CBE ID

2706

Title

Pediatric Peritoneal Dialysis Adequacy: Achievement of Target Kt/V

Project

Management of Acute Events, Chronic Disease, Surgery, and Behavioral Health

Endorsement Status

Endorsed with Conditions

E&M Committee Rationale/Justification

When the measure returns for maintenance (5 years), the measure developer should have:

- Aligned with any forthcoming CBE polices around pediatric population measures;
- Explored meaningfulness with patients/parents/caregivers that have direct lived experience in this measure area; and
- Explored the potential for risk adjustment based on patient age.

Is Under Review

No

Next Maintenance Cycle

Fall 2029

Previous Endorsement Cycle

Fall 2024

Initial Endorsement

Sun, 08/02/2015 - 12:02

Steward

Centers for Medicare & Medicaid Services

1.0 New or Maintenance

Maintenance

1.1 Measure Structure

Single Measure

1.3 Electronic Clinical Quality Measure (eCQM)

No

1.6 Measure Description

Percentage of pediatric (< 18 years old) peritoneal dialysis patient-months whose delivered peritoneal dialysis dose was a weekly Kt/Vurea >= 1.8 (dialytic + residual)

1.7 Composite Measure

No

1.7 Measure Type

Intermediate Outcome

1.8 Level of Analysis

Facility

1.9 Care Setting

Other

1.9b Other Care Setting

Dialysis Facility

1.10 Measure Rationale

The dose of dialysis is used to estimate the ability of peritoneal dialysis to clear the blood of accumulated toxins. In the adult population, outcome studies have shown an association between dose of hemodialysis in terms of small solute removal and clinical outcomes. Studies have shown a Kt/V of 1.8/week or greater in adult PD patients was associated with better serum albumin levels[1] and improved survival [2]. The ADEMEX did not show clinical benefit with weekly Kt/V doses exceeding 1.7/week in adult CAPD patients [1].

Pediatric PD adequacy targets should be no lower than existing adult PD adequacy targets since generally, pediatric patients' greater metabolic demands require higher adequacy targets in terms of small solute clearance. No equivalent large scale clinical trials have been conducted in the pediatric peritoneal dialysis population, but smaller scale observational studies support the association between delivered peritoneal dialysis dose and patient outcomes including the potential for improved growth [3].

1. Paniagua R, Amato D, Vonesh E, et al. "Effects of increased peritoneal clearances on mortality rates in peritoneal dialysis: ADEMEX, a prospective, randomized, controlled trial." Journal of the American Society of Nephrology: JASN (2002) 13:1307-20. PMID: 11961019.
2. Lo WK, Lui SL, Chan TM, et al. "Minimal and optimal peritoneal Kt/V targets: Results of an anuric peritoneal dialysis patient´s survival analysis." Kidney international (2005) 67:2032-8. PMID: 15840054.
3. Rees L, Feather S, Shroff R. "Peritoneal Dialysis Clinical Practice Guidelines for Children and Adolescents." British Association of Pediatric Nephrology (2008).

1.13 Data Dictionary

Not attached. I attest that all information will be provided where codes and/or value sets are needed (1.14a - 1.15c).

1.13a Attach Data Dictionary

2706_Data_Dictionary.xlsx

1.14 Numerator

Number of patient months in the denominator in which delivered peritoneal dialysis dose was a weekly Kt/V urea >= 1.8 (dialytic + residual, measured in the last 6 months)

1.14a Numerator Details

Reporting months with weekly Kt/V urea >=1.8 (dialytic + residual) are counted in the numerator. If no weekly Kt/V urea value is reported for a given patient in the reporting month, the most recent peritoneal dialysis weekly Kt/V urea value in the prior 5 months is applied to the calculation for that month.

Missing, expired, and not performed are not counted as achieving the minimum weekly Kt/V urea threshold.

1.15 Denominator

To be included in the denominator for a particular reporting month, the patient must be on peritoneal dialysis for the entire month, be < 18 years old at the beginning of the month, must have had ESRD for greater than 90 days at the beginning of the month, and must be assigned to that facility for the entire month.

