*): The guidelines reviewed and summarized the results of 32 studies which discuss the prevalence of dyslipidemia in adults, children/ adolescents, and patients with kidney disease, and the association with progression of kidney disease.

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): There is evidence of significantly elevated risk for CVD in patients with CKD. There is also significant evidence of the benefit of treatment of patients with high risk for CVD, with lipid lowering therapy, especially statins, in the presence of elevated LDL cholesterol levels. The ATP III guidelines recommend the treatment of the highest risk patients (10 year risk of CVD >20%) with cholesterol lowering therapy for elevated cholesterol levels > 100mg/dl. Evidence suggests that 10 years risk for CVD in patients with CKD is >20%, so they belong in this highest risk category.

Although there are no randomized trials that evaluate the treatment of elevated LDL cholesterol in patients with CKD, there is convincing indirect evidence of benefit as described above.

There is evidence in the published subsequent to the guidelines that proves an association between LDL cholesterol levels and the risk of CVD. Cardiovascular event rates have a linear correlation with the level of LDL .

1c.7 Consistency of Results across Studies (*Summarize the consistency of the magnitude and direction of the effect*): The studies included are of mixed quality.

Several observational studies establish the strong association of CKD and hyperlipidemia.

There are no randomized controlled trials testing the hypothesis that dyslipidemias cause ACVD in patients with CKD. However, in an observational study of 3,716 patients initiating treatment for Stage 5 CKD in 1996, the use of statins in 362 (9.7%) was independently associated with lower all-cause mortality and a reduction in CVD deaths during follow-up, suggesting that dyslipidemia plays an important role in the progression of ACVD in patients with advanced CKD (Seliger SL, Weiss NS, Gillen DL, et al: HMG-CoA reductase inhibitors are associated with reduced mortality in ESRD patients. *Kidney Int* 61:297-304, 2002).

1c.8 Net Benefit (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms*):

In the absence of strong evidence to the contrary, it is reasonable to assume that statins will reduce LDL and thereby ACVD in most patients with CKD. Statins are clearly the most effective class of antilipemic agents for reducing LDL. There is established benefits to treating patients with elevated LDL.

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? **Yes**

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: [National Kidney Foundation, K/DOQI](#)

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: The overall strength of each guideline statement was rated by assigning either "A," "B," or "C".

An "A" rating indicates "it is strongly recommended that clinicians routinely follow the guideline for eligible patients. There is strong evidence that the practice improves net health outcomes, and benefits substantially outweigh harms." There were no guidelines that were assigned an "A" level recommendation.

The "B" rating indicates "it is recommended that clinicians routinely follow the guideline for eligible patients. There is moderate evidence that the practice improves net health outcomes."

A "C" rating indicates "it is recommended that clinicians consider following the guideline for eligible patients. This recommendation is based on either weak evidence, poor evidence or on the opinions of the Work Group and reviewers, that the practice might improve net health outcomes."

1c.13 Grade Assigned to the Body of Evidence: moderate evidence

1c.14 Summary of Controversy/Contradictory Evidence: There is no contradictory evidence.

1c.15 Citations for Evidence other than Guidelines(Guidelines addressed below):
See above.

1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #):
4.2. For adults with Stage 5 CKD and LDL>100 mg/dL (>2.59 mmol/L), treatment should be considered to reduce LDL to <100 mg/dL (<2.59 mmol/L). (B)

1c.17 Clinical Practice Guideline Citation: K/DOQI Clinical Practice Guidelines for Managing Dyslipidemias in Chronic Kidney Disease. National Kidney Foundation American Journal of Kidney Diseases, Vol 41, No 4, Suppl 3 (April), 2003: pp S8-S9

1c.18 National Guideline Clearinghouse or other URL:
http://www.kidney.org/professionals/KDOQI/guidelines_lipids/toc.htm

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: National Kidney Foundation, K/DOQI

1c.21 System Used for Grading the Strength of Guideline Recommendation: Other

1c.22 If other, identify and describe the grading scale with definitions: The overall strength of each guideline statement was rated by assigning either "A," "B," or "C".

An "A" rating indicates "it is strongly recommended that clinicians routinely follow the guideline for eligible patients. There is strong evidence that the practice improves net health outcomes, and benefits substantially outweigh harms." There were no guidelines that were assigned an "A" level recommendation.

The "B" rating indicates "it is recommended that clinicians routinely follow the guideline for eligible patients. There is moderate evidence that the practice improves net health outcomes."

A "C" rating indicates "it is recommended that clinicians consider following the guideline for

eligible patients. This recommendation is based on either weak evidence, poor evidence or on the opinions of the Work Group and reviewers, that the practice might improve net health outcomes.”

1c.23 Grade Assigned to the Recommendation: B

1c.24 Rationale for Using this Guideline Over Others: National Kidney Foundation, K/DOQI, is a nationally recognized body.

Based on the NQF descriptions for rating the evidence, what was the developer’s assessment of the quantity, quality, and consistency of the body of evidence?

1c.25 Quantity: Moderate **1c.26** Quality: Moderate **1c.27** Consistency: High

1c.28 Attach evidence submission form:

1c.29 Attach appendix for supplemental materials:

Was the threshold criterion, *Importance to Measure and Report*, met?

(1a & 1b must be rated moderate or high and 1c yes) Yes ☐ No ☒

Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.

