

Have you asked someone to be a donor?

Christie P Thomas MD

Professor and Vice Chair, Faculty Advancement
Department of Internal Medicine
Medical Director, Kidney Transplant Program
University of Iowa Carver College of Medicine

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Objectives

- What are the changes coming to UNOS and how might they impact transplant decisions and the hospital you choose?
- What types of donations are possible: daisy-chain; LRD; DD ?
- How do you make that ask? Sensitive topics and how to broach them
- NKF's The Big Ask, The Big Give

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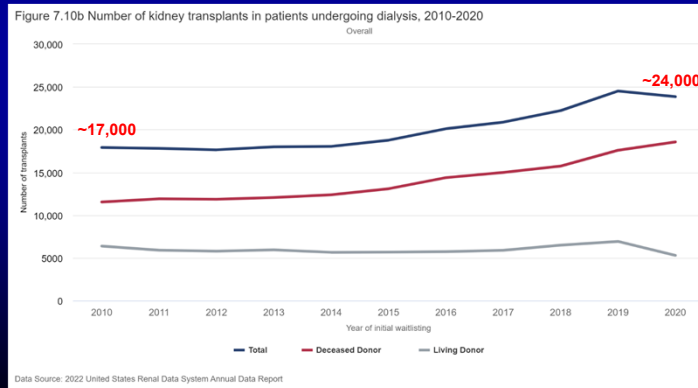
Where do organs come from?

Deceased donor organs:

1. Most from donors diagnosed as “brain dead” (hearts are beating and many organs are functioning).
2. Some from donors whose heart stops beating and there is no circulation (“cardiac death”)

Living donor organs:

From healthy adults who meet criteria for donation, understand risks and are able to consent to donor surgery of their own free will



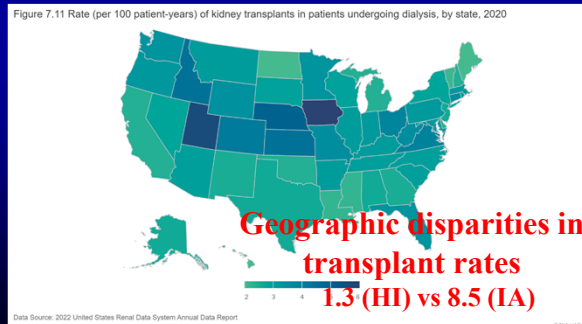
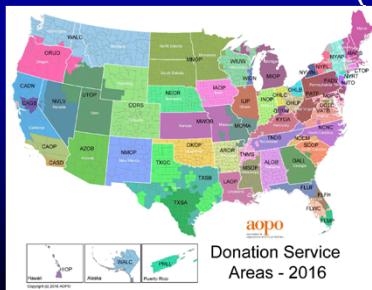
- Total Kidney transplants
- Deceased donor transplants
- Living donor transplants

USRDS.org

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Changes to UNOS

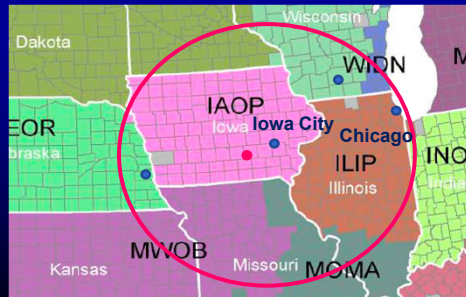
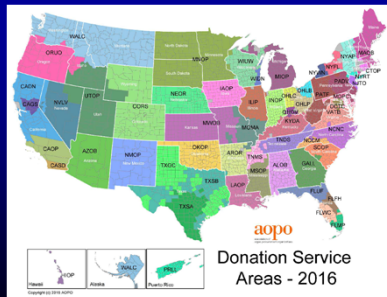
- UNOS operates the Organ Procurement and Transplantation Network (OPTN) - contract with the Fed Government.
- Organs are procured from deceased donors by an Organ Procurement Organization (OPO)
- In the past organs were preferentially allocated to patients within their donor service area (DSA)



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Changes to UNOS

- Organs will still be procured from deceased donors by an Organ Procurement Organization (OPO)
- They will now be preferentially allocated to patients within a 250 mile circle from the donor hospital
- Eventually there will be a continuous distribution model
- Intent to reduce penalties for people listed in certain population areas



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Choosing a hospital for listing

- Proximity to home
- Active living donor program including paired kidney exchange
- High transplant rates, excellent post transplant care and outcomes
- Consider listing at multiple transplant centers (> 100 miles apart)
- Living donation is generally best

Areas with longer wait times are expected to see it gradually shorten and vice versa.

