



Kidney and Pancreas Transplant

Patient Discharge Teaching Manual



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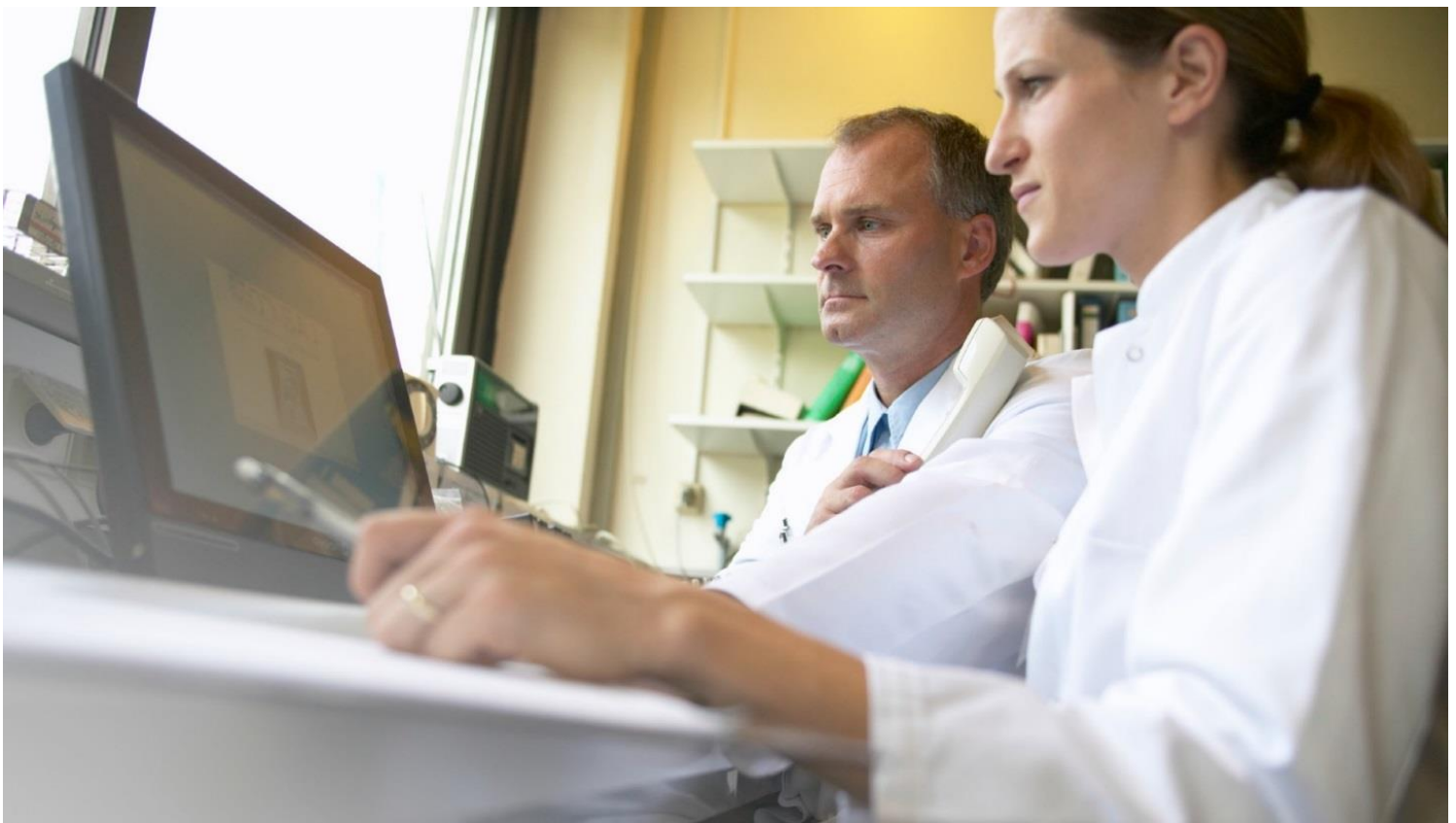
Congratulations on your kidney or kidney/pancreas transplant!

Now that you have received your transplant and are preparing to go home, you are facing many new responsibilities. All members of the transplant team will continue your care in the transplant clinic; however, the most important member of the team is YOU! Without your active involvement in your care, the team's best effort cannot succeed. As the lifetime caretaker of your new transplant organ(s), you will need to:

- Adopt healthy daily routines that include a good diet and regular exercise
- Follow your medication schedule carefully
- Check your temperature, weight, and blood pressure on schedule
- Talk regularly with your transplant team
- Keep to your schedule for blood work and clinic visits
- Talk about your medications and plan of care with your nephrologist, dentist, pharmacist, and your transplant team

This manual has been designed to give you an overview of your daily health routine, medications, self-monitoring, and activities which are important to maintaining a healthy transplant organ. Remember to write down any questions you may have for the transplant team so we can answer them during your clinic visits.





Transplant Team Members

Clinical Nurse

The clinical nurses provide direct patient care at your bedside during your hospital stay. Nurses spend the greatest amount of time with you. They are able to evaluate your progress and act as a link to the transplant team. They provide expertise to ensure the highest level of care.

Stanford Hospital and Clinics is a teaching hospital. This means that house staff (interns, residents and fellows) will be caring for you along with your attending physicians. Your intern (a physician in the first year of training after medical school) is responsible for keeping up to date on your progress after surgery. The intern assesses you each morning and presents a summary of your progress to the attending physician every day during rounds. Interns work with your nurses to assess your daily progress.

