

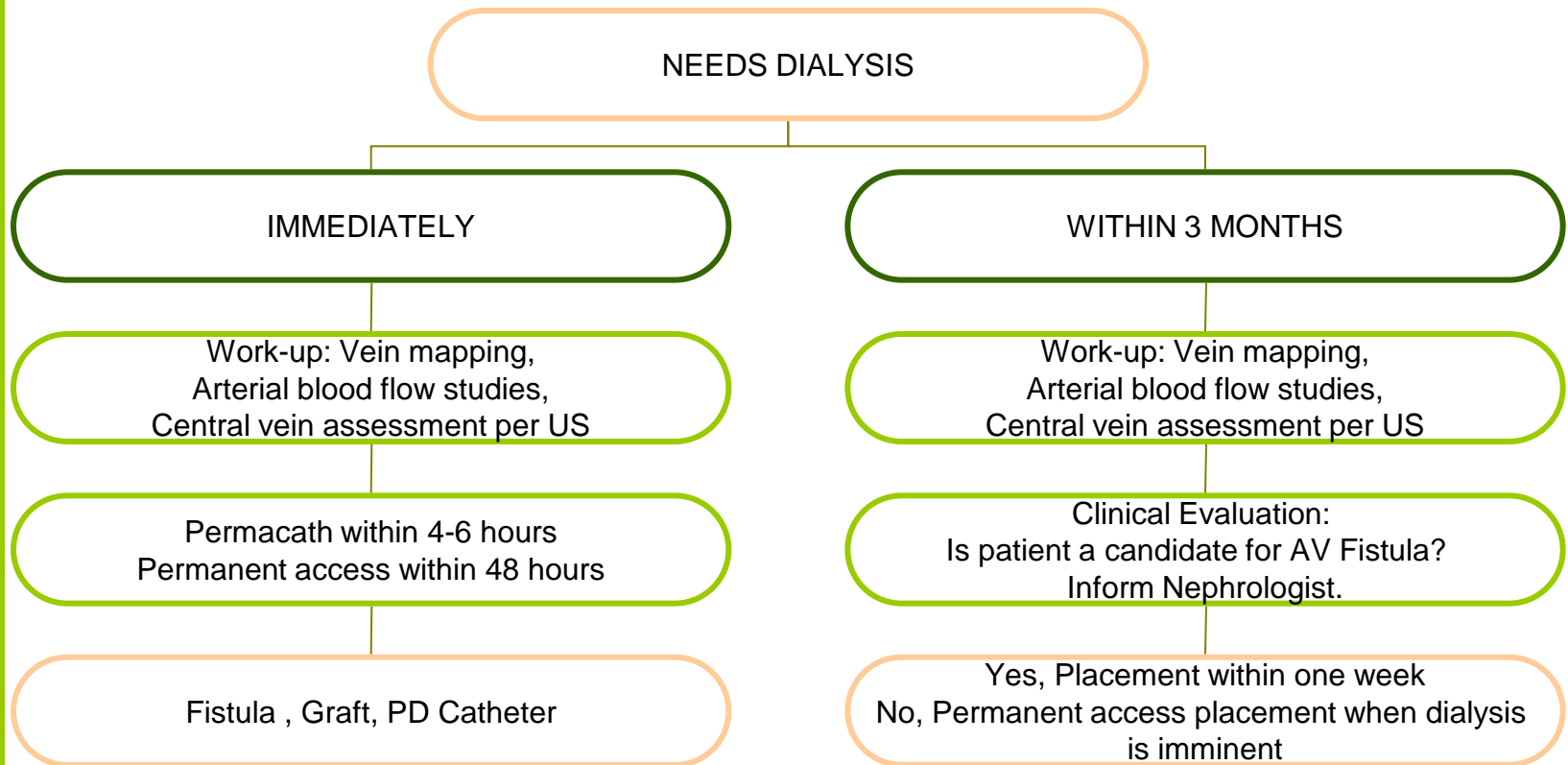
# Partnership with Vascular Access Surgeons to Increase AVF rate

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# History of Partnership with Surgeons

- Referral for permanent vascular access made to transplant surgeons via transplant coordinator, clinical nurse consultant, residents, etc.
- A new position was created for an Access Nurse to act as a liaison between the Nephrologists and the Surgeons.
- Algorithm was developed for referral of patients for permanent vascular access.
- More complicated access placement referred to Vascular Surgeons.

# ALGORITHM FOR ACCESS PLACEMENT



# Drawbacks

- Patients referred for permanent vascular access are at the same time recruited for transplantation prior to Nephrologists' referral for transplantation.
- Access placement are delayed because of surgeons initiating transplant workout.
- Access Nurse budgeted under Transplant Department, more loyal towards Surgeons than Nephrologists.

