

KEY TAKEAWAYS:

- HeRO Graft Indications for Use have been updated to specify inclusion of Fistula & Graft Salvage

- Multiple publications describe this use and its advantages

- One key advantage is the elimination of the need for a bridging TDC

HeRO Graft for Fistula or Graft Salvage

The HeRO Graft Indications for Use includes fistula/graft salvage (see highlighted words below).

Indications for Use:

The HeRO Graft is indicated for end stage renal disease patients on hemodialysis who have exhausted all other access options. These catheter-dependent patients are readily identified using the KDOQI guidelines¹ as patients who:

- Have become catheter-dependent or who are approaching catheter-dependency (i.e., have exhausted all other access options, such as arteriovenous fistulas and grafts).
- Are not candidates for upper extremity fistulas or grafts due to poor venous outflow as determined by a history of previous access failures or venography.
- Are failing fistulas or grafts due to poor venous outflow as determined by access failure or venography (e.g. fistula/graft salvage).
- Have poor remaining venous access sites for creation of a fistula or graft as determined by ultrasound or venography.
- Have a compromised central venous system or central venous stenosis (CVS) as determined by history or previous access failures, symptomatic CVS (i.e., via arm, neck, or face swelling) or venography.
- Are receiving inadequate dialysis clearance (i.e., low Kt/V) via catheters. KDOQI guidelines recommend a minimum Kt/V of 1.4.²

1) Vascular Access Work Group. National Kidney Foundation KDOQI clinical practice guidelines for vascular access.

Guideline 1: patient preparation for permanent hemodialysis access. Am J Kidney Dis 2006;48(1Suppl1):S188-91.

2) Hemodialysis Adequacy 2006 Work Group. National Kidney Foundation KDOQI clinical practice guidelines for hemodialysis adequacy, update 2006. Am J Kidney Dis 2006;48 (Suppl 1):S2-S90.

Overview of the Procedure:

Typically a short segment of the ePTFE portion of HeRO Graft is connected to the existing vascular access in an end-to-end or end-to-side fashion. One advantage of this method is it eliminates the need for a bridging catheter, thus eliminating the infection risks associated with the use of tunneled dialysis catheters.

See page two for clinical summaries of HeRO Graft fistula/graft salvage.

**KEY
TAKEAWAYS:**

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Links to
HeRO Graft
publications are
available at
www.herograft.com

HeRO Graft for Fistula or Graft Salvage

The following are examples of clinical cases of HeRO Graft fistula (AVF) and graft (AVG) salvage:

Fistula Salvage:

- Chen G, et al. *EJVES Extra*. 2011; 22(4):e37-39.
 - o Case report of patient with functioning AVF who developed arm edema due to occluded central venous system refractory to repeated endovascular treatment including two stent placements over two years.
 - o Arm swelling resolved and AVF could be used immediately after being connected to HeRO Graft.
 - o Remains functional 6 months later and NO re-interventions were required.
- Bowers V, et al. *VASA*; 2010 Las Vegas, NV. *J Vasc Access*, 2010;11(S2):S26-27. Lin J, et al. *ASDIN*; 2010 Orlando, FL.
 - o Case report of two patients who had HeRO Graft to salvage failing AVF due to central venous stenosis.
 - o The HeRO graft implants avoided the need for use of bridging catheters.
 - o Also highlighted value of collaborative team effort, credited IDT approach with timely communication resulting in saving an AVF.

Graft Salvage:

- Gage S, et al. *Ann Vasc Surg*. 2011; 25(3):387.e1-5.
 - o Case report of two patients with arm edema due to occluded central venous system: one with functioning AVF, one with functioning AVG.
 - o Both patients underwent multiple interventions, including angioplasty and stenting, yet symptoms recurred.
 - o Rather than abandoning functioning vascular access, the HeRO Graft was implanted which resolved the patients arm edema and saved the access.
 - o HeRO Graft has continued to function for twenty-one months.
- Allan B, et al. *J Vasc Surg* 2012; 56(4):1127-1129.
 - o Two case studies describing use of HeRO Graft to salvage failing AVG and AVF due to occluded subclavian vein and failed attempts at recanalization of the subclavian vein.
 - o The salvaged portion of the AVG or AVF was able to be used for dialysis the next day with flow rates of 420-450 ml/min.
 - o The patients' HeRO Grafts have continued to function at time of publication for fourteen months (AVG salvage patient) and 5 months (AVF salvage patient).
 - o The HeRO Graft resolved one patient's arm edema and pain due to central venous occlusive disease.

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