Transplant Coordinators

The transplant coordinators are involved in all aspects of the transplant process. They are a big part of the transplant team and work closely with you and your physicians, including your local kidney doctor, the transplant surgeons and transplant nephrologists. There are three types of transplant coordinators: pre-

transplant, inpatient, and post-transplant coordinators.

Pre-transplant coordinators work with you from the time of your referral to our program to admission for your transplant. The inpatient transplant coordinator works with you during your transplant hospitalization and helps prepare you for discharge from the hospital to home. Post-transplant coordinators work with you after discharge from the hospital.

Social Worker

During your transplant evaluation, a social worker will have assessed your social history, coping abilities, motivation, compliance, and support system. Some practical issues to be discussed during your transplant hospitalization include who will stay with you after you leave the hospital, transportation to transplant clinic visits, and expenses incurred while in the Stanford area. The social worker can offer community resources that may be available. They can also help with disability papers or other forms needed for work, travel, etc. The social workers will continue to help you following your discharge to home.

Clinical Dietitian

During your hospital stay the dietitian will assess your nutritional status and help you with any dietary problems. If your appetite is poor, the dietitian will offer and provide you with nutritional supplements to increase your caloric intake. The dietitian will give you nutrition information and counseling. If you are on a special diet, written information will be given to help you in the transition from the hospital to home.

Chaplain

The chaplain provides direct care to meet the spiritual needs of patients and families. This may be done by prayer, scripture and sacraments, respecting the religious traditions of the patient.

Financial Counselor

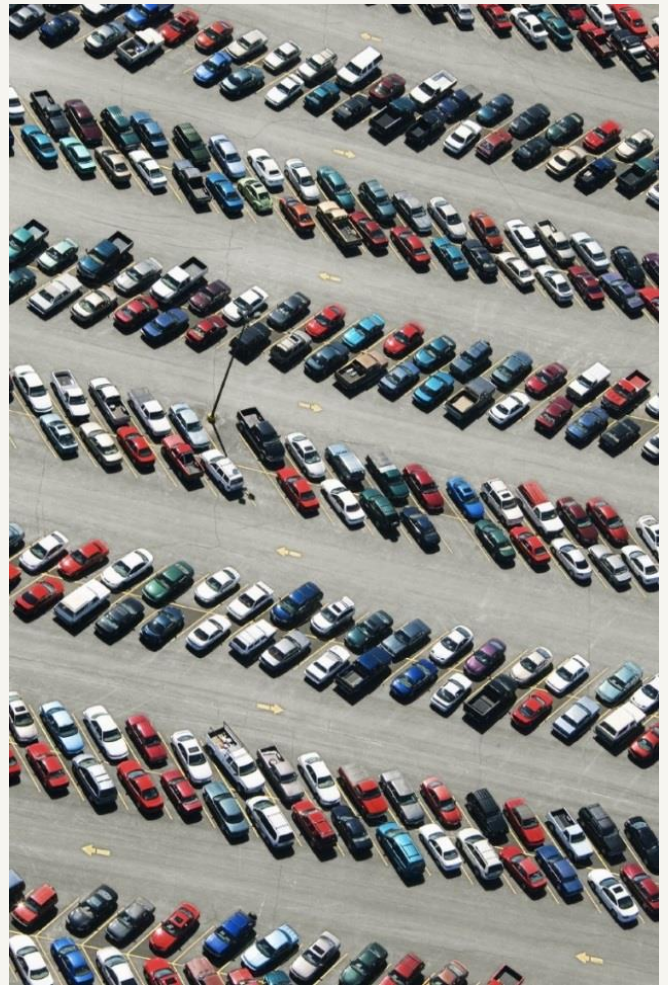
Our transplant financial counselors are your primary contact for insurance and financial needs. Share your concerns with your financial coordinator, as they are here to assist you. They can often give you information and advice that is not available through other resources.

Certified Diabetes Educator (CDE)

Diabetes is the leading cause of kidney failure. It is also a common complication after transplant. Diabetic patients will meet with the Certified Diabetic Educator. Recommendations will be given to the transplant team on effectively managing diabetes.

Pharmacist

During your hospital stay, the transplant pharmacist will provide medication counseling to ensure that you know how to take your transplant medications at home, and provide information on drug interactions and side effects. Thereafter, the transplant pharmacist will monitor your medications and make recommendations as needed.



PATIENTS & VISITORS

Long Term Discounted Parking Pass
7-day Minimum, \$ 5.00 per day

Purchase at:

Security Dispatch Center

Ground Floor under the Emergency Department

650.723.7222

Open 24 hours per day
(Cash and Checks Only)

OR

Hospital Gift
Shop

(Cash, Credit Card)

DAILY HOSPITAL ROUTINES

G2S/D2

After your transplant operation, you will be directly admitted to the transplant unit, G2S/D2. The staff on these nursing units are specifically trained to care for transplant patients. They are prepared to provide care directly after your transplant operation. If you require a higher level of care you may go to the ICU until you are stable. The visiting hours on these units may be limited, so your visitors will need to check with the unit before coming to visit.

Rounds

The multidisciplinary transplant team (doctors, pharmacist, dietitian, social worker, clinical nurse and transplant coordinator) will make visits daily. At that time, the transplant team will come to your bedside to check on your progress, examine you, discuss your care, and order new treatments, tests or medications. This is the best time to ask questions of your doctors and report any changes in your condition. If you have questions for your doctors, it is a good idea to write them down so that you have a reminder of your concerns when they are at your bedside. Rounds are also a time for your doctors to discuss specific issues with the house staff. This is an educational opportunity for the house staff and other team members. Some of the conversations may be confusing to you. If you have questions during these discussions, please let the team know.

