

**Quality ID #330: Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days**

– National Quality Strategy Domain: Patient Safety

– Meaningful Measure Area: Appropriate Use of Healthcare

**2019 COLLECTION TYPE:**

**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**MEASURE TYPE:**

Outcome – High Priority

This is a two-part measure that is paired with Measure #329: Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis. This measure *should* be submitted if quality-data code G9240 (Patient whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated) is submitted for Measure #329.

**DESCRIPTION:**

Percentage of patients aged 18 years and older with a diagnosis of End Stage Renal Disease (ESRD) receiving maintenance hemodialysis for greater than or equal to 90 days whose mode of vascular access is a catheter

**INSTRUCTIONS:**

This measure is to be submitted a minimum of **once per performance period** for patients with ESRD seen during the performance period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**NOTE:** *Include only patients that have catheters at the time of initiation of hemodialysis through **September 30** of the performance period. This will allow the evaluation of at least 90 days of catheter use for hemodialysis within the submission year.*

**Measure Submission Type:**

Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

**DENOMINATOR:**

All patients aged 18 years and older with a diagnosis of ESRD receiving maintenance hemodialysis for greater than or equal to 90 days

**Denominator Criteria (Eligible Cases):**

Patients aged  $\geq 18$  years on date of encounter

**AND**

**Diagnosis for ESRD (ICD-10-CM):** N18.6, Z49.31

**AND**

**Patient encounter during performance period (CPT):** 90957, 90958, 90959, 90960, 90961, 90962, 90966, 90970

**AND**

All eligible instances of quality-data code **G9240** (Patient whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated as applied in the numerator for Measure #329 Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis)

**AND NOT**

**DENOMINATOR EXCLUSIONS:**

**Patient is undergoing palliative dialysis with a catheter: G9749**

**OR**

**Patient approved by a qualified transplant program and scheduled to receive a living donor kidney transplant: G9750**

**NUMERATOR:**

Patients whose mode of vascular access is a catheter

**Numerator Instructions:**

Of note, the performance tags indicating “Performance Met” and “Performance Not Met” are included to highlight what is being measured and submitted and not to encourage extended use of catheters for vascular access.

**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. Submitting 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:***

Patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter as the mode of vascular access **(G9265)**

**OR**

***Denominator Exception:***

Documentation of patient receiving maintenance hemodialysis for greater than or equal to 90 days with a catheter for documented reasons (e.g. other medical reasons, patient declined AVF/AVG, other patient reasons) **(G9264)**

**OR**

***Performance Not Met:***

Patient receiving maintenance hemodialysis for greater than or equal to 90 days without a catheter as the mode of vascular access **(G9266)**

**RATIONALE:**

Long-term catheter use without appropriate adjustments in treatment duration can compromise dialysis adequacy. Compromise of dialysis adequacy is associated with increased morbidity and mortality. Long-term catheter access is associated with a risk for central venous stenosis development, which can preclude the establishment of a permanent vascular access for HD.

Data suggest that a change from non-cuffed to long-term cuffed catheters, and the reduction in catheter placement rates, may reflect longer duration of catheter use and longer exposure to potential infections.

The infection rate for long-term cuffed catheters is one episode per 252 catheter days, and their use is associated with lower blood flows, less hemodialysis, and an increased risk of sepsis, endocarditis, and metastatic infections.

**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. A structured approach to the type and location of long-term HD accesses should help optimize access survival and minimize complications. The access should be placed distally and in the upper extremities whenever possible. Options for fistula placement should be considered first, followed by prosthetic grafts if fistula placement is not possible.

Catheters should be avoided for HD and used only when other options listed are not available. (KDOQI, 2006)

- 2.1. The order of preference for placement of fistulae in patients with kidney failure who choose HD as their initial mode of KRT should be (in descending order of preference):
  - 2.1.1. Preferred: Fistulae (B)
    - 2.1.1.1. A wrist (radiocephalic) primary fistula (A)
    - 2.1.1.2. An elbow (brachiocephalic) primary fistula (a)
    - 2.1.1.3. A transposed brachial basilic vein fistula (B)
  - 2.1.2. Acceptable: AVG of synthetic or biological material, such as: (B)
    - 2.1.2.1. A forearm loop graft, preferable to a straight configuration
    - 2.1.2.2. Upper-arm graft
    - 2.1.2.3. Chest wall or “necklace” prosthetic graft or lower-extremity fistula or graft; all upper-arm sites should be exhausted.
  - 2.1.3. Avoid if possible: Long-term catheters. (B)
    - 2.1.3.1. Short-term catheters should be used for acute dialysis and for a limited duration in hospitalized patients. Noncuffed femoral catheters should be used in bed-bound patients only. (B)
    - 2.1.3.2. Long-term catheters or dialysis port catheter systems should be used in conjunction with a plan for permanent access. Catheters capable of rapid flow rates are preferred. Catheter choice should be based on local experience, goals for use, and cost. (B)
    - 2.1.3.3. Long-term catheters should not be placed on the same side as a maturing AV access, if possible. (B)

