


❖ FistulaFirst ❖
 The National Vascular Access
 Improvement Initiative (NVAII)



**Surgical Approaches to
 A-V Fistula Construction:
Secondary AVFs**

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**NVAII /“FistulaFirst”
 11 key Change Concepts***

<ol style="list-style-type: none"> 1. Routine CQI review of vascular access 2. Timely referral to nephrologist 3. Early referral to surgeon for “AVF only” 4. Surgeon selection 5. Full range of appropriate surgical approaches 	<ol style="list-style-type: none"> 6. Secondary AVF placement in AVG patients 7. AVF evaluation/placement in catheter patients 8. Cannulation training 9. Monitoring and Maintenance 10. Continuing education 11. Outcomes feedback
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* A Change Concept is an approach to change that has proven to be successful and which is intended to stimulate specific strategies relevant to that Change Concept.

CC #6: Secondary AVFs in AVG patients

Recommendations:

- Nephrologist evaluates every failing AV graft patient for possible secondary AVF
- Dialysis facility staff and/or rounding nephrologist examine outflow vein of all graft patients (“sleeves up”) monthly
- Nephrologist communicates with interventionalist & surgeon after every graft failure....and refers to surgeon for construction of secondary AVF *prior* to loss of AVG

CC #6: Secondary AVFs in AVG patients

GOAL

- To transition from an AVG to an autogenous AVF in all patients where appropriate & feasible -- ideally prior to graft loss
- “every patient should be re-evaluated for construction of an autogenous A-V fistula after failure of every dialysis A-V access”-- K/DOQI guideline 29
- A powerful AVF *prevalence* strategy

CC #6: Secondary AVFs in AVG patients

Definition

An AVF constructed following an AVG by:

Conversion of an existing AVG outflow vein to a direct AVF where feasible (made possible by arterialization of the outflow vein)

CC #6: Secondary AVFs in AVG patients

Expanded Definition

An AVF constructed following an AVG... by either:

- Conversion of an existing AVG outflow vein to a direct AVF where feasible
- or
- Exam & Vessel Mapping for alternate options when outflow vein is not suitable

CC #6: Secondary AVFs in AVG patients

Expanded Definition

An AVF constructed following an AVG...
by either:

- Conversion of an existing AVG outflow vein to a direct AVF where feasible

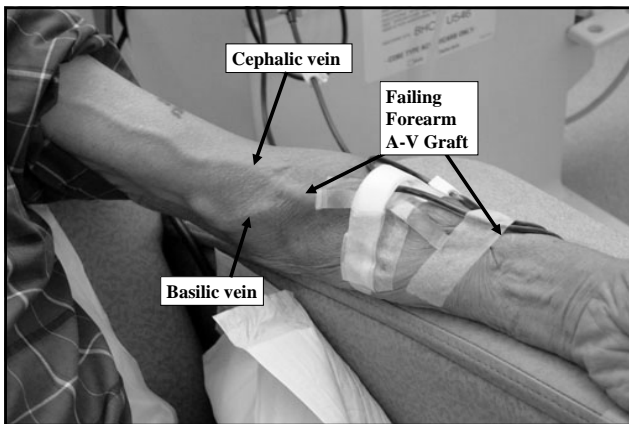
OR

- Exam & Vessel Mapping for alternate options when outflow vein is not suitable

Types of Secondary AVFs by AVG outflow vein conversion

Based on the Outflow vein utilized:

- if Cephalic vein → Brachio-Cephalic AVF
- if Basilic vein → Brachio-Basilic AVF



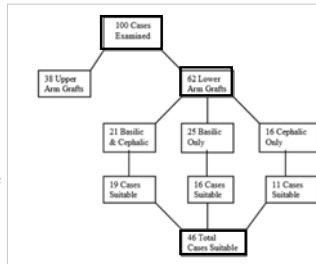
Identification of 2° AVF Candidates

Candidates for secondary fistulas can be identified by:

- Angiogram (fistulogram) - at time of AVG intervention
- Ultrasound
- Physical examination in dialysis facility ("Sleeves Up")

Identification of 2° AVF Candidates: Fistulogram or Ultrasound

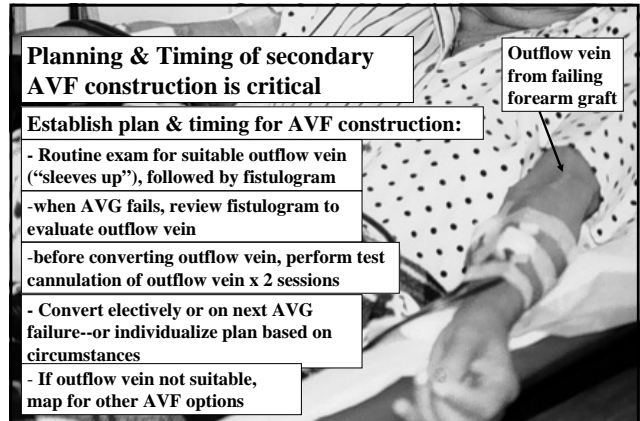
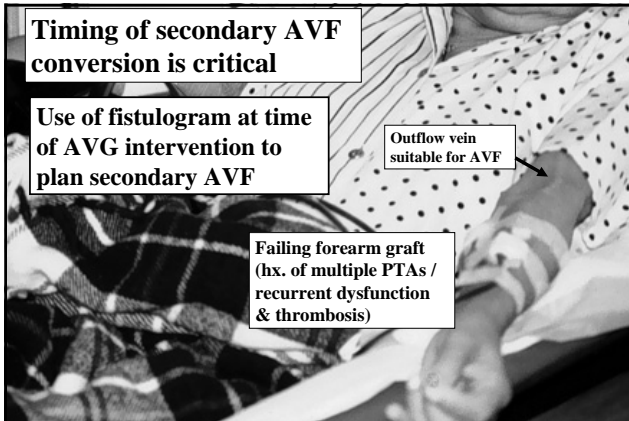
- 100 consecutive patients with arm grafts
 - Referred for angioplasty or thrombectomy
- Utilized only the studies routinely performed for the procedures being done