Meals

Our hospital delivers your meals “At Your Request.” Meals are available from 6:00am – 8:00pm. Your clinical nurse will help you make meal selections and place meal orders. Depending on your diet, snacks may also be provided at specified times. Family members are welcome to bring foods from home for you. But as you may be on a modified diet, please check with your nurse first. There is a small refrigerator/freezer on the transplant unit where perishable foods from home may be stored. Make sure all foods from home are labeled with your name, room number and date. Regulations do not allow us to keep food for more than 24 hours. A microwave oven is also available.

Vital Signs

The clinical nurse and nursing assistant will take your vital signs (temperature, pulse, respiratory rate and blood pressure) when they begin their shifts. This enables nurses to make an assessment of your condition early in the shift. Your vital signs may be checked again depending on how stable they have been, and whether you are receiving blood products and certain medications.

Intake and Output (I&O)

Measurement of the amount of liquid you drink and get intravenously (intake) is compared to the amount you urinate and drain through various tubes (output). The terms “intake” and “output” are frequently abbreviated as I & O.

The nursing staff will instruct you on how to measure and record your own I & O.

These totals, along with your body weight, give your team valuable information about your fluid balance and how well your newly transplanted kidney is functioning.

Daily Weight

Your daily weight is used to assess your body’s fluid balance, and to assess kidney function after transplantation. It is important for you to be weighed each morning before breakfast, wearing the same amount of clothing. The nursing staff will bring the scale to your bedside between 5:30am and 8:00am and assist you.



MEDICATIONS

You are responsible for taking the medications that have been prescribed for you. Talk to your physician, pharmacist, transplant coordinator, and clinical nurse to completely understand:

- The name and purpose of each medication
- When to take each medication
- How to take each medication
- How long to continue taking each medication
- Principal side effects of each medication
- What to do if you forget a dose
- When to order more medication so you do not run out
- How to order more medication

- What you should avoid (for example, drinking alcohol or driving) while you are taking your medications.

It is important to take all the medications that were prescribed for you. Over time some of the medicines will be stopped. The immunosuppressive medications cannot be stopped. Without these medications, your immune system would recognize your transplant as foreign and trigger rejection. Your immune system must be controlled with immunosuppressive medications. Do not stop taking your medications or change the dosage without your doctor's approval.

General Medication Guidelines

Storing Your Medications

1. Keep medications in the original pill container, tightly capped. If you use a special container to hold your pills, keep the container tightly sealed.
2. Store in a cool, dry place away from direct sunlight.
3. Do not store medications in the bathroom—moisture can cause medications to lose their strength
4. If you are taking cyclosporine, DO NOT expose this medication to extreme heat or cold
5. Keep all medications away from children.

Taking Medication

1. Your transplant coordinator and clinical nurses will help select the best times for you to take medications, as some medications should not be taken with food or may need to be taken at a specific time every day.
2. Take each medication at the same time every day to help maintain stable drug levels in your blood.
3. Follow your Self-Medication Schedule, and update it immediately (use pencil) if medication changes are made.
4. Do not cut or crush a tablet unless you are advised to do so.
5. Do not take a double dose of medication if you missed the previous dose.
6. If vomiting occurs within 1 hour of taking medications, the FULL dose should be repeated. If it has been more than 1 hour after taking medications, the dose does not need to be repeated.
7. REMEMBER: Many drugs (including over-the-counter medications) should be avoided or used with caution in transplant patients, as these drugs may interact with cyclosporine and tacrolimus and result in kidney injury, rejection, or high potassium blood levels.

Call your transplant coordinator if you

- Have prolonged nausea, vomiting or diarrhea and are unable to take your medications by mouth
- Feel you are having a reaction to your medications
- Have had a change in health or eating habits
- Experience any unusual symptoms or side effects
- Develop signs and symptoms of rejection or infection (see Avoiding Complications section)

Transplant Office: 650.725.9891

Mon – Fri, 8:30am– 4:30pm

Transplant Coordinator On-Call (Emergencies Only)

650.723.6661

IMMUNOSUPPRESSIVE DRUGS

Tacrolimus (Prograf)

Tacrolimus is usually the primary medication used to prevent rejection. Tacrolimus comes in 0.5 mg, 1 mg and 5 mg capsules. Tacrolimus should be taken on an empty stomach between meals to maximize absorption (for example, 10:00am and 10:00pm). If taken with food, the tacrolimus may not be absorbed. Your dose will be prescribed in mg. For example, 6.5 mg means you would take one 5 mg, one 1 mg and one 0.5 mg capsule.

SIDE EFFECTS CAN INCLUDE:

- Decreased function of the transplanted kidney
- Central nervous system irritation: headaches, tremors, nightmares
- Numbness, tingling, tremor
- Diabetes (high blood sugar)
- High blood potassium
- Low blood magnesium

Tacrolimus extended release (Astagraf XL, Envarsus)

Astagraf XL comes in 0.5 mg, 1 mg and 5 mg capsules. Astagraf XL is a once-a-day formulation of tacrolimus that should be taken on an empty stomach (1 hour before or 2 hours after breakfast) to maximize absorption, e.g. 10:00am. Do not break, chew or crush the capsule. If taken with food, up to 25% of each dose may not be absorbed. Your dose will be prescribed in mg. For example 7.5 mg means you to take one 5 mg, two 1 mg and one 0.5 mg capsules.

Envarsus XR is a long acting formulation of tacrolimus that is dosed once a day and should not be crushed, chewed or divided. It comes in extended release tablets of 0.75mg, 1mg and 4mg and should be taken on an empty stomach at least 1 hour before a meal or 2 hours after.

