

Kidney Transplantation

Presented by Nebraska Medicine



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Agenda

- Review treatment options for End-Stage Renal Disease (ESRD)
- Review of kidney transplant options
- Overview of the evaluation process
- Care partner support
- Review of the listing process
- The surgery
- Post-transplant
- Transplant outcomes

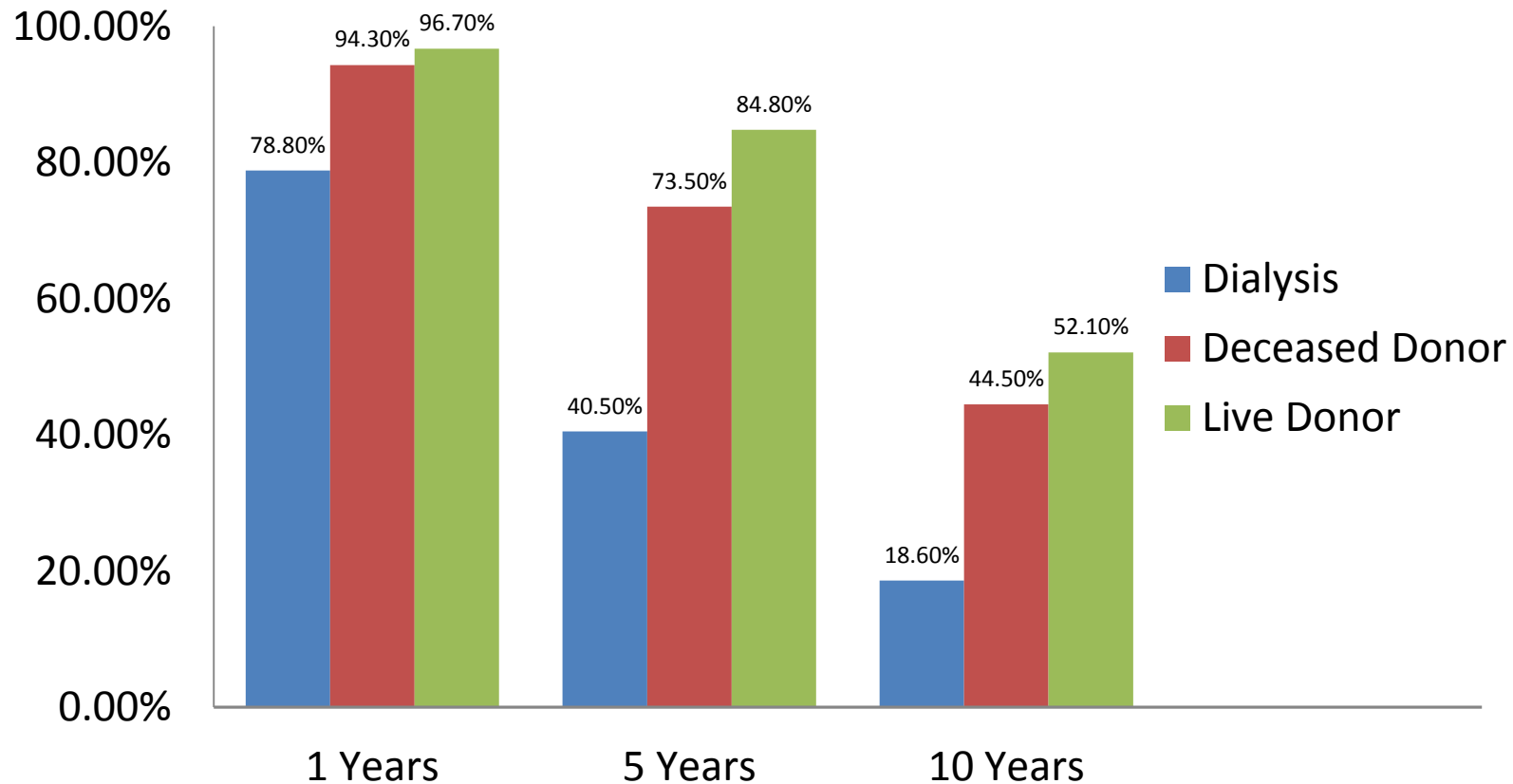


Treatment Choices for ESRD

- Medical Management
- Hemodialysis
- Peritoneal dialysis
- Deceased donor kidney transplant
- Living donor kidney transplant



1-, 5- and 10-Year Patient Survival Rates



Data from the USRDS 2014 Annual Data Report; 1-year data are from 2011, 5 year data are from 2007, and 10-year data are from 2002



Kidney Transplantation

- Over 16,000 transplants performed each year in the U.S.
- Over 120,000 people nationally on the waiting list
- Appropriate option for patients who are medically eligible and have adequate psychosocial support
- Transplantation is not a cure, but a treatment option for eligible candidates



The Kidney Transplant Team



Steps in the Evaluation Process

STEP 1

- Orientation (Today!)
- Testing
- Have potential living donors do online form/or call the office
- Exam and interview by transplant team

