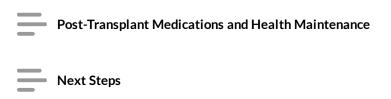
## **Kidney Transplant Education - English Version**

Memorial Transplant Services was founded in 1972 by Dr. Alan G. Birtch.

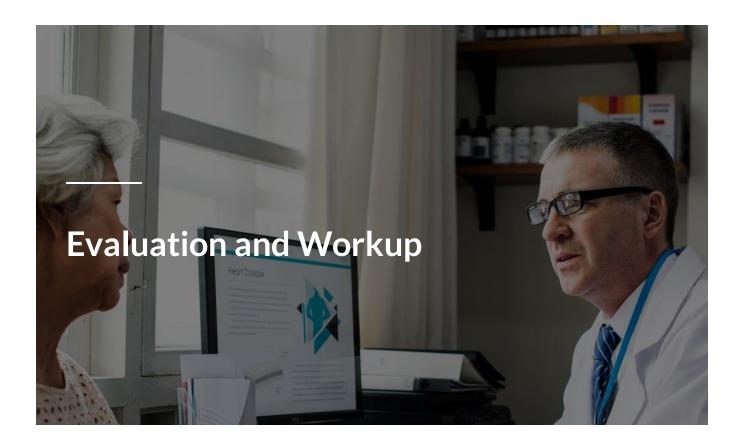
Thank you for considering Memorial Health for your kidney transplant surgery. Please feel free to write down any questions you may have as you go through this education. The team will be happy to answer them in clinic.

This online education is comprised of seven lessons designed to provide you with important information regarding transplant evaluation and workup, organ compatibility and allocation, living kidney donation, psychosocial risks and your need for support, financial considerations, surgical procedure and recovery, and post-transplant medications and health maintenance.

=	Evaluation and Workup
=	Organ Compatibility and Allocation
_	Living Kidney Donation
_	Psychosocial Risks and Your Need for Support
<u> </u>	Financial Considerations
=	The Surgical Procedure



# **Evaluation and Workup**



#### This module contains information about:

- The transplant evaluation process
- Required testing
- Your responsibilities while waiting for your transplant
- Alternatives to transplant

### Upon completion of this module, you should be able to:

• Summarize the steps in the transplant evaluation process

• Recall your responsibilities while you wait for a kidney transplant

• Recall alternatives to receiving a transplant

**The Transplant Team** 

During the evaluation process, you will meet with all or some members of the transplant team needed

for your care, depending on your individual circumstances. This helps us to identify any areas of need

while providing the best medical, social and financial support possible. For more information about the

role of each individual on the transplant team, visit **Your Transplant Care Team**.

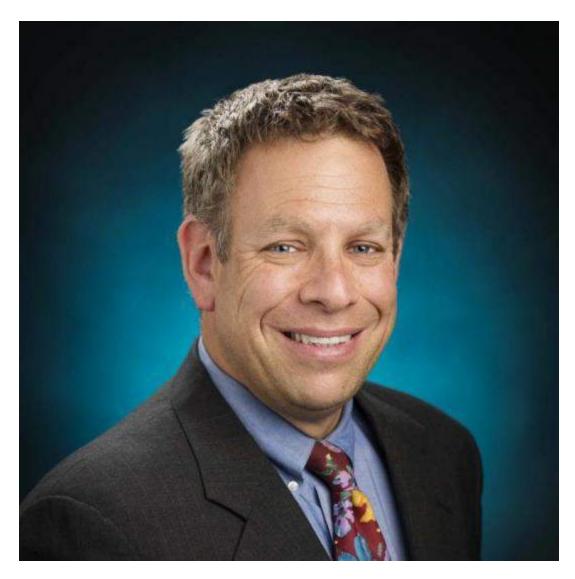
**Transplant Surgeons** 

Dr. Marc Garfinkel is American Board of Surgery certified. He graduated from Duke University School of

Medicine in 1992. Dr. Garfinkel is fellow trained in liver, kidney and pancreas transplantation from the

University of California at San Diego.

Source: SIU School of Medicine



Dr. Marc Garfinkel

*Bradford L West, MD, FACP* has been medical director of transplant services since 2009. He completed the University of Chicago transplant subspecialty training in 2009, before coming to Springfield to direct transplant evaluation and management.



Dr. Bradford West

*Rachel Tindall, MD, FACS* is a highly skilled abdominal transplant and HPB surgeon. She specializes in kidney, liver and pancreas transplant along with all varieties of benign and malignant liver, biliary and pancreatic diseases.

Dr. Tindall earned her medical degree at the University of Kansas School of Medicine in Kansas City, MO and completed general surgery training at Allegheny Health Network in Pittsburgh, PA. She went on to fellowship training at Cedars Sinai Medical Center in Los Angeles, CA in abdominal transplant and HPB surgery.

