Measure #328 (NQF 1667): Pediatric Kidney Disease: ESRD Patients Receiving Dialysis: Hemoglobin Level < 10 g/dL – National Quality Strategy Domain: Effective Clinical Care

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Intermediate Outcome

DESCRIPTION:
Percentage of calendar months within a 12-month period during which patients aged 17 years and younger with a diagnosis of End Stage Renal Disease (ESRD) receiving hemodialysis or peritoneal dialysis have a hemoglobin level < 10 g/dL

INSTRUCTIONS:
This measure is to be reported each calendar month patients are seen with a diagnosis of ESRD (who are on hemodialysis or peritoneal dialysis) during the performance period. The most recent quality code submitted will be used for performance calculation. It is anticipated that eligible clinicians providing care for patients with ESRD will submit this measure.

Measure Reporting:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All calendar months during which patients aged 17 years and younger with a diagnosis of ESRD are receiving hemodialysis or peritoneal dialysis

> Denominator Criteria (Eligible Cases):
> Patients aged ≤ 17 years on date of encounter
> AND
> Diagnosis for ESRD (ICD-10-CM): N18.6
> AND
> Patient encounter during the **performance period** (CPT): 90945, 90947, 90951, 90952, 90953, 90954, 90955, 90956, 90957, 90958, 90959, 90963, 90964, 90965, 90967, 90968, 90969
> WITHOUT
> Telehealth Modifier: GQ, GT

NUMERATOR:
Calendar months during which patients have a hemoglobin level < 10 g/dL

> Numerator Instructions: The hemoglobin values used for this measure should be a most recent (last) hemoglobin value recorded for each calendar month.
>
> INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control.

Numerator Options:

Performance Met: Most recent hemoglobin (Hgb) level < 10 g/dL (G8973)

OR

Denominator Exception: Hemoglobin level measurement not documented, reason not given (G8974)

OR

Denominator Exception: Documentation of medical reason(s) for patient having a hemoglobin level < 10 g/dL (e.g., patients who have non-renal etiologies of anemia [e.g., sickle cell anemia or other hemoglobinopathies, hypersplenism, primary bone marrow disease, anemia related to chemotherapy for diagnosis of malignancy, postoperative bleeding, active bloodstream or peritoneal infection],other medical reasons) (G8975)

OR

Performance Not Met: Most recent hemoglobin (Hgb) level ≥ 10 g/dL (G8976)

RATIONALE:

The clinical issues that impact achievement of the target hemoglobin in the pediatric population differ from the adult population. Normative, adult population data should not be used to assess performance in the pediatric population. Consideration(s) should be given to using age-specific normative data across the pediatric age range.

Anemia is a common complication of chronic kidney disease (CKD). The prevalence of anemia varies with the degree of renal impairment in pre-dialysis patients with CKD, but once end-stage kidney failure occurs, all patients are eventually affected. Anemia develops once renal function decreases to < 50% because of a deficiency in endogenous erythropoietin (EPO) production by the kidney, decreased red cell survival, blood losses, and increased red blood cell destruction once the patient begins dialysis treatment, particularly hemodialysis. Anemia reduces physical capacity, well-being, neurocognitive function, and energy level and worsens quality of life both in predialysis and dialysis patients. Anemia also induces adaptive cardiovascular mechanisms to maintain tissue oxygen supply. This leads to left ventricular hypertrophy, left ventricular dilation, and myocardial ischemia, which are risk factors for cardiovascular disease and death. It is plausible that reversing anemia may reduce this risk. (Strippoli et al., 2004)

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines. Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

CLINICAL PRACTICE RECOMMENDATIONS FOR ANEMIA IN CHRONIC KIDNEY DISEASE IN CHILDREN:

(FULLY APPLICABLE TO CHILDREN) In the opinion of the [KDOQI] Work Group, in pediatric dialysis and nondialysis patients with CKD receiving ESA therapy, the selected Hb target should generally be in the range of 11.0 to 12.0 g/dL. (Clinical Practice RECOMMENDATION) (KDOQI, 2007)

