

Position Statement

Preparing for Kidney Replacement Therapies

Individuals who have reached stage 5 of chronic kidney disease (CKD) or end stage kidney disease (ESKD) require dialysis or transplant for survival. Individuals who select dialysis therapy require a permanent means of access to achieve this life-sustaining therapy.

It is the position of the American Nephrology Nurses Association (ANNA) that:

- CKD education related to dialysis modalities and preparation for dialysis initiation, including access placement and maintenance, should be provided to all individuals with CKD.
- Supports the utilization of the Centers for Medicare & Medicaid Services (CMS) kidney disease education benefit for all Medicare beneficiaries diagnosed with CKD stage IV. The education benefit provides up to six sessions of education to help manage comorbidities, prevent uremic complications, and understand treatment options for kidney replacement therapy.
- Supports expanding the CMS kidney disease education benefit to include CKD stage V and expanding the settings the education can be provided.
- Endorses the recommendations for the ESKD Life-Plan from the National Kidney Foundation (NKF) Kidney Disease Outcomes Quality Initiative (KDOQI) Clinical Practice Guideline for Vascular Access (2019). The ESKD Life-Plan is a more patient-focused approach, and once established is reviewed as the patient's needs change, but at least annually.
- Vein preservation of both peripheral and central vessels should be incorporated into patient teaching and care.
- Believes all individuals requiring maintenance dialysis therapy should have a functioning permanent access prior to the initiation of dialysis.
- Supports the recommendations of the International Society for Peritoneal Dialysis (ISPD) Guidelines/Recommendations Creating and Maintaining Optimal Peritoneal Dialysis Access In The Adult Patient: 2019 Update for individuals electing peritoneal dialysis (PD), and specifically support a modified PD prescription using low volume exchanges in a supine position to facilitate urgent start PD.
- Endorses the central venous catheter last strategy for permanent hemodialysis access.
- Supports an access surveillance program to be employed in each dialysis facility for early identification and intervention of vascular access dysfunction, enhance long-term access function, and reduce the costs associated with maintenance of access patency. Access surveillance programs should include all members of the interdisciplinary team. Facilities should adopt best practice models for vascular access management plans.
- Believes staff education should include infection control principles and hands-on cannulation training for vascular access to assure optimal care. This should include satisfactory demonstration of knowledge and skills prior to independently performing cannulation.
- Supports offering self-cannulation education to all patients, regardless of treatment location, this includes in-center, hospitalized, and self-care at-home hemodialysis patients.
- Believes cannulation of vascular access should be considered as an integral part of successful hemodialysis and an important factor in access outcomes.

Background and Rationale

Dialysis access continues to be a significant challenge for individuals with ESKD. 84.7% of individuals initiating dialysis with or without permanent maturing dialysis access start with a catheter (USRDS, 2024), making optimal starts a focus for all patients.

In 2019, the KDOQI Clinical Practice Guideline for Vascular Access adopted a new approach that focuses on the individual's ESKD Life-Plan. The concept of the Life-Plan is to consider a more patient-focused approach to identify kidney replacement modality as well as short and long term access needs. ESKD Life-Plans should be discussed and reviewed on a regular basis. In addition, the accepted strategy has moved from "Fistula First" to "Catheter Last" to guide nephrology providers and individuals with CKD to the optimum dialysis access entry point.

Nephrology nurses have the primary responsibility to assure the highest quality cannulation to preserve access integrity and prevent access complications. This responsibility includes incorporation of best practices for access cannulation by promotion of expert cannulators and formal cannulation protocols and offering patients the opportunity to self-cannulate.

Suggested Readings

Making Dialysis Safer for Patients Coalition. <https://www.cdc.gov/dialysis-safety/making-dialysis-safer-coalition/index.html>

Crabtree, J.H., Shrestha, B.M., Chow, K., Figueiredo, A.E., Povlsen, J.V., Wilkie, M., Abdel-Aal, A., Cullis, B., Goh, B., Briggs, V.R., Brown, E.A., & Dor, F.J.M.F. (2019). ISPD guidelines/recommendations: Creating and maintaining optimal peritoneal dialysis access in the adult patient: 2019 update. <https://journals.sagepub.com/doi/pdf/10.3747/pdi.2018.00232>

Levey, A.S., Eckardt, K., Dorman, N.M., Christiansen, S.L., Hoon, E.J., Ingelfinger, J.R., Winkelmayer, W.C. (2020). Nomenclature for kidney function and disease: Report of a Kidney Disease: Improving Global Outcomes (KDIGO) Consensus Conference. *Kidney International*, 97(6), 1117-1129. <https://doi.org/10.1016/j.kint.2020.02.010>

Lok, C.E., Huber, T.S., Lee, T., Shenoy, S., Yevzlin, A.S., Abreo, K., Valentini, R.P. (2020). KDOQI Vascular Access Guideline Work Group. KDOQI clinical practice guideline for vascular access; 2019 update. *American Journal of Kidney Disease*, 75(4) (suppl 2):S1-S164. <https://doi.org/10.1053/j.ajkd.2019.12.001>

United States Renal Data System (USRDS) 2024 annual report, retrieved from: [Annual Data Report | USRDS \(nih.gov\)](#)

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