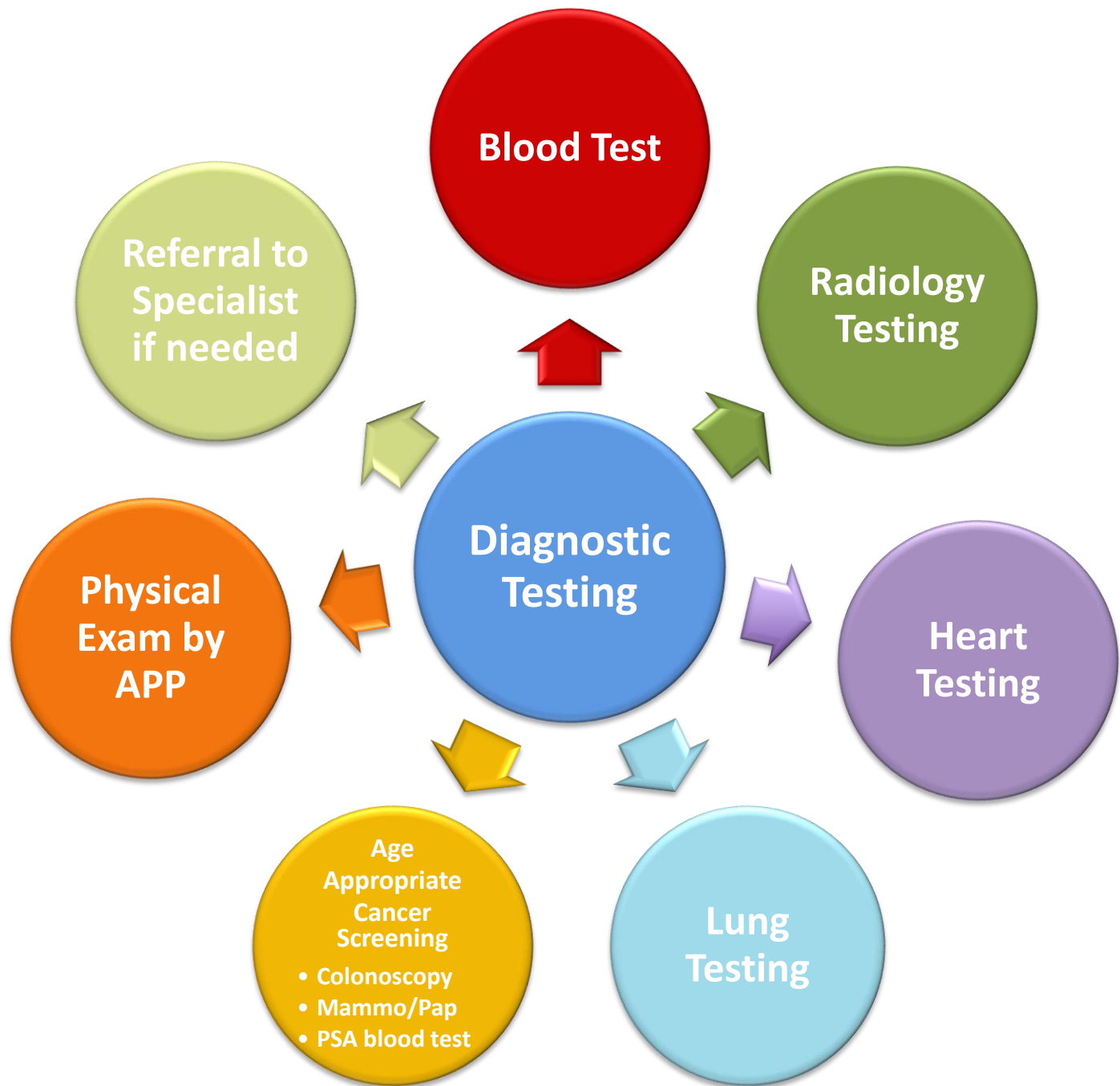
STEP 2

- Specialized testing
- Referrals to specialist
- **Care partner secured and understands the role**

STEP 3

- Review by the transplant committee





Cost of a Transplant



Financial / Pharmacy Questions

- You are assigned a financial counselors and pharmacy financial counselors
- Your pharmacy financial counselors will assist with prescription coverage
- You will meet with them as part of your evaluation to discuss insurance coverage
- Ask questions:
 - *What will my out-of-pocket costs be?*
 - *Do I need a supplemental insurance policy?*
 - *Do I have travel and lodging benefits?*
 - *How much will my medications cost?*
- You must inform the transplant team of insurance changes



Types of Transplants

Living Donor	Deceased Donor
Wait time is 2 to 4 months	Wait time is 1 to 3 years
Organ survival on average is 15 to 20 years	Organ survival on average is 8 to 10 years
Have a lower rate of delayed graft function	Have an increase rate of delayed graft function

