

Living Kidney Donation

Dr. Joseph Keith Melancon

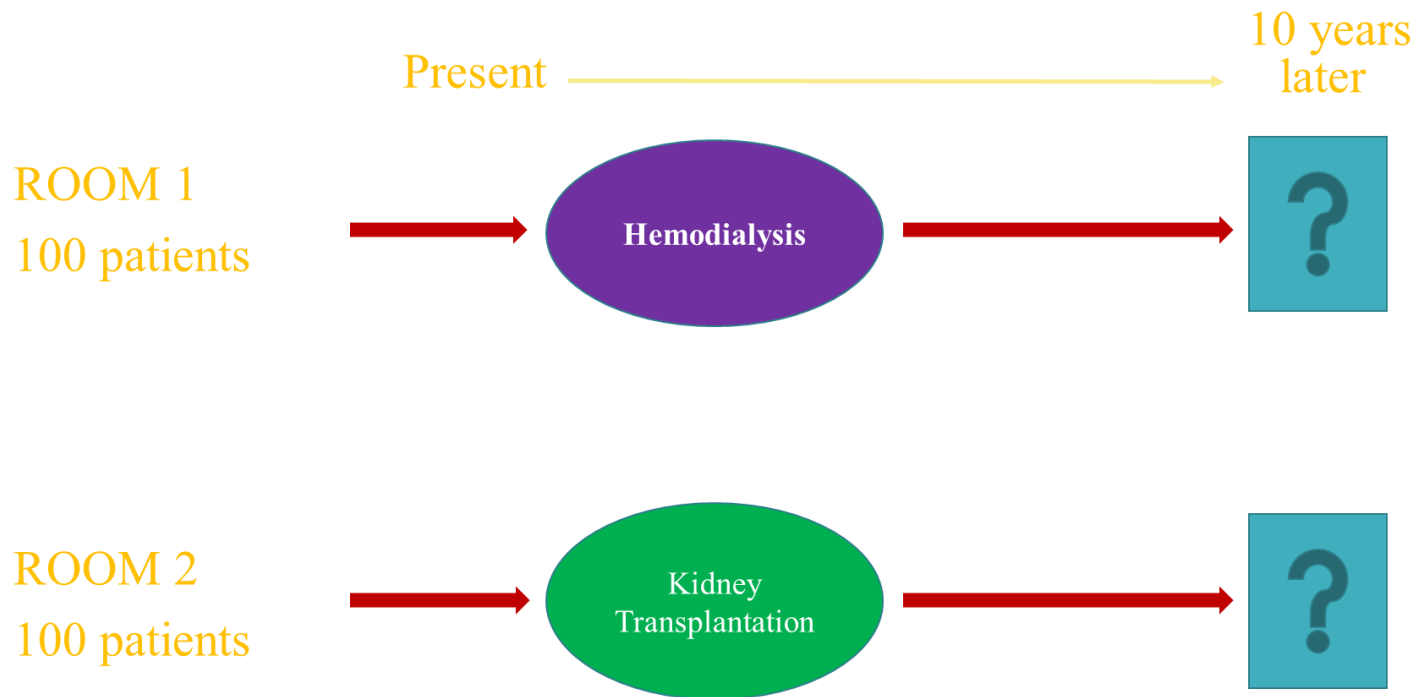
Thanks to our speaker!

Keith Melancon, MD



- Chief – Transplant Institute And Division Of Transplant Surgery; Medical Director – GW/ Ron And Joy Paul Kidney Center
- Dr. Melancon is a Professor of Surgery whose specialties include kidney, pancreas and liver transplantation, as well as laparoscopic kidney donor nephrectomy.
- His research interests have centered upon increasing access to health care for minority patients, particularly in the field of organ transplantation.

