Fistula Fast Track

What to do when the fistula wasn't first

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Welcome, Today we will:

- Describe processes used for early placement of AVF
- Discuss impact of early AVF placement on the treatment of ESRD patients
- Explain benefits of vein mapping & AVF placement before leaving the hospital

About us:

- We currently operate two outpatient dialysis facilities. Fox Valley Dialysis is located in Aurora, Illinois, and Tri-Cities dialysis is located in Geneva, Illinois
- Current patient census is about 140 patients at Fox Valley, and 70 at Tri-Cities
- Our medical director is Dr. Harry Rubinstein

We start the Fistula First Program

- In the beginning of our fistula first program, we focus on educating staff, surgeons, patients, and nephrologists.
- We educate staff on assessment and cannulation of the new delicate fistulae
- We develop new policies and procedures to manage these fragile new creations

The Start of Fistula First

- We encourage surgeons to place only fistulae, and encourage new and creative surgical techniques.
- We work to maintain a failing fistula. We employ interventional radiology for angioplasty.
- We reassess every patient with a graft or catheter for the possibility of a fistula placement

Fistula First

- We eliminate grafts by attrition. Slowly, our fistula rate begins to rise
- But our catheter rate is rising also!

Fistula First

- After investigation, we determine that the long development time required of new fistulae, including the frequent failures and revisions, was increasing the time patients would need the catheter to receive dialysis. Is earlier placement the key?
- We educate the office nurses on the need for early referral to the nephrologists, asking for their help.

Fistula First

- Our ultimate goal by involving the office nurses is to have every patient start dialysis with a functioning fistula.
- But even after the meeting and follow up with the office nurses, we still see many patients who start dialysis emergently
- These patients will need to start dialysis with a catheter…or die

Who are these patients?

- Some are patients with insurance (private, Medicaid, or Medicare) and a primary care physician, BUT
  - Have never seen the nephrologist
  - Have seen the nephrologist but not the surgeon
  - Have seen the nephrologist, the surgeon, and toured the dialysis facility, but their disease progressed more rapidly than anticipated

Who are these patients?

- Some are the working poor without insurance
  - 13 percent of U.S. born Americans have no health insurance
  - They rely on emergency rooms or free clinics to receive primary care
  - They typically do not seek care unless they are very ill
  - They are frequently unable to afford follow up care or prescriptions

Who are these patients?

- Some are undocumented and uninsured
- The nation's immigrant population (legal and illegal) reached a record of 37.9 million in 2007.
- Overall, nearly one in three immigrants is an illegal alien.
- 34 percent of all immigrants lack health insurance. Immigrants and their U.S.-born children account for 71 percent of the increase in the uninsured since 1989

What happens to these patients?

- Typically, the uninsured patient presents to the emergency room after feeling ill for some time
- He may have undiagnosed hypertension or diabetes
- He has felt unwell for months, and is usually anemic and malnourished

What to Do?

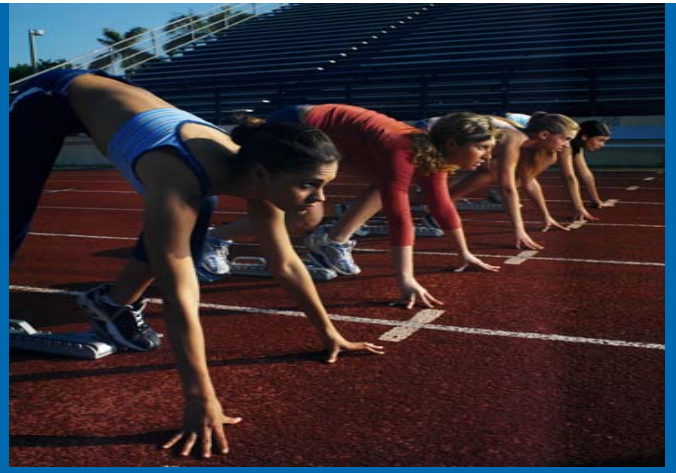
- We know that they need dialysis, but they can't wait for a fistula to develop.
- They need treatment for the uremia, education about the disease processes, help from social services to manage the changes in their lives
- They will need to be on

the ***Fistula Fast Track***

The first steps: **Fistula Fast Track**

- Consult: Nephrologist sees the patient and initiates the treatment plan.
- Catheter: An acute dialysis catheter is placed with Interventional Radiology. IJ route is used to avoid subclavian stenosis
- Dialysis: The Acute Dialysis Nurse Manager receives the call that the patient needs dialysis, and treatment is scheduled

The Next Steps:
Fistula Fast Track

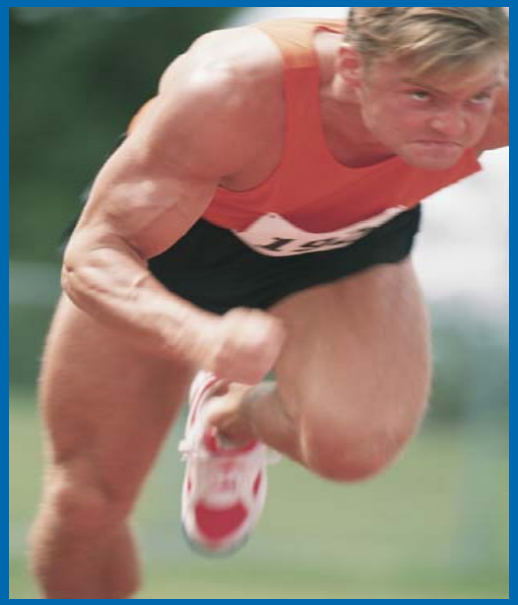


- Education: The acute dialysis team begins the education process about dialysis and dialysis access.
- Mapping: The Nephrologist orders ultrasound or radiology to perform venous mapping
- Surgical consultation: The surgeon sees the patient and schedules surgery