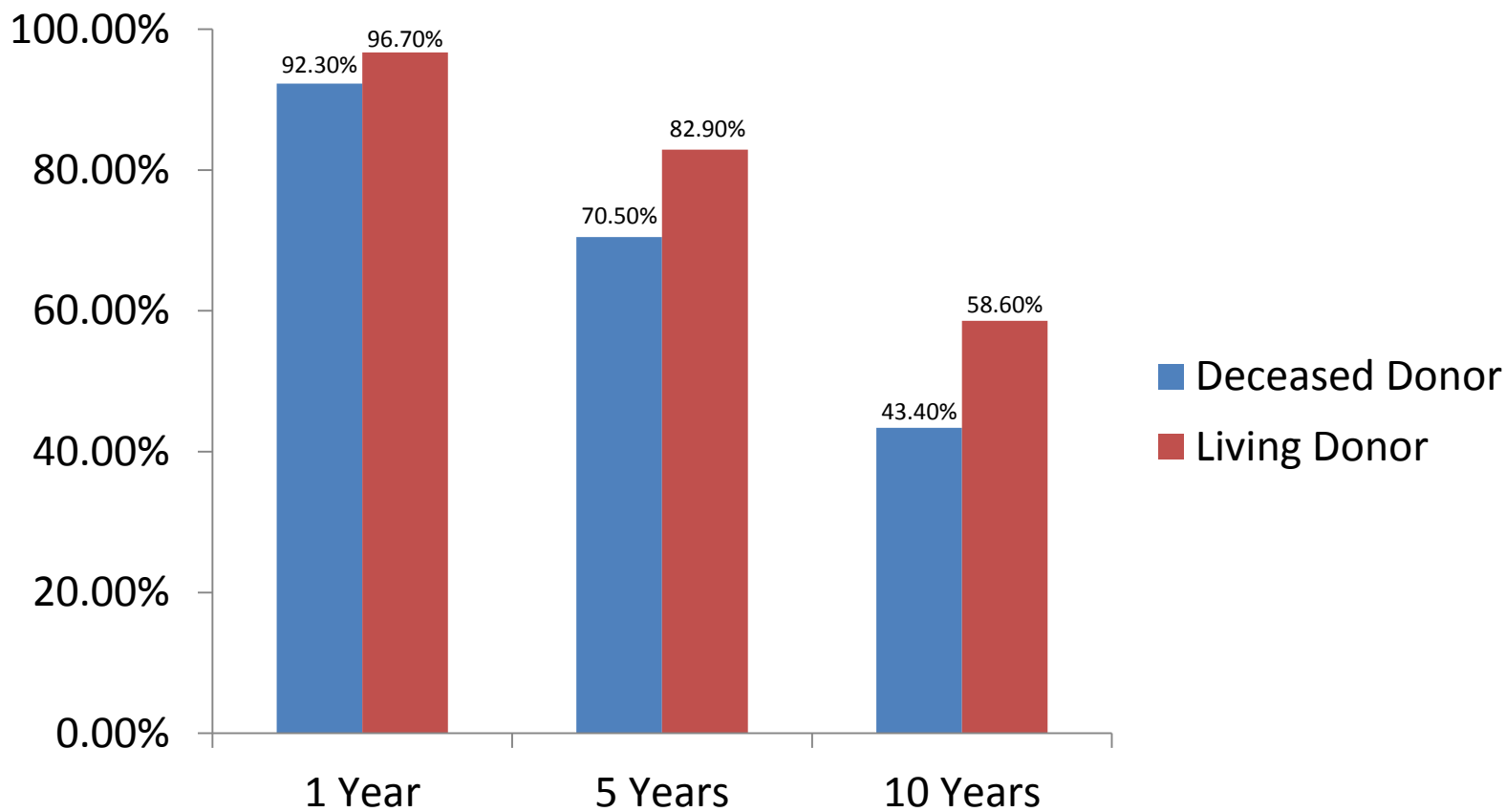


Living Donor vs. Deceased Donor

- Patient survival and graft survival is better (in other words, patients who receive a living donor kidney transplant live longer and have healthier kidneys that last longer)
- The kidney is from a healthy person who has undergone a thorough medical evaluation
- Surgery can happen when it is most convenient for the living donor and the recipient
- Transplanted sooner with when you have a living donor
- The surgeries happen at the same time
- The longer a person is on dialysis, the higher rate of medical complications. Living donation can happen sooner than waiting on a list therefore decreasing complications



1-, 5- and 10-Year Graft Survival Rates



Data from the USRDS 2014 Annual Data Report; 1-year data are from 2011, 5-year data from 2007, and 10-year data are from 2002.



Living Donors

- Donor will complete a separate evaluation
- Will have a different set of providers and decision makers to ensure it is safe to donate
- We will not compromise donor safety
- Donor information is kept confidential



Potential donors should fill out form online:
nebraskamed.com/kidneydonor



LIVING KIDNEY DONOR SCREENING

Living Kidney Donor Screening

We appreciate your interest in living kidney donation and ask that you answer the following questions to begin the process. Our staff will contact you within 10 business days when our medical team has made a decision about the next steps. If you have any questions please call us toll-free at (800) 401-4444. All information below will be kept secure and only used to determine if you meet initial requirements to be a living kidney donor.

Please fill out the form below.