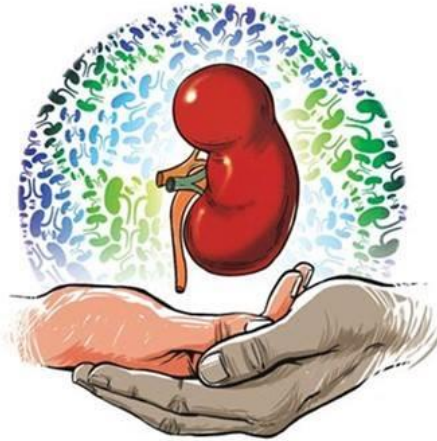
Scenario



TRUE OR FALSE?

A living kidney donor will usually be in the hospital for about a week after surgery.

FALSE!



TRUTH:

A living kidney donor will be in the hospital for only 2 nights after surgery.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

TRUE OR FALSE?

A living kidney donor will have to change their diet after donation.

FALSE!



TRUTH:

There are NO dietary restrictions after kidney donation. A kidney donor can eat anything, but like everyone, should follow a healthy and well balanced diet.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

**Did you
know?**

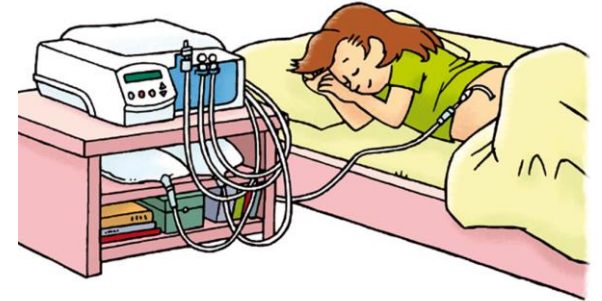
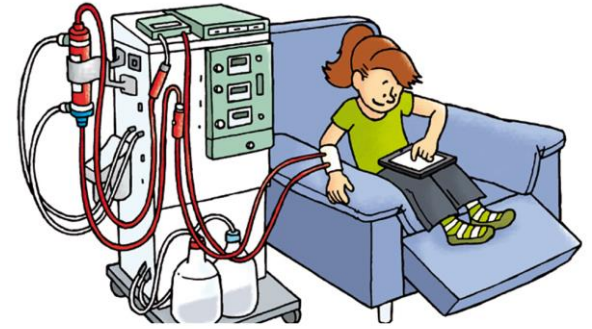
30 MILLION OR 1 IN 7

AMERICAN ADULTS HAVE

CHRONIC KIDNEY DISEASE

Renal replacement therapy

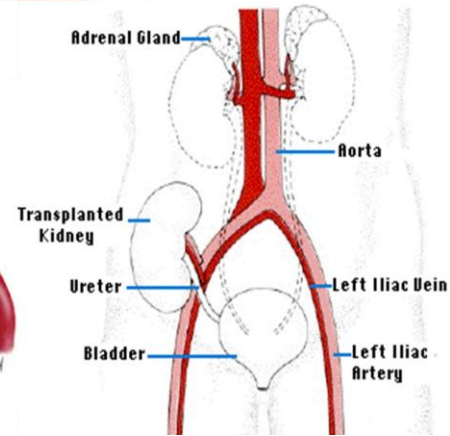
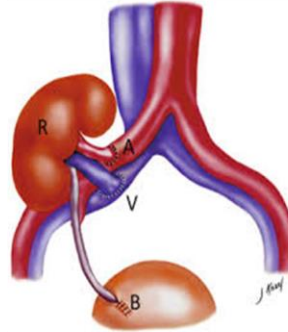
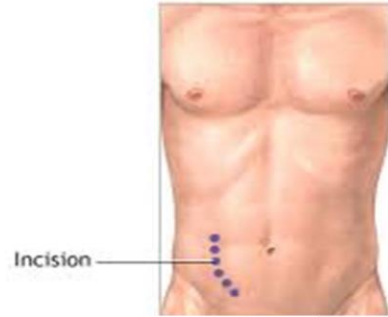
- People with end stage renal disease require renal replacement therapy in order to survive.
- This can be achieved through dialysis – hemodialysis, peritoneal dialysis, or through kidney transplantation.
- The mortality (death rate) and morbidity (disease rate) associated with dialysis is 4-5 times higher.



Transplantation



Procedure - transplant recipient



Why transplantation?

