

# AV Fistula Camps in Kenya, Spring & Fall, 2022

Drs. Jerry and Adelaide Svoboda

Rochester Christian Health Care  
Providers' Breakfast

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# Where is Kenya, East Africa?

- Population: ~55 million.
- Capital: Nairobi (~5 million).
- The equator runs through it.
- Independence: 1963.
- Language: Swahili and English.
- Religion: 85% Christian, 11% Islam, 4% others (it's easy to be a Christian doctor there).



# Dialysis has come to the people of Kenya



- >4 million have CKD.
- ~10,000 of these need dialysis, yet only 10% received it (in 2018).
- in 2015, there were 6 dialysis centers in the country. Today there are 54.
- in 2014: weekly; in 2022: 2x/week (U.S.A.: 3x/week)





# One day at AIC Kijabe Hospital in October, 2021...



Adelaide in front of AIC Kijabe Hospital, Kenya

- I was called to the Medical Director's office unexpectedly (uh, oh....).
- A man named Nik Pereira had an appointment with the director and then said he wanted to talk to me.....
- he had just gotten an idea.



Residents sewing arteries

# Nik Pereira-Kamath



- Nik wondered if I would be willing to come back to teach African general surgeons how to make AV fistulas...
- I said: “Let’s go find Adelaide...”
- (...who was doing blanket inventory in the basement)

Nik took Adelaide and me around and showed us this room in the hospital basement...





Does this look like a dialysis unit?



No,..not yet...but there's one there now!

# Africa Healthcare Network

- Begun in 2015, AHN is the first and largest provider of dialysis centers in sub-Saharan Africa.
- Presently AHN runs 24 dialysis centers in Tanzania (14), Kenya (6), Rwanda (3), and Burundi (1).





# Africa Healthcare Network Co-founders

- Nik Pereira-Kamath, executive chairman
- Dr. Lloyd Vincent, chief medical officer



# What AHN offers

- Clean, organized, Western-standards units.
- A non-chaotic atmosphere with modern technology, trained staff, and predictability.
- Many are established at faith-based hospitals.
- Special protocols for hepatitis and HIV patients.



# NHIF-the Kenyan National Health Insurance Fund

- NHIF is considered a “contributory public health insurance” scheme (like Ghana, Nigeria, Tanzania, and Rwanda).
- begun in 1966, major changes are ongoing.
- participation costs between \$1.50-\$17/mo.
- participation is mandatory if formally employed (payroll deduction), voluntary if self-employed (only 20% of these are “in”).





# NHIF and Dialysis

- NHIF is seeking to eventually provide *Universal Health Care*, a work in progress, with a goal of a \$5 monthly payment *by all*.
- NHIF began paying for dialysis in 1999 for enrolled patients. Before that, only the rich received it (at \$60 USD/treatment).
- Dialysis not covered if unenrolled; needs ~ 3 months out-of pocket payments until eligible.



# Roadblocks to dialysis

- No nearby dialysis facility (AHN has been a blessing!).
- Patients not participating in NHIF due to widespread poverty.
- Funding for catheters, equipment, staff, and patient transportation from rural areas.
- Reimbursement rate from NHIF for each treatment is presently under discussion and may decrease.
- Catheters and their placement are not covered costs.



# In East Africa, ~90% of hemodialysis patients have a venous catheter...



- That's good, right?
- No, because catheter patients can't shower or swim,
- have higher rates of hospitalization and bacteremia,
- cost more to take care of, and...
- don't live as long.





# Higher mortality with dialysis catheter versus AV fistula

- Hemodialysis patients using **AV fistulas** have mortality rates 50-74%% lower than if a bloodstream catheter is used.

