Vascular Access Advanced Practice Provider – A Work in Progress

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Employer- Medical College of Wisconsin

No financial disclosures

Objectives

- Discuss vision, role development, adaptation of role, and Dialysis outreach
- Discuss tracked information
- Discuss the creation and implementation of new forms/practice changes
- Discuss communication

Literature Review

- Studies- help support the concept of Vascular Access Coordinators
  - Reduction of tunnel access
  - Increased AVF rates-at initiation of dialysis

Jose, M. et al,, (2017), Dwyer, Shelton, Brier & Aronoff (2012), Vachharajani, et al, (2011), Polkinghome, Seneviratne & Kerr, (2008), Dinwiddie, (2007), van Loon, et al, (2007), Lok,& Oliver (2003) ,Kalman, Pope, Bhola, Richardson & Sniderman,(1999).

Literature Review

- Care coordination-best for patient
- Cost effective
- Preservation of AVG-AVG
- Education
- Communication-liaison

Jose, M. et al,, (2017), Dwyer, Shelton, Brier & Aronoff (2012), Vachharajani, et al, (2011), Polkinghome, Seneviratne & Kerr, (2008), Dinwiddie, (2007), van Loon, et al, (2007), Lok,& Oliver (2003) ,Kalman, Pope, Bhola, Richardson & Sniderman,(1999).

Vision

- Coordination
- Additional provider
- Access clinic -3 times a week

Role

Track

- Phone calls
- IR interventions
- Cannulation (new access)
- Anticoagulation

- Dialysis Outreach
- Fluidity of Role

Evolution

Vision

- Dialysis Outreach
  - “One Stop Shop”
- Improving
  - Patient outcomes
  - Continuity of care
  - Communication

Vision

- Provide assessable care/decrease missed appointments
- Additional provider coverage
- Education-Current studies
    - Fistula Development- Arteriovenous Fistula Development in the First 6 Weeks After Creation

Robbin, M.L. ,et al (2015)

Role Development

- Different than Vascular Access Coordinator
  - Technician or Registered Nurse
- New role – New provider
  - Clinic visits
  - Prescribe medications
  - Order testing

Dialysis Outreach

- Credentialing
- Meetings with dialysis units
- Building trust and professional relationships
- Creating a new workflow/schedule
- Ultrasound

Information Tracking

- IR interventions
  - Reduction of unnecessary procedures
  - Monitor-evaluate post procedure outcomes
- Access plans-Anticoagulation
- Cannulation
- Phone calls
- New access appointments

Forms/ Practice Changes

- Multidisciplinary Monthly Access Conference Note
- Access Referral Forms
- Guideline instructions
- Anticoagulation protocol
- IR reports
- Contact person changes- frustration

Vascular Access Multidisciplinary Conference Note

On 1/4/2018 Test Zztransplant was reviewed at the monthly MCW/FMLH Vascular Access Multidisciplinary Conference. She is a 58 Y female currently undergoing dialysis through a right arm radiocephalic AVF.

She was referred to evaluate: Cannulation and post-bleeding issues

Additional pertinent history: ***

The following procedure was performed on 12-10-2017 fistulagram with angioplasty and stent placement