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LIVING DONATION

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Types of kidney donors

Deceased Donors

- Patients are listed with UNOS (United Network for Organ Sharing) and wait their turn.
- Waiting times vary based on a variety of factors including; likelihood of benefit (EPTS), time on waitlist, blood group, HLA match and where the donor organ is procured.

Living Donors

- Related (parent, child, sibling)
- Unrelated (spouse, friend, stranger, kidney exchange)

Benefits from a living kidney donor transplant:

- Surgery can be electively scheduled.
- Kidney usually works immediately and lasts longer than from a deceased donor.

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Most living donor transplants are done with 'compatible' donors

- Blood group compatible
 - A, B, AB or O can donate to AB
 - O or A can donate to A
 - O or B can donate to B
- HLA (tissue type) compatible
 - no HLA ab against donor
- Additional refinements in matching (compatible but not ideal)
 - Size and age matching

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Kidney candidates with incompatible donors

~ 6,000 patients who have a willing but incompatible living donor

Options:

1. Desensitization (ABO and HLA)
 - Plasma exchange, rituximab before surgery and sometimes after
2. Kidney paired donation

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ABO Incompatibility

Based on blood group frequencies in the USA there is a 35% chance that any 2 individuals will be ABO incompatible (ABOI).

Examples of ABO incompatibility

Donor

A or B or AB blood group

Recipient

O (Anti-A and Anti-B ab)

A blood group

B (Anti-A ab)

B blood group

A (Anti-B ab)

ABO incompatibility comes from naturally occurring antibodies.

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HLA Incompatibility

Anti-HLA antibodies are acquired as a result of previous transplants, pregnancies or blood transfusions

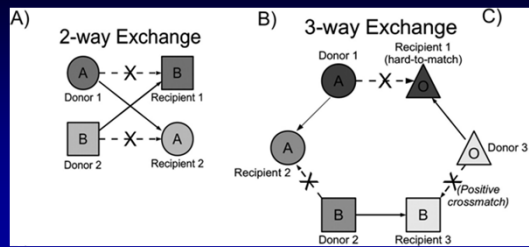
All transplant candidates are tissue typed and checked for HLA antibodies periodically. Antibody levels indicated by cPRA value

cPRA values range from 0 to 100% and can change with time

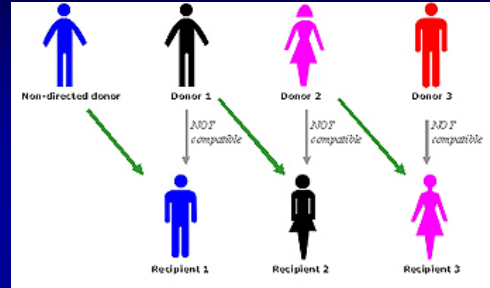
Transplanting a kidney to whom the recipient has anti-HLA abs can result in increased risk of rejection and of transplant failure

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Kidney Paired Donation (KPD)



- Conventional
- Simultaneous
- Closed loop



Another option

- Requires a non-directed donor (no intended recipient) to start a chain
- At the end of the chain, donor 3 is available to start another chain
- Non-simultaneous, extended, altruistic donor chain (NEAD) or daisy chain
- Open



<https://www.kidney.org/transplantation/livingdonors/incompatiblebloodtype>

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How does donor kidney get to recipient in KPD?

Options when matched donor and recipient are at different centers

1. Recipient travels to donor center
taxing for the recipient
2. Donor travels to recipient center
inconvenience for donor
has to be away from intended recipient
3. Donor kidney removed and shipped to recipient center
requires coordination of transportation

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Finding a living donor

- Learn about living donation
- Talk to living donor recipients and to former living donors
- Share your story
- Resources:
 - National kidney Foundation – Kidney Learning Center
<https://learningcenter.kidney.org/spa/courses/catalog/nkfp/home>
 - UNOS - Transplant Living
<https://transplantliving.org/living-donation/>
 - National Kidney Registry – Links in 'For Patients'
<https://www.kidneyregistry.org/>

<https://www.youtube.com/watch?v=eBPSwIYsigM>