-Dhingra et al, 2001

-Polkinghorn et al, 2004

-Astor et al, 2005

-Moist et al, 2004

-Pastan et al, 2002

-Xue et al, 2003

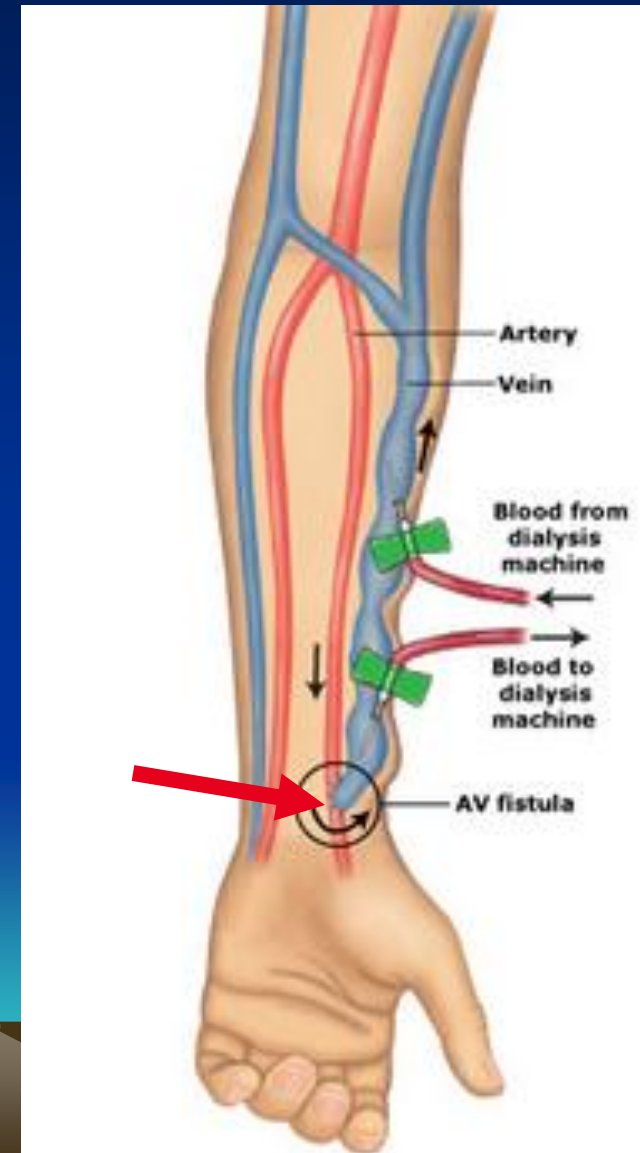
-Allon et al, 2006

(but not *every* study agrees)



# What is an AV Fistula?

- A surgically-created connection between an artery and a vein.
- The idea is to divert rapid blood flow into a superficial channel, most often a *vein*.
- When made with natural artery and vein, it is an AV fistula.



From the meeting with Nik at Kijabe, the idea of holding **AV Fistula Training Camps** began...

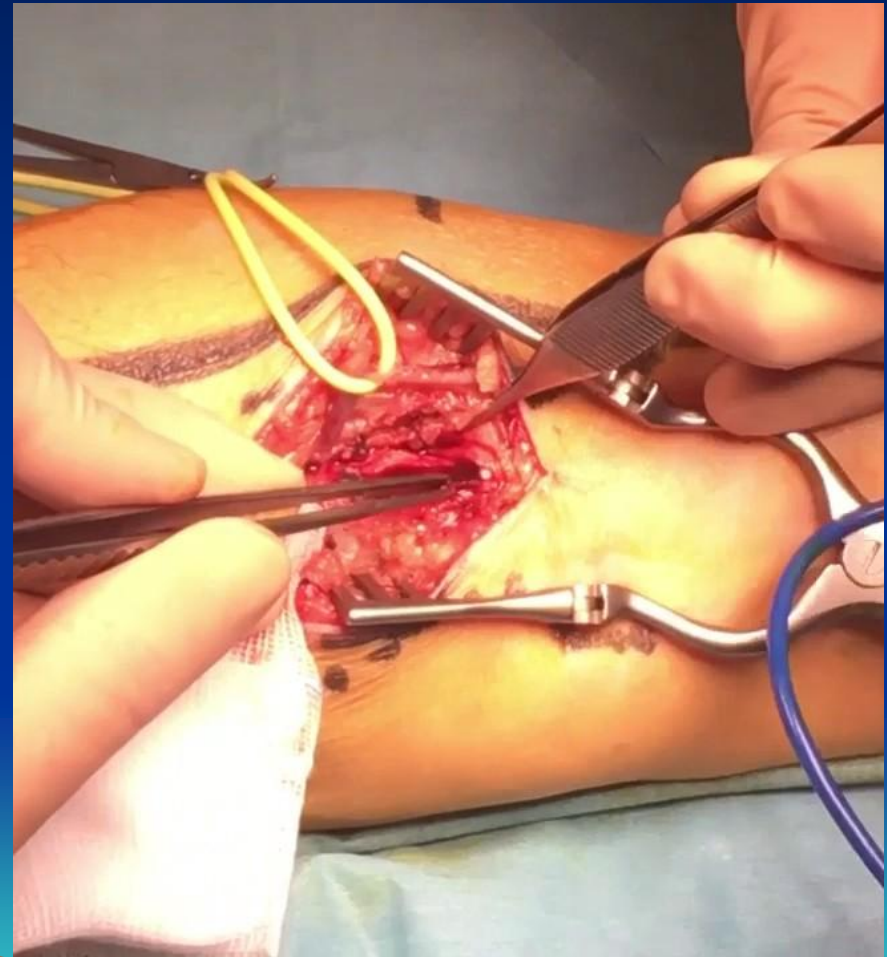
- Co-sponsored by AHN and Samaritan's Purse.
- 2 weeks long each (10 working days).
- Students: gen'l surgeons and residents from Christian hospitals. Supplies would be donated or purchased.
- Patients prayed with before each surgery, which would be done in Jesus' name; all conduct would be in accordance with Samaritan's Purse Code of Behavior.