- Around 100,000 patients with end stage renal disease (ESRD) or kidney failure are on the waitlist for kidney transplantation.
- Only around 17,000 kidney transplants are done every year.
- Great demand for organs with limited supply.

Types of kidney transplantation

- Living donor kidney transplantation
- Deceased donor kidney transplantation

The donor operation



TRUE OR FALSE?

A living kidney donor is usually in pain for 3 – 4 months after surgery.

FALSE!



TRUTH:

A living kidney donor will have some pain after surgery from the surgical incisions, and from gas and bloating. This pain will decrease in a few days after surgery and can be controlled with pain medications if needed.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

TRUE OR FALSE?

A living kidney donor must be about the same age as the recipient.

FALSE!



TRUTH:

Transplants can work very well even when there is an age difference between the donor and recipient.

Survival rates in the 2 groups

- The 5 year and 10 year survival for deceased donor kidney graft is 86.1% and 46.7% respectively.
- The 5 year and 10 year survival for living donor kidney graft is 93% and 89.2% respectively.

TRUE OR FALSE?

A living kidney donor can't be older than 60 years of age.

FALSE!



TRUTH:

A living kidney donor can be older than 60 years of age, and have no problems from the surgery for the donation. The kidney from a donor older than 60 years can work very well.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

The living donor surgery

- Donors are selected after careful consideration.
- Routine approach for the procedure.
- Small incisions (surgical cuts).
- 2-3 days in the hospital after surgery.
- Considerably less pain with the procedure.
- 4-6 weeks for donor to return to normal activities.
- Return to work within a few days if work isn't physically demanding.

Risks of being a living donor

- Risks involving a surgery – pain, bleeding, infection.
- Post surgical complications – pneumonia, urinary tract infection, blood clots (DVT), wound infection, side effects of drugs.
- Longer recovery than normal for some patients.
- Minimal risk of developing high blood pressure long term.
- Extremely low risk of death – 0.03% (1 in 10,000).

What happens after surgery?

- Quality of life of a living donor is comparable to an average adult with 2 kidneys.
- Donor is in great condition health wise – extensive testing and complete physical work up done prior to donation.

TRUE OR FALSE?

A living kidney donor can no longer play sports or exercise.

FALSE!



TRUTH:

A kidney donor should be able to return to regular activities, including sports and exercise, in about 4 – 6 weeks after surgery.

TRUE OR FALSE?

A living kidney donor can no drink alcohol after surgery.

FALSE!



TRUTH:

A kidney donor **CAN** drink alcohol in moderation.

(That said, drinking too much alcohol is dangerous for anyone, and there is a greater risk of dehydration with 1 kidney.)

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

TRUE OR FALSE?

A kidney donor
has to take
medications for
the rest of their
life.

FALSE!



TRUTH:

A donor will need
pain medication and
stool softeners for a
short time after
surgery. After that
time, a donor doesn't
have to take any
medication.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

Insurance coverage

- Follow up care is provided for all kidney donors.
- Recipient's insurance pays for the living donor's medical expenses related to the donation (not all issues and complications are covered by the recipient's insurance)
 - All the pre operative check up and testing of the living donors will be covered by the recipient's insurance
 - Surgery and immediate post operative care is covered by the recipient's insurance.
 - Limited coverage is provided after surgery.

What's NOT covered by recipient's insurance?

- Travel expenses of the kidney donor
- Housing or hotel for donors from out of town
- Food while traveling
- Lost wages
- Costs of childcare

Pregnancy after donation

- Can you become pregnant after donating your kidney?
- What are the risks?

TRUE OR FALSE?

A kidney donor's
sex life is
negatively affected
by donation.

FALSE!



TRUTH:

A kidney donor can be
sexually active when
they feel well enough.

Sexual libido will not
be affected by
donation.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

TRUE OR FALSE?

A female kidney donor cannot get pregnant after donation.

FALSE!



TRUTH:

A female kidney donor **CAN** get pregnant after donation. Although the donor should wait 3 – 6 months after donation to become pregnant.