Prednisone

Prednisone is a steroid hormone similar to other hormones your body normally produces. It is given along with other medications to prevent rejection. If you are having a rejection episode, you may be treated with an intravenous form of prednisone. Your dose will gradually be reduced over the first few months after transplant.

SIDE EFFECTS CAN INCLUDE:

- Stomach irritation
- High blood pressure
- Fluid retention
- Increased appetite and weight gain
- Cushingoid appearance of the face (puffy face)
- Diabetes (high blood sugar)
- Brittle bones/muscle weakness
- Eye diseases such as cataract and glaucoma

Mycophenolate mofetil (CellCept) and mycophenolate sodium (Myfortic)

Mycophenolate mofetil (MMF) is another anti-rejection medicine. It is dispensed in 250 mg and 500 mg capsules. The usual dose of MMF is 1000 mg twice a day but is frequently less.

MMF should be taken on an empty stomach between meals to maximize absorption. If taken with food, up to 40% of each dose may not be absorbed.

Mycophenolate (Myfortic) – is an enteric coated tablet that comes in 180mg and 360mg tablets. The usual dose is 720mg twice daily, taken on an empty stomach, and should not be crushed or chewed.

SIDE EFFECTS CAN INCLUDE:

- Stomach irritation and bloating
- Nausea and vomiting
- Diarrhea
- Stomach bleeding (report to transplant team immediately)
- Low blood counts
- Dizziness, headache, insomnia

MMF can be harmful to a fetus when taken by a pregnant woman. Women of reproductive potential need to practice two forms of birth control or abstinence when taking MMF. If you are considering pregnancy, first speak with your transplant doctor.

Cyclosporine (Neoral / Gengraf)

Cyclosporine is another anti-rejection drug. It is no longer commonly used.

Cyclosporine is most often taken in gel capsule form, in a combination of 100 mg and 25 mg capsules.

The two strengths of capsules are different sizes. Both are supplied in packages of 30 capsules. Each capsule is in foil container called a “blister pack.” Once a capsule is removed from the foil container, it must be taken within 7 days. Your dose will be ordered in mg. For example, 325 mg = three 100mg capsules + one 25 mg capsule. Some patients are unable to take cyclosporine in capsule form and may be given liquid cyclosporine.

SIDE EFFECTS CAN INCLUDE:

- High blood pressure
 - Decreased function of the transplanted kidney
 - Numbness, tingling, tremor
 - Hair growth, most commonly on the face, arms and legs
 - Overgrowth of the gums
 - Hot flashes or sweating
 - Diabetes (high blood sugar)
 - High blood potassium
 - High cholesterol
-

Sirolimus (Rapamune)

Sirolimus is another anti-rejection drug. It is not commonly used.

SIDE EFFECTS CAN INCLUDE:

- High cholesterol and triglyceride
- Mouth ulcers
- Acne and rash
- Joint pain
- Decreased platelet count
- Diarrhea
- Anemia
- Impaired wound healing

It is not known whether sirolimus is harmful to an unborn fetus when taken during pregnancy. However, studies in animals indicate that sirolimus may be a risk to the fetus. If you are taking sirolimus and considering pregnancy, first speak with your transplant doctor.

Anti-thymocyte globulin (Thymoglobulin)

Anti-thymocyte globulin is a potent medicine used to prevent or treat rejection. Frequency and dosing are adjusted according to your white blood cell and platelet counts.

SIDE EFFECTS CAN INCLUDE:

- Fevers and chills
 - Blood pressure changes (high or low)
 - Difficulty in breathing and / or wheezing
 - Rash or itching
 - Nausea/diarrhea
 - Muscle aches/stiffness
 - Joint pain
-

Basiliximab (Simulect)

Basiliximab may be an early part of your transplant immunosuppression protocol to prevent rejection. It is used in addition to standard immunosuppressive agents.

Basiliximab is given by vein. The first dose is given during the transplant surgery and the second dose is given 3 to 4 days after transplantation.

INFECTION-FIGHTING DRUGS

The medications you take to suppress your immune system will reduce the normal ability of your body to fight bacteria, viruses, and other germs. As a result, you are increased risk for infection. In order to protect you from infections the following drugs are commonly prescribed.

Trimethoprim/Sulfamethoxazole (Bactrim/Septra)

Trimethoprim/Sulfamethoxazole (TMP/SX) is a sulfa antibiotic used to prevent and treat pneumocystis pneumonia and other bacterial infections. It is important to drink plenty of fluids with this medication. If you are allergic to sulfa, we will use other medications in its place.

SIDE EFFECTS INCLUDE:

- Nausea and vomiting
 - Rash (make sure to notify the transplant team if it occurs)
 - Sensitivity to sun
 - Loss of appetite
-

Valganciclovir (Valcyte)

Valganciclovir is used to prevent or treat cytomegalovirus (CMV) infection. Valganciclovir is also used to prevent reactivation of other types of virus infections such as herpes simplex (mouth sores), chicken pox and shingles.

ANTIFUNGAL DRUGS

The reduced ability of your immune system to fight infection puts you at higher risk for serious fungus infections. This may take the form of thrush (yeast in the mouth) and in women vaginal yeast infections.

Nystatin mouthwash

The nystatin suspension should be diluted in water, then swished around in the mouth and swallowed at least three times a day. To allow full effect of the medication on your oral cavity and esophagus, it is important NOT to eat or drink anything immediately after taking nystatin.

SIDE EFFECTS CAN INCLUDE:

- Nausea and vomiting
 - Metallic taste in the mouth
-

ANTI-STOMACH ULCER MEDICATIONS

Pantoprazole (Protonix) or famotidine (Pepcid)

Pantoprazole or famotidine is used to decrease acid production in the stomach.