Becoming an anonymous, non-directed donor (NDD)

An NDD is a person who wants to donate a kidney to someone in need of a transplant who doesn't have an intended recipient.

I would like to be an anonymous, non-directed donor (NDD). Yes No

Intended Recipient Information

Intended Recipient's First Name


Intended Recipient's Last Name:

Intended Recipient's Date of Birth

Enter your information below

First Name

Last Name

Relationship to Recipient 



Living Donor Kidney Options

Donor is a match

- Blood type and tissue type match
- Can be related or unrelated donor

Proceed to donor evaluation

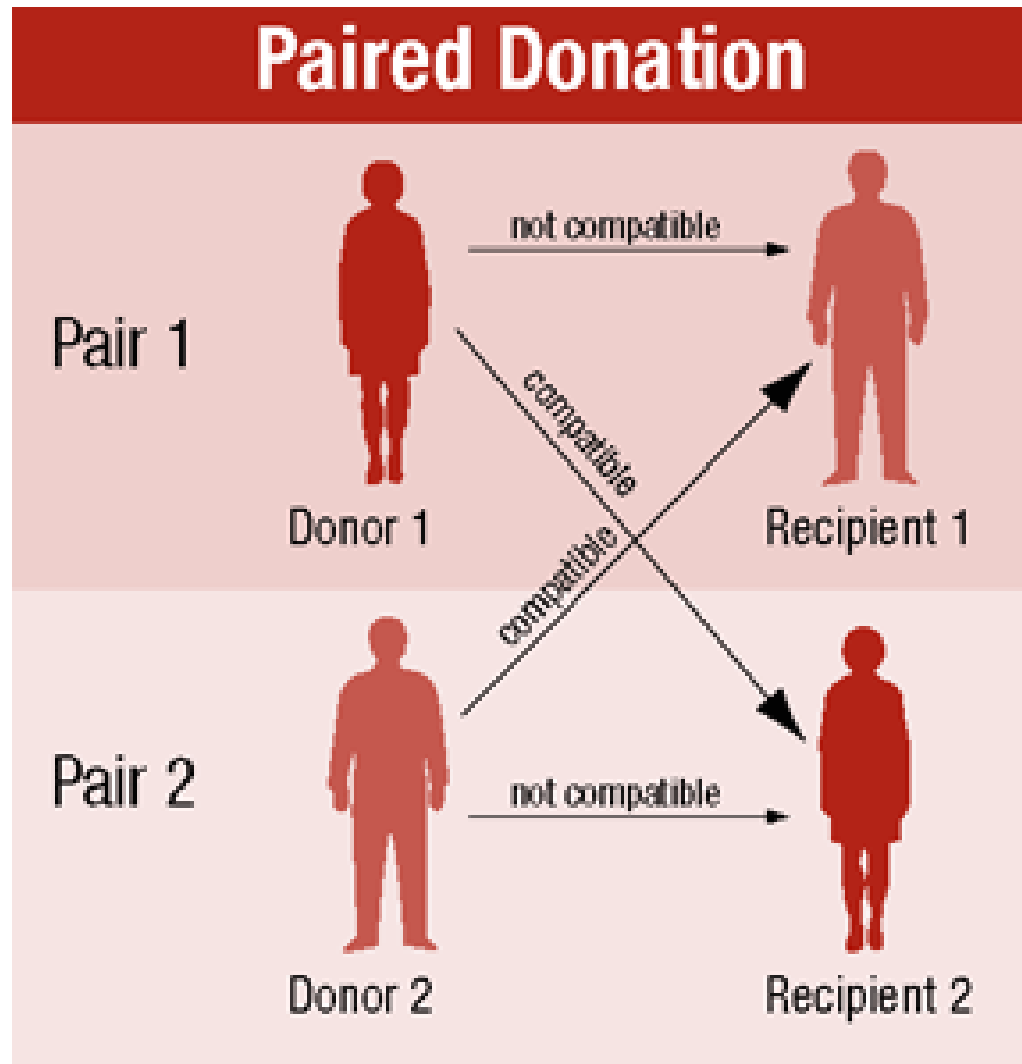
Donor is not a match

- Blood type and/or tissue type not matching

Consider other options



Internal Exchange Option



Blood Type Incompatible

- All potential donors will be considered
- Recipient may receive treatments before and after transplant to decrease the risk of rejection
- Depending on insurance coverage
- No change in treatment or surgery for the donor



Types of Deceased Donors

- Standard brain dead donor
- Donation after circulatory death
- High risk donors / Increased risk
- Hepatitis B donors
- Hepatitis C donors
- KDPI greater than 85%



Kidney Donor Profile Index (KDPI)

- The national network (OPTN) is responsible for allocating kidneys and coordinating transplants
- “Score” assigned to every kidney being offered for transplant:
 - A deceased donor is given a score from 0-100%; this score is based age, height, weight, ethnicity, history of hypertension, history of diabetes, cause of death, serum creatinine, hepatitis C status, and DCD status
 - You need to give consent to receive kidney with a score of greater than 85%
 - We will not discuss the score of the kidney at any time. We will only notify you if the score is greater than 85%
 - The KDPI is only one factor when accepting an offer
 - Each offer is screened by the surgeons