1.15a Denominator Details

A treatment history file is the data source for the denominator calculation used for the analyses supporting this submission. This file provides a complete history of the status, location, and dialysis treatment modality of an ESRD patient from the date of the first ESRD service until the patient dies or the data collection cutoff date is reached. For each patient, a new record is created each time he/she changes facility or treatment modality. Each record represents a time period associated with a specific modality and dialysis facility. EQRS is the primary basis for placing patients at dialysis facilities and dialysis claims are used as an additional source of information in certain situations. Information regarding first ESRD service date, death, and transplant is obtained from EQRS (including the CMS Medical Evidence Form (Form CMS-2728) and the Death Notification Form (Form CMS-2746)) and Medicare claims, as well as the Organ Procurement and Transplant Network (OPTN).

1.15b Denominator Exclusions

Exclusions that are implicit in the denominator definition include

1. Patients not on peritoneal dialysis for the entire month
2. Adult patients (>=18 years old)
3. All patients who have had ESRD for <91 days, and
4. Patients not assigned to the facility for the entire month

There are no additional exclusions for this measure.

1.15c Denominator Exclusions Details

There are no additional or explicit exclusions beyond what is embedded in the denominator's definition.

1.15d Age Group

Children (0-17 years)

1.16 Type of Score

Rate/proportion

1.17 Measure Score Interpretation

Better performance = Higher score

1.18 Calculation of Measure Score

Denominator: For the reporting month, patients are included in the denominator if:

1. Patient modality is indicated as peritoneal dialysis during the entire month
2. Patient age as of the beginning of the reporting month is less than 18 years
3. Patient has had ESRD for greater than 90 days at the beginning of the month
4. Patient has been assigned to the facility for the entire month

Numerator:

For the reporting month, patients from the denominator are also included in the numerator if they

have a weekly Kt/V urea >= 1.8.

If no weekly Kt/V urea value is reported for a given patient in a month, the most recent peritoneal dialysis weekly Kt/V urea value in the prior 5 months is applied to the calculation for that month.

1.18a Attach measure score calculation diagram

2706_Flowchart_508.pdf

1.19 Measure Stratification Details

The measure is not stratified.

1.20 Types of Data Sources

Claims Data, Registries

1.25 Data Source Details

For the analyses supporting this submission, the measure is calculated using EQRS as the primary data source for the Kt/V values used to determine the numerator. If a patient's Kt/V data are missing in EQRS, Kt/V values from Medicare claims are used as an additional source for obtaining that information. Please see the attached data dictionary for a list of specific data elements that are used from each data source.

EQRS is the primary basis for placing patients at dialysis facilities and dialysis claims are used as an additional source. Information regarding first ESRD service date, death, age and incident comorbidities adjustments and transplant is obtained from EQRS (including the CMS Medical Evidence Form (Form CMS-2728) and the Death Notification Form (Form CMS-2746)) and Medicare claims, as well as the Organ Procurement and Transplant Network (OPTN) and the Social Security Death Master File.

1.26 Minimum Sample Size

Public reporting of this measure on DFCC or in the ESRD QIP would be restricted to facilities with at least 11 eligible patients for the measure to comply with restrictions on reporting of potentially patient identifiable information related to small cell size. We have applied this restriction to all the reliability and validity testing reported here.

2.1 Attach Logic Model

2706_Importance_Logic Model_508.pdf

2.2 Evidence of Measure Importance

The primary source of evidence for this measure is the KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations for 2006 Updates: Hemodialysis Adequacy, Peritoneal Dialysis Adequacy and Vascular Access.

Guideline recommendation:

6.3.2.1 The minimal “delivered” dose of total (peritoneal and kidney) small-solute clearance should be a Kt/Vurea of at least 1.8/week”

“For areas in which no pediatric-specific data exist, the CPGs and CPRs for adult patients should serve as a minimum standard for pediatric patients, but the overall clinical “wellness” of the individual pediatric patient should be the primary factor that influences the quantity and quality of the care provided.”

National Kidney Foundation. KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations for 2006 Updates: Hemodialysis Adequacy, Peritoneal Dialysis Adequacy and Vascular Access. Am J Kidney Dis 48:S1-S322, 2006 (suppl 1).

http://www2.kidney.org/professionals/KDOQI/guideline_upHD_PD_VA/pd_rec6...