Because other medications such as prednisone can stimulate the acid production, it is necessary to use one of these medications to help protect your stomach and upper intestine from developing ulcers.

The most troublesome complications after transplantation are rejection episodes and infection-. High blood pressure, diabetes and other complications can also occur.

If you do have a complication, it does not necessarily mean that you are going to lose your new kidney. But complications can have a significant effect on the function of the transplant kidney. Your transplant team will watch you closely and do their best to prevent and treat complications.



AVOIDING COMPLICATIONS

TRANSPLANT REJECTION

Your body's immune system protects you from infection by recognizing and destroying foreign substances, such as bacteria and viruses.

Unfortunately, the immune system recognizes your new kidney as a foreign substance as well.

Rejection is an attempt by your immune system to destroy the transplant kidney. To prevent rejection from occurring, **YOU MUST TAKE IMMUNO-SUPPRESSIVE MEDICATIONS** for the life of your transplant.

In spite of all precautions and the effectiveness of today's immunosuppressive drugs, rejection episodes can still occur.

Nowadays fewer than 10 to 15% of all kidney transplant recipients experience rejection within the first year. Rejection most often occurs within the first 3 months after transplant but can occur anytime during the life of the transplant.

SYMPTOMS AND SIGNS OF REJECTION

IF DETECTED EARLY, MOST REJECTION EPISODES CAN BE TREATED SUCCESSFULLY. Although rejection usually does not cause symptoms, YOU MUST BE ALERT AND KNOW THE SYMPTOMS OF REJECTION. Because rejection usually causes no symptoms, your routine lab work is extremely important. Usually the only sign of rejection is an increase in creatinine.

Contact the transplant team immediately if any of these possible symptoms of rejection develop:

- Fever over 100.4° F (38° C)
- "Flu-like" symptoms: chills, aches, tiredness, headache, dizziness, nausea, vomiting
- Pain or tenderness around the transplant kidney
- Fluid retention or sudden weight gain
- Sudden increase in blood pressure
- Shortness of breath

Because you are immunosuppressed, you may not experience the symptoms above. Symptoms **are often vague in the early stages of rejection**, and for this reason you must keep a daily log of your body weight, temperature, and blood pressure during the first 3 months, to assist in recognizing rejection early!

When rejection is suspected, repeat blood tests, transplant kidney ultrasound and biopsy may be required.

INFECTION

The immunosuppressive medications interfere with your immune system. Therefore, *you will be more susceptible to infection—particularly infection of the lungs and infection of **the urinary tract**.*

The risk of infection is greatest during the first 6 months after transplantation, when your doses of immunosuppressive drugs are highest. However, even after this time you will remain susceptible to infection.

SYMPTOMS AND SIGNS OF INFECTION

Most infections are cured with treatment. HOWEVER, **YOU MUST BE ABLE TO RECOGNIZE THE SIGNS OF INFECTION AND IMMEDIATELY contact your doctor or the transplant team** so that treatment can begin without delay. *Please be aware that the symptoms of infection can be similar to symptoms of rejection.* Contact the transplant team immediately if any of the following signs or symptoms develop:

- Fever over 100.4°F (38°C)
- “Flu-like” symptoms: chills, aches, tiredness, headache, dizziness, nausea, vomiting
- Cough or shortness of breath
- Sore throat
- Pain or burning during urination, or a constant urge to urinate

Drainage from a skin wound, or a wound or sore that will not heal or is warm to touch

Symptoms are often vague in the early stages of an infection. For this reason you must keep a log of your body temperature during the first 3 months after transplant.

TIPS FOR AVOIDING INFECTION

Although it is impossible to avoid all possible sources of infection, please consider the following guidelines that may help reduce the risk:

- Avoid people who are obviously sick
- Shower daily, and wash your hands often
- Carefully clean all cuts and scrapes—no matter how small—with soap and water. Then apply antibiotic ointment and a clean and dry dressing
- Avoid uncooked or undercooked meat and fish
- Avoid changing cat litter boxes or bird cages; they can contain infectious germs
- Practice good oral hygiene, regular teeth cleaning
- Annual flu shot
- Wear gloves when gardening

HIGH BLOOD PRESSURE

High blood pressure is a common problem that develops with age and kidney disease. Most transplant recipients have high blood pressure.

There are many different types of high blood pressure drugs available. You may need one or several to control your blood pressure. Your transplant doctors will select those that work for you. A diuretic (water pill), which will, increase your urine output and remove extra fluid, may also be used to lower your blood pressure.

To help keep your blood pressure down you should:

- Exercise regularly (every day)
- Stick to a diet low in salt
- Avoid smoking

Monitor your resting blood pressure at home (resting means sitting quietly for five minutes before measuring the blood pressure).

HIGH CHOLESTEROL Many transplant recipients have high cholesterol. Several factors contribute including diabetes, diet, obesity, age, and some of the immunosuppressive drugs.

Because high cholesterol is a major risk factor for heart disease, you may need to take steps to keep your cholesterol under control. These steps include diet and exercise, and if necessary, a cholesterol-lowering medication.

POST TRANSPLANT DIABETES

Some transplant recipients develop diabetes after transplantation. This can be a result of the immune-suppressive drugs, family history of diabetes, ethnicity, age and weight gain. Poor blood sugar control will affect the function of your new kidney transplant.

Effective management begins with life style modification (diet and exercise), and if necessary, medication (pills and/or insulin injections).