Beathard GA. Seminar Dial 17:230-233, 2004

Identification of 2° AVF Candidates: "Sleeves Up" exam



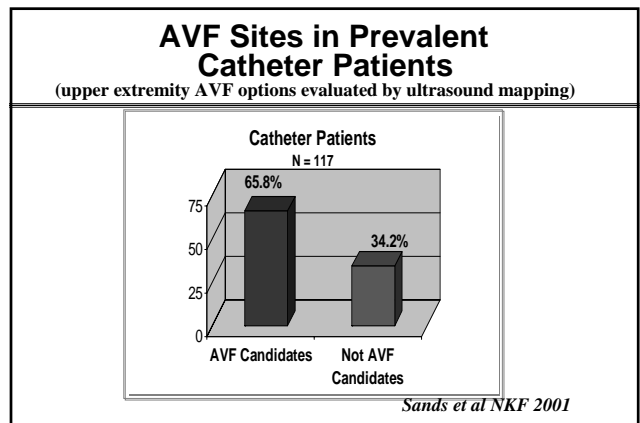
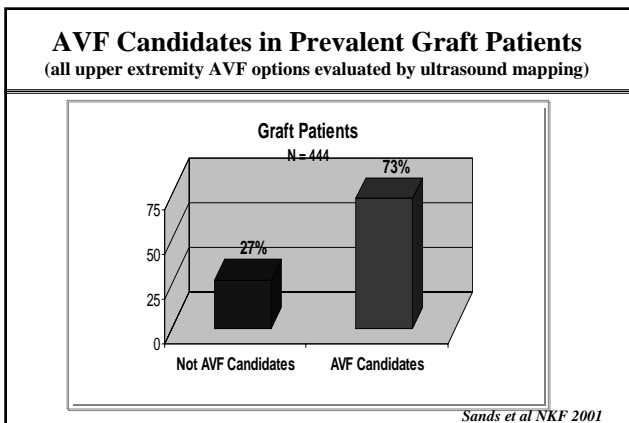
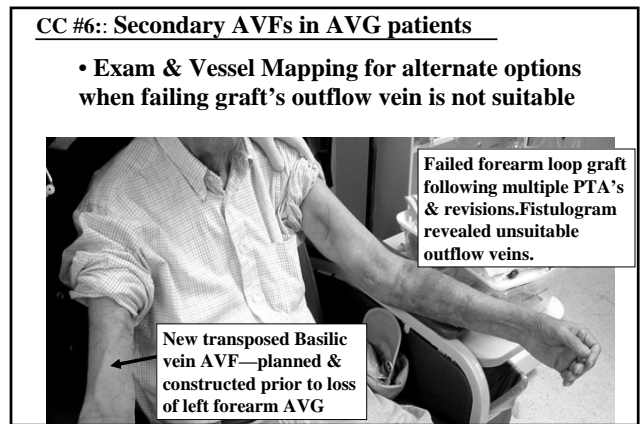


CC #6: Secondary AVFs in AVG patients

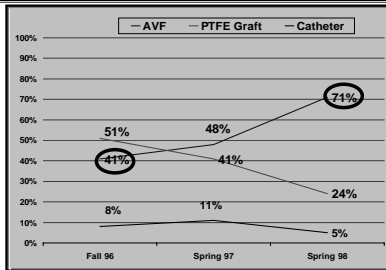
Expanded Definition

An AVF constructed following an AVG... by either:

- Conversion of an existing AVG outflow vein to a direct AVF where feasible OR
- Exam & Vessel Mapping for alternate options when outflow vein is not suitable



Secondary AVFs in Prevalent Graft Patients



AVF prevalence increased to 71% in 30 months by replacing failing grafts with AVF

Vo Nguyen et al: ASN 1999 ABS. A1085

NVAII (“FistulaFirst”): Secondary AVFs

Summary I

- K/DOQI guideline 29 (& FistulaFirst Change Concept #6): “every patient should be re-evaluated for construction of an autogenous A-V fistula after failure of every A-V access
- - In addition to converting forearm graft outflow veins to upper arm fistulae where feasible, all other AVG patients should undergo exam and vessel mapping for alternate AVF options—*prior* to graft loss

NVAII (“FistulaFirst”): Secondary AVFs

Summary II

- Nephrologist should have every patient with a failing AVG evaluated for a secondary AVF
- Dialysis staff and nephrologist examine outflow vein of all AVG patients (“sleeves up”) monthly
- Nephrologist should consult with surgeon for secondary AVF no later than initial AVG failure; timing of surgery should be planned jointly.
- Interventionalist contacts nephrologist if suitable outflow vein identified during AV graft procedure
- There must be a focus on timely vein identification, AVF planning & communication with the surgeon—before the graft is lost and replaced by a catheter