The number of published clinical studies in the pediatric population is very small and includes small numbers of patients. PD adequacy studies among the pediatric population are largely observational studies; large scale clinical trials do not exist in the pediatric PD population because of the low prevalence of stage 5 CKD among pediatric patients, high transplantation rate, and difficulty of determining measurable study end points. Therefore, outcomes from the adult PD adequacy studies are evaluated, as experts agree that pediatric PD adequacy targets should be no lower than existing adult PD adequacy targets since generally, pediatric patients’ greater metabolic demands require higher adequacy targets in terms of small solute clearance.

Studies in the adult population and the small number of studies in the pediatric population generally support the relationship between improved solute clearance and clinical outcomes. The evidence supports a target Kt/V for peritoneal dialysis adequacy of between 1.7 and 1.8/week. There is evidence to support that the higher metabolic demands for growth in the pediatric population may require dialysis targets that are at least equal if not higher than in the adult

population. There are no specific clinical studies evaluating frequency of adequacy measurements. However, dialysis adequacy would need to be measured in order to ensure that target adequacy doses are achieved.

The 2013 clinical TEP reviewed 30-40 studies on peritoneal dialysis adequacy for both the adult and pediatric populations. PD adequacy studies among the pediatric population are largely observational studies; large scale clinical trials do not exist in the pediatric PD population because of the low prevalence of stage 5 CKD among pediatric patients, high transplantation rate, and difficulty of determining measurable study end points. These include studies on solute clearance and clinical outcomes (such as the ADEMEX), the method of measurement of volume in the pediatric population (Morgenstern, et al. JASN 17:285-293, 2006), the importance of measurement of residual renal function (CANUSA study, Bargman JM, et al. JASN 2158-2162, 2001) and the importance of growth as an outcome measure in the pediatric population (Chadha V, et al. PDI 2001), among others.

In May 2014, an additional literature search was performed and additional pieces of evidence [11-14] are included in the citations below as a result of that search.

1. Paniagua R, Amato D, Vonesh E, et al. “Effects of increased peritoneal clearances on mortality rates in peritoneal dialysis: ADEMEX, a prospective, randomized, controlled trial.” Journal of the American Society of Nephrology: JASN (2002) 13:1307-20. PMID: 11961019.
2. Lo WK, Lui SL, Chan TM, et al. “Minimal and optimal peritoneal Kt/V targets: Results of an anuric peritoneal dialysis patient's survival analysis.” Kidney international (2005) 67:2032-8.
PMID: 15840054
3. Holtta T, Ronnholm K, Jalanko H, Holmberg C. “Clinical outcome of pediatric patients on peritoneal dialysis under adequacy control.” Pediatric Nephrology (2000) 14: 889-97. PMID: 10975294
4. National Kidney Foundation. KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations for 2006 Updates: Hemodialysis Adequacy, Peritoneal Dialysis Adequacy and Vascular Access. Am J Kidney Dis 48:S1-S322, 2006 (suppl 1).
5. Rees L, Feather S, Shroff R. “Peritoneal Dialysis Clinical Practice Guidelines for Children and Adolescents.” British Association of Pediatric Nephrology (2008).
6. White CT, Gowrishankar M, Feber J et al. “Clinical practice guidelines for pediatric peritoneal dialysis.” Pediatric Nephrology: (2006) 21: 1059-66. PMID: 16819641
7. European Best Practice Guideline Working Group. “European Best Practice Guidelines for Peritoneal Dialysis.” Nephrology Dialysis Transplantation (2005) 20:ix1-ix37.
8. Chadha V, Blowey DL, Warady BA. “Is growth a valid outcome measure of dialysis clearance in children undergoing peritoneal dialysis?” Peritoneal dialysis international : journal of the International Society for Peritoneal Dialysis (2001) 21 Suppl 3:S179-84. PMID: 11887816
9. Morgenstern BZ, Wuhl E, Nair KS, Warady BA, et al. “Anthropometric prediction of total body water in children who are on pediatric peritoneal dialysis.” Journal of the American Society of Nephrology: JASN (2006) 17:285-93. PMID: 16319190