Special attention should be paid to consideration of avoiding femoral catheter access in HD patients who are current or future kidney transplant candidates. MRA imaging of both arteries and veins is the diagnostic procedure of choice for evaluating central vessels for possible chest wall construction. (KDOQI, 2006)

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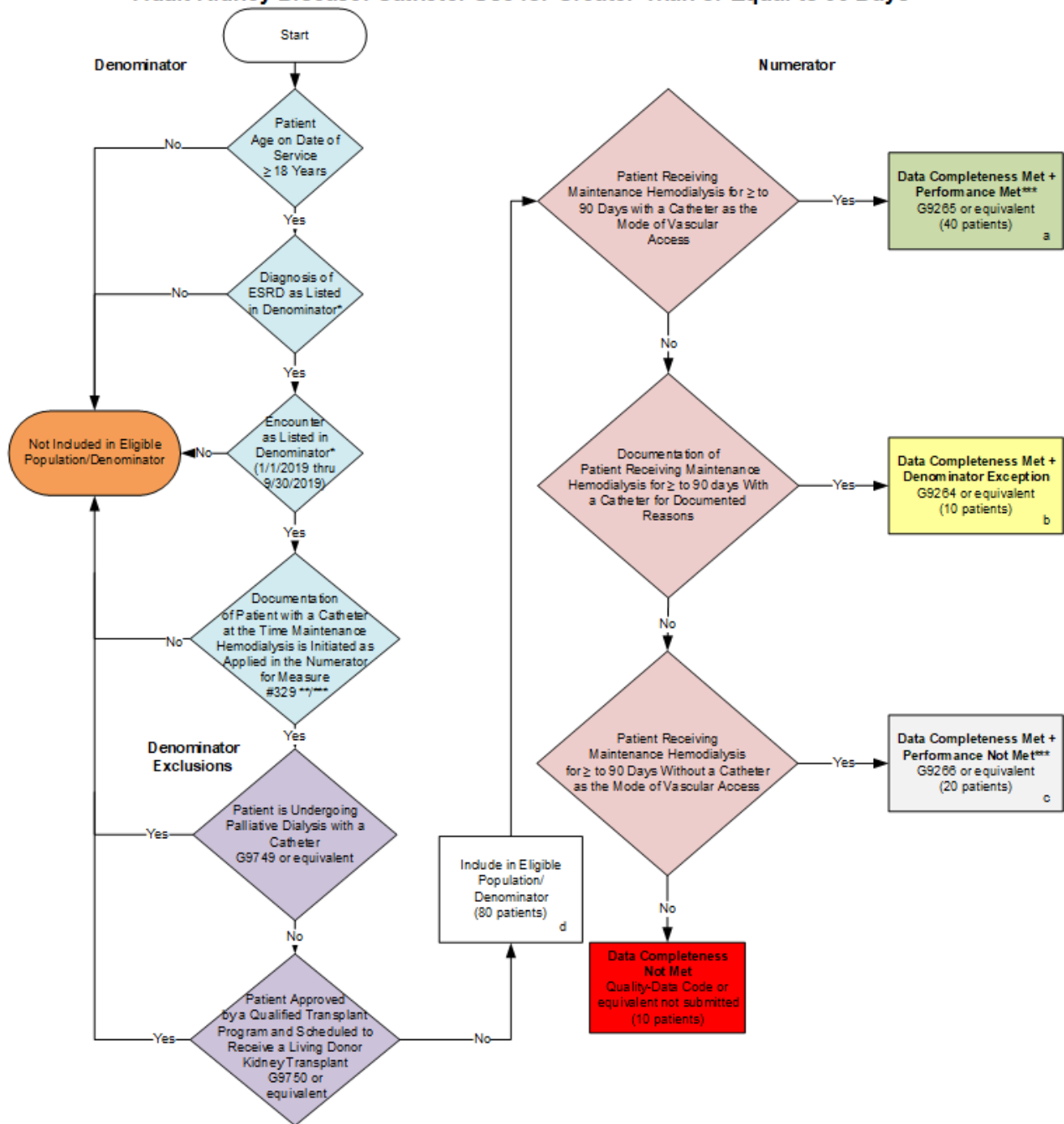
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## 2019 Registry Flow for Quality ID #330: Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days



\* See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\* Submitting measure #329 is a precursor for submission of this measure. Patients where G9240 or equivalent (documentation of patient with a catheter at the time maintenance hemodialysis is initiated) is submitted in measure #329 are pulled into the denominator for measure #330.