Her surgical skills include kidney transplantation, minimally invasive living kidney donation, liver transplantation, major and minor hepatectomies, biliary resection and reconstruction, whipples and pancreatectomies. She offers robotic kidney donation and robotic liver and pancreas surgeries as well. Source: SIU School of Medicine



Dr. Rachel Tindall

## **Evaluation**

After completion of this online education you will be scheduled for an in-person appointment where you will meet with one or both of the physicians (depending on your age) as well as the pre-transplant nurse coordinator in the clinic setting. You may also be asked to complete lab work, an EKG and a chest x-ray at this appointment.

Assessments by both the financial coordinator and social worker will be scheduled separately and completed by tele-health.

The dietician may be asked to complete an evaluation. This is based on your weight and/or the presence of any identified nutritional problems.

While kidney transplant may be appropriate for many people with end-stage renal disease, there are certain conditions that may affect your eligibility. Eligibility is based on your current health, your medical and surgical history, testing results, your psychosocial history as well as your insurance coverage.

### **Additional Testing and Consultations**

Depending on your medical history and age, there may be additional tests or consultations needed to complete your transplant workup. The team will determine which tests or consultations you will need and help get you scheduled for those appointments.

## **Case Presentation and Decision**

Finally, your case will be presented at our Patient Selection Committee meeting where the results of your testing and consultation notes are reviewed, and your suitability for transplant is discussed.

Each member of the transplant team has input into your case.

Decisions the team may make include:

- Placement on the waiting list
- Recommendation of further testing to continue evaluation
- Not appropriate for transplant as complications may lead to worsening health conditions or death

Memorial Transplant Care will notify you by letter detailing the decision made by the team.

**(i)** 

If you are turned down as a patient by any center, you may seek out listing at another center, as listing criteria may be different.

## **Patient Responsibilities**

• **Communication** - the transplant team must be able to contact you and we ask that you contact us if any of the following changes:

- Contact information (e.g. phone number, address, emergency contact information)
- 2 Insurance coverage
- 3 Social support system
- Dialysis changes (e.g. dialysis unit, dialysis modality, dialysis access, treatment days)
- 5 Overall health status
  - Maintaining a healthy weight.
  - Following the renal diet and any other dietary restrictions ordered by your doctor.
  - Taking your medications as prescribed.
  - Attending all medical appointments.

Your team will keep in close contact with your dialysis unit and doctor's office to ensure you are taking your medications and following your treatment plan.

If you do not follow your treatment plan, you will not be eligible for transplant.

## **Alternatives to Kidney Transplant**

Transplant is just one of several treatment options for patients with end-stage renal disease.

While the benefits of receiving a transplant include freedom from dialysis and decreasing your risk of dying from a heart attack or stroke, there are alternatives.

### **Dialysis**

Dialysis is a treatment to filter wastes and water from your blood, as your kidneys did when they were healthy. There are two types of dialysis.

#### Hemodialysis

Blood is filtered outside of the body, in a dialysis machine. Although this treatment can be done at home, it is typically done 3 days a week at a dialysis unit.

### **Peritoneal Dialysis**

The lining of your abdomen is used to filter your blood inside your body. This treatment is typically completed overnight while asleep.





Image Credit: NephroPlus

Peritoneal Dialysis Cycler used for Peritoneal Dialysis

While both hemodialysis and peritoneal dialysis can help you feel better and live longer, they are not a cure for kidney disease.

Although transplant is also not a cure for kidney disease, the benefits of receiving a transplant include freedom from dialysis, improving your life-span when compared with patients undergoing dialysis, and decreasing your risk of dying from a heart attack or stroke.

### No Treatment

You may choose not to start any type of dialysis.

Please visit the	National Kidney Foundation <u>If You Choose Not to Start Dialysis Treatment</u> page for on.
Directions: Read	d each question below and choose the correct answer.
	uation may include assessments by the transplant coordinator, surgeon and/or nephrologist, dietician, financial coordinator and ker.
	True
	False
	SUBMIT
2. I will not for transpl	need to do any blood tests or other testing in order to be approved

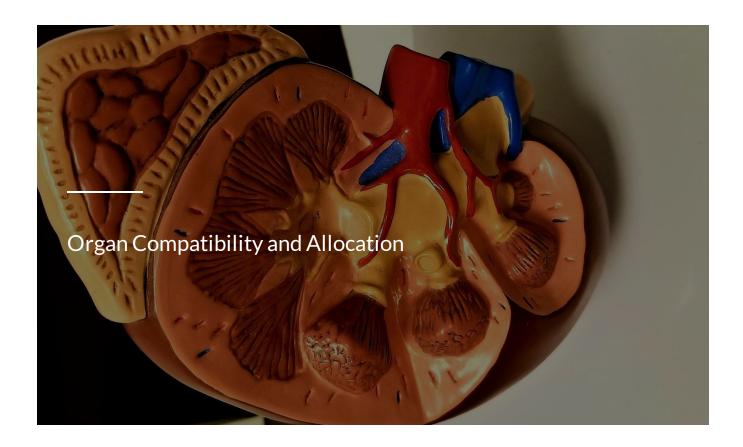
	True	
$\bigcirc$	False	
		SUBMIT
	alysis and peritoneal	dialysis are alternatives to receiving a kidney
3. Hemodi ransplant.	alysis and peritoneal	dialysis are alternatives to receiving a kidney
	alysis and peritoneal True	dialysis are alternatives to receiving a kidney
		dialysis are alternatives to receiving a kidney
	True	dialysis are alternatives to receiving a kidney