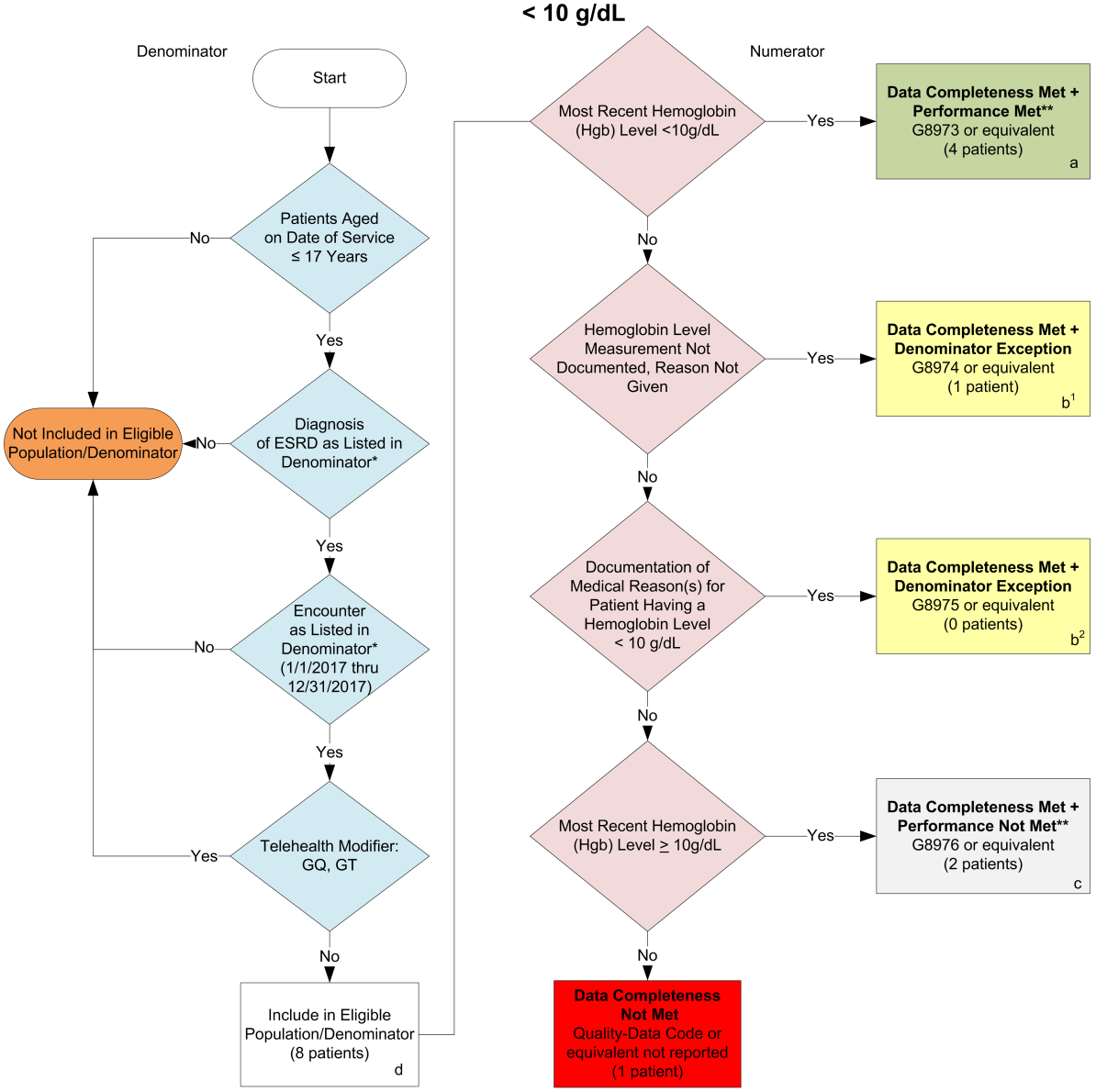
The AMA's and PCPI's significant past efforts and contributions to the development and updating of the Measures is acknowledged. RPA is solely responsible for the review and enhancement ("Maintenance") of the Measures as of July 11, 2014.