Estimated Post-Transplant Survival (EPTS)

- A candidate's EPTS score can range from 0% to 100%
- Your EPTS score is based on your age, prior transplant, diabetes status, and time on dialysis



Hepatitis B and Hepatitis C Organs

- Organs from donors who have a history of Hepatitis B or C are allowed to be used for transplantation
- Organs from a Hepatitis C positive donor can be offered to a positive Hepatitis C patient
- Organs from a Hepatitis B positive donor can be offered to a patient who is immune to Hepatitis B either from prior exposure or vaccination



Possible Outcomes of Evaluation

- Additional testing needed for team to determine candidacy
 - Must be completed within 6-months of evaluation starting today
- Placement on the Wait List
- Denial as candidate - risk of transplant outweighs potential benefits



Listing

- If you are placed on the National Kidney Wait List managed by the United Network for Organ Sharing (UNOS), you will be notified via phone call and letter
- The order on the list is driven by the length of time you are on list, time on dialysis, antibody levels, and age (pediatrics)
- The type of offer will be explained to you and you have the right to refuse a kidney offer.
- **NO** Donor information will be shared



Wait List Responsibilities

- Annual testing; however, some patients may be seen more often
- Make sure you continue to have a reliable care partner with reliable transportation and a reliable cell phone at all times.
- Monthly HLA Antibody testing
- Notify your nurse coordinator of any changes:
 - To your insurance, contact information which includes phone numbers, MEDICAL CONDITIONS, any dialysis changes, including changing nephrologists, travel plans

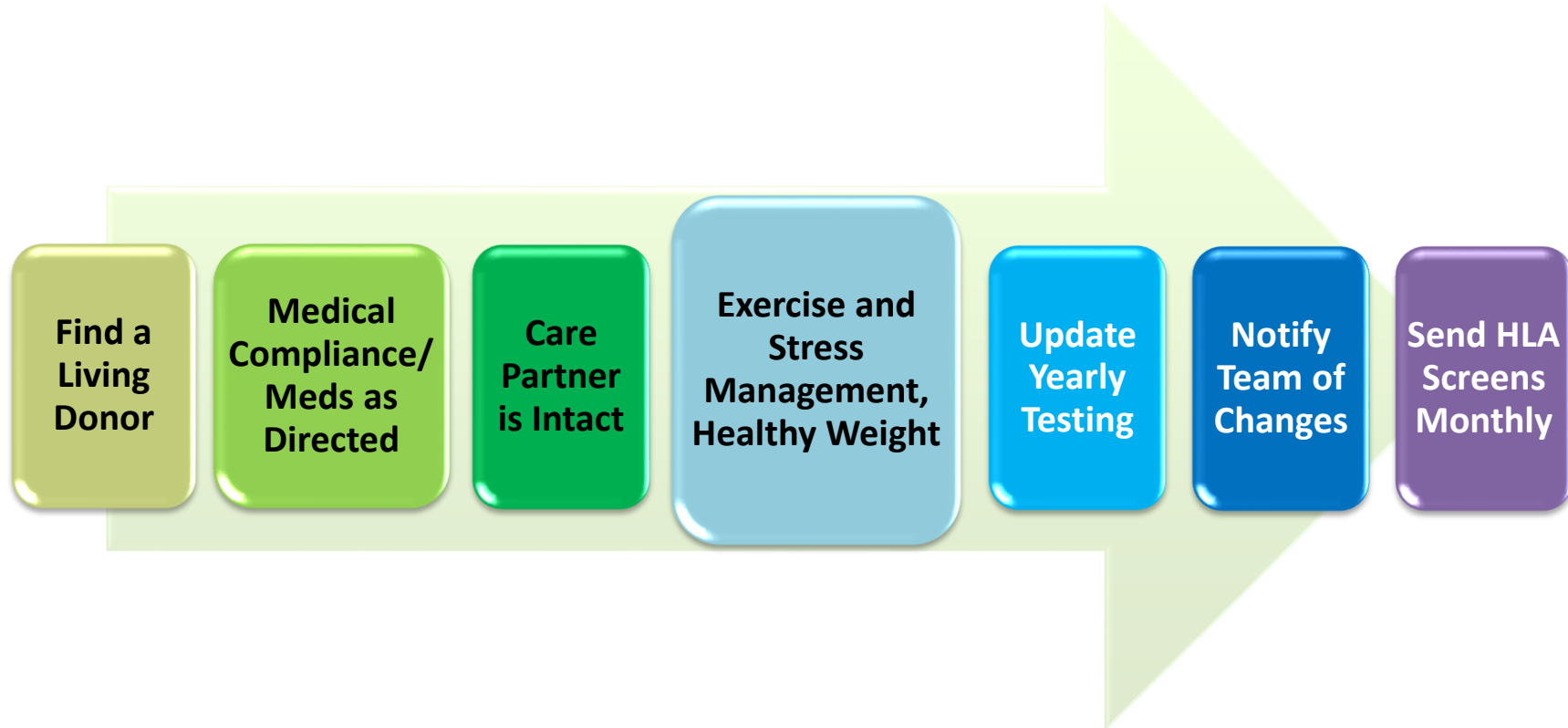


What to Expect When Called in for Transplant

- When called with a transplant offer:
 - An hour to reach you or someone who will know where you are
 - Primary offer
 - Backup offer
 - Coordinator will not discuss personal donor information with you
 - We will inform you where to go and what to do when we call you in for transplant
- Pack a bag to include:
 - Bottles of home medications
 - Clothes for 3-4 day hospital stay, may stay in Omaha longer after transplant



