CBE ID 2978 Hemodialysis Vascular Access: Long-term Catheter Rate (LTC)

Percentage of adult hemodialysis patient-months using a catheter continuously for three months or longer for vascular access

Inputs	Activities	Outputs	Outcomes	Impacts
• Clinical guidelines (e.g., KDOQI, CMS Conditions for Coverage) • Dialysis center staff (nephrologists, nurses, technicians) and vascular access coordinator • EHR systems and data analytics tools • Quality improvement team • Patient engagement resources (e.g., education materials, peer mentors) • Partnerships with vascular access surgeons / interventional radiologists	• Collect and analyze baseline catheter use data • Identify patients with long-term catheter use (>90 days) • Implement vascular access planning protocols • Educate patients on the risks of long-term catheter use and access options • Train staff on best practices in catheter reduction • Implement shared decision-making tools • Conduct monthly case reviews for patients with catheters • Improve care coordination between dialysis centers and vascular surgeons • Monitor adherence to clinical pathways and benchmarks	• Number of patients educated on access options • Number of patients transitioned from catheters to AVFs or AVGs • Reports on vascular access planning compliance • Number of staff trained on catheter reduction protocols • Quality dashboards showing catheter prevalence trends • Monthly case review summaries • Documentation of patient decisions/preferences	Short-Term: • Increased awareness among patients and staff about catheter risks • Improved documentation of access planning and patient education • Increased referrals to vascular access specialists Long-Term: • Reduction in percentage of patients with long-term catheters • Improved rates of AVF or AVG placement • Increased adherence to care pathways • Enhanced patient satisfaction and engagement in care planning	• Sustained reduction in long-term catheter use • Decreased rates of catheter-related bloodstream infections (CRBSIs) • Improved hospitalization for infections • Reduced healthcare costs related to catheter-related complications

Feedback Mechanisms

- Monthly performance reports to quality improvement team.
- Root cause analysis for persistent long term catheter patients (patient choice, exhausted anatomic options, new patients starting with catheter)
- Benchmarking against other facilities using dialysis organization data or through Dialysis Facility Reports (state, regional, national comparisons)

Assumptions

- With appropriate education, patients are willing to participate in vascular access planning and undergo surgery
- Patients have not exhausted all of their options for a surgical access
- Facilities have access / partnerships with qualified vascular surgeons.

External Factors
• Availability of vascular surgeons • Changes in clinical guidelines (e.g. KDIGO) or CMS Policy (Quality Incentive Program)

Summary: When drafting a summary of your logic model for a health care quality measure, begin by clearly defining the specific health issue or gap in care that the measure addresses. Outline the resources (inputs) required, such as data sources, technology, educational resources, etc. Describe the key activities that will be undertaken, such as data collection, analysis, conducting trainings, etc. Detail the expected outputs, such as reports, benchmarks, or alerts that will directly result from these activities. Then, articulate the short-term, intermediate, and long-term outcomes you anticipate, which should include the measure focus and may include outcomes, such as improved clinical practices, enhanced patient outcomes, etc. Consider the potential impacts as well, which may include broader policy changes or population health impacts. Highlight any assumptions that underpin your model and acknowledge external factors that could influence the success of the measure. This summary should provide a concise yet comprehensive overview, aligning with the evidence summaries of the measure's importance and linking each component logically to show how your measure will contribute to improved health care quality.

See the E&M Logic Model Guidance for definitions and additional information on how to use this optional template for measure logic models.