RPA encourages use of the Measures by other health care professionals, where appropriate.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, RPA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

2017 Registry Individual Measure Flow
#328 NQF #1667: Pediatric Kidney Disease: ESRD Patients Receiving Dialysis: Hemoglobin Level < 10 g/dL



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=4 patients) + Denominator Exception (b^1+b^2 =1 patient) + Performance Not Met (c=2 patients) = 7 patients = **87.50%**

Eligible Population / Denominator (d=8 patients) = 8 patients

Performance Rate=**

Performance Met (a=4 patients) = 4 patients = **66.67%**

Data Completeness Numerator (7 patients) – Denominator Expection (b=1 patient) = 6 patients

*See the posted Measure Specification for specific coding and instructions to report this measure.
**A lower performance rate for this measure indicates better clinical control or care.
NOTE: Reporting Frequency: Patient-periodic

2017 Registry Individual Measure Flow
#328 NQF #1667: Pediatric Kidney Disease: ESRD Patients Receiving Dialysis: Hemoglobin Level less than 10 g/dL

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start Denominator
2. Check Patient Age:
    a. If Age less than or equal to 17 years of age on Date of Service equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
    b. If the Age less than or equal to 17 years of age on Date of Service equals Yes during the measurement period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of ESRD as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If Diagnosis of ESRD as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to Telehealth Modifier.
5. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
    b. If Telehealth Modifier equals No, include in the Eligible population.
6. Denominator Population:
    a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 patients in the sample calculation.
7. Start Numerator
8. Check Most Recent Hemoglobin (HgB) Level less than 10 g/dL:
    a. If Most Recent Hemoglobin (HgB) Level less than 10 g/dL equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 4 patients in Sample Calculation.
    c. If Most Recent Hemoglobin (HgB) Level less than 10 g/dL equals No, proceed to Hemoglobin Level Measurement Not Documented, Reason Not Given.

9. Check Hemoglobin Level Measurement Not Documented, Reason Not Given:

    a. If Hemoglobin Level Measurement Not Documented, Reason Not Given equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b1 equals 1 patient in the Sample Calculation.

    c. If Hemoglobin Level Measurement Not Documented, Reason Not Given equals No, proceed to Documentation of Medical Reason(s) for Patient Having a Hemoglobin Level less than 10 g/dL Other Medical Reason.

10. Check Documentation of Medical Reason(s) for Patient Having a Hemoglobin Level less than 10 g/dL, Other Medical Reason:

    a. If Documentation of Medical Reason(s) for Patient Having a Hemoglobin Level less than 10 g/dL, Other Medical Reason equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b2 equals 0 patients in the Sample Calculation.

    c. If Documentation of Medical Reason(s) for Patient Having a Hemoglobin Level less than 10 g/dL, Other Medical Reason equals No, proceed to Most Recent Hemoglobin (Hgb) Level greater than or equal to 10 g/dL.

11. Check Most Recent Hemoglobin (HgB) Level greater than or equal to 10 g/dL:

    a. If Most Recent Hemoglobin (HgB) Level greater than or equal to 10 g/dL equals Yes, include in the Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 2 patients in the Sample Calculation.

    c. If Most Recent Hemoglobin (HgB) Level greater than or equal to 10 g/dL equals No, proceed to Data Completeness Not Met.

12. Check Data Completeness Not Met:

    a. If Data Completeness Not Met equals No, Quality Data Code or equivalent was not reported. 1 patient has been subtracted from data completeness numerator in the sample calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=4 patients) + Denominator Exception } (b^1+b^2=1 \text{ patient}) + \text{Performance Not Met (c=2 patients)}}{\text{Eligible Population / Denominator (d=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = \mathbf{87.50\%}$$

Performance Rate=**

$$\frac{\text{Performance Met (a=4 patients)}}{\text{Data Completeness Numerator (7 patients)} - \text{Denominator Expection (b=1 patient)}} = \frac{4 \text{ patients}}{6 \text{ patients}} = \mathbf{66.67\%}$$