While on the Wait List



Average Wait Times from Listing to Transplant as of March 2016

Blood Type	Average
Type A	11.7 months
Type B	12.9 months
Type AB	2 months
Type O	16.2 months



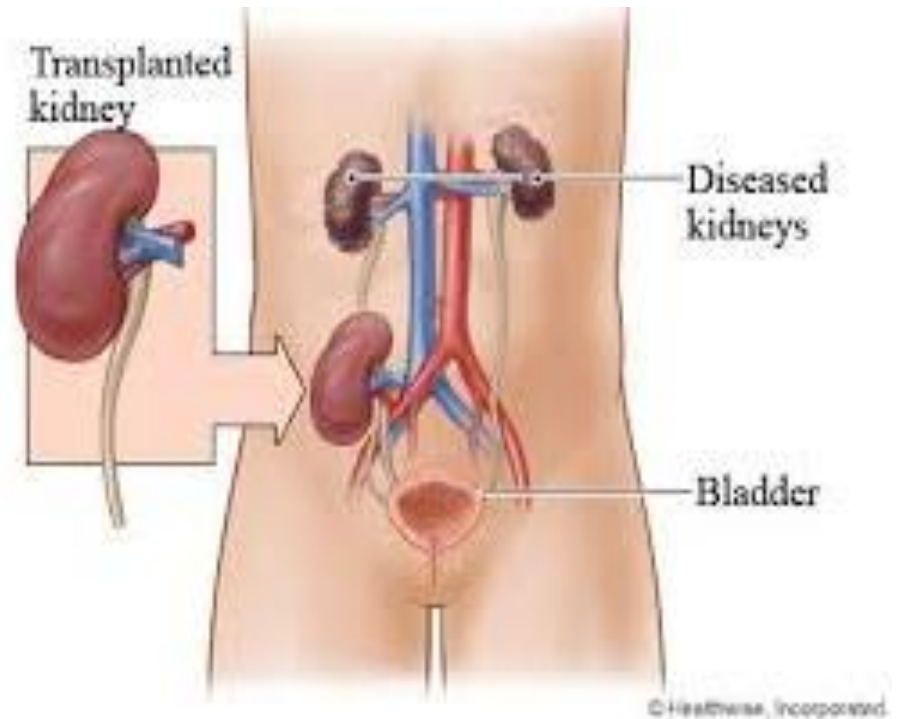
Receiving an Organ Offer

- We *must* be able to contact you within 1 hour
- You *must* have dependable transportation
- Your care partner *must* come with you and be present during hospitalization from 8:00-4:00
- We will not share personal information pertaining to your donor at any time
- There's a possibility the donated organ may fall through at any time



The Surgery

- 2-3 hour surgery
- Kidney attached in the front of body, near the bladder
- Will stay on Clarkson's 5th floor
- Usual hospital stay is 3 to 4 days
- Up and moving same day of surgery
- A ureteral stent will be placed and removed six weeks after transplant in an outpatient procedure.
- A foley catheter will be placed and removed post op day 3



Potential Outcomes of Transplant

😊 = Kidney works immediately (70-80%)

😐 = Slow or delayed graft function; you may need dialysis after transplant (20-30%)

😞 = Fail immediately (1%)



Daily Bathing Decreases Infection

- All people have harmful germs or harmful bacteria on their body
- These germs and bacteria can cause infections after surgery
- You will be asked to take a shower at the time of admission for surgery
- You will be asked to shower daily following your surgery
- Taking a shower prior to surgery and a shower daily following surgery CAN prevent infection



Complications from Transplant

Surgical:

- Bleeding
- Wound dehiscence
- Fluid collections
- Urinary complications



Medical:

- Infections
- Rejection
- Weight gain
- Diabetes
- Cancer
- Hypertension
- GI side effects



Post-Transplant Compliance



Clinic Visits

- 1 week post discharge with the team
- Monthly with transplant nephrologist or APRN at months 1, 2, 3, 6, 9, 12, then annually
- Reestablish post-transplant care with your local nephrologist at 6 months



Lab Work

- 1st month = Every Monday and Thursday
- 2nd – 4th month = Weekly
- 4th – 12th month = Bi-weekly



Medications

- Twice a day
- Take anti-rejection/immunosuppressant meds for life



Unexpected Admissions

- Transplant team keeps a close eye on you

*Please note that visits and lab draws may vary depending on your kidney.