ansplant.			
	True		
	False		

 $\bigcirc$ 

 $\label{lem:complete} \mbox{Complete the content above before moving on.}$ 

# **Organ Compatibility and Allocation**



### In this module, you will gain a better understanding of:

- Organ compatibility
- The United Network for Organ Sharing (UNOS) waiting list
- Estimated time to receive a deceased donor transplant

- Deceased donor types and risk factors
- The process by which kidneys are allocated

#### Upon completion of module 2, you should be able to:

- Recognize the difference between Active and Inactive status on the waiting list
- Identify testing used to determine organ compatibility
- Recall the estimated waiting time before receiving a kidney transplant
- Identify the differences in deceased donor types
- Summarize the way in which kidneys are placed

## The UNOS Waiting List

The United Network for Organ Sharing (UNOS) is the nationwide network that manages the organ waitlist. You may be listed as Active or Inactive depending on your circumstances.

### **Active Listing**

This is used for patients who are healthy, have all of their required testing up-to-date and are ready for transplant.

#### **Inactive Listing**

This listing is used for patients who have not yet started dialysis or patients who have a short-term condition that prevents them from being suitable for transplant at that time.

(i)

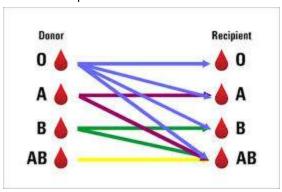
When listed as inactive, you will gain waiting time but are not eligible to receive organ offers.

## **Organ Compatibility**

There are four tests that determine compatibility between a donor and a recipient for kidney transplant:

## **Blood Type Compatibility**

The most common blood type in the population is type O. The Rh factor (the + or – associated with your blood type) is NOT relevant in transplant.



Blood Donor and Recipients Chart

## **HLA (Human Leukocyte Antigen) Testing**

Antigens are protein markers that you inherit from your parents. In kidney transplantation, we compare your antigens with the antigens of the donor to determine how well you match. A perfect match occurs when all six of your antigens match all six of the donor's antigens.

## PRA (Panel Reactive Antibody) Testing

Antibodies are produced by your immune system to help you fight viruses. However, antibodies can also attack foreign tissue, like a transplanted kidney, and are considered the enemy of transplanted organs. The more antibodies you have in your blood, the harder it is to find a compatible donor.

Antibodies are produced when you are exposed to:

Foreign bodies

- Viruses
- Bacteria
- Pregnancies
- Blood transfusions
- Immunizations

You will be required to get your blood drawn monthly to remain on the waiting list.

If you are on dialysis, your dialysis unit will do the blood draw for you.

If you are not on dialysis a box will be mailed to you with instructions for your local lab and mailed back. This blood is used to determine your PRA (which can fluctuate) and then is sent to Gift of Hope and used for crossmatch testing at the time of organ acceptance.

### Crossmatch

This is the final test to determine if a donor and recipient are compatible and only completed when an organ has been offered to a recipient. With the crossmatch test, your blood sample at Gift of Hope is mixed with a sample from the donor to see if the blood clots when mixed together.

This must be negative in order to proceed with transplant.

## How Long Will You Have To Wait?

This depends on your blood type. Patients with type O blood tend to wait the longest for transplant. This is because they can only receive an organ from a donor who also has blood type O.

### **Average Wait Times**

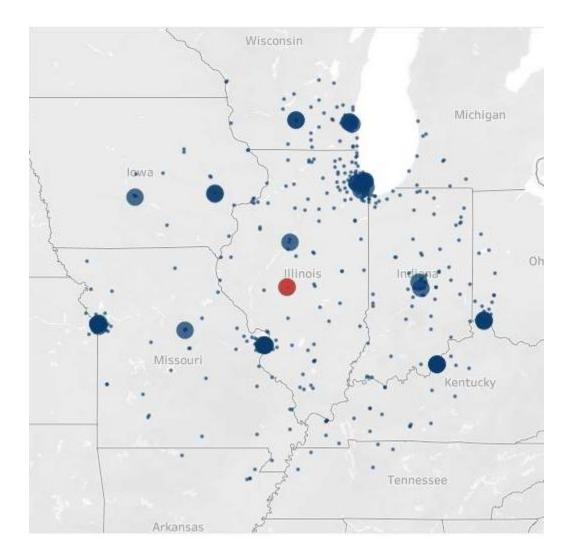
The average wait time for Memorial Health is 3-5 years The average wait time Nationally is 2-5 years Patients on dialysis will have their wait time backdated to the day that they started dialysis.

