

Quality ID #329: Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis – National Quality Strategy
Domain: Effective Clinical Care

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Outcome

This is a two part measure which is paired with Measure #330: Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days. If there is documentation that the patient initiated hemodialysis with a catheter, then Measure #330 *should* also be submitted.

DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of End Stage Renal Disease (ESRD) who initiate maintenance hemodialysis during the measurement period, whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated

INSTRUCTIONS:

This measure is to be submitted a minimum of **once per performance period** for patients with ESRD who initiated maintenance hemodialysis during the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:

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 submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older with a diagnosis of ESRD who initiate maintenance hemodialysis during the measurement period

Denominator Criteria (Eligible Cases):

Patients aged ≥ 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

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Initiation of maintenance hemodialysis during the submission/maintenance period

AND NOT

DENOMINATOR EXCLUSIONS:

Patient is undergoing palliative dialysis with a catheter: G9747

OR

Patient approved by a qualified transplant program and scheduled to receive a living donor kidney transplant: G9748

NUMERATOR:

Patients whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated

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 catheter use.

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 whose mode of vascular access is a catheter at the time maintenance hemodialysis is initiated (**G9240**)

OR

Denominator Exception:

Documentation of reasons for patient initiating maintenance hemodialysis with a catheter as the mode of vascular access (e.g., patient has a maturing AVF/AVG, time-limited trial of hemodialysis, other medical reasons, patient declined AVF/AVG, other patient reasons, patient followed by reporting nephrologist for fewer than 90 days, other system reasons) (**G9239**)

OR

Performance Not Met:

Patient whose mode of vascular access is not a catheter at the time maintenance hemodialysis is initiated (**G9241**)

RATIONALE:

Cuffed tunneled central venous catheters should be discouraged as permanent vascular access.

Among vascular access modalities, catheters have the highest rates of infectious complications, thrombosis, risk of permanent central venous stenosis or occlusion.

Patients receiving catheters and grafts have greater mortality risk than patients dialyzed with fistulae.

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. (KDOQI, 2006)

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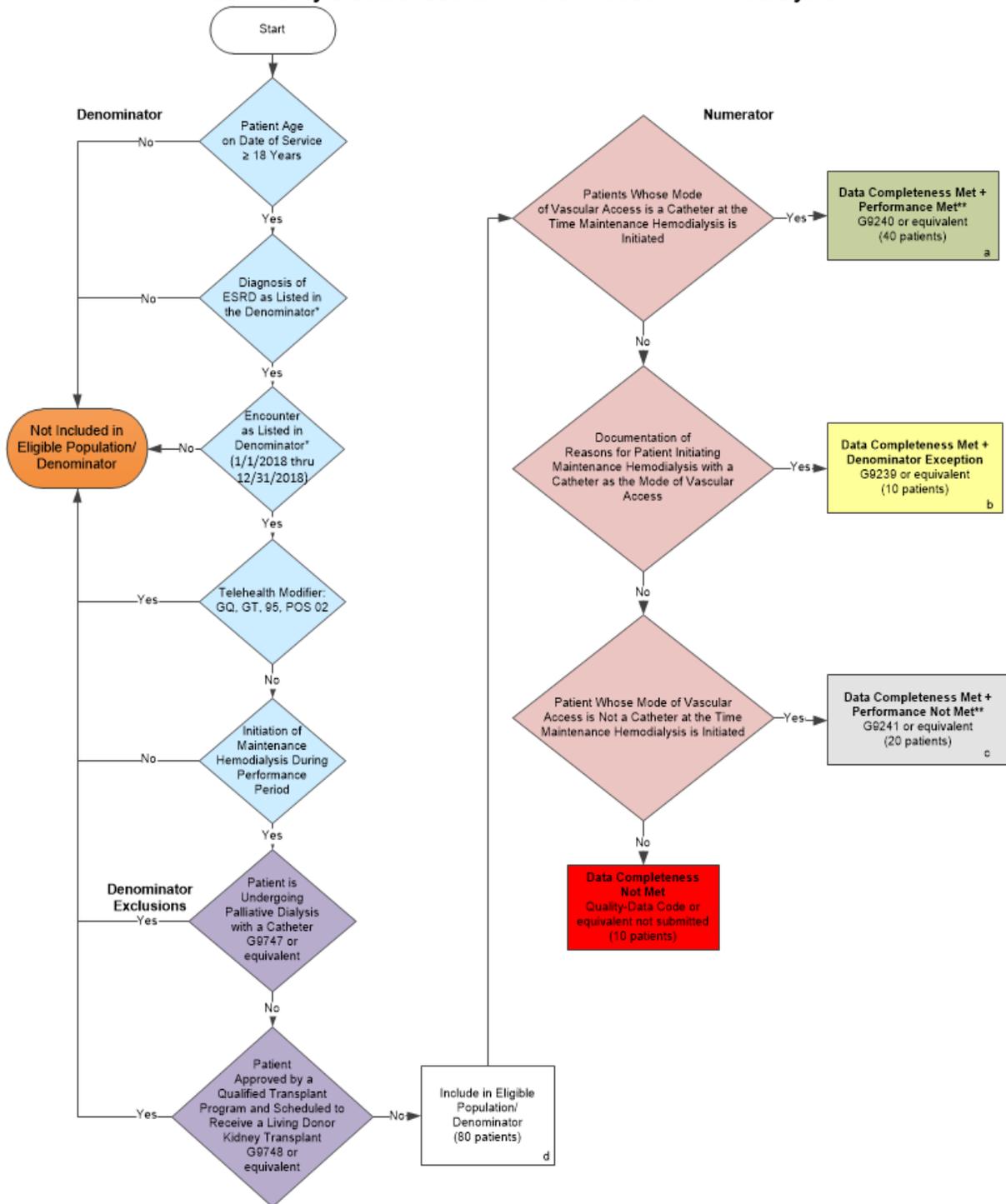
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2018 Registry Flow for Quality ID #329: Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis



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

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**2018 Registry Flow for Quality ID #329:
Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis**

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.

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

NOTE: Submission Frequency: Patient-process

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v2

**2018 Registry Flow For Quality ID
#329: Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission. This is a two part measure which is paired with Measure #330: Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days. If there is documentation that the patient initiated hemodialysis with a catheter, then Measure #330 *should* also be submitted.

1. Start with Denominator
2. Check Patient Age:
 - a. If the Age is greater than or equal to 18 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 is greater than or equal to 18 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 check 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, proceed to check Initiation of Maintenance Hemodialysis During Performance period.
6. Check Initiation of Maintenance Hemodialysis During Performance period:
 - a. If Initiation of Maintenance Hemodialysis During Performance period equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Initiation of Maintenance Hemodialysis During Performance period equals Yes, proceed to check Palliative Dialysis.
7. Check Palliative Dialysis:
 - a. If Patient is Undergoing Palliative Dialysis with a Catheter equals Yes, do not include in Eligible Patient Population. Stop Processing.
 - b. If Patient is Undergoing Palliative Dialysis with a Catheter equals No, proceed to check Kidney Transplant.

8. Check 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 Patient 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 the Eligible Population.
9. 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.
10. Start Numerator
11. Check Patients Whose Mode of Vascular Access is a Catheter at the Time Maintenance Hemodialysis is Initiated:
 - a. If Patients Whose Mode of Vascular Access is a Catheter at the Time Maintenance Hemodialysis is Initiated 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 Whose Mode of Vascular Access is a Catheter at the Time Maintenance Hemodialysis is Initiated equals No, proceed to Documentation of Reasons for Patient Initiating Maintenance Hemodialysis with a Catheter as the Mode of Vascular Access.
12. Check Documentation of Reasons for Patient Initiating Maintenance Hemodialysis with a Catheter as the Mode of Vascular Access:
 - a. If Documentation of Reasons for Patient Initiating Maintenance Hemodialysis with a Catheter as the Mode of Vascular Access 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 b equals 10 patients in the Sample Calculation.
 - c. If Documentation of Reasons for Patient Initiating Maintenance Hemodialysis without a Catheter as the Mode of Vascular Access equals No, proceed to Patients Whose Mode of Vascular Access is Not a Catheter at the Time Maintenance Hemodialysis is Initiated.
13. Check Patients Whose Mode of Vascular Access is Not a Catheter at the Time Maintenance Hemodialysis is Initiated:
 - a. If Patients Whose Mode of Vascular Access is Not a Catheter at the Time Maintenance Hemodialysis is Initiated 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 Patients Whose Mode of Vascular Access is Not a Catheter at the Time Maintenance Hemodialysis is Initiated equals No, proceed to Data Completeness Not Met.

14. Check Data Completeness Not Met:

- a. If Data Completeness Not Met equals No, 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=

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

Performance Rate=

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