Medications for Transplant

- 3 anti-rejection/immunosuppression medications:
 - Prograf
 - Myfortic/Cellcept
 - Prednisone
- 3 anti-infective medications:
 - Bactrim
 - Valcyte
 - Nystatin
- Other medications for:
 - Hypertension
 - Gout
 - Diabetes
 - Cholesterol
 - Heartburn



Total Medications: 10 to 18



Transplant Medications

Immunosuppression/Anti-rejection:

- Tacrolimus (Prograf) taken twice a day, dose adjusted by level; lifetime as long as graft functioning
- Mycophenolate (Cellcept/Myfortic) taken twice a day; lifetime as long as graft functioning; for female patients of child bearing age this medication causes birth defects, please notify the transplant office if considering getting pregnant
- Prednisone (Steroid) taken daily; dose decreases the further out from transplant; usually taken for the life of graft
- There are other options to use for these medications



Common Side Effects

- Tacrolimus (Prograf): tremor, high blood pressure and worsening of glucose levels, neurological changes
- Mycophenolate(CellCept/Myfortic): stomach upset, diarrhea, heartburn
- Prednisone (Steroids): worsening glucose levels, weight gain, growth impairment, slow wound healing, bone thinning, heartburn
- Patients who are diabetic may need a higher insulin dose post-transplant
- Patients who have hypertension may need more medications to control their blood pressure

❖ *All these medications increase your risk of infections and certain cancers*



Other Medications

- Daily aspirin
- Valcyte *or* Valtrex - 3 to 6 months to prevent CMV(a viral infection)
- Bactrim *or* Pentamidine an antibacterial taken for a year
 - Pentamidine is a breathing treatment that is taken monthly at your local hospital-given if allergic to sulfa
- Insulin per your diabetes doctor and/or primary physician
- High blood pressure medications



Pancreas Transplant

- Only pertains to Type 1 diabetics
- Evaluation similar to that for kidney transplant
- Options include pancreas transplant alone, or simultaneous kidney-pancreas, if renal failure present
- Longer operation, more extensive surgery than kidney transplant alone
- Higher risk of early failure
- Medications and long-term risks similar



Transplant Outcomes

For updated Scientific Registry for Transplant Recipients (SRTR) data visit us online at:

www.nebraskamed.com/transplant



Next Steps

- Sign evaluation acknowledgement and listing letter of understanding
- Finish your evaluation and ask questions
- Make sure a care partner is present throughout the process
- **Find a living donor!**
- Follow your medical recommendations from your nephrologist and/or dialysis team
- Get the word out and share your story



Repay the Gift You are Given

- Take your medications
- Have your labs drawn
- Go to your physician appointments
- Maintain relationship with your local nephrologist
- Call if you have questions:

Toll free: 1-800-401-4444 or
(402) 559-5000



Quiz

- Are you on the kidney transplant Wait List by coming to this appointment?
- What is the website you should refer living donors to?
- Will you have more testing to complete?
- Will you have to do anything while on the list?
- Does transplant cure end-stage renal disease (ESRD)?



Consent Forms

Evaluation Acknowledgement Form



Place Patient Sticker Here

**EVALUATION ACKNOWLEDGEMENT
KIDNEY AND/OR PANCREAS TRANSPLANT**

I have attended the Kidney and Pancreas Patient and Family Information Meeting provided by Nebraska Medicine, the Center for Organ Transplantation and I have both been given information on the transplant program and have had the opportunity to ask questions on the following topics listed below. I will have additional opportunities to ask questions of the Transplant Team during my transplant evaluation appointment or at any time in the future.

Transplant Team Members and Their Roles

I understand that many professional team members at Nebraska Medicine will be working with me to make my transplant as successful as possible. The Nebraska Medicine team will be my Transplant Team. I was introduced to a transplant coordinator when I attended the Kidney and Pancreas Patient and Family Information Meeting and was given the chance to ask questions. I will be meeting with other members of the Transplant Team throughout my evaluation for transplant. I understand how to contact my Transplant Team by phone (1-802-559-5000 or 1-800-401-4444) for any additional questions or concerns.

The Transplant Team is made up of the following individuals:

- **Transplant Coordinator:** A registered nurse who coordinates the initial screening and provides education and follow-up throughout the Pre- and Post-transplant course. He/she will facilitate all aspects of the donation and transplant process.
- **Nephrologist:** The physician who specializes in kidney disease. The nephrologist will evaluate me for suitability for transplantation and may recommend further testing and/or consultations.
- **Transplant Surgeon:** The physician who will meet with me to discuss the surgery and potential risks and side effects as a result of the surgery.
- **Social Worker:** A social worker will meet with me to assess my personal, psychosocial situation and possible stresses related to kidney transplantation and help me identify my support network, financial resources, and plans for recovery after transplantation.
- **Financial Specialist:** A financial specialist will explain what my insurance will and will not cover and help me determine if I qualify for coverage from Medicare, Medicaid or private insurance and direct me to possible financial resources.
- **Pharmacy Financial Specialist:** A pharmacy specialist will explain my current pharmacy plan that is covered by my insurance. They will inform me of any out of pocket expenses for my medications and determine if I qualify for assistance programs.
- **Psychologist/Psychiatrist:** A psychologist or psychiatrist may conduct a more in-depth psychological/psychiatric evaluation and assessment.
- **Dietician:** A dietician will meet with me during the evaluation process to assess my nutritional status and possible dietary recommendations before and after transplant.
- **Child Life and Child Developmental Specialist and other health care providers as indicated.**