# Meeting with Transplant Surgeons

- Medical Director and Nurse Director met with Transplant surgeons to discuss plans to improve AV fistula rate and discuss proper recruitment of patients for transplantation.
- Surgeons agreed to respect Nephrologists' decision and will comply with reason for consultation.

# Initiation of Vascular Access QAPI

- Catheter reduction project in dialysis.
- Placement of permanent vascular access as preferred access approach over catheter.

# Catheter Reduction Project in Dialysis

Goal is 10% catheter rate in total patients based on Dialysis Outcome Quality Initiative by the National Kidney Foundation. The current Renal Network wide catheter rate is 25%; it is 35% for Cook County. Placement of AV access should be within 90 days of initiating dialysis. **Unit aimed for reduction of catheter rate by 10%.**

# Analysis

Access	Dec 07	June 08	Dec. 08	May 09	Sept 09
AVF	27%	40%	44.7%	42.4%	43.1%
AVG	24%	21%	18.9%	22%	19.7%
Cath <90 d	11%	6%	4.5%	3.8%	5.1%
Cath >90 d	28%	25%	31.8%	29.5%	25.5%
Cath prevalence	49%	40%	39%	35.6%	41.1%

Prevalence is total number of patients using catheters including those with maturing AVF/AVG. (As of 9/09, Catheter with AVF maturing is 5.8% and Catheter with AVG maturing is 0.7 %)

# Staff involvement

- Continue ongoing efforts to improve education among patients and dialysis staff.
- Reinforced timely referral for access placement in renal and transplant clinics.
- Monthly meeting with Medical Director, Hemodialysis Administrative Nurse and Access Nurse to discuss access issues and suggested interventions.

# Suggested Interventions

- Patient education:
  - Intervention at CKD clinic
    - Renal Fellows and Attending in CKD clinic to initiate access discussion as early as CKD stage 3.
    - Make access clinic appointment calendar available to Renal Fellows to make appointments directly.
    - Make patient education materials available at clinic site.
    - Develop a CKD education class.

# Interventions for Patients in the hospital setting

- Renal fellows are more proactive in referring patients to access nurse while patient still in hospital as well as educating patients that catheter is a temporary access and is more high risk for complications.
- Access Nurse will work with surgeons and nephrologists in trying to get a permanent access placed while patient is in the hospital and if not possible getting patient evaluated by surgeons and scheduling the date of surgery for permanent access placement prior to discharge.

# Staff Involvement intensified

● ADMISSION NOTE AND DATA BASE

DATE:

- *I have determined that the following mandatory requirements have been met on this patient prior to allowing the initiation of outpatient hemodialysis:*
  - *1. Confirmation of Hepatitis B antigen status within the last 30 days on susceptible patients.*
  - *2. Physician's standing orders have been completed and signed by M.D.*
  - *3. Hemodialysis consent is signed by the patient and appropriate witnesses.*
  - *4. Explained benefits of AV access placement.*
  - *5. Emergency evacuation plan reviewed with patient*
- 
- *If catheter, referral made to Access Nurse ?    Yes        NO*

- Discuss access issues during the monthly IDT meeting and come up with a plan.
- Access calendar made available to dialysis nurses.
- Nurses and Technicians to reinforce follow up appointments with access clinic.
- Nurses hand out appointment slips to access clinic.

# Catheter in use >90 days

- Action plan developed for this group of patients.
- Meeting arranged between patients and Vascular Surgeons set up by Access Nurse.
- Importance of AVF/permanent vascular access is the theme of the meeting. Educational materials given to patients as well.

# Renal Fellows and Attendings

- Assess current access for early dysfunction and initiate timely referral
- Assess primary and secondary failure rates
- Maintain communication with transplant surgeons.
- Surgeons to communicate with Nephrologist.

# AV Access Monitoring

- A book was created for logging in access problems
- All Hemodialysis patients included in binder, organized alphabetically and by shift
- Note any concerning findings related to AVF/AVG, e.g., loss of thrill, recurrent clotting, difficult needle placement, persistently swollen extremity, elevated venous pressures, etc.

# Access Nurse

- Access nurse will routinely review the binder and take appropriate actions for AV surveillance, e.g., fistulogram, surgical evaluation, etc.
- Summarize findings and bring concerning signs and symptoms to attention of Nephrologist/surgeon.
- Monthly meeting with IR regarding status of access.

# Conclusion and Outcome

- The catheter rate continues to decrease, however it remains far from goal.
- The catheter rate in patients who are on dialysis for less than 90 days have also decreased considerably. This is due to better planning in CKD clinic.
- Minimal change noted in percentage of patients with catheter in use >90 days.