For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **(evaluation criteria)**

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

S.1 Measure Web Page (*In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? Yes

S.2 If yes, provide web page URL: <http://www.activehealth.net/nqf-measures.php>

2a. RELIABILITY. Precise Specifications and Reliability Testing: H ☒ M ☒ L ☒ I ☒

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement (*Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome*):

Patients with a current refill for a lipid lowering agent.

2a1.2 Numerator Time Window (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):

A drug total day-supply that extends within 30 days of the measurement date.

2a1.3 Numerator Details (*All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses*):

NUMERATOR

1. The denominator is true
2. One of the following is correct:
 - a. Presence of at least 1 current refill for LIPID LOWERING AGENTS
 - b. Presence of patient data confirming at least 1 LIPID LOWERING AGENTS in the past 6 months

Note: A current refill is defined as a refill in which the total day supply of a drug plus a grace period of an additional 30 days extends into the end of the measurement window.

Code set: See the attached excel. Including the code set here exceeds the character limit.

2a1.4 Denominator Statement (*Brief, narrative description of the target population being measured*): All patients, ages 18 and older, diagnosed with chronic kidney disease stage 5, dialysis, or kidney transplant, and an LDL level above 130 mg/dL.

2a1.5 Target Population Category (*Check all the populations for which the measure is specified and tested if any*): Adult/Elderly Care

2a1.6 Denominator Time Window (*The time period in which cases are eligible for inclusion*): 3 years

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses*):
DENOMINATOR

All of the following are correct:

1. If patient age \geq 18 years
2. Presence of at least 1 LDL VALUE \geq 130 in the past 6 months
3. One of the following is correct:
 - a. CKD Stage 5 Validation is confirmed (see below)
 - b. Presence of at least 1 TRANSPLANT RENAL (CPT) procedure in the past 3 years

CKD Stage 5 Validation

One of the following is correct:

1. Presence of at least 1 CKD STAGE 5 diagnosis in the past 12 months from EHR data
2. Presence of at least 1 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months from EHR data
3. Presence of at least 1 CKD STAGE 5 diagnosis in the past 12 months from disability data

4. Presence of at least 1 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months from disability data
5. Presence of at least 2 CKD STAGE 5 diagnosis in the past 12 months at least 3 months apart from claims data
6. Presence of at least 2 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months at least 3 months apart from claims data
7. All of the following are correct:
 - a. Presence of at least 2 CKD - NOS diagnosis in the past 12 months at least 3 months apart from claims data
 - b. Presence of at least 1 result for creatinine clearance between 0.1 And 14 in the past
 - c. Patient age >= 18 years
8. Presence of at least 2 DIALYSIS CHRONIC (CPT) procedure in the past 12 months
9. Presence of patient data confirming at least 1 PDD - DIALYSIS in the past 12 months

CKD Stage 5 Validation Exclusion

The following is correct:

1. Presence of at least 1 TRANSPLANT RENAL (CPT) procedure in the past 12 months

Note: A 3-month time window has been added to certain timeframes to account for the inherent delay in the acquisition of administrative claims data.

Note: A current refill is defined as a refill in which the total day supply of a drug plus a grace period of an additional 30 days extends into the end of the measurement window.

Code Set:

NQF ID	Denominator / Numerator	Element Name	Code ID	Code Description
627	Denominator *CKD - NOS	581 NEPHROTIC SYNDROME		
627	Denominator *CKD - NOS	581.0 NEPHROTIC SYNDROME W/LESION PROLIFERATIVE GLN		
627	Denominator *CKD - NOS	581.1 NEPHROTIC SYNDROME W/LESION MEMBRANOUS GLN		
627	Denominator *CKD - NOS	581.2 NEPHROTIC SYND W/LESION MEMBRANOPROLIFERAT GLN		
627	Denominator *CKD - NOS	581.3 NEPHROTIC SYND W/LES MIN CHG GLOMERULONEPHRIT		
627	Denominator *CKD - NOS	581.8 NEPHROTIC SYND W/OTH SPEC PATHAL LESION KIDNEY		
627	Denominator *CKD - NOS	581.81 NEPHROTIC SYND W/OTH PATHAL LES DZ CLASS ELSW		
627	Denominator *CKD - NOS	581.89 OTH NEPHROTIC SYND W/SPEC PATHAL LESION KIDNEY		
627	Denominator *CKD - NOS	581.9 NEPHROTIC SYNDROME W/UNSPEC PATHAL LESION KIDNEY		
627	Denominator *CKD - NOS	585 CHRONIC KIDNEY DISEASE		
627	Denominator *CKD - NOS	585.9 CHRONIC KIDNEY DISEASE UNSPECIFIED		