The body needs time to recover from the surgery, and to adjust to living with 1 kidney before pregnancy.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

Novel strategies to increase transplantation rates

Paired kidney exchanges.

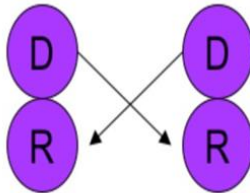
A2 to B blood group incompatible transplantation.

ABO fully incompatible transplantation.

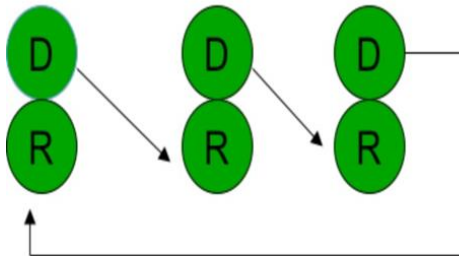
Paired kidney exchanges

Traditional Paired Exchange

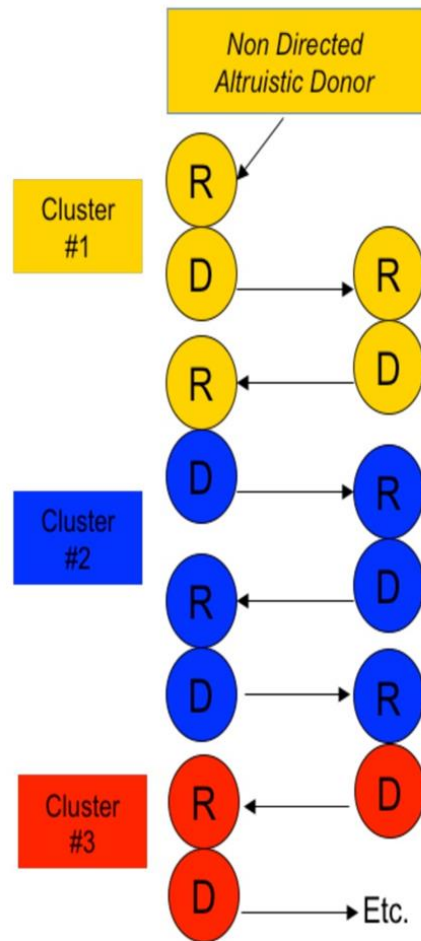
Two Pair Exchange



Three Pair Exchange



Chains



Paired kidney exchange and altruistic kidney donation



TRUE OR FALSE?

A kidney donor
and recipient
must be related
by blood.

FALSE!



TRUTH:

A donor and recipient
don't have to be
related by blood.
People can donate to
family members,
friends, or even
strangers.

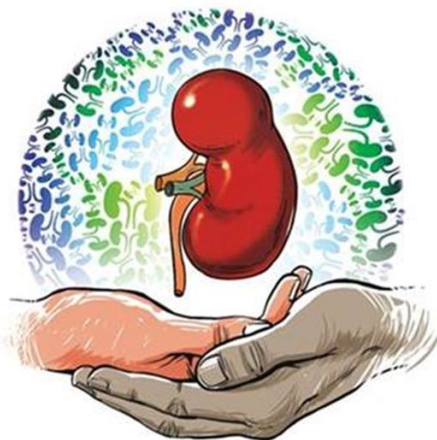
Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

TRUE OR FALSE?

A living kidney donor has to be of the same blood type as the recipient.

FALSE!



TRUTH:

A living kidney donor's blood type need not have to be identical to the recipient. If they don't match, they can enter into a paired kidney exchange OR receive an ABO blood group incompatible kidney transplant if they meet the criteria for it.

Ron and Joy Paul
Kidney Center

THE GEORGE WASHINGTON UNIVERSITY

INTRODUCTION

- We report *the first reported case of a successful directed deceased donor ABO fully incompatible kidney transplantation.*
- Our patient is a 61 year old gentleman who underwent a directed deceased donor kidney transplantation on 10/01/2015. He is currently over 2 years post transplantation, and is doing well. The graft shows no evidence of biopsy proven rejection, and the most recent serum creatinine level is 1.0.