All patients with post-transplant diabetes are followed by our Transplant Diabetes Team. If you require this attention, this discharge manual has an additional section (SEE: BLOOD SUGAR MANAGEMENT) with information about how to best manage your diabetes.

CANCER

Transplant recipients are at greater risk for developing cancer. One of the most common is skin cancer, and we live in a sunny climate. When outside, use sunblock and a hat to reduce exposure to sunlight.

Be aware of:

- Moles, birthmarks, beauty marks, or spots on the skin that change color, or increase in size or thickness
- Sores that continue to itch, hurt crust, scab, bleed, or do not heal within 3 weeks
- Continually swollen lymph nodes (“glands”) anywhere on your body
- Lumps in your breast; women should perform a breast self-examination every month

Ask your doctor to perform the routine cancer screening recommended in all persons.

ANXIETY AND DEPRESSION

It is not uncommon for transplant patients to experience anxiety and perhaps depression following transplant surgery, hospitalization, and return home. To help you adjust to life at home and eventual return to work or school, counseling services are available to you. Ask your transplant social worker for information regarding the services available to help you with stressful concerns.

Antibiotic Prophylaxis for Dental Work

If you have had a heart valve replacement, you will require antibiotic before undergoing any type of dental work, including cleaning. Dental procedures commonly cause bacteremia, which is the spread of bacteria into the circulating blood stream. The bacteria may lodge on the heart valves, causing bacterial endocarditis, or may result in other infections. Antibiotic is given 1-2 hours before the procedure to ensure that an adequate amount of the antibiotic is in the blood stream at the time of the procedure.

DRUG	DOSAGE
Amoxicillin	2 grams orally 1 hour before procedure
<i>Alternative regimen for penicillin allergic patients:</i>	
Clindamycin	600 mg orally 1 hour before procedure

Reference: Dajani et al. JAMA, 277 :1794, June 11, 1997.

Prior to your dental visit please contact your primary care physician or dentist to obtain a prescription for the proper antibiotic.

CLINIC ROUTINE AFTER DISCHARGE FROM THE HOSPITAL

SCHEDULE. Mondays and Thursdays, 8:30 am – 12:00 pm. Your first clinic appointment will be scheduled by the inpatient transplant coordinator. As you check out from your first clinic visit you will make your next clinic appointment. You can also call **650.723.6961** to schedule clinic appointments.

LABS. Have your blood drawn before clinic. DO NOT take your tacrolimus or mycophenolate before your blood draw. Bring them with you and take them after your blood has been drawn. Do not worry if you end up taking your tacrolimus and mycophenolate late that day.

For the first few months after your transplant we will review your lab results after clinic and call or send you a MyHealth message that afternoon or the next morning. After the first few months, when you are doing well and your transplant kidney function is stable, we will send you a post card or a MyHealth message stating that your labs looked good and no changes in your medications are required.

CLINIC ROUTINE

1. Blood draw and urine sample about 30 minutes before clinic appointment.
2. Check in with clinic personnel.
3. Check blood pressure, weight and temperature.
4. Review all medications:
 - a. indications
 - b. dosage
 - c. frequency
5. Visit with M.D.
6. Ask and answer questions.
7. Schedule your next appointment as you check out

HELPFUL HINTS

- Write questions down as they come up at home and bring your list of questions to clinic.
- We welcome questions. No question is too silly to ask!
- If you have any problems with your blood pressure, bring your blood pressure machine to clinic and we will check it.
- Bring your medication sheet and daily logs to clinic so that we can review them together and make necessary changes directly on your medication sheet, IN PENCIL.
- Bring some sort of entertainment to clinic (book, magazine, etc.). Quite often the clinic is very busy, which can result in a delay.

The following are recommended guidelines for clinic visits:

1

First Month after Transplant

Lab and Clinic visit 2 times per week (every Monday *and* Thursday)

2

Second Month after Transplant

Lab and Clinic visit 1 time per week (Monday *or* Thursday)

3

Third Month after Transplant

Lab and Clinic visits every 2 weeks (Monday *or* Thursday)

4-6

Fourth through Six Months after Transplant

Lab every 2 weeks

Clinic visit at Stanford every month (Monday *or* Thursday)

Begin office visits with your local nephrologist

6⁺

Six Months after Transplant

Lab every Month

Clinic visit at Stanford every 6 months until 24 months, then every 12 months

Yearly

Eye Examination



Dental examination (you may need antibiotics for all dental procedures)

Flu shot



Pneumovax (every 2-3 years)

Routine screening for:



- Females - Pap Smear
(over 50) mammogram
(over 50) colonoscopy



- Males - (over 50) colonoscopy



SELF CARE AFTER TRANSPLANT

The transplant surgery has been completed. You can now begin a new life with a new kidney.

Keeping your new kidney happy and healthy requires great commitment. You need to continue follow-up visits to the transplant clinic, monitor yourself closely for complications, keep a proper diet, exercise, and diligently take your medicines every day.

This section will give you a basic understanding of what is required to modify your daily routine and lifestyle to assure that both you and your kidney remain healthy.

FLUID INTAKE

After receiving your new kidney, DEHYDRATION CAN CAUSE TROUBLE... You may have had to limit your fluid intake significantly while you were on dialysis, so it may be a challenge to drink enough fluid to maintain good hydration after the transplant.

Without adequate fluid your tacrolimus may affect your kidney function.

To keep your kidney “healthy and happy” it is important that you drink **2-3 Quarts (64-96 ounces) of Fluid Each Day! This fluid should primarily be water. Caffeinated beverages should be taken in moderation.**

You should drink often and throughout each day. Please talk to your transplant coordinator(s) or dietitian if you are having problems staying hydrated or need additional assistance or information regarding hydration and fluid intake.