627	Denominator	*CKD - NOS	587	UNSPECIFIED RENAL SCLEROSIS
627	Denominator	*CKD STAGE 5		458.21 HYPOTENSION OF HEMODIALYSIS
627	Denominator	*CKD STAGE 5		585.5 CHRONIC KIDNEY DISEASE STAGE V
627	Denominator	*CKD STAGE 5		585.6 End stage renal disease
627	Denominator	*CKD STAGE 5		996.56 MECH COMPS DUE PERITONEAL DIALYSIS CATHETER
627	Denominator	*CKD STAGE 5		996.68 INF&INFLAM REACT DUE PERITON DIALYSIS CATHETER
627	Denominator	*CKD STAGE 5		996.73 OTH COMPS DUE RENAL DIALYSIS DEVICE IMPLANT&GFT
627	Denominator	*CKD STAGE 5		E870.2ACC CUT PUNCT PERF/HEMORR DUR DIALYSIS/PERFUSION
627	Denominator	*CKD STAGE 5		E871.2FOREIGN OBJ LEFT IN BODY DUR DIALYSIS/PERFUSION
627	Denominator	*CKD STAGE 5		E874.2MECH FAIL-INSTRUMNT/APPARATUS DUR DIALYS-PERFUS
627	Denominator	*CKD STAGE 5		E879.1ABNORMAL REACTION/COMPLICAT D/T KIDNEY DIALYSIS
627	Denominator	*CKD STAGE 5		V56 ENCOUNTER DIALYSIS AND DIALYSIS CATHETER CARE
627	Denominator	*CKD STAGE 5		V56.0 ENCOUNTER FOR EXTRACORPOREAL DIALYSIS
627	Denominator	*CKD STAGE 5		V56.1 FITTING&ADJ EXTRACORPOREAL DIALYSIS CATHETER
627	Denominator	*CKD STAGE 5		V56.2 FITTING&ADJUSTMENT PERITONEAL DIALYSIS CATHETER
627	Denominator	*CKD STAGE 5		V56.3 ENCOUNTER FOR ADEQUACY TESTING FOR DIALYSIS
627	Denominator	*CKD STAGE 5		V56.31 ENCOUNTER FOR ADEQUACY TESTING FOR HEMODIALYSIS
627	Denominator	*CKD STAGE 5		V56.32 ENCOUNTER ADEQUACY TESTING PERITONEAL DIALYSIS
627	Denominator	*CKD STAGE 5		V56.8 ENCOUNTER OTHER DIALYSIS
627	Denominator	*DIALYSIS CHRONIC (CPT)	0882	MISCELLANEOUS DIALYSIS - Home dialysis aid visit
627	Denominator	*DIALYSIS CHRONIC (CPT)	90918	ESRD FULL MO <2 YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90919	ESRD FULL MO 2-11 YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90920	ESRD FULL MO 12-19 YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90921	ESRD FULL MO 20 YR&>
627	Denominator	*DIALYSIS CHRONIC (CPT)	90922	ESRD < FULL MO PR D <2 YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90923	ESRD < FULL MO PR D 2-11 YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90924	ESRD < FULL MO PR D 12-19YR
627	Denominator	*DIALYSIS CHRONIC (CPT)	90925	ESRD < FULL MO PR D 20YR&>
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1800	INPATIENT RENAL DIALYSIS - GENERAL
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1801	INPATIENT RENAL DIALYSIS - GENERAL - HEMODIALYSIS
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1802	INPATIENT PERITONEAL DIALYSIS (NON-CAPD)
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1803	INPATIENT CONTINUOUS DIALYSIS - (CAPD)
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1804	INPATIENT CONTINUOUS DIALYSIS - (CCPD)
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1809	INPATIENT DIALYSIS - OTHER
627	Denominator	*DIALYSIS CHRONIC (CPT)	_1820	HEMODIALYSIS - GENERAL

627	Denominator	*DIALYSIS CHRONIC (CPT) _1821	HEMODIALYSIS - COMPOSITE OR OTHER
627	Denominator	*DIALYSIS CHRONIC (CPT) _1822	HEMODIALYSIS - HOME SUPPLIES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1823	HEMODIALYSIS - HOME SUPPLIES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1824	HEMODIALYSIS - MAINTENANCE 100%
627	Denominator	*DIALYSIS CHRONIC (CPT) _1825	HEMODIALYSIS - SUPPORT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1829	HEMODIALYSIS - OTHER OUTPATIENT
627	Denominator	*DIALYSIS CHRONIC (CPT) _1830	PERITONEAL DIALYSIS - GENERAL
627	Denominator	*DIALYSIS CHRONIC (CPT) _1831	PERITONEAL DIALYSIS - COMPOSITE OR OTHER RATE
627	Denominator	*DIALYSIS CHRONIC (CPT) _1832	PERITONEAL DIALYSIS - HOME SUPPLIES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1833	PERITONEAL DIALYSIS - HOME EQUIPMENT
627	Denominator	*DIALYSIS CHRONIC (CPT) _1834	PERITONEAL DIALYSIS - MAINTENANCE 100%
627	Denominator	*DIALYSIS CHRONIC (CPT) _1835	PERITONEAL DIALYSIS - SUPPORT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1839	PERITONEAL DIALYSIS - OTHER OUTPATIENT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1840	CAPD - OUTPATIENT - HOME - GENERAL
627	Denominator	*DIALYSIS CHRONIC (CPT) _1841	CAPD - COMPOSITE OR OTHER RATE
627	Denominator	*DIALYSIS CHRONIC (CPT) _1842	CAPD - HOME SUPPLIES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1843	CAPD - HOME EQUIPMENT
627	Denominator	*DIALYSIS CHRONIC (CPT) _1844	CAPD - MAINTENANCE 100%
627	Denominator	*DIALYSIS CHRONIC (CPT) _1845	CAPD - SUPPORT SYSTEMS
627	Denominator	*DIALYSIS CHRONIC (CPT) _1849	CAPD - OTHER OUTPATIENT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1850	CCPD ? GENERAL
627	Denominator	*DIALYSIS CHRONIC (CPT) _1851	CCPD - COMPOSITE OR OTHER RATE
627	Denominator	*DIALYSIS CHRONIC (CPT) _1852	CCPD - HOME SUPPLIES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1853	CCPD - HOME EQUIPMENT
627	Denominator	*DIALYSIS CHRONIC (CPT) _1854	CCPD - MAINTENANCE 100%
627	Denominator	*DIALYSIS CHRONIC (CPT) _1855	CCPD - SUPPORT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1859	CCPD - OTHER OUTPATIENT SERVICES
627	Denominator	*DIALYSIS CHRONIC (CPT) _1880	MISCELLANEOUS DIALYSIS - GENERAL
627	Denominator	*DIALYSIS CHRONIC (CPT) _1881	MISCELLANEOUS DIALYSIS - ULTRAFILTRATION
627	Denominator	*DIALYSIS CHRONIC (CPT) _1889	MISCELLANEOUS DIALYSIS - OTHER
627	Denominator	*DIALYSIS CHRONIC (CPT) G0308	ESRD REL SRVC DUR TX PTS UND 2 YRS; 4/> VSTS MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0309	ESRD REL SRVC DUR TX PTS UND 2 YRS; 2/3 VSTS MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0310	ESRD REL SRVC DUR TX PTS UND 2 YRS AGE; 1 VST MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0311	ESRD REL SRVC DUR TX PT BETWN 2&11 YR; 4/>VST MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0312	ESRD REL SRVC DUR TX PT BETWN 2&11; 2/3 VSTS MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0313	ESRD REL SRVC DUR TX PT BETWN 2&11 YR; 1 VST MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0314	ESRD REL SRVC DUR TX PT BETWN 12&19; 4/> VSTS MO
627	Denominator	*DIALYSIS CHRONIC (CPT) G0315	ESRD REL SRVC DUR TX PT BETWN 12&19; 2/3 VSTS MO