10. Bargman JM, Thorpe KE, Churchill DN et al. “Relative contribution of residual renal function and peritoneal clearance to adequacy of dialysis: a reanalysis of the CANUSA study.” Journal of the American Society of Nephrology (2001) 12(10):2158-62.
11. Cho Y1, Johnson DW, Craig JC, Strippoli GF, Badve SV, Wiggins KJ. Biocompatible dialysis fluids for peritoneal dialysis. Cochrane Database Syst Rev. 2014 Mar 27;3:CD007554. doi: 10.1002/14651858.CD007554.pub2.
12. Cadnapaphornchai MA1, Teitelbaum I. Strategies for the preservation of residual renal function in pediatric dialysis patients. Pediatr Nephrol. 2014 May;29(5):825-36; quiz 832. doi: 10.1007/s00467-013-2554-0. Epub 2013 Jul 19.
13. Watanabe A1, Lanzarini VV, Filho UD, Koch VH. Comparative role of PET and Kt/V determination in pediatric chronic peritoneal dialysis.Int J Artif Organs. 2012 Mar;35(3):199-207. doi: 10.5301/ijao.5000070.

14. Baştuğ F1, Dursun I, Dursun J et al. Could mini-PET be used to instead of 4 h original-PET to assess peritoneal permeability in children on peritoneal dialysis? Ren Fail. 2014 May;36(4):562-6. doi: 10.3109/0886022X.2013.879368. Epub 2014 Jan 23.

An additional search was conducted to support the Fall 2024 Maintenance submission, but no additional relevant publications were identified.

2.4 Performance Gap

Among the 21 facilities that have at least 11 eligible patients, we generated the following statistics of their performance scores (based on the patient month) using the January – December 2022 EQRS and Medicare claims data: mean=76.01% (SD=14.32%); min=48.75%; max=100.0%; Mean scores by decile are shown in Table 1 below. These results indicate that, on average, facilities are meeting the Kt/V urea guidelines in 76% of PD patients.

Note about Table 1: Deciles were defined differently between Tables 1 and 2. In Table 1, facilities are grouped and ranked according to ascending performance score. In Table 2, ranking is calculated on the basis of ascending facility size.

Table 1. Performance Scores by Decile

Performance Gap

	Overall	Minimum	Decile_1	Decile_2	Decile_3	Decile_4	Decile_5	Decile_6	Decile_7	Decile_8	Decile_9	Decile_10	Maximum
Mean Performance Score	76.01%	48.75%	50.73%	57.01%	64.84%	69.86%	75.33%	81.26%	85.26%	86.58%	89.90%	96.83%	100.0%
N of Entities	21	1	2	2	2	2	2	3	2	2	2	2	1
N of Persons / Encounters / Episodes	363	11	26	56	34	24	29	50	28	31	56	29	11

2.6 Meaningfulness to Target Population

Direct evidence: when CMS held a Star Ratings TEP (comprised of approximately equal numbers of providers and patients) to discuss the fate of Kt/V inclusion in the Star Ratings composite reported on DFCC, the patients overwhelmingly voted to retain Kt/V as one important determinant of quality care in the dialysis facilities. Many individually expressed a high degree of comfort in being able to see the Kt/V monthly, to be reassured that at least that component of their dialysis treatments was at or above a minimum standard.

Indirect evidence: most US dialysis patients achieve a Kt/V above 1.2 (HD) and 1.7 (PD). This achievement requires the cooperation of the patient, as they MUST provide consent for the length of treatment and other ordered dialysis parameters involved in achieving these targets. It is well documented in the literature that shortened dialysis treatments, for example, often result in lower Kt/V results. Thus, implicit consent from the patient, a member of the CMS-defined Interdisciplinary Team responsible for dialysis plan of care, is required to complete dialysis as ordered by the provider and executed by the interdisciplinary dialysis team.

3.1 Contributions Towards Closing Care Gaps

We are not providing a response to this optional question.

4.1 Feasibility Assessment

Data collection for Kt/V values is accomplished via EQRS, a web-based and electronic batch submission platform maintained and operated by CMS contractors. Measures reported on DFCC are reviewed on a regular basis by dialysis facility providers and rare instances of inaccurate or missing data are present based on comments reported in the DFCC ticketing system.

4.3 Feasibility Informed Final Measure

No changes were made.

4.4 Proprietary Information

Not a proprietary measure and no proprietary components

5.1.1 Data Used for Testing

For the Fall 2024 maintenance submission, 2022 EQRS and Medicare claims data were used.

5.1.2 Differences in Data

None.