SHOWERS /BATHING

You may shower with soap and water and pat the incision dry with a clean towel. **Remember:** your wound healing will be prolonged due to the prednisone you must take as part of your immune-suppressive medications.

There is a risk of wound infection. To reduce this risk and keep your wound and skin clean, shower daily as outlined below.

- Remove the wound dressing before showering.
- Lightly soap the incisional area and carefully rinse. Do not use alcohol or Betadine to clean the incision, unless it has been ordered by your doctor.
- Gently pat the incisional area with a clean and dry towel after showering.
- Avoid bathtub soaking, Jacuzzis and swimming pools until your incision has completely healed.

SELF MONITORING AT HOME

In this teaching manual you will find “**Self-Monitoring Log Sheets**”. This system is designed to assist you in performing your important self-monitoring duties.

Your participation in keeping a detailed and accurate log of your medications, temperature, daily weight, blood pressure, and blood sugar (diabetics only) is expected.

SELF MONITORING PARAMETERS

- Weigh yourself daily at the same time and in similar clothing
- Take your temperature twice daily
- Measure your resting blood pressure daily
- Test your blood sugars as instructed

LIFTING

Prednisone can slow wound healing. Lifting can result in wound problems. You may not lift anything heavier than 10 lbs. for the first 8 to 12 weeks after surgery. If you have no incisional discomfort after this time, you may gradually resume normal lifting.

DRIVING

A member of the transplant team will let you know when you can resume driving. This is usually about two weeks following discharge from the hospital. You cannot drive if you are on any pain medications.

DIET AND NUTRITION

Eating properly is an important part of your recovery after transplant surgery. End-stage kidney disease often

leads to loss of muscle mass.

A dietitian will spend time with you before hospital discharge. The dietitian can help you develop a diet plan that is balanced and meets your body’s needs.

EXERCISE

Exercise is important to your physical and mental well-being. A daily exercise routine is best. Strenuous exercise should only begin after you have fully healed from your transplant surgery. Please ask your transplant physician when it is okay to begin strenuous exercise.

TRAVEL AND VACCINATIONS

Because of the increased risk of infection and rejection episodes during the initial months after transplantation, out-of-state travel is not recommended without checking with the transplant team. Out-of-country travel is not recommended until after the first year. If you are planning a trip to a country that requires immunizations, ask your transplant team for advice at least 6 to 8 weeks before your departure. Generally, vaccinations with “live viruses” are not recommended due to your immunosuppressed status, and it may not be safe for you to travel to countries which require vaccination with live virus. When traveling, take along enough medications for at least an extra week in case of unexpected delay during your trip. Pack your medications in a carry-on bag, not in checked baggage which could be lost or delayed.

Organ Transplant Nutrition Therapy

This nutrition plan can help most people stay health after a transplant. For example, good nutrition can reduce potential problems such as high blood fats, blood sugar, blood pressure, excess weight, and can strengthen bones.

If you have any health problems, you should contact a registered dietitian for more information about what you should eat.

Foods Recommended	
Food Group	Foods Recommended
Dairy	Fat-free (skim) milk Nonfat cheese Low-fat ice cream
Meat and Other Protein Foods (baked, grilled, broiled, boiled, poached)	Skinless chicken and turkey Fish Extra-lean fresh beef and pork Dried beans and peas Unsalted nuts Tofu Egg whites
Fruits	Unsweetened canned and frozen fruit (except grapefruit) Unsweetened juice (in small amounts) Unsweetened dried fruits
Vegetables	Fresh vegetables Unsalted canned or frozen vegetables Unsalted vegetable juices
Grains	Whole grain breads Whole gain pastas, rice, brown wild rice Whole gain, unsweetened cereals
Fats and Oils	Olive oil Canola oil Trans fat-free margarine Nonfat or low-fat salad dressing
Seasonings	Fresh or dried cooking herbs Onion or onion powder (not onion salt) Garlic or garlic powder (not garlic salt) Salt-free and sodium-free seasonings

Foods Not Recommended

The following foods should never be eaten:

- Grapefruit or grapefruit juice (if you are taking cyclosporine or Prograf because grapefruit interferes with the metabolism of these drugs)
- Raw, rare, or undercooked fish, poultry, pork, beef, or eggs
- Unpasteurized milk or cheese
- Unpasteurized juices or ciders
- Fresh sprouts (such as bean sprouts or alfalfa sprouts)

- Food that is spoiled or moldy; food that is past its “use by” date
- Alcohol (ask your doctor if you can safely drink any alcohol)

If your weight is stabilized and in order to maintain overall good health, the following foods may be eaten in small amounts or infrequently. See the Foods Recommended chart for better food choices.

Food Group

Small Amounts Recommended

Dairy	Regular milk, cheese, or ice cream
Meat and Other Protein Foods (baked, grilled, broiled, boiled, poached)	Fried meats (chicken, fish, pork, beef) Canned beans Egg yolk (do not eat more than 3 or 4 per week) Salted nuts Processed meats such as ham, bacon, sausage, corned beef, hot dogs, luncheon meat
Fruits	Fruits or fruit juices with sugar
Vegetables	Vegetables or vegetable juice with salt Pickled or salted foods, such as pickles, relish, olives, or sauerkraut
Grains	White bread, regular pasta, and white rice Pancakes and waffles Salted crackers Quick breads (muffins, biscuits) Croissants
Fats and Oils	Oils other than olive oil and canola oil Shortening, lard, butter Margarine containing trans fat Regular salad dressings and toppings
Seasonings and Other Foods	Cakes, pies, cookies, donuts Candy
Beverages	Soft drinks Sport drinks Vegetable juices with salt Fruit drinks with sugar