627	Denominator	*DIALYSIS CHRONIC (CPT) G0316 ESRD REL SRVC DUR TX PT BETWN 12&19 YR; 1 VST MO	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0317 ESRD REL SRVC DUR TX PTS 20 YRS&OVR; 4/> VSTS MO	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0318 ESRD REL SRVC DUR TX PTS 20 YRS&OVR; 2/3 VSTS MO	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0319 ESRD REL SRVC DUR TX PTS 20 YRS&OVR; 1 VST MONTH	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0320 ESRD REL SRVC HOM DIALYSIS FULL MO; UND 2 YR AGE	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0321 ESRD REL SRVC HOM DIALYSIS FULL MO; 2-11 YRS AGE	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0322 ESRD REL SRVC HOM DIALYSIS FULL MO; 12-19 YR AGE	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0323 ESRD REL SRVC HOM DIALYSIS FULL MO; 20 YRS&OLDER	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0324 ESRD REL SERVICE HOME DIALYSIS PER DAY; PT <2 YR	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0325 ESRD REL SERV HOME DIALYSIS PER DAY; PT 2-11 YRS	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0326 ESRD REL SERV HOME DIALYSIS PER DAY; PT 12-19 YR	
627	Denominator	*DIALYSIS CHRONIC (CPT) G0327 ESRD REL SERV HOME DIALYSIS PER DAY; PT 20 YR >	
627	Denominator	*ESRD/DIALYSIS (ICD-9)	458.21 HYPOTENSION OF HEMODIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	585.6 END STAGE RENAL DISEASE
627	Denominator	*ESRD/DIALYSIS (ICD-9)	792.5 CLOUDY DIALYSIS AFFLUENT
627	Denominator	*ESRD/DIALYSIS (ICD-9)	996.56 MECH COMPS DUE PERITONEAL DIALYSIS CATHETER
627	Denominator	*ESRD/DIALYSIS (ICD-9)	996.68 INF&INFLAM REACT DUE PERITON DIALYSIS CATHETER
627	Denominator	*ESRD/DIALYSIS (ICD-9)	996.73 OTH COMPS DUE RENAL DIALYSIS DEVICE IMPLANT&GFT
627	Denominator	*ESRD/DIALYSIS (ICD-9)	E870.2ACC CUT PUNCT PERF/HEMORR DUR DIALYSIS/PERFUSION
627	Denominator	*ESRD/DIALYSIS (ICD-9)	E871.2FOREIGN OBJ LEFT IN BODY DUR DIALYSIS/PERFUSION
627	Denominator	*ESRD/DIALYSIS (ICD-9)	E872.2FAILED STERILE PRECAUTIONS DUR DIALYSIS/PERFUS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	E874.2MECH FAIL-INSTRUMNT/APPARATUS DUR DIALYS-PERFUS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	E879.1ABNORMAL REACTION/COMPLICAT D/T KIDNEY DIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V45.1 RENAL DIALYSIS STATUS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V45.11 RENAL DIALYSIS STATUS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V45.12NONCOMPLIANCE WITH RENAL DIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V56 ENCOUNTER DIALYSIS AND DIALYSIS CATHETER CARE
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V56.0 ENCOUNTER FOR EXTRACORPOREAL DIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9)	V56.1 FITTING&ADJ EXTRACORPOREAL DIALYSIS