5.1.3 Characteristics of Measured Entities

For the Fall 2024 maintenance submission, 21 facilities that had at least 11 eligible patients during January 2022 – December 2022 were included in the analyses. Public reporting of this measure on DFCC or in the ESRD QIP would be restricted to facilities with at least 11 eligible patients for the measure to comply with restrictions on reporting of potentially patient identifiable information related to small cell size. We have applied this restriction to all the reliability and validity testing reported here.

5.1.4 Characteristics of Units of the Eligible Population

362 patients who were from 21 facilities with at least 11 eligible patients were included in the analyses. Out of all included patients, 42.3% were female, 2.7% were Native American, 2.8% were Asian, 0.3% were Pacific Islander, 22.1% were Black, 69.1% were White, 2.8% were Other/Multi-Racial, and 23.5% were Hispanic. Please note, the number of patients listed here may not match the total number of patients in Tables 1 and 2 due to patients being counted multiple times if they switched providers during the year.

5.2.1 Level(s) of Reliability Testing Conducted

Accountable entity level (i.e., measure score) (e.g., signal-to-noise analysis)

5.2.2 Method(s) of Reliability Testing

We used January 2022 – December 2022 EQRS and Medicare claims data to calculate the inter-unit reliability (IUR) for the overall 12 months, minimum, maximum, and within each decile to assess the reliability of this measure. The inter-unit reliability (IUR) measures the proportion of the measure variability that is attributable to the between-facility variance. The yearly based IUR was estimated using a bootstrap approach, which uses a resampling scheme to estimate the within facility variation that cannot be directly estimated by ANOVA. We note that the method for calculating the IUR was developed for measures that are approximately normally distributed across facilities. Since this measure is not normally distributed, the IUR value should be interpreted with some caution.

5.2.3 Reliability Testing Results

The annual IUR=0.734 across 12 reporting months, which suggests 73% of variation in the measure is attributed to between facility variation.

Note about Table 2: Deciles were defined differently between Tables 1 and 2. In Table 1, facilities are grouped and ranked according to ascending performance score. In Table 2, ranking is calculated on the basis of ascending facility size.

5.2.4 Interpretation of Reliability Results

The IUR suggests this measure is reliable. However, since the distribution of performance scores is skewed, the IUR value should be interpreted with some caution.

Table 2. Accountable Entity Level Reliability Testing Results by Denominator, Target Population Size

Accountable Entity-Level Reliability Testing Results

	Overall	Minimum	Decile_1	Decile_2	Decile_3	Decile_4	Decile_5	Decile_6	Decile_7	Decile_8	Decile_9	Decile_10	Maximum
Reliability	0.734	0.639	0.639	0.649	0.659	0.668	0.693	0.728	0.738	0.767	0.798	0.842	0.846
Mean Performance Score	76.01%	74.38%	74.38%	75.39%	85.77%	74.29%	66.93%	71.49%	83.38%	88.17%	69.65%	72.92%	90.58%
N of Entities	21	2	2	2	2	2	2	3	2	2	2	2	1
N of Persons / Encounters / Episodes	363	22	22	23	24	25	28	50	35	41	49	66	34

5.3.1 Level(s) of Validity Testing Conducted

Person or encounter level (i.e., data element) (e.g., sensitivity and specificity), Accountable entity level (i.e., measure score) (e.g., criterion validity)

5.3.3 Method(s) of Validity Testing

Data elements in EQRS for quality measures that are used in value-based purchasing undergo regular validity testing to ensure accuracy and results are publicly reported. This process involves a medical record review from 300 randomly selected dialysis facilities with up to 10 patients from each facility also being randomly selected. A total of 24 data elements were most recently reviewed from April – June 2023. A nurse review team compares these data elements from the patients chart to what is reported in EQRS. Patient-level data elements include: date of birth, date regular dialysis began, admission and discharge date to facility, type of dialysis treatment and date of death. Quality measure data elements include: Kt/V for hemodialysis, date of Kt/V collection, method used to calculate Kt/V, and modality type.

5.3.4 Validity Testing Results

Results of this analysis are notable for the following:

- 96.5% correct matches with 1.6% of entries in either EQRS (0.2%) or Medical Records (1.4%) containing missing information.
- 1.9% incorrect matches
- Date elements showed error rates ranging from 0-2.3%

5.3.5 Interpretation of Validity Results

This analysis reveals a high degree of validity for the key data elements used in the measure. Additional details can be found at: https://qualitynet.cms.gov/esrd/data-validation#tab2

5.3.2 Type of Accountable Entity Level Validity Testing Conducted (derived)

Not applicable/accountable entity level validity testing not conducted

5.3.2a Why Testing Not Conducted (derived)

Accountable entity-level validity testing was not performed due to the small size of the pediatric population.