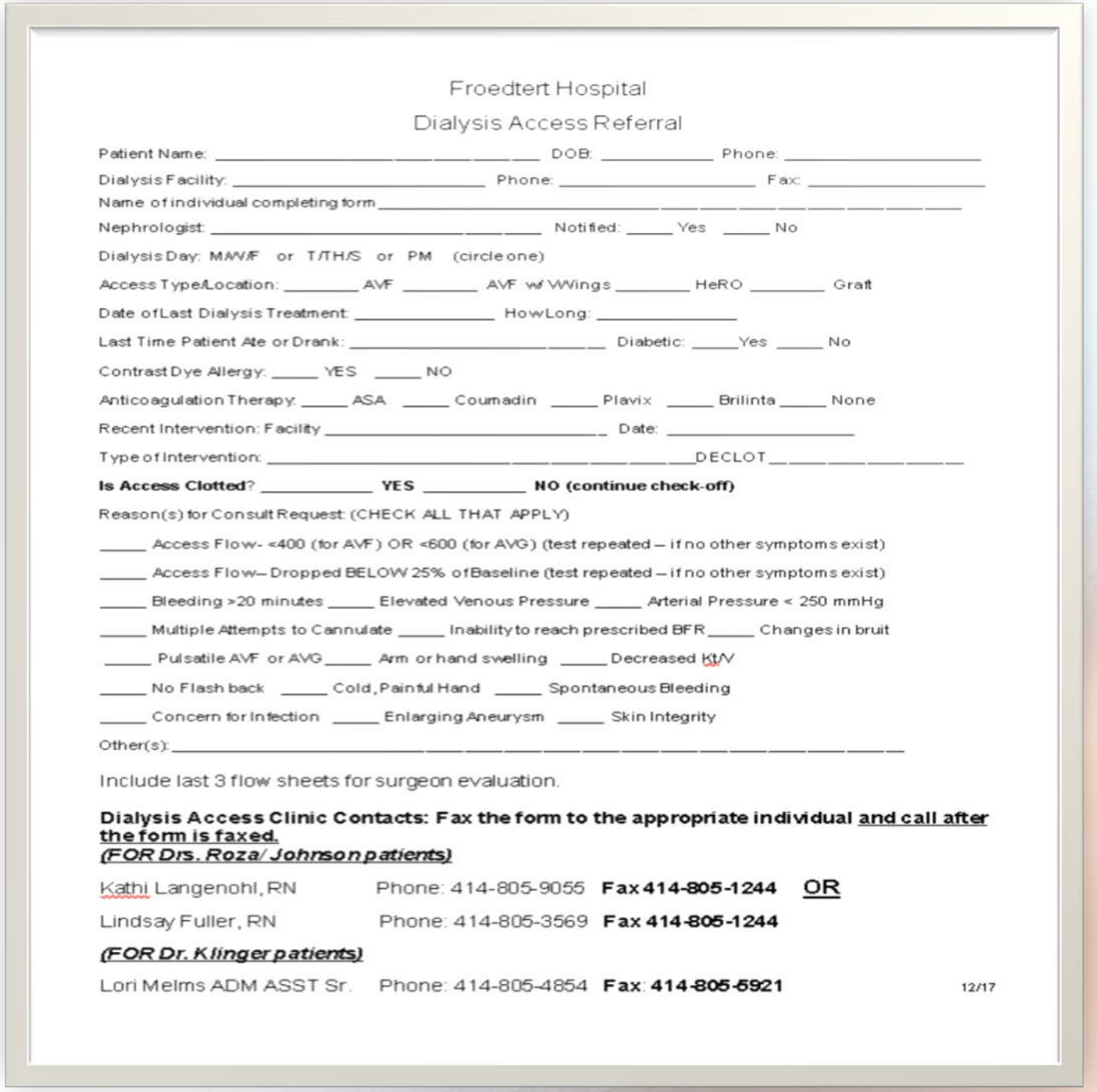
Recommendations are as follows:

- {TX VASCULAR ACCESS PLAN/RECOMMENDATIONS:6053346}

Consider creating a new access via {RIGHT/LEFT:165
Consider surgical revision ***
Continue catheter based dialysis, no suitable options fo
Continue surveillance (no further procedures at this time
Increase or change anticoagulation medication: {PLAVI
Repeat fistulagram in (number) months to evaluate***
Review management of hypertension: {TX VASCULAR
***

Vascular Access Note

Dialysis Access Referral Form



Froedtert Hospital

Dialysis Access Referral

Patient Name: _____ DOB: _____ Phone: _____

Dialysis Facility: _____ Phone: _____ Fax: _____

Name of individual completing form _____

Nephrologist: _____ Notified: _____ Yes _____ No

Dialysis Day: M/W/F or T/TH/S or PM (circle one)