## **Kidney Allocation**

Kidneys are placed using a combination of factors to determine a rank based on points. Your place on the list will vary based on how well you match with each donor.

#### **Factors include:**

- Blood type
- Antigen match with the donor (HLA)
- Length of time spent on the waiting list
- Percentage of antibodies (PRA)
- If you have received any previous transplants
- Distance between the location of the transplant hospital and the donor



The donor is thoroughly screened for certain health conditions and infections. The benefit of transplant MUST outweigh the risk. The organ goes to whomever has the most points on the list as well as a negative crossmatch.

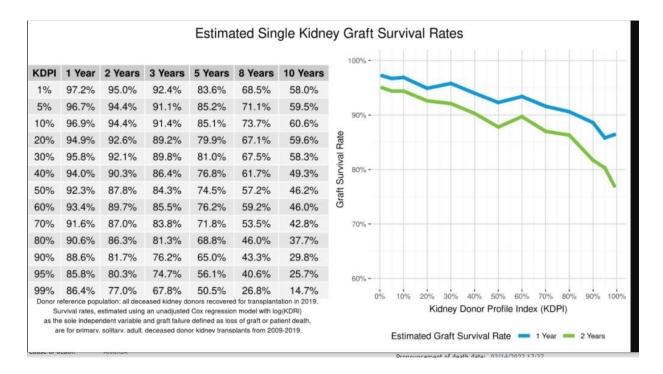
## It's Your Right

At any time during this process, you have the right to refuse transplant

## **Deceased Donor Types**

There are several categories of deceased donors that must be consented to separately:

• **KDPI > 85%** - the kidney donor profile index combines a variety of donor factors into a number that estimates how long the transplanted kidney will function. Lower KDPI scores are associated with longer function, while higher KDPI scores are associated with shorter estimated function.



KDPI Graph showing estimated single kidney graft survival rates

- **Donation after Cardiac Death** The donor does not meet criteria to be declared brain dead. In these cases, the family has decided to withdraw care and the kidneys are recovered once the patient's heart stops beating. The donor must pass away within 90 minutes in order to donate their solid organs.
- **En bloc** Both kidneys are transplanted from a pediatric deceased donor into one recipient as a single unit.
- **Dual kidney** -an alternate approach to use kidneys that are not suitable for a single kidney transplant.
- **Non-directed living donor** this is an anonymous organ donation by a living donor who is not related to or known by the recipient. The UNOS computer data base is used to determine which patient is eligible to receive the donation.

Your pre-transplant nurse will go over this information and assist you with the consent form during your clinic appointment.

### **Risk Criteria**

All organ donors are tested for HIV, hepatitis B, and hepatitis C. Recipients will be notified during the initial phone call if the donor has participated in any of the following behaviors 30 days prior to donation. Risk criteria includes the following:

- Sex with a person known or suspected to have HIV, hepatitis B, or hepatitis C
- Male who has had sex with another male
- Sex in exchange for money or drugs
- Sex with a person who had sex in exchange for money or drugs
- Drug injection for nonmedical reasons
- Incarceration for 72 hours or more
- Unknown medical or social history
- Child born to a mother with HIV, hepatitis B, or hepatitis C infection
- Child breastfed by a mother with a HIV infection

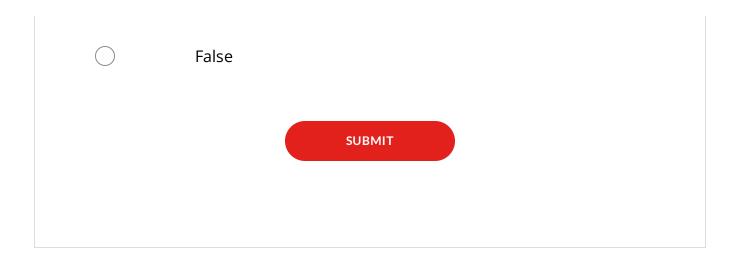
The risk for undetected HIV, hepatitis B and hepatitis C is very low, but it is not zero. Recipients will be tested for those infections after transplant and should transmission occur effective therapies are available.

Transplant candidates may have a higher chance of survival by accepting organs from donors with risk factors versus waiting for an organ from a donor without risk factors.

## The Call

A kidney may become available at any time, day or night, 365 days a year.