Label Reading Tips

Follow these general guidelines when reading food labels:

- Check for expiration dates
- Look at the serving size and compare it with the portion you usually eat
- Generally, choose foods that have less than 250 mg sodium per serving
- Read the label for the fat, saturated fat, and trans fat content
- If you have diabetes, read the label for total carbohydrate content. Each carbohydrate choice should contain 15 g carbohydrate
- “Light” or “lite” does not always mean a food is low in calories, fat, sugar, or salt. It may be “light” in color, taste, or texture

Shopping Tips

- Make a shopping list of healthy foods. Buy only what is on the list.
- Choose fresh foods more often. Choose prepared foods less often.
- Take the time to read labels.
- Don’t shop when you are hungry.
- Don’t buy food that appears spoiled or is out-of-date.
- Don’t buy dented cans or damaged food products.

Cooking Tips

Help keep foods safe to eat:

- Wash your hands before preparing food
- Keep cold foods cold and keep hot food hot
- Put food away right after shopping and after meals
- Cook meats until they are done. Check by using a meat thermometer. Meat is done when its temperature is 160°F (71.1°C). Chicken needs to be cooked to a temperature of 170°F (76.6°C). Seafood should be heated to 145°F (62.8°C), and precooked seafood should be heated to 165°F (73.9°C).
- Cook eggs until the egg white is solid and the yolk starts to thicken
- Avoid unpasteurized dairy products
- Heat cold cuts, hot dogs, deli meats, and sausages to steaming before eating.
- Wash raw fruits and vegetables well. Avoid raw sprouts
- Do not thaw food on the kitchen counter. Thaw food in the refrigerator or microwave

Here are some ways to cook food with less fat:

- Baking
- Broiling
- Boiling
- Grilling
- Steaming
- Poaching

Cut back on salt and sodium. Try the following seasonings:

- Onion and onion powder (not onion salt)
- Garlic and garlic powder (not garlic salt)
- Pepper
- Salt-free seasoning blends
- Fresh or dried cooking herbs

Preparation for Discharge

Once you are eating well, able to walk without assistance, manage your medications at the bedside with RN supervision, and your medication levels have stabilized, you get to go home.

The following is a check list of things that are **essential** and to be completed by YOU prior to discharge:

1. ____ Read your discharge teaching manual
2. ____ **Know** the signs of rejection
3. ____ **Know** the signs of infection
4. ____ Know all of your medications including
 - a. Names
 - b. Dosages
 - c. Frequency
 - d. Actions of the drug
 - e. Major side effects
5. ____ Know why and how much fluid YOU HAVE TO drink every day!
6. ____ Know how to take your blood pressure and know your blood pressure parameters.
7. ____ Know where and how often you will have blood work drawn after discharge.
8. ____ How to obtain a clinic appointment.
9. ____ Know how, and who is going to bring you back and forth to clinic until you can drive yourself.
10. ____ Know how you will obtain medications or where to fill your prescriptions at time of discharge.
11. ____ Know how to best reach your transplant team once at home and having problems or questions.

Discharge Teaching Review

Please circle all answers that apply, unless otherwise noted

1. What are the common signs or symptoms of transplant rejection?
 - a. Fever
 - b. Pain/tenderness over new kidney
 - c. Body rash
 - d. Sudden weight gain
 - e. Flu-like symptoms (muscle/body aches)
2. What are the common signs or symptoms of infection?
 - a. Sudden weight gain
 - b. Body and muscle aches
 - c. Fever
 - d. Pain or burning during urination
 - e. Feeling fatigued
3. My anti-rejection medications are (circle one):
 - a. Neoral/prednisone/CellCept
 - b. Prograf/prednisone/CellCept
 - c. Prograf/CellCept
 - d. Bactrim/Valcyte/prednisone
 - e. Prograf/Prednisone
4. What Medications do you take to prevent infections? :
 - a. Valcyte
 - b. Lasix
 - c. Nystatin
 - d. Bactrim/Septra
 - e. Axid
5. Neoral or Prograf should be taken:
 - a. On an empty stomach
 - b. With food
 - c. Once a day
 - d. Twice a day
 - e. **Before** your clinic labs are drawn
6. How often do you come to the transplant clinic after discharge?
 - a. Every Wednesday
 - b. Every Monday and Thursday
 - c. Every Tuesday and Friday
 - d. When I am strong enough to drive myself
7. Which of the following could be a side effect from your anti-rejection medications?
 - a. High blood pressure
 - b. Fever
 - c. Mood swings
 - d. Tremors in hands and legs
 - e. Decreased kidney function
 - f. Indigestion / stomach ulcers
 - g. Brittle bones
8. If you forget to take your anti-rejection medication(s) you should:
 - a. Take a double dose of the missed medication immediately
 - b. Go to your local emergency room
 - c. Take your regular dose of the missed medication as soon as possible
 - d. Call the transplant coordinator
 - e. Don't worry about it
9. When you have blood drawn to check labs you should:
 - a. Take Neoral or Prograf as usual
 - b. Bring Neoral/Prograf & CellCept with you to take after labs are done
 - c. Eat breakfast as usual
 - d. Skip breakfast
 - e. Have your labs drawn before 10am
10. Good fluid intake is important after transplantation; which of the following fluid choices would be appropriate for you?
 - a. Water only
 - b. No more than 32 ounces of fluid a day
 - c. Fruit juices
 - d. At least eight (12 ounces) glasses of fluid each day
 - e. Caffeinated soft drinks / beverages
 - f. Beer
 - g. Milk

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