Access Type/Location: _____ AVF _____ AVF w/ WWings _____ HeRO _____ Graft

Date of Last Dialysis Treatment: _____ How Long: _____

Last Time Patient Ate or Drank: _____ Diabetic: _____Yes _____ No

Contrast Dye Allergy: _____ YES _____ NO

Anticoagulation Therapy: _____ ASA _____ Coumadin _____ Plavix _____ Brilinta _____ None

Recent Intervention: Facility _____ Date: _____

Type of Intervention: _____DECLOT_____

Is Access Clotted? _____ **YES** _____ **NO (continue check-off)**

Reason(s) for Consult Request: (CHECK ALL THAT APPLY)

_____ Access Flow- <400 (for AVF) OR <600 (for AVG) (test repeated – if no other symptoms exist)

_____ Access Flow– Dropped BELOW 25% of Baseline (test repeated – if no other symptoms exist)

_____ Bleeding >20 minutes _____ Elevated Venous Pressure _____ Arterial Pressure < 250 mmHg

_____ Multiple Attempts to Cannulate _____ Inability to reach prescribed BFR _____ Changes in bruit

_____ Pulsatile AVF or AVG _____ Arm or hand swelling _____ Decreased Kt/V

_____ No Flash back _____ Cold, Painful Hand _____ Spontaneous Bleeding

_____ Concern for Infection _____ Enlarging Aneurysm _____ Skin Integrity

Other(s): _____

Include last 3 flow sheets for surgeon evaluation.

Dialysis Access Clinic Contacts: Fax the form to the appropriate individual and call after the form is faxed.

(FOR Drs. Roza/ Johnson patients)

Kathi Langenohl, RN Phone: 414-805-9055 **Fax 414-805-1244** OR

Lindsay Fuller, RN Phone: 414-805-3569 **Fax 414-805-1244**

(FOR Dr. Klinger patients)

Lori Melms ADM ASST Sr. Phone: 414-805-4854 **Fax: 414-805-5921**

12/17

Vascular Access Guideline

Vascular Access Care for FROEDTERT & MCW CLINIC Patients

Access Issues:

- Contact the Transplant/Nephrology dialysis access nurses (Kathi/Lindsay) regarding **all access issues** that require evaluation by **Dr. Johnson/Dr. Roza.**
- Contact Lori regarding **all access issues and appointment scheduling** that require evaluation by **Dr. Klinger.**

Clotted Access:

ANY CLOTTED ACCESS REQUIRES EVALUATION AND RECOMMENDATION BY THE TREATING SURGEON PRIOR TO SCHEDULING AN INTERVENTION.

AV Fistulas LESS than 4 weeks since creation require evaluation by surgeon within 48 hours (possible surgical intervention).

Clotted AV Fistulas GREATER than 4 weeks since creation or surgical revision:

- Fax completed Dialysis Access Referral Form and contact appropriate provider staff (Lori or Kathi/Lindsay)
- Access clinic staff will contact the surgeon/ APNP for a recommendation
- If tunneled dialysis catheter placement is recommended:
  - Nephrologist/NP/PA will need to write the appropriate order and fax to Froedtert (FH) Interventional Radiology (IR).
  - Dialysis RN to call IR to schedule the procedure.
  - Dialysis RN to contact the patient with IR appointment information.
- Access clinic staff to schedule clinic appointment for new permanent access evaluation.

Clotted Grafts and HeRo's:

- Fax completed Dialysis Access Referral Form and contact appropriate provider staff (Lori or Kathi/Lindsay).
- Provide the date clotted access was noted, last dialysis, and any IR or surgical intervention (within the last 6 months).
- Access clinic staff will contact the surgeon/ APNP for a recommendation.
- If declot/lab is recommended:
  - Nephrologist/NP/PA will need to write the appropriate order and fax to IR.
  - Dialysis RN to call IR to schedule the procedure.
  - Dialysis RN to contact the patient with IR appointment information.

