

INDICATIONS & URGENCY CRITERIA FOR SURGICAL VASCULAR ACCESS PROCEDURES FOR HEMODIALYSIS (ADULTS)

Scheduled vs Unscheduled	BC Surgical Priority Level (see note 4)	Wait Time Target	Description	Details
Unscheduled	Not identified	<24 hours	Immediate need for surgical intervention	<ul style="list-style-type: none"> • Patient bleeding or at imminent risk of bleeding • Patient has severe ischemia from steal syndrome • Patient has signs of infection (AVG) • AV fistula/graft thrombosis, potentially salvageable (if possible, try radiological intervention first)
			Immediate need for dialysis (AVF/AVG not salvageable; hemodynamically unstable or hyperkalemic)	If radiology not available: <ul style="list-style-type: none"> • Urgent dialysis line placement • Dialysis line replacement
Scheduled	1	2 weeks	CRF – poor venous access for HD	Surgical treatment for stenosis, aneurysm, steal syndrome, venous hypertension, etc
Scheduled	1	2 weeks	CRF – failing dialysis access (dialysis already underway)	
Scheduled	2	4 weeks	CRF – dialysis anticipated within 3 months or catheter	Creation of AV fistula or insertion of AV graft
Scheduled	4	12 weeks	CRF – dialysis anticipated in more than 3 months	Creation of AV fistula or insertion of AV graft

Notes:

1. Sched = scheduled; Unsched = unscheduled. CRF = Chronic Renal Failure
2. Refer to attachment #1 for a surgical HD procedure (AV fistula or AV graft).
3. Wait time targets for *scheduled* surgeries are the same as on the Vascular Surgery Provincial List of Patient Condition and Diagnosis Descriptions (V6 - 2015; Surgical Patient Registry). The latter does not identify wait times for *unscheduled* surgeries so the ones above were developed by a Provincial Renal/VA Surgery Working Group and are specific to renal VA access procedures.
4. Wait Time Targets:
 - Time from booking form received in OR to procedure date
5. BC Surgical Priority Levels:

Priority Level	Wait Time Target (weeks)
1	2
2	4
3	5
4	12
5	26

Attachment 1:

Excerpts from the Provincial Guideline on *Selection of Permanent Hemodialysis Vascular Access*

Recommendation 1: The order of preference for HD access for patients requiring chronic hemodialysis is AV fistula, then AV graft, then catheter (evidence).

A **Fistula First** philosophy is paramount and every effort should be made to create a native AV fistula (AVF) for patients requiring chronic hemodialysis access. It is recommended that nephrologists refer patients to surgeons for “AVF only” evaluation. Referrals for AVF creation should be made when the glomerular filtration rate (GFR) is approximately 15 mL/min/1.73m² or the GFR is 15-20 mL/min/1.73m² and the patient is expected to require dialysis within 12 – 18 months. This timeline assumes that the anticipated surgical wait time for fistula creation is consistent with the BCPRA guideline “Indicators & Urgency Criteria for Surgical Hemodialysis Procedures¹” at www.bcrenalagency.ca/professionals/VascularAccess/ProvGuide.htm.

Of the three types of accesses, AVFs have the lowest rate of thrombosis and require the fewest interventions, resulting in longer access survival rates. As well, the costs of implantation and access maintenance of AVFs are lower than for AV grafts (AVGs) or catheters. The thrombosis and infection rates are reported to be approximately one-sixth and one-tenth respectively for AVFs in

comparison to AVGs and the difference is even more dramatic when compared to catheters. AVFs are associated with increased survival and fewer hospitalizations.

Consideration should be given to creation of an AVF in the first instance as well as after any access failure.

Circumstances in which an AVF or AVG may not be appropriate include:

- Life expectancy \leq 12 months.
- Expected duration of therapy \leq 6 months.
- AVF maturity is not likely to occur.
- No sites left for creation/insertion of AVF/graft.

¹ Waiting times in the BCPRA guideline are the same as those listed on the Vascular Surgery Provincial List of Patient Condition, Diagnosis Descriptions & Priority Levels (V6 - 2015; Surgical Patient Registry).