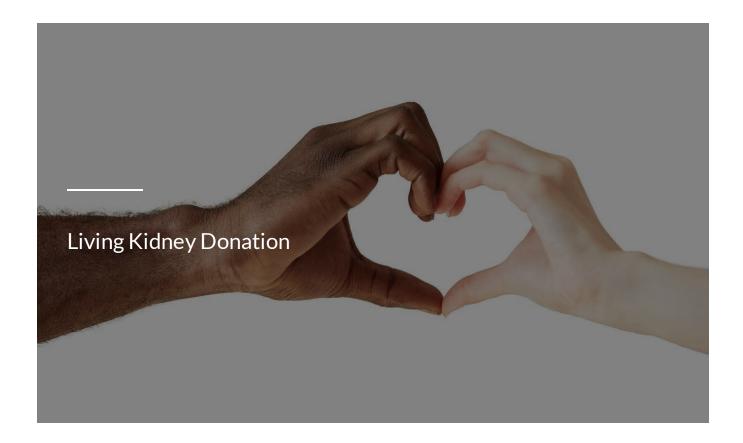
Please understand that the transplant team has only a short time to reach you when an organ becomes available.
Directions: Read each question below and choose the correct answer.
1. Kidneys are given out based on a points system.
O True
False
SUBMIT
2. If the donor has certain health conditions or serious infections, it could affect the success of my kidney transplant or health.
○ True



 $\bigcirc$ 

Complete the content above before moving on.

# **Living Kidney Donation**



### This module contains information about living kidney donation including:

- Donor eligibility and exclusions
- Donor workup and financial considerations
- Benefits of receiving a living kidney donation

### Upon completion of this module, you should be able to:

- Recall age requirements for living kidney donors
- Recall exclusions for living kidney donors
- Recognize when and how donors can begin the workup process
- Recall indications for Kidney Paired Donation (KPD)
- Identify the benefits of receiving a living kidney donation

## **Eligibility and Exclusions for Living Kidney Donors**

- Living donors complete an extensive medical workup and must be able to live the rest of their life without increased risk of kidney disease.
- Donors must be 18 years of age or older. Donors age 65-70 with an established, meaningful relationship to the recipient will be considered for living kidney donation with additional evaluation requirements.
- Blood types must be compatible and crossmatch must be negative.
- Main exclusions for a living kidney donation include: uncontrolled high blood pressure, diabetes, cardiac conditions and obesity (BMI > 35).

## **Kidney Paired Donation (KPD)**

In instances where a living donor is unable to donate to their intended recipient due to blood type incompatibility or a positive crossmatch, they may participate in the kidney paired exchange program.

The UNOS database is used to see if a swap is available, which results in two recipients, who originally had incompatible living donors, both receiving a transplant.

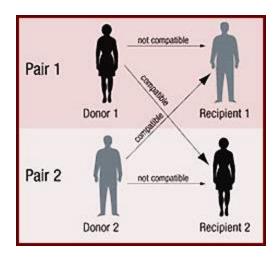


Image Credit: National Kidney Foundation

For more information about the Kidney Paired Donation Program, visit the <u>Paired Kidney Donation</u> <u>Page.</u>

## **Living Donor Workup**

- Potential living donors will not begin their workup until the recipient's testing is completed and they are listed as Active.
- Donor information cards will be included in the educational folder that is mailed to you.
- The donor workup will be billed to Memorial Transplant Services and the cost of surgery and hospitalization will be covered by the recipient's insurance.
- Communication between the donor and the transplant center will remain confidential.
- The donor has the right to opt out of donation at any time.
- The donor's surgery is performed laparoscopically.

### Some of the benefits of having a living donor kidney transplant include:

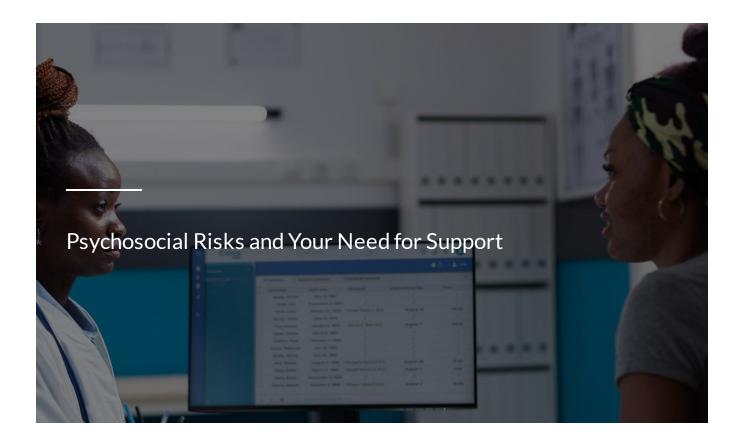
- Better outcomes
- Shorter wait time
- Scheduled at a time convenient for both donor and recipient

• The possibility of avoiding dialysis



Complete the content above before moving on.

# Psychosocial Risks and Your Need for Support



This module touches on the psychosocial risks associated with the transplant process as well as the role of your support person. The evaluation completed by the transplant social worker will provide you with more detailed information.

### Upon completion of this module, you should be able to:

- Identify potential psychosocial risks related to the transplant process
- Identify why a social support person(s) is required

• Recall the role and responsibilities of your support person

## **Psychosocial Risks**

**Psychosocial** refers to your basic mental health and well being.

#### Psychosocial risks related to transplant include:

- **Depression** the most common condition in patients with chronic illness.
- **Anxiety** prior to transplant patients may experience anxiety related to the workup process and surgery. You may also experience anxiety related to your new medication regimen and adapting to life after transplant.
- **Feelings of guilt** related to being dependent on others during your recovery. Recipients of a deceased donor organ may also experience feelings of sympathy and/or guilt associated with the loss of life by the donor.