5.4.1 Methods Used to Address Risk Factors

No risk adjustment or stratification

6.1.1 Current Status

In use

6.1.3 Current Use(s)

Public Reporting, Payment Program

6.1.3 Program Details

Name of the program and sponsor
Dialysis Facility Care Compare
URL of the program
http://www.medicare.gov
Purpose of the program
Dialysis Facility Care Compare helps patients find detailed information about Medicare-certified dialysis facilities. They can compare the services and the quality of care that facilities provide.
Geographic area and percentage of accountable entities and patients included
United States
Applicable level of analysis and care setting

All Medicare-certified dialysis facilities who are eligible for the measure and have at least 11 patients (due to public reporting requirements).

6.2.1 Actions of Measured Entities to Improve Performance

Most U.S. chronic dialysis facilities perform quite well on both the hemodialysis Kt/V as well as the PD Kt/V metric. Given this performance, most dialysis facilities are not required to “do more” in order to avoid flagging as underperforming. The greatest utility of the Kt/V measure is as a minimum standard to provide ongoing information about the effectiveness of small solute clearance, one technical outcome of dialysis treatments that contributes to the overall assessment of dialysis success. As the ISPD Guidelines for PD adequacy point out, it is not the only metric that should be used to assess dialysis adequacy, but one important minimum standard for assessment of one aspect of the therapy. In addition to providing this minimum dialytic clearance of small metabolic solutes, the dialysis facility has multiple other aspects of holistic care to monitor and address for optimal dialysis care. Unfortunately, quality metrics that assess these components of dialysis adequacy are either in development , or not yet available based on the current standards of the underlying scientific evidence.

6.2.2 Feedback on Measure Performance

We reviewed the comments and questions submitted during the DFCC preview periods that have taken place since the last maintenance (2019-present). Outside of questions about facility-specific results (such as questioning the records for a particular patient), we receive a handful of questions regarding the measure specifications.

For DFCC, feedback can be provided any time through contacting the dialysisdata.org helpdesk. Preview periods allow for specific times for facilities review and comment on measure calculations and provide an opportunity to request a patient list.

6.2.3 Consideration of Measure Feedback

The measure specifications have not been revised since the last maintenance cycle in 2019. Feedback received during DFCC preview periods has resulted in more detailed and accurate documentation available to the public, primarily via the ESRD Measures Manual and the Guide to the Quarterly Dialysis Facility Reports.

6.2.4 Progress on Improvement

The following reports the performance scores for this measure at the yearly level for 2015 - 2022. This analysis demonstrates a general increase in performance across seven years for the measure as implemented on DFCC. Calendar year 2020 was not reported due to CMS's COVID Extraordinary Circumstances Exception (ECE) data policy that restricted the use of EQRS clinical data from a portion of that year.

Year 2015: N = 27, Mean = 55.6%, Std Dev =29.7%, Min = 3.6%, Max = 97.3%

Year 2016: N = 30, Mean =60.6%, Std Dev = 26.9%, Min = 7%, Max = 95.8%

Year 2017: N = 31, Mean = 71.3%, Std Dev = 17.5%, Min = 17.5%, Max = 95.3%

Year 2018: N = 32, Mean = 73.2%, Std Dev = 17.9%, Min = 24.4%, Max = 98.3%

Year 2019: N = 28, Mean = 75.9%, Std Dev = 25.6%, Min = 4.1%, Max = 100.0%

Year 2021: N = 11, Mean = 81.5%, Std Dev = 11.6%, Min = 64.0%, Max = 100.0%

Year 2022: N = 21, Mean = 76.0%, Std Dev = 14.3%, Min = 48.8%, Max = 100.0%

6.2.5 Unexpected Findings

We have been encouraged by the magnitude of improvement in measure results after implementation noted in 6.2.4 above.

We have not been notified of documented unintended impacts on patients as a result of measure implementation.

Developer POC email

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Measure Developer POC

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The measure developer is different from the measure steward

Yes

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