CATHETER		
627	Denominator	*ESRD/DIALYSIS (ICD-9) V56.2 FITTING&ADJUSTMENT PERITONEAL DIALYSIS CATHETER
627	Denominator	*ESRD/DIALYSIS (ICD-9) V56.3 ENCOUNTER FOR ADEQUACY TESTING FOR DIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9) V56.31 ENCOUNTER FOR ADEQUACY TESTING FOR HEMODIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9) V56.32 ENCOUNTER ADEQUACY TESTING PERITONEAL DIALYSIS
627	Denominator	*ESRD/DIALYSIS (ICD-9) V56.8 ENCOUNTER OTHER DIALYSIS
627	Denominator	*LDL VALUE 12773-8 Cholesterol.in LDL
627	Denominator	*LDL VALUE 13457-7 CHOLESTEROL.IN LDL
627	Denominator	*LDL VALUE 18261-8 Cholesterol.in LDL
627	Denominator	*LDL VALUE 18262-6 Cholesterol.in LDL
627	Denominator	*LDL VALUE 2089-1 CHOLESTEROL.IN LDL
627	Denominator	*LDL VALUE 2090-9 Cholesterol.in LDL
627	Denominator	*LDL VALUE 9346-8 Lipoprotein.beta
627	Denominator	*PDD- DIALYSIS AA11214.44689 What health conditions has your doctor said you have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS AA1600.4755 Are you on kidney dialysis? = Yes
627	Denominator	*PDD- DIALYSIS AA20620.77113 What health conditions does the member have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS AA20936.78257 What health conditions does the member have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS AA3350.10749 Are you receiving hemodialysis? = Yes
627	Denominator	*PDD- DIALYSIS AA3355.10764 Are you receiving peritoneal dialysis? = Yes
627	Denominator	*PDD- DIALYSIS ATV11214.44689 What health conditions has your doctor said you have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS ATV1600.4755 Are you on kidney dialysis? = Yes
627	Denominator	*PDD- DIALYSIS ATV20620.77113 What health conditions does the member have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS ATV20936.78257 What health conditions does the member have? = Kidney Failure (Dialysis)
627	Denominator	*PDD- DIALYSIS ATV3350.10749 Are you receiving hemodialysis? = Yes
627	Denominator	*PDD- DIALYSIS ATV3355.10764 Are you receiving peritoneal dialysis? = Yes
627	Denominator	*PDD- DIALYSIS GORD43.1 Dialysis = Yes
627	Denominator	*PDD- DIALYSIS GRDA35.1 Dialysis = Yes
627	Denominator	*PDD- DIALYSIS HMT94.1 Are you on kidney dialysis? Dialysis is used to clean wastes from the blood after the kidneys have failed. = Yes
627	Denominator	*PDD- DIALYSIS PHO94.1 On kidney dialysis? = Yes
627	Denominator	*PDD- DIALYSIS PHR100260001.1 Do you know the stage of your kidney disease? = I get dialysis regularly
627	Denominator	*PDD- DIALYSIS PHR102770001.1 Which type of dialysis are you getting? = Hemodialysis
627	Denominator	*PDD- DIALYSIS PHR102770001.2 Which type of dialysis are you getting? = Peritoneal dialysis
627	Denominator	*PDD- DIALYSIS PHR617.1 Are you receiving hemodialysis? = Yes
627	Denominator	*TRANSPLANT RENAL (CPT) 55.6 TRANSPLANT OF KIDNEY
627	Denominator	*TRANSPLANT RENAL (CPT) 55.61 RENAL AUTOTRANSPLANTATION

627	Denominator	*TRANSPLANT RENAL (CPT)	55.69	OTHER KIDNEY TRANSPLANTATION
627	Denominator	*TRANSPLANT RENAL (CPT)	50360	RNL ALTRNSPLJ IMPLTJ GRF W/O RCP NFRCT
627	Denominator	*TRANSPLANT RENAL (CPT)	50365	RNL ALTRNSPLJ IMPLTJ GRF W/RCP NFRCT
627	Denominator	*TRANSPLANT RENAL (CPT)	50380	RNL AUTOTRNSPLJ RIMPLTJ KDN
627	Denominator	*TRANSPLANT RENAL (CPT)	_1367	OPERATING ROOM SERVICES - KIDNEY TRANSPLANT
627	Denominator	*TRANSPLANT RENAL (CPT)	S2065	SIMULTANEOUS PANCREAS KIDNEY TRANSPLANTATION

2a1.8 Denominator Exclusions (Brief narrative description of exclusions from the target population):

Specific Exclusions:

None

General Exclusions:

- Evidence of metastatic disease or active treatment of malignancy (chemotherapy or radiation therapy) in the last 6 months;
- Patients who have been in a skilled nursing facility in the last 3 months
- Patient or provider feedback indicating allergy or intolerance to the drug in the past
- Patient or provider feedback indicating that there is a contraindication to adding the drug

2a1.9 Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

General Exclusions:

- Evidence of metastatic disease or active treatment of malignancy (chemotherapy or radiation therapy) in the last 6 months;
- Patients who have been in a skilled nursing facility in the last 3 months
- Patient or provider feedback indicating allergy or intolerance to the drug in the past
- Patient or provider feedback indicating that there is a contraindication to adding the drug

Note: A 3-month window has been added to certain timeframes to account for the inherent delay in the acquisition of administrative claims data.

Note: A current refill is defined as a refill in which the total days supply of a drug extends to the end of the measurement window plus a grace period of an additional 30 days.

2a1.10 Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):

The results are not stratified.

2a1.11 Risk Adjustment Type (Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13): No risk adjustment or risk stratification

2a1.12 If "Other," please describe:

2a1.13 Statistical Risk Model and Variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):

No risk model applied to this measure.