If these feelings become overwhelming or you are unable to cope, please contact your doctor immediately.

Some patients may require an evaluation by a psychologist whose role is to evaluate emotional stability and coping skills, identify further areas of need and provide additional resources.

## **Your Need for Support**

In the first few days to weeks after surgery, patients may require the assistance of others to help with normal activities of daily living which include medication management, transportation, meal preparation and emotional support.

Your support person will also be required to complete this online education and sign a transplant support agreement to ensure that they understand their role before, during and after your surgery.

### Responsibilities of the support person include:

- Attending all pre-transplant evaluation appointments unless other arrangements have been made
- Bringing you to the hospital when called in for a kidney transplant
- Being present during discharge teaching by the post-transplant nurse
- Bringing you to all clinic, lab or other appointments while you are unable to drive

Clinic appointments will occur twice a week for the first month after transplant, once a week for the second month and every other week for the third month. Depending on your progress, there may be a need for additional appointments.

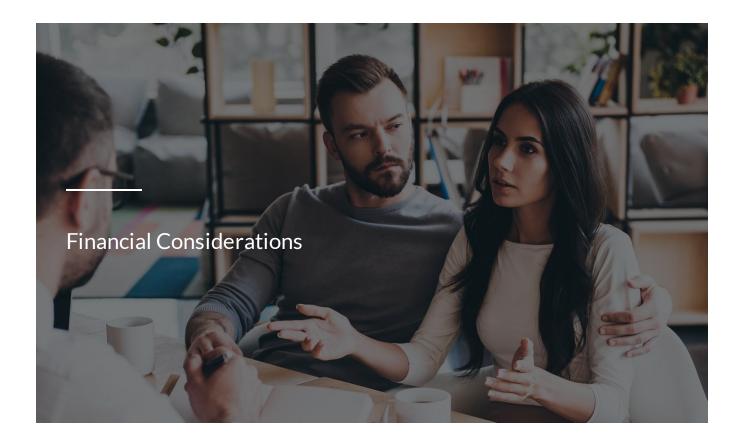
Directions: Read the question below and choose the correct answer.

$\bigcap$	Truo	
	True	
$\supset$	False	



Complete the content above before moving on.

## **Financial Considerations**



This module will provide you with an overview of our billing process, Medicare transplant coverage, private insurance and out of pocket expenses.

### Upon completion of this lesson, you should be able to:

- Summarize the billing process for pre-transplant testing
- Recall the importance of having adequate health coverage
- Identify when you would lose Medicare coverage after transplant

Recall out of pocket expenses associated with receiving a kidney transplant

## **Pre-Transplant Billing**

Expenses associated with your testing and workup will be billed to Springfield Memorial Hospital Transplant Care. Neither you nor your insurance should be billed for standard testing required for transplant.

However, if during the evaluation process, a medical condition is found that needs more testing or treatment *beyond that which is needed to determine your suitability as a transplant recipient,* expenses for that testing or treatment is the financial responsibility of your insurance and/or you, the patient.

Colonoscopies, mammograms and pap smears may be ordered as part of the transplant evaluation but are considered preventative exams and are routinely paid for by your insurance.

## Medicare

Most patients with end-stage renal disease (ESRD) are eligible for Medicare regardless of age as long as they, their spouse or parent has worked long enough under social security.

## Medicare FAQ's

- I'm currently on hemodialysis. How long until Medicare becomes active for me? There is a 3-month waiting period until Medicare becomes active.
- How long is the waiting period if I'm on peritoneal dialysis?

  There is no waiting period until Medicare becomes active for those on peritoneal dialysis.
- What if I haven't started dialysis yet?
   Medicare becomes active the first day of the month in which the transplant was performed. For example, if your transplant was done on May 25th, Medicare will be active for you on May 1st.
- Will Medicare be the payer?

Yes. Medicare will be the *secondary* payer for the first 30 months of coverage and then becomes the *primary payer* at the start of the 31st month after your transplant. Medicare is always primary over Medicaid.

• How long will my Medicare coverage be in effect after my kidney transplant?

If you qualify for Medicare because of ESRD only, Medicare coverage will stay in place for 3 years (exactly 36 months) after the day of transplant. Coverage will only continue beyond those 3 years if you have another qualifying condition or are age 65 or older.

### Springfield Memorial Hospital is a Medicare approved transplant facility.

It is your responsibility to assure that your transplant is performed in a Medicare approved transplant center. If your transplant is not performed in a Medicare approved transplant center, this will affect your ability to have your immunosuppressive medications paid for under Medicare Part B.

### **Medicare Coverage for Transplant**

- **Part A** covers in-patient services at 80%.
- **Part B** covers your physician bills, clinic services, laboratory testing, immunosuppressive medications at 80% *and* also covers living donor expenses.
- **Part D** is your prescription coverage plan and there are many plans to choose from in Illinois. Your local Senior Center or the Area Agency on Aging can help you sign up for a Medicare Part D plan. Open enrollment is at the end of each year.