# Making an AV fistula is most often a simple operation

- 90% can be done with local anesthesia.
- Needs only a dozen special instruments, fine suture, and a magnifier.
- It's outpatient surgery in USA (in Kenya: overnight).
- Can be learned in a week.



# First AV Fistula Camp: Spring, 2022, Chogoria, Kenya

- April 3-14, 2022
- Resulted in two trained fistula surgeons (and a third well-started).
- The idea was NOT just to make AV fistulas...the idea was to *teach how* to make AV fistulas—which takes longer...



**Our pressure cooker sterilizer  
in Chogoria**

# Location of Chogoria, Kenya

- 3 hours drive from Nairobi, the capital.
- Just east of Mt. Kenya.
- Rural town (~30K) location with a World Medical Mission Christian teaching hospital: PCEA Chogoria Hospital.





# Our Chogoria quarters... pretty nice!



# Sign in Chogoria inpatient area





# Hospital pharmacy



# Dr. Mark Waithaka and family





Dr. Mark, independent as a fistula surgeon during week 2, being assisted by an O.R. nurse



# Post-op Ward, Chogoria Hospital (yesterday's patients have all gone home)

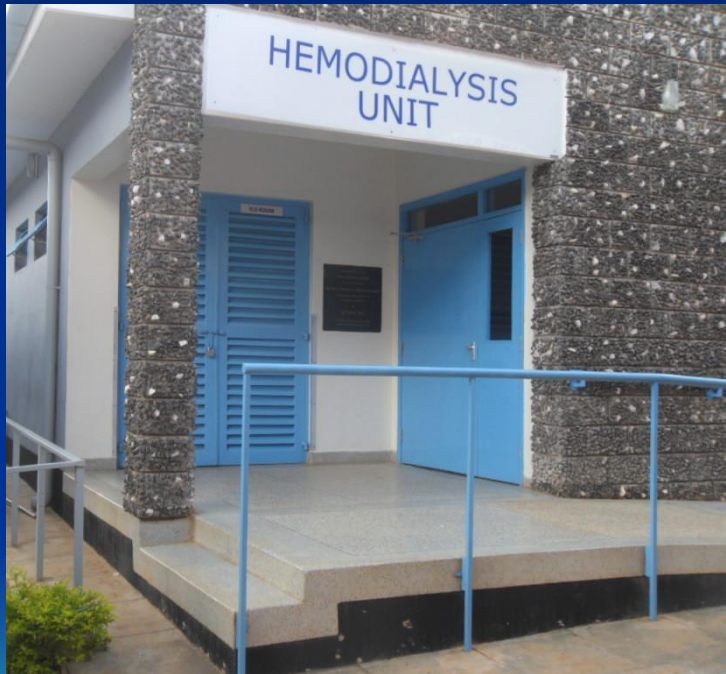




# Dr. John Kanyi, operating independently during week 2



# AHN dialysis unit, Chogoria





# The front gate of PCEA Chogoria Hospital



# Taking a hike in Chogoria town





# Second AV Fistula Camp: Fall, 2022, Kikuyu, Kenya

- Oct. 23-Nov. 4, 2022.
- Resulted in two more trained fistula surgeons (one of which started in the first camp) with 3 more beginning training.
- For this camp, we set a limit of 2 fistulas per day.



# Location of Kikuyu, Kenya

- An hour's drive from Nairobi.
- Suburban, pop. of 323,000.
- Home to one of the oldest (1908) hospitals in Kenya: **PCEA Kikuyu Hospital**.
- 3 shopping malls!





# Entry gate, PCEA Kikuyu Hospital



# Our Kikuyu quarters (nursing student dormitory)



# Kitchen and stove in Kikuyu





# Jerry with Dr. Kamene, now an AV fistula surgeon





# Jerry with Dr. Lloyd Vincent and Dr. Martin



# Doctors John and Wycliff with Adelaide and Jerry





# Brian, the AHN clinical coordinator at Kikuyu with a postop patient





# Gate leaving Kikuyu Hospital



# We are reminded of God in our wonderful surroundings





# By the way, what do you think?



- When Nik Pereira and I were both in Kijabe the same day and found out about each other, was that a *coincidence*?