\*\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

NOTE: Submission Frequency: Patient-process

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**2019 Registry Flow for Quality ID #330:  
Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days**

**SAMPLE CALCULATIONS:**

Data Completeness=

$$\frac{\text{Performance Met (a=40 patients)} + \text{Denominator Exception (b=10 patients)} + \text{Performance Not Met (c=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients) - Denominator Exception (b=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$

\* See the posted Measure Specification for specific coding and instructions to submit this measure.

\*\* Submitting measure #329 is a precursor for submission of this measure. Patients where G9240 or equivalent (documentation of patient with a catheter at the time maintenance hemodialysis is initiated) is submitted in measure #329 are pulled into the denominator for measure #330.

\*\*\*A lower calculated performance rate for this measure indicates better clinical care or control.

NOTE: Submission Frequency: Patient-process

**2019 Clinical Quality Measure Flow Narrative for Quality ID  
#330: Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. Submitting Measure #329 is a precursor for submitting this measure. Patients where G9240 or equivalent (Documentation of patient with a catheter at the time maintenance hemodialysis is initiated) is submitted in Measure #329 are pulled into the denominator for measure #330. A lower calculated performance rate for this measure indicates better clinical care or control.

1. Start with Denominator
2. Check Patient Age:
  - a. If Patient Age is greater than or equal to 18 years on Date of Service equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
  - b. If Patient Age is greater than or equal to 18 years 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 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 Population. Stop Processing.
  - b. If Encounter as Listed in the Denominator equals Yes, proceed to check Documentation of Patient with a Catheter at the Time Maintenance Hemodialysis is Initiated as Applied in the Numerator for Measure #329.
5. Check Documentation of Patient with a Catheter at the Time Maintenance Hemodialysis is Initiated as Applied in the Numerator for Measure #329:
  - a. If Documentation of Patient with a Catheter at the Time Maintenance Hemodialysis is Initiated as Applied in the Numerator for Measure #329 equals No, do not include in Eligible Population. Stop Processing.
  - b. If Documentation of Patient with a Catheter at the Time Maintenance Hemodialysis is Initiated as Applied in the Numerator for Measure #329 equals Yes, proceed to check Palliative Dialysis.
6. Check Palliative Dialysis:
  - a. If Patient is Undergoing Palliative Dialysis with a Catheter equals Yes, do not include in Eligible Population. Stop Processing.
  - b. If Patient is Undergoing Palliative Dialysis with a Catheter equals No, proceed to check Patient Approved by a Qualified Transplant Program and Scheduled to Receive a Living Donor Kidney Transplant.
7. Check Patient Approved by a Qualified Transplant Program and Scheduled to Receive a Living Donor Kidney Transplant:
  - a. If Patient Approved by a Qualified Transplant Program and Scheduled to Receive a Living Donor Kidney Transplant equals Yes, do not include in Eligible Population. Stop Processing.

- b. If Patient Approved by a Qualified Transplant Program and Scheduled to Receive a Living Donor Kidney Transplant equals No, include in Eligible Population.
8. 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 80 patients in the Sample Calculation.
9. Start Numerator
10. Check Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter as the Mode of Vascular Access
  - a. If Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter as the Mode of Vascular Access 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 40 patients in the Sample Calculation.
  - c. If Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter as the Mode of Vascular Access equals No, proceed to check Documentation Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter for Documented Reasons.
11. Check Documentation Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter for Documented Reasons:
  - a. If Documentation Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter for Documented Reasons 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 the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.
  - c. If Documentation Patients Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days With a Catheter for Documented Reasons equals No, proceed to check Patient Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days Without a Catheter as the Mode of Vascular Access.
12. Check Patient Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days Without a Catheter as the Mode of Vascular Access:
  - a. If Patient Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days Without a Catheter as the Mode of Vascular Access 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 20 patients in the Sample Calculation.
  - c. If Patient Receiving Maintenance Hemodialysis for Greater Than or Equal to 90 Days Without a Catheter as the Mode of Vascular Access equals No, proceed to check Data Completeness Not Met.
13. Check Data Completeness Not Met:
  - a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from Data Completeness Numerator in the Sample Calculation.



**SAMPLE CALCULATIONS:**

**Data Completeness=**

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**Performance Rate=**

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