## **Private Insurance**

Because insurance may be billed if an intervention or treatment is necessary during your transplant workup, those patients who have private insurance should find out before the procedure whether or not the provider accepts their insurance. If this is not done, charges may be denied by the insurance company, leaving the entire balance as the patient's responsibility.

## **Out of Pocket Expenses**

Expenses not paid for by insurance or Medicare include:

- Transportation
- Lodging
- Food

- Lost Wages
- Child Care

The same expenses may be incurred by living donors. The National Living Donor Assistance Center may be able to help donors with funds for these types of expenses. The financial coordinator can assist living donors with this process.

#### **Donors and Insurance**

Although not required at our facility, it is highly recommended that living donors have their own insurance before the donation process to protect them from problems that may arise during workup, as well as for follow up visits with their primary care physician.

#### **Before Switching Insurance**

If you are considering a change in insurance, please let the transplant financial coordinator know right away as they can inform you of what your new benefits would be for transplant.

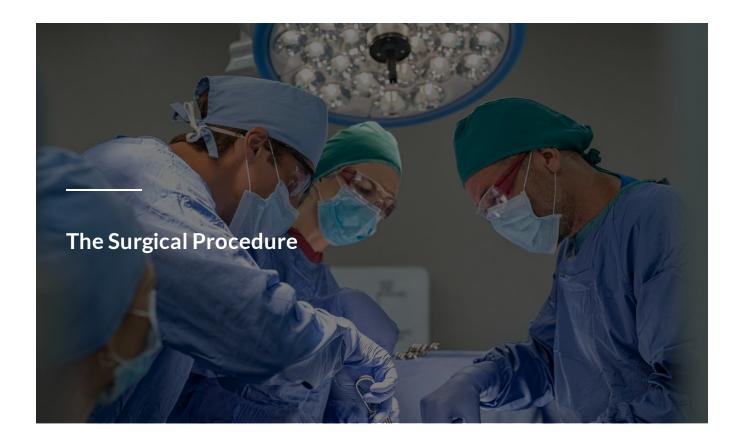
HIPAA will not allow your new insurance company to deny coverage for a pre-existing condition if you abide by the following:

- You must already have insurance coverage.
- You must not have gone without creditable insurance coverage for over 63 days.
- You should get a written certificate from your previous insurance company stating that you had creditable coverage which includes the insured's name, address, and members included in the coverage, the policy number, and coverage dates.

	insurance.		
	True		
$\bigcirc$	False		
	SUBMIT		
	nave another condition, which qualifies me for Medicare, I will	lose	
	nave another condition, which qualifies me for Medicare, I will re coverage three (3) years after transplant.	lose	
	·	lose	

	g the evaluation process, a medical condition is discovered that urther diagnostic testing or treatment <b>beyond that which is</b>	
needed to determine your suitability as a transplant recipient, expenses for the testing or treatment are the financial responsibility of your insurance and/or you, the patient.		
$\bigcirc$	True	
$\bigcirc$	False	
	SUBMIT	

# The Surgical Procedure



The lesson will provide you with specific information related to the surgical procedure, including potential risks and recovery in the hospital.

#### Upon completion of this lesson, you should be able to:

- Identify the surgical process and placement of the transplanted kidney
- Recall how long the surgical procedure takes to complete

- Recall potential risks associated with transplant surgery including delayed graft function
- Recall the average length of stay in the hospital

## **The Surgical Procedure**

- After you are asleep an incision is made in the lower abdomen.
- The transplanted kidney is placed in the front and connected to the blood supply which includes an artery and a vein.
- Your native kidneys, which are located near the back, typically remain in place.
- The ureter is the tube that drains urine from the kidney to the bladder and will remain attached to the donated kidney.
- During transplant, the donor ureter is attached to your bladder.
- A stent is a thin artificial tube that is placed where the ureter is attached to the bladder to prevent the obstruction of urine during the healing process. It is removed 4-6 weeks after surgery in the urologist's office.
- The incision is closed with staples.
- The surgical procedure takes approximately 4-5 hours to complete.

## **Potential Risks of Transplant Surgery**

As with any surgery, there are possible complications. The following is a list of the risks associated with kidney transplant surgery. If you have additional questions or concerns, please discuss them with a member of the transplant team.

- 1 Pain
- 2 Infection

- 3 Pneumonia
- 4 Incisional hernia
- 5 Blood clots
- 6 Hemorrhage
- Allergic reaction to the anesthesia (nausea and vomiting)
- 8 Heart attack
- 9 Death
- Delayed Graft Function
  - This is when the kidney is slow to start functioning. You may require short-term dialysis if this happens.
- Non-functioning kidney
  - There is a rare possibility that the transplanted kidney may never function at all.