"OVER"

If Patient Has A Contrast Dye Allergy, Premedication Is Required:

- Nephrologist to order medication and dialysis RN to notify patient.
  - Prednisone 50 mg by mouth 13 hours, 7 hours, 1 hour prior to procedure
  - Benadryl 50 mg by mouth 1 hour prior to procedure

If Patient Takes Anticoagulation Medication (Coumadin):

- Prescribing provider should be contacted by dialysis RN or patient, informed of IR procedure, and make appropriate adjustments to the medication.

IR Guidelines:

- For moderate sedation, patients scheduled before noon: NPO after midnight and meds with sips of water in AM.
- For moderate sedation patients, scheduled after noon: NPO after 6am and AM meds with water.
- A responsible adult is required to accompany patient home after the procedure (includes van transportation).

Clotted Access Weekends and Holidays:

- Dialysis RN contacts Nephrologist to decide if patient should go to the Emergency Department.
- If Nephrologist determines it is NOT emergent:
  - Next business day, fax completed referral form prior to contacting (Lori or Kathi/Lindsay) for surgeon recommendation.

Central Venous Catheter ("Permcath") Issue:

- CVC issues are addressed in IR. Dialysis RN to contact Nephrologist/NP/PA for appropriate orders. Fax and contact facility that placed CVC. Notify patient.

Central Venous Catheter Removal:

- Dr. Klinger will remove his surgical patients' CVC's in clinic, contact Lori.
- Dr. Johnson/Dr. Roza use IR for CVC removal. Dialysis RN to contact Nephrologist/NP/PA for order. Fax/contact IR for removal date. Notify patient.

CONTACT INFORMATION

Dialysis Access Appointment Scheduling-Christine or Mary (Johnson/Roza) Phone: 414-805-3100 or Lori (Klinger) Phone: 414-805-4854

DR. KLINGER PATIENTS- Lori Melms, Administrative Assistant Sr. Phone: 414-805-4854, Fax: 414-805-5921

DR. JOHNSON/DR. ROZA PATIENTS- Kathi Langenohl RN, Lindsay Fuller RN Phone: 414-805-9055: Fax: 414-805-1244

FH INTERVENTIONAL RADIOLOGY Phone: 414-805-3799, Fax: 414-805-3116 9/17

Adaptation of Role

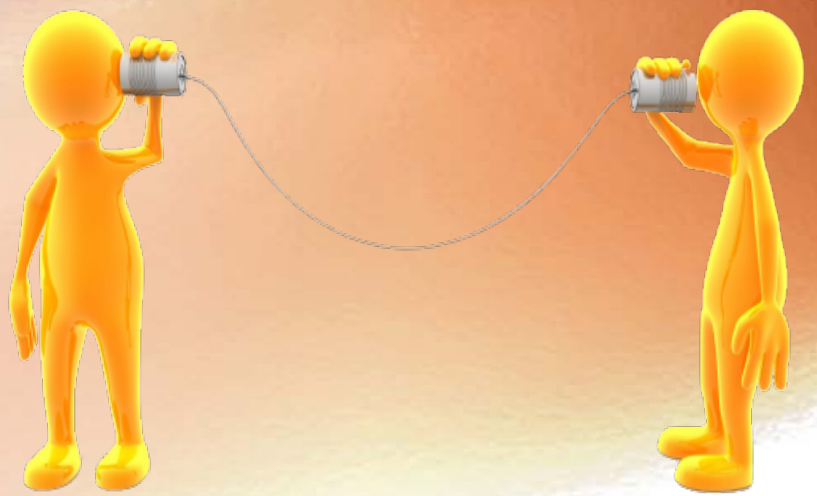
- Dialysis Outreach
- Adjust role- patient needs change
- Educate professionals - benefit of this position
- Improve communication -patient care
- Patient educational materials
  - HeRO
  - Fistula First

Outcomes

- Improve patient outcomes
- Reduce hospital admissions
- Timeliness of care
- Increased volume in access clinic
- Cannulation of new access-access patency
- Effective communication-dialysis units

Communication

- Defining role within scope of practice
    - Main contact (RN or APNP)
- Adaptation
- Establishing position within multidisciplinary team
- Monitoring trends/issues
- Utilizing clinical judgement and creativity



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