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach

documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score):
Better quality = Higher score

2a1.20 Calculation Algorithm/Measure Logic(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.):

PERFORMANCE MEASURE RULE:

Chronic Kidney Disease with LDL = 130 – Consider Adding a Lipid Lowering Agent

DENOMINATOR

All of the following are correct:

1. If patient age \geq 18 years
2. Presence of at least 1 LDL VALUE \geq 130 in the past 6 months
3. One of the following is correct:
 - a. CKD Stage 5 Validation is confirmed (see below)
 - b. Presence of at least 1 TRANSPLANT RENAL (CPT) procedure in the past 3 years

DENOMINATOR EXCLUSIONS

None

NUMERATOR

1. The denominator is true
2. One of the following is correct:
 - a. Presence of at least 1 current refill for LIPID LOWERING AGENTS
 - b. Presence of patient data confirming at least 1 LIPID LOWERING AGENTS in the past 6 months

VALIDATION RULES

CKD Stage 5 Validation

One of the following is correct:

1. Presence of at least 1 CKD STAGE 5 diagnosis in the past 12 months from EHR data
2. Presence of at least 1 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months from EHR data
3. Presence of at least 1 CKD STAGE 5 diagnosis in the past 12 months from disability data
4. Presence of at least 1 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months from disability data
5. Presence of at least 2 CKD STAGE 5 diagnosis in the past 12 months at least 3 months apart from claims data
6. Presence of at least 2 ESRD/DIALYSIS (ICD-9) diagnosis in the past 12 months at least 3 months apart from claims data
7. All of the following are correct:
 - a. Presence of at least 2 CKD - NOS diagnosis in the past 12 months at least 3 months apart from claims data
 - b. Presence of at least 1 result for creatinine clearance between 0.1 And 14 in the past
 - c. Patient age \geq 18 years
8. Presence of at least 2 DIALYSIS CHRONIC (CPT) procedure in the past 12 months
9. Presence of patient data confirming at least 1 PDD - DIALYSIS in the past 12 months

CKD Stage 5 Validation Exclusion

The following is correct:

1. Presence of at least 1 TRANSPLANT RENAL (CPT) procedure in the past 12 months

Note: A 3-month time window has been added to certain timeframes to account for the inherent delay in the acquisition of administrative claims data.

Note: A current refill is defined as a refill in which the total day supply of a drug plus a grace period of an additional 30 days extends into the end of the measurement window.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

Attachment

[Chronic Kidney Disease with LDL Greater than 130 - Algorithm.pdf](#)

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable
Created on: 05/24/2021 at 05:29 PM

instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

Measure is not based on a sample.

2a1.25 Data Source (Check all the sources for which the measure is specified and tested). If other, please describe:

Claims, Electronic Health Data, Electronic Health Records, Instrument-Based Data, Other

2a1.26 Data Source/Data Collection Instrument (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.): Data are collected from a number of electronic sources, e.g., health plans, pharmacy-based management systems, electronic health records, patient health records, etc.

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

Attachment

627 Chronic Kidney Disease with LDL Greater than 130 - all.xlsx

2a1.33 Level of Analysis (Check the levels of analysis for which the measure is specified and tested):

Clinician : Group/Practice, Clinician : Individual, Facility, Health Plan, Integrated Delivery System, Other, Population : Community, County or City, Population : Regional and State

2a1.34-35 Care Setting (Check all the settings for which the measure is specified and tested): Ambulatory Care : Clinician Office, Home Care, Inpatient/Hospital, Post-Acute Care

2a2. Reliability Testing. (Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.)

2a2.1 Data/Sample (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

All the data for the measures are obtained from electronic sources. Based on the client, we take in electronic data from health plans, pharmacy-based management systems, laboratory systems, personal health records, health risk assessments, and electronic health records. In addition, we can take in data from care management systems. All data feeds are electronic and do not require manual medical chart abstraction.

We have over 21 million patient records across our book of business. The average age of the population is 35 and 51.9% of the population is female. Currently we use a database of approximately over 2 million patient records pulled from multiple populations for testing purposes.

Our testing procedure includes testing the rules on the database of approximately 2 million patient records. We typically review the results for reliability, i.e., did we find the same people on multiple runs and validity, i.e., did we find the appropriate people in the denominator and numerator.

2a2.2 Analytic Method (Describe method of reliability testing & rationale):

All of our quality measures are electronic and all the data used to support the measures are electronic. In addition, we receive the data by electronic feeds. We have internal processes to ensure that we receive valid codes and where appropriate the associated values. Our analytic process includes testing a new rule or algorithm on our test database of 2 million patient records, so that we can be sure of the reliability of the

code. At the end of the test, we randomly select patients who are either in the numerator, or in the denominator but not the numerator, to ensure that they met the requirements of the rule. As a part of our reliability testing, we check to ensure we have found the correct people in the denominator or the numerator, across multiple rules with similar definitions. To ensure accuracy, we check a subset of the people who were not in the numerator to ensure that we were accurate in not counting them in the numerator. If we find errors at any stage of the reliability testing, e.g., similar denominators that had significant differences in counts, different compliance rates for similar populations; we update the rules and retest.

2a2.3 Testing Results (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*):

The measure algorithms and code sets are all electronic. Once we complete testing the rules and correcting any errors, the rules are deployed in a production environment for our clients. At that point, the rules are considered reliable, i.e., if the rules are run on the same data set we expect to find the same people on a consistent basis.