OBJECTIVES

- To prove that the immediate and long term outcomes of ABO incompatible kidney transplantation is comparable with ABO compatible transplantation.
- To introduce more flexibility into the matching algorithm, thereby allowing us to achieve more local and regional matches for kidney transplantation.
- To have better HLA matched kidneys in highly sensitized patients (PRA >80%), thereby increasing the number of kidneys in the donor pool.

METHODS

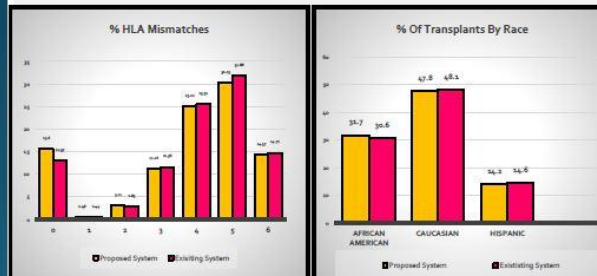
- A simulation analysis was performed to examine the consequences of implementation of ABO incompatible transplants on the national registry of patients who are waitlisted for kidney transplant.
- Kidney-Pancreas Simulated Allocation Model- a software developed by the US Scientific Registry of Transplant Recipients (SRTR) was used.
- ABO compatibility modified as shown in the table below.

Type	Original/Baseline ABO compatibility				Modified ABO Compatibility			
	O	A	B	AB	O	A	B	AB
O	I	C/X	C/X	C/X	I	C	C	C
A	X	I	X	C	C	I	C	C
B	X	X	I	C/X	C	C	I	C
AB	X	X	X	I	C	C	C	I

C- compatible; X- Incompatible; I- Identical

RESULTS

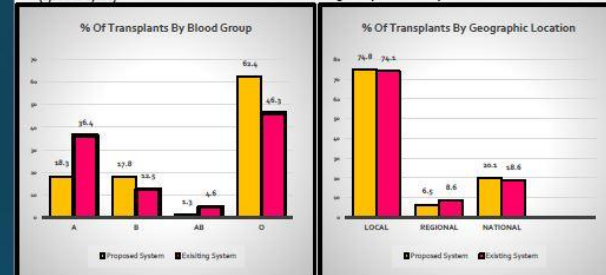
	Existing System	Proposed System
# of transplants	10,649	11,049
Race, n (%)		
African American	3,330 (30.6%)	3,502 (31.7%)
White	5,222 (48.13%)	5,290 (47.88%)
Hispanic	1,585 (14.61%)	1,578 (14.28%)
Other	712 (6.5%)	679 (6.1%)
Share Type, n (%)		
Local	8,039 (74.1%)	8,271 (74.8%)
Regional	942 (8.6%)	723 (6.5%)
National	2,018 (18.6%)	2,231 (20%)
HLA mismatch level (mean)	3.9	3.7
Number of PRA>80 patients, n (%)	1,378 (12.7%)	1,523 (13.78%)
Blood type, n (%)		
A	3,952 (36.4%)	2,028 (18.3%)
B	1,357 (12.5%)	1,975 (17.8%)
AB	509 (4.6%)	148 (1.3%)
O	5,031 (46.3%)	6,898 (62.4%)
Age (mean)	49.6	49.1
Probability of acceptance among recipients (mean)	0.059	0.067
Wait time in days (median)	573	622
# of discarded kidneys	2,670	2,440



The proportion of HLA zero miss-matches increased from 12.97% to 15.6% (1,407 to 1,724). In general, the miss-match level was reduced.

Transplantation in African American recipients increased from 30.6% to 31.7% (3,330 to 3,502). In Caucasians, although the number of transplants went from 5,222 to 5,290, the percentage went from 48.13% down to 47.88%. For Hispanic patients, the number of transplants went from 14.61% to 14.28% (1,585 to 1,578).