The Next Steps:
Fistula Fast Track

- The Fistula and permcath: The surgeon places the fistula and the permcath is also placed.
- More education: The patient is educated about dialysis access with each treatment in the hospital.
- The discharge: Pt is seen in the hospital by the dialysis social worker, given the handbook, more education, a chair time

Before discharge:
Fistula Fast Track



- Nephrologist: Order mapping and surgical consult when acute catheter and first dialysis is ordered if condition allows
- Surgeon: Place working fistula. Revise before discharge if early failure is noted. Be willing to respond quickly to the referral request.

Before Discharge:
Fistula Fast Track

- Acute Dialysis Nurse Manager: Verify that fistula planning and placement is complete, follow up with nephrologist if needed. Verify staff educating patients & families during treatments.
- Dialysis Social Worker: Communicate with Acute Nurse and hospital discharge planner to ensure that the patient has the preferred access for dialysis in place before leaving hospital

Remember

- If your patient is uninsured, the hospital will apply for emergency Medicaid.
- After he goes home, it will take a long time for him to get a medical card or have Medicare be primary
- If the fistula is not placed before discharge, he will have to wait months before he can see a surgeon

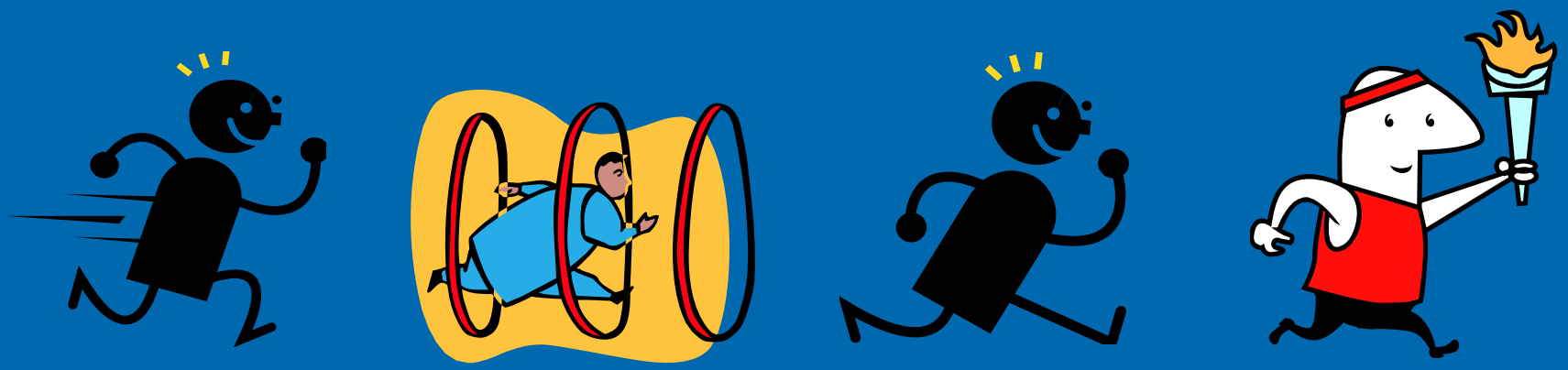
Remember

- The undocumented patient faces an even harder struggle
- Many will only be able to receive life saving treatment only, and therefore will be eligible for dialysis, but with a permcath
- If the fistula is not placed prior to discharge, this patient may never be able to have one

After Discharge
Fistula Fast Trac

- Dialysis: The patient begins outpatient dialysis
- Education: The patient continues to receive education on dialysis and dialysis access
- Assessment: The fistula is assessed every treatment for healing, development, and ischemia

At the Outpatient Dialysis Center: Fistula Fast Track



- Dialysis Nurse Manager: tracks new patients access, development status, complications
- Nurses and technicians: assess fistula every treatment, educate patient about access every treatment

At the Outpatient Dialysis Center: Fistula Fast Track

- Nephrologist: Order interventions for signs of infection, ischemia, or failure of the fistula to develop.
- Interventional Radiologist: Angiogram and angioplasty for poor development
  Frequently ultrasound is used as a primary screening tool
- Surgeon: Assess, revise as needed

After 3 months

- Initiate cannulation: **one** constant, Master Cannulator
- Continue cannulation: **one** Master Cannulator until buttonhole sites are developed
- Remove catheter

Remember

- Even though there is pressure to use the fistula and get the catheters out, rushing the new fistula does more harm than good.
- Vein walls have to thicken to tolerate cannulation. Even if the vein feels robust, the walls may not be thickened.
- Unless the catheter is infected or the fistula is unusually well developed, it is best to wait 12 weeks

Thank you for your time

- I hope that this has been helpful
- **Nephrologist and surgeon buy-in is key**
- Good staff education and consistent staff-patient assignments can help your staff identify early failures and complications

Bibliography

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