2b. VALIDITY. Validity, Testing, including all Threats to Validity: H M L I NA

2b1.1 Describe how the measure specifications (*measure focus, target population, and exclusions*) **are consistent with the evidence cited in support of the measure focus (criterion 1c) and identify any differences from the evidence:**

The K/DOQI clinical guidelines recommend treating adults with Stage 5 CKD with elevated LDL. The guidelines recommend that for patients with LDL = 130 mg/dL initiate therapeutic lifestyle changes and low dose statin. For patients who are not able to tolerate a statin they advocate adding a second line agent such as a bile acid sequestrant or nicotinic acid. Based on the guideline's recommendations, our algorithm finds all adult patients with electronic evidence of Stage 5 CKD, who have had an LDL = 130, consistent with the existing guidelines.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

The data for the measure are obtained from electronic sources. Based on the client, we take in electronic data from health plans, pharmacy-based management systems, laboratory systems, personal health records, health risk assessments, and electronic health records. In addition, we can take in data from care management systems. All data feeds are electronic and do not require manual medical chart abstraction.

2b2.2 Analytic Method (*Describe method of validity testing and rationale; if face validity, describe systematic assessment*):

All of our quality measures are electronic and all the data used to support the measures are electronic. In addition, we receive the data by electronic feeds. We have internal processes to ensure that we receive valid codes and where appropriate the associated values. Currently we use a database of approximately 2 million patient records for testing purposes. Our analytic process includes testing a new rule or algorithm on the standard data set so that we can be sure of the reliability of the code. At the end of the test, we randomly select patients who are either in the numerator, or in the denominator but not the numerator, to ensure that they met the requirements of the rule. As a part of our validity testing, we check to ensure we have found the correct people in the denominator or the numerator. To ensure accuracy, we check a subset of the people who were not in the numerator to ensure that we were accurate in not counting them in the numerator. If we find errors at any stage of the reliability testing, e.g., similar denominators that had differences in counts, compliance rates for similar populations that differ, then we update the rules and retest.

Further, to ensure that we obtain valid results once the measures are deployed, when we run the measure

for a client we evaluate the results to ensure they are consistent with what we have found in the past for the client and across our book of business.

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment):*

The algorithms and code sets used for the measures are all electronic. Once we test the rules, and correct any errors, the rules are deployed in a production environment for our clients. At that point, the rule is considered reliable, that is we are finding the appropriate people in the denominator and numerator.

POTENTIAL THREATS TO VALIDITY. *(All potential threats to validity were appropriately tested with adequate results.)*

2b3. Measure Exclusions. *(Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.)*

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

There are no specific exclusions to this measure. For all of our rules, we apply general exclusions. In particular, we exclude people with a diagnosis of metastatic cancer or cancer treatment in the 6 month prior to the measurement date. In addition, we exclude patients who were in a skilled nursing facility 3 months before the measurement date.

2b3.2 Analytic Method *(Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference):*

There are no exclusions.

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*

There are no exclusions.

2b4. Risk Adjustment Strategy. *(For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.)*

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

We do not apply risk adjustment to our rules.

2b4.2 Analytic Method *(Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables):*

We do not apply risk adjustment to our rules.

2b4.3 Testing Results *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):*

We do not apply risk adjustment to our rules.

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: To satisfy the ability to apply evidence-based risk stratification protocols, we would have to collect electronic data to support the stratification, systematically; and often these data are not readily captured using standard electronic feeds. Other potential risk factors, e.g. race, gender, age, and socioeconomic status, relate to disparities in care, and except for age would be difficult to capture. In addition, risk stratification for a process measure might not be applicable

We anticipate that once electronic health records and clinical data become more prevalent and robust, we will be able to capture these additional data for routine risk adjustment.

2b5. Identification of Meaningful Differences in Performance. *(The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.)*

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

Our ability to analyze measures across different populations is limited by the characteristics of a specific client population. Since the rules are electronic, they are applied consistently, independent of the population characteristics. For example running this measure on a young population, may result in a lower denominator and compliance rate, compared to evaluating the measure across an older population.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):*

See comments above.

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance):*

See comments above.

2b6. Comparability of Multiple Data Sources/Methods. *(If specified for more than one data source, the various approaches result in comparable scores.)*

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

We receive electronic data from multiple sources – health plan, electronic health record, personal health record, etc. Independent of the sources, all the available data about a patient are aggregated into a single patient record for use in performance measurement. Therefore, for an individual patient the record will include claims data, clinical data from an electronic health record, or a self-reported data from a patient health record. Based on this, we do not typically conduct analyses based on disparate sources of data. Instead, the rules contain redundancies to accommodate the different sources of data or the absence of specific data based on the source.

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):*

See comments above.

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted):*

See comments above.

2c. Disparities in Care: H M L I NA *(If applicable, the measure specifications allow identification of disparities.)*

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts):* We do not stratify our measures for disparities.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:

To stratify based on disparities, would require that we receive electronic data in our standard feeds that we do not currently receive, e.g., race, ethnicity, socioeconomic status. We anticipate that once electronic health records and clinical data become more prevalent and robust, we will be able to capture these additional data for routine use including stratification disparities.

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met? (Reliability and Validity must be rated moderate or high) Yes ☒ No ☐

Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

C.1 Intended Actual/Planned Use (Check all the planned uses for which the measure is intended):
Payment Program, Public Reporting, Quality Improvement (Internal to the specific organization)

3.1 Current Use (Check all that apply; for any that are checked, provide the specific program information in the following questions): Public Reporting, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H ☒ M ☐ L ☐ I ☐

(The measure is meaningful, understandable and useful for public reporting.)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large (If used in a public reporting program, provide name of program(s), locations, Web page URL(s)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[For Maintenance** – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.]