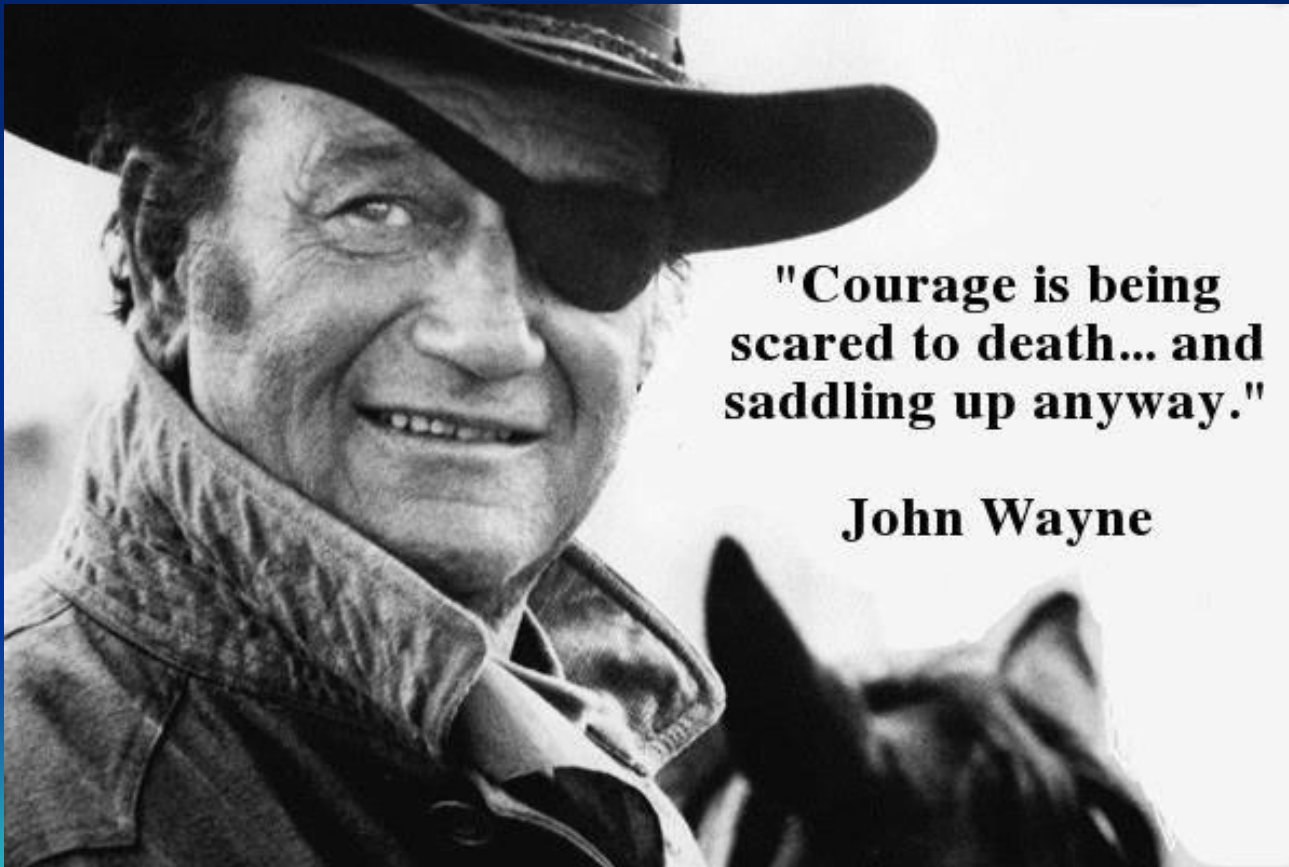


# Do you think God ever positions people for times and events?

- How much does God direct?
- How often does God intercede?
- Often? Rarely? Ever?
- *Must* we know this answer?
- “Be still and know that I am God” Psalm 46:10



# And anyway...



**"Courage is being  
scared to death... and  
saddling up anyway."**

**John Wayne**

...what about you?



...Me?



Think you're too old (or young) for God to call you to a missions role?



Do you think that young trainees wouldn't benefit from (or care about) your years of American clinical experience? Wrong!





Have you realized that, unless you teach them, some of your clinical tricks (and wisdom) will be lost as time passes?





Well, think it over (and pray) about it...



...and spend some time listening.

# Questions/Discussion



**“I am the Lord your God, who teaches you what is best for you, who directs you in the way you should go.”**

**Isaiah 48:17**

**[samaritanspurse.org](http://samaritanspurse.org)**