### Hospitalization

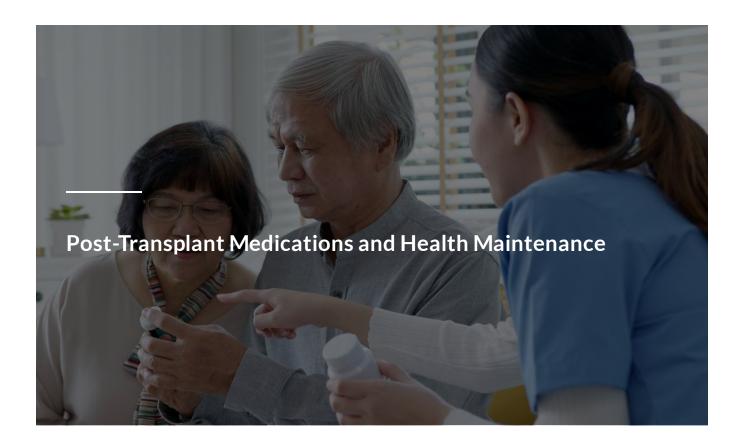
The average length of stay in the hospital is 5-6 days after surgery. Your care will be coordinated by the transplant team. Your post-transplant nurse will provide you with education and prepare you for

ii eccioris, ixeac	d each question below and choose the correct answer.	
1. Kidney t	ransplant surgery lasts approximately 4-5 hours.	
$\bigcirc$	True	
$\bigcirc$	False	
	SUBMIT	
2. Possible death.	e risks from surgery include infection, bleeding, blood clots and	
$\bigcirc$	True	

discharge from the hospital.

$\bigcirc$	False
	SUBMIT
3. After tra	nsplant there is a 100% chance that my kidney will function ly.
	True
	False
	SUBMIT
<u> </u>	Complete the content above before moving on.

# Post-Transplant Medications and Health Maintenance



In this final lesson you will learn about post-transplant medications, potential complications after transplant and acute versus chronic rejection.

#### Upon completion of this lesson, you should be able to:

- Recall the medication regimen
- Identify potential risks after transplant

• Summarize the different types of rejection

## **Anti-rejection Medications**

After transplant, you will be put on immunosuppressive medications. These medications, which include tacrolimus (Prograf), mycophenolate mofetil (Cellcept/Myfortic) and prednisone, help prevent rejection by altering your immune system.

These medications may cause side effects or long term complications and will need to be taken for the rest of your life, or for as long as the organ is functioning.

You will return to the clinic **frequently** for lab work and follow up visits during which adjustments may be made to your medications.

## **Potential Complications**

#### Infection \_\_

The immunosuppressive medications will weaken your immune system leaving you at an increased risk of developing an infection after transplant.

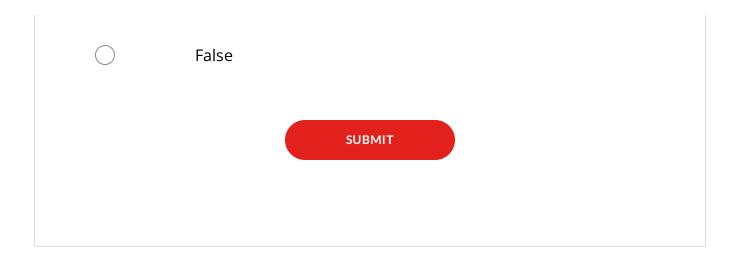
You will be put on an antibiotic, antiviral and antifungal medication for up to six months after transplant to help reduce your risk of infection.

#### Acute and Chronic Rejection

Between 10%-20% of transplant patients will experience an acute rejection episode. Acute rejection happens days or weeks after a transplant. If caught in time, the damage can be treated and reversed.

	Chronic rejection happens months or years after transplant. We are unable to predict when your transplanted kidney will fail.
ŀ	Cancer _
	Your risk of developing cancer after transplant is approximately 5% higher than the general population. This is due to the immunosuppressive medications that you will be taking.  Skin cancer and lymphoma are the most common malignancies. We ask that you take precautions such as limiting your time in the sun, wearing sunscreen and following up with a dermatologist yearly.
	Diabetes  Anti-rejection medications increase blood sugar levels, putting you at an increased risk of developing diabetes.
•	Directions: Read each question below and choose the correct answer.
	1. I will have to take strong medications, referred to as immunosuppressants, for the rest of my life or as long as the organ is functioning.
	○ True

	False
	SUBMIT
2. Rejectio	on will not happen to me as long as I take my medications.
	True
$\bigcirc$	False
	SUBMIT
3. I am at a	an increased risk of developing infection and cancer after transplant.



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Complete the content above before moving on.

# **Next Steps**

#### **Directions:**

Read the options below and click on *either* the Confirm Education OR Refer Me button. A form will open for you to complete.

I have been referred to the Memorial Transplant Program and would like to confirm I have completed the education

**CONFIRM EDUCATION** 

I am interested in being referred to the Memorial Transplant Program

REFER ME