Traditionally, we have reported our measures to clients who then publish the results publicly. We are in the process of working with clients who are a part of a number of initiative including patient-centered medical homes and accountable care organizations. We anticipate that with these new initiatives, that we will deploy our quality measures, the results of which should be part of the public reporting and quality initiative programs.

3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: The measures performance results are useful because there is independent evidence that patients with CKD do not necessarily receive the appropriate intervention especially in the primary care setting.

Patients with chronic kidney disease are at high risk for cardiovascular events. The detection of dyslipidemia allows for early treatment with statins, which may decrease this risk and reduce subsequent complications and costs.

Providing public reporting of this measure will lead to increased awareness of the need to screen for cardiovascular risk factors in renal patients and where appropriate to treat.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s):

3b. Usefulness for Quality Improvement: H M L I

(The measure is meaningful, understandable and useful for quality improvement.)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s):

[For Maintenance – *If not used for QI, indicate the reasons and describe progress toward using performance results for improvement***].**

Traditionally, we have reported our measures to clients who then publish the results publicly. We are in the process of working with clients who are a part of a number of initiative including patient-centered medical homes and accountable care organizations. We anticipate that with these new initiatives, that we will deploy our quality measures, the results of which should be part of the public reporting and quality initiative programs.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

The measures performance results are useful because there is independent evidence that patients with CKD do not necessarily receive the appropriate intervention especially in the primary care setting. Patients with chronic kidney disease are at high risk for cardiovascular events. The detection of dyslipidemia allows for early treatment with statins, which may decrease this risk and reduce subsequent complications and costs.

Providing public reporting of this measure will lead to increased awareness of the need to screen for cardiovascular risk factors in renal patients and where appropriate to treat.

Overall, to what extent was the criterion, Usability, met? H M L I

Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. **(evaluation criteria)**

4a. Data Generated as a Byproduct of Care Processes: H M L I

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*

Data used in the measure are:

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Other personal health record, disease management system

4b. Electronic Sources: H M L I

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields):* ALL data elements are in a combination of electronic sources

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H M L I

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement

identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:

We use a combination of data sources to mitigate the risk of inaccuracies or errors. We recognize that generally, electronic data have inherent errors and inaccuracies related to incorrect coding, or missing data, which can result in less specificity in the definition of the denominator and /or the numerator. To minimize these errors and inaccuracies, we use clinically enriched data (laboratory results, medication lists) to augment the data. In addition, where possible, we corroborate the data, for example if we receive an ICD-9 code for diabetes from claims, we also build include in the rule the requirement for diabetic medications. We have a mechanism in place to solicit feedback from providers via a feedback form, if they detect errors with the measure.

We do not anticipate significant unintended consequences from the implementation of the measure. Our measures are all developed from evidence-based literature or from clinical practice guidelines and are designed to encourage appropriate care of the patient.

4d. Data Collection Strategy/Implementation: H● M● L● I●

A.2 Please check if either of the following apply (regarding proprietary measures): [Proprietary measure](#)

4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues (e.g., fees for use of proprietary measures):

Generally, we have learned that we have to be flexible to take in data from all possible sources. We have also heard from providers, that they prefer that the rules err on the side of specificity, e.g., lessen the risk of false positives, that is, identifying the wrong patient for the denominator and that they want a mechanism to provide feedback.

Overall, to what extent was the criterion, *Feasibility*, met? H● M● L● I●

Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes● No●

Rationale:

If the Committee votes No, STOP.

If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

5.1 If there are related measures (either same measure focus or target population) or competing measures (both the same measure focus and same target population), list the NQF # and title of all related and/or competing measures:

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as [NQF-endorsed measure\(s\)](#): Are the measure specifications completely harmonized?

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:

5b. Competing Measure(s)

5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible):

No competing measure.

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): ActiveHealth Management, 1333 Broadway, New York, New York, 10018

Co.2 Point of Contact: Madhavi, Vemireddy, MD, mvemireddy@activehealth.net, 212-651-8200-

Co.3 Measure Developer if different from Measure Steward: ActiveHealth Management, 1333 Broadway, New York, New York, 10018

Co.4 Point of Contact: Madhavi, Vemireddy, MD, mvemireddy@activehealth.net, 212-651-8200-

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Co.6 Additional organizations that sponsored/participated in measure development:

Co.7 Public Contact: Mureen, Allen, MD, MS, MA, FACP, mallen (at) activehealth.net, 212-651-8200-, ActiveHealth Management

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development

Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

n/a

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward: n/a

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.3 Year the measure was first released: 2009

Ad.4 Month and Year of most recent revision: 06, 2011

Ad.5 What is your frequency for review/update of this measure? every 2 years

Ad.6 When is the next scheduled review/update for this measure? 10, 2013

Ad.7 Copyright statement: This information, including any attachments hereto, is the sole, exclusive, proprietary and confidential property of ActiveHealth Management, Inc., and is for the exclusive use of The National Quality Forum. Any use, copying, disclosure, dissemination or distribution by anyone other than the

National Quality Forum is strictly prohibited.

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments: Fields 1a.4, 1b.2, and 1b.3 revised on 11/10/2011. A typo was found in section 2a1.34 and corrected on 11/10/2011.

Date of Submission (MM/DD/YY): 06/30/2011