Overview of Transplant

I have been given information on Nebraska Medicine's history, performance and survival statistics. The organ transplant operation, medicines after transplant and the importance of my commitment to a long-term medical regimen have been explained to me. I was given educational materials to consult with and refer to. I have been given Nebraska Medicine contact information and the opportunity to ask questions.

Transplant as a Treatment Option

I understand that transplantation is a treatment option and that I am faced with an important decision about having a transplant. The information being provided to me throughout the evaluation process will help me decide if the trade-off for transplant (for example, surgery, life-long anti-rejection medications) is better for me than continuing with my current or expected medical care (for example, dialysis and/or insulin therapy). If I decide not to proceed with transplantation, I may continue to have the current medical treatment that I have now.

Plan of Care


I understand that before I can be placed on the kidney and/or pancreas transplant Wait List, my Transplant Team will require a thorough evaluation of my medical condition and may order additional tests to determine my suitability for the transplant. The results of these tests and evaluation help to estimate the risks and benefits of transplantation and, in some cases may lead to denial of transplantation. I understand the importance of keeping all my appointments to expedite being placed on the Wait List. Further, I understand the importance of complying with the plan of care established and coordinated with my referring physician.

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EVALUATION ACKNOWLEDGEMENT – KIDNEY/PANCREAS TRANSPLANTCONSENT



Consent Forms

Listing Form

 **Nebraska
Medicine**

Place Patient Sticker Here

**LISTING LETTER OF UNDERSTANDING
ADULT KIDNEY AND/OR PANCREAS TRANSPLANT**

The following information is provided to inform you of the transplant procedure including the purpose, treatment course, and potential risks and benefits. The Patient Selection Committee will review the results of your transplant evaluation and if you are approved you will be placed on the waiting list to receive a kidney and/or pancreas transplant. Before agreeing to this treatment plan, you should understand enough about its risks and benefits to make an informed decision. This form gives detailed information about the treatment, some of which the Transplant Team has already discussed with you or will be discussed if approved for listing. Please be aware that you have the right to review with your Transplant Team any part of this process that you do not understand. Once you have read this information and have had all your questions answered, you will be asked to sign this form if you wish to proceed. You will be given a signed copy of this form for your records.

Overview of Transplant
I have been given information on Nebraska Medicine's history, performance and survival statistics. The organ transplant operation, medicines after transplant and the importance of my commitment to a long-term medical regimen have been explained to me. I have been given educational materials to review and refer to. I have been given Nebraska Medicine contact information and the opportunity to ask questions.

Transplant as a Treatment Option
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Plan of Care
I understand that I have completed a transplant evaluation and if approved for transplant by the Selection Committee, I will be placed on the transplant Wait List. The results of the evaluation and tests help to estimate the risks and benefits of transplantation and, in some cases, may lead to denial of transplantation. I understand the importance of complying with the plan of care established and coordinated with my referring physician.

I was given the opportunity to ask questions.

Matching the Deceased Donor Organ to Recipient
I understand that kidneys and/or pancreas from deceased donors are a precious national resource. A national program called the United Network of Organ Sharing (UNOS) is designed to allow fair access to all patients who need a kidney and/or pancreas for transplantation. This national system balances the needs of patients who have waited a long time with the goal of transplanting well-matched kidneys. I understand that if my name is placed on the national Wait List, I will have to wait for a suitable donor.


I was given the opportunity to ask questions.

The Transplant Wait List
I understand that if I am placed on the transplant Wait List, I will need to have monthly labs drawn, which are called Cytotoxic Antibodies or PRA. This specimen of blood is drawn at my dialysis unit or local lab and sent to the Transplant Center for testing and storage. This blood specimen is used for crossmatching when a donor has been identified and it also tells the Transplant Team if there is something changing within my immune system that would make transplant matching more difficult. Having a current blood specimen on hand is extremely important in the matching process.

I understand that in order for the Transplant Team to reach me when a donor organ is found, they will need current phone numbers and a current address. I also understand the Transplant Team has limited time to reach selected recipients and if they cannot find me in a reasonable length of time (approximately one hour), it will be necessary to "skip over me" and move on to the next patient on the list. This does NOT affect my status on the list for any future donors.

I understand that I must call the Transplant Team and inform them if I am going to be out of town for any reason and give them alternate phone numbers and contact information and they will make every effort to reach me if my name comes up for a transplant.

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Rev. 11/14 LISTING LETTER OF UNDERSTANDING - ADULT KIDNEY AND/OR PANCREAS TRANSPLANT CONSENT



Questions?





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