The proportion of blood type B recipients went up from 12.5% to 17.8% (1,357 to 1,975), and blood type O recipients went up from 46.3% to 62.4% (5,031 to 6,898)



The proportion of local and national matches increased from 74.1% to 74.8% (8,039 to 8,271) and from 18.6% to 20% (2,018 to 2,231) respectively, with the concomitant reduction in the share of regionally share kidneys.

CONCLUSIONS

- This case reveals the possibility of a successful ABO fully incompatible deceased donor kidney transplantation.
- The simulation analysis proved that if this modification was incorporated into the national kidney allocation system, it would translate into *maximizing the availability of kidneys* in populations that are harder to transplant.
- The proposed system would be introducing much more flexibility into the matching algorithm - allowing us to achieve *better HLA matched kidneys for our highly sensitized patients, increase availability of local organs, thereby reducing cold ischemia time for these organs, ultimately increasing the utilization of these valuable organs which would otherwise be discarded.*

What are some of the ways we have adopted to increase the awareness and access to health care in terms of kidney disease?

Outreach

Education

Kidney screening programs

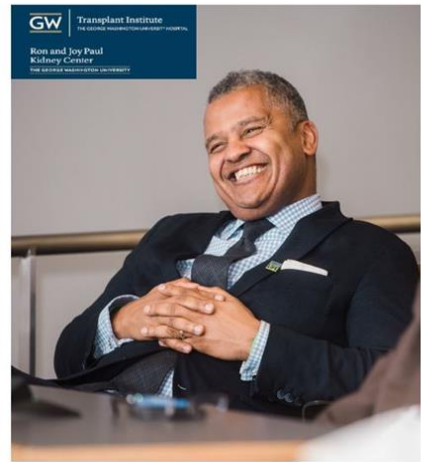
Dialysis outreach

Health fairs

Social media outreach



Date: February 10, 2019
 Time: 7 am
 Topic: Chronic kidney disease and free kidney screenings



Celebrating 1000 free kidney screenings!!!

GW Kidney's Photos



GW Kidney

Published by Karthika Mahendran [?]

Page Liked · 22 hrs ·

Shout out to all the selfless living donors out there who donated an organ! You are true heroes and have given someone a second chance at life!

We want to express our gratitude to the deceased donors' family members who made the decision to save lives at the most difficult time. Please take a moment to appreciate all the lives that these remarkable people have saved.

Sign up to be an organ donor. Lives could be saved some day because of the decision you make now! Help those in need by spreading the message and considering organ donation.

"You make a living by what you get; you make a life by what you give."
~Winston Churchill

Tag Photo Add Location Edit

Like Comment Share



Write a comment...



Press Enter to post.

Like Comment Share

Tag Photo Options Send in Messenger

Talk to your doctor about kidney screening

Protein in the urine!
– earliest predictor of
kidney disease

Blood pressure
check

At our center we
have screened over
1200 people for
kidney disease

- ¼ of these people were found to have abnormal results
- 90% of the people with abnormal results have been referred to a doctor for further care.

Sign up to be a donor today!

What **One** Donor Can Do

MEASURING THE IMPACT OF ORGAN & TISSUE DONATION



=

8 life-saving
organs



tissues &
corneas
that can
improve

75
LIVES



EVERY DONATION COUNTS

Lungs

3-year
survival
rate of **68%**



Liver

70% last 5 years
or more



Pancreas

improve
lives for an
average of **10+**
YEARS



Tissues

1 IN 20 Americans will
benefit from
tissue transplants



Corneas

can help
improve
sight for **20**
YEARS



Heart

5-year
survival
rate of **70%**
OR MORE



Kidneys

improve
lives for an
average **12-15**
YEARS



Intestines

NEARLY improved
3000 in the U.S.
LIVES to date



Transplant Institute
THE NATIONAL MEDICAL DONOR CENTER



Ron and Joy Paul Kidney Center

REGISTER TO MAKE A DIFFERENCE TODAY www.gwhospital.com (search Transplant)



QUESTIONS???

Join us for our next webinar!

Topic: Gout in Kidney Disease

Speaker: TBD

Date & Time: TBD

Go to www.KidneyFund.org/webinars to learn
more and register!