

TRANSPLANT MEDICINE



Orientation Class at
University of Washington Medical Center

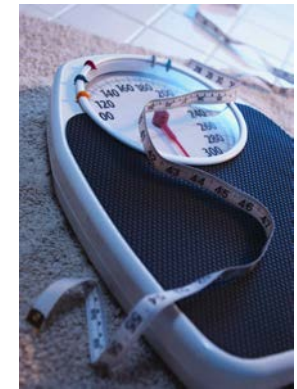
OVERVIEW

- Pre-Transplant Planning
- In the Hospital
- When You Leave the Hospital
- Immunosuppressive Medicines
- Other Prescription Medicines
- Non-Prescription Medicines
- For Your Follow-up Clinic Visits

PRE-TRANSPLANT PLANNING

Before your transplant:

- Know what drugs your health insurance plan will pay for, and how much of the cost it will pay.
- Get this equipment you will need at home:
 - Blood pressure cuff
 - Thermometer
 - Scale



PRE-TRANSPLANT PLANNING

Transplant medicines are very expensive. On average, they cost:

- \$3,000 a month for the first 3 months
- \$20,000 a year for the first year
- \$10,000 a year after the first year



Most people need insurance to help pay for these medicines.

PRE-TRANSPLANT PLANNING

- Use the medicine cost list handout to see if you will be able to pay for the medicines you need.
- This information will help you estimate how much you will have to pay every month for your medicines.

University of Washington Medical Center – Transplant Outpatient Medication Costs 11/2012*

Your medication regimen will ONLY include a select number of the medications listed below. Use the list as a guide and discuss your medication coverage with your insurance provider.

Medication: Generic Name	Medication: Brand Name	\$/month*	How Long?	Generic Available?	Purpose	Estimated Typical Daily Dose*
Tacrolimus	Prograf [®] , FK508	\$300-1500	Indefinitely	Yes	Immunosuppressant - prevents rejection	2-7mg twice daily
Cyclosporine, modified	Neoral [®] , Gengraf [®]	\$700-1500 (Neoral, Gengraf) \$250-500 (other generics)	Indefinitely	Yes	Immunosuppressant - prevents rejection (Alternative to tacrolimus)	125-250mg twice daily
Mycophenolate Mofetil -OR- Mycophenolate Sodium	Celcept [®] Myfortic [®]	\$90 \$200	Indefinitely	Yes No	Immunosuppressant - prevents rejection	1000mg twice daily 720mg twice daily
Azathioprine	Imuran [®]	\$15-100	Indefinitely	Yes	Immunosuppressant - prevents rejection (Alternative to mycophenolate)	100mg once daily
Prednisone	Deltasone [®]	<\$10	Months-Indefinitely	Yes	Immunosuppressant - used to prevent or treat rejection	10mg once to twice daily
Sirolimus	Rapamune [®]	\$500-1000	Indefinitely	No	Immunosuppressant - prevents rejection.	1-2mg once daily
Leflunomide	Arava [®]	\$25	Indefinitely	Yes	Immunosuppressant, Anti-viral	20mg once daily
Clotrimazole	Mycellex [®]	\$50	3 months - indefinitely	Yes	Prevents oral fungal infections	10mg four times daily
Fluconazole	Diflucan [®]	\$20	3 months (pancr, liver)	Yes	Prevents fungal infections.	400mg once daily
Valganciclovir -OR- Acyclovir	Valcyte [®] Zovirax [®]	\$2000 \$7	3-6 months Indefinitely	No Yes	Prevents viral infections related to immunosuppression	900mg once daily 400mg twice daily
Trimethoprim/ Sulfa -OR- Dapsone	Septtra [®] , Bactrim [®] Aczone [®]	\$10 \$25	6 months - indefinitely	Yes	Prevents infections.	1 SS tab once daily 100mg once daily
Omeprazole	Priosec [®]	\$10	3 months - indefinitely	Yes/OTC	Reduces stomach acid to prevent reflux and gastric ulcers	20mg once daily
Ranitidine	Zantac [®]	\$5-10	3 months - indefinitely	Yes/OTC	Reduces stomach acid to prevent reflux and gastric ulcers.	150mg twice daily
Aspirin (enteric coated)	Bayer [®] aspirin	\$5	Indefinitely	Yes/OTC	Protects the heart and prevents blood clots	81mg once daily
Pravastatin -OR- Rosuvastatin	Pravachol [®] Crestor [®]	\$5 \$50	Indefinitely	Yes No	Decreases cholesterol	10mg once daily 5mg once daily
Docusate	Colace [®]	\$<10	3 months	Yes/OTC	Treats constipation - as needed	250mg twice daily
Calcium carbonate	Tums [®]	\$5-20	Indefinitely	Yes/OTC	Calcium supplement to prevent osteoporosis related to prednisone	1000mg twice daily
Ferrous sulfate	Iron	\$5-30	3 months	Yes/OTC	Iron supplement. Treats and prevents anemia	325mg twice daily

PRE-TRANSPLANT PLANNING

Know how your pharmacy benefits work:

- What is your prescription **co-pay**? This is the amount you must pay yourself.
- Will your pharmacy bill your insurance company, or do you have to pay and then wait to be reimbursed?
- Do you have more than one insurance company? If so, find out if your pharmacy will bill more than one company.



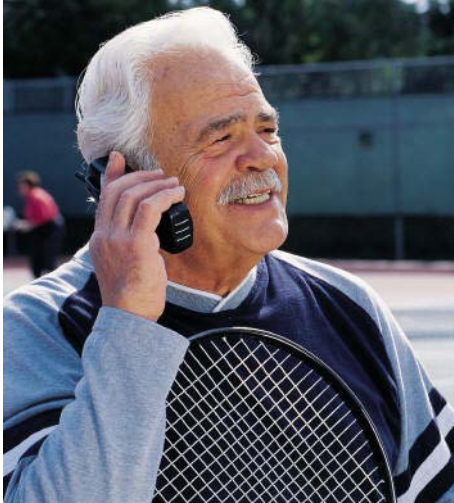
PRE-TRANSPLANT PLANNING

- Find out if there is a preferred pharmacy or a mail-order pharmacy that is cheaper.
 - Even if you find a mail-order option that costs less, you will still need to use a local pharmacy to fill the prescriptions you receive when you are ready to leave the hospital.
- Are you eligible for military pharmacy benefits?
 - If so, set up those benefits before your transplant.
- Can you afford your health plan's yearly **deductible**? This is the amount you must pay before your insurance starts paying for your medicines.

PRE-TRANSPLANT PLANNING

- Do you need help understanding your prescription insurance benefits? Talk with your:
 - Insurance company caseworker or representative
 - Pharmacist
 - Transplant Financial Coordinator
- Stay aware of your pharmacy benefits. They may change before or after your transplant.

PRE-TRANSPLANT PLANNING



What if I lose my prescription benefits after my transplant?

- Talk with your Transplant Financial Coordinator at 206-598-6737.

PRE-TRANSPLANT PLANNING

What if I lose my prescription benefits after my transplant?

- ***Manufacturer assistance programs*** help patients who cannot pay for their medicines. Some of these programs are:
 - **Prograf (Astellas):**
800-477-6472
 - **Cellcept, Valcyte (Genentech):**
800-4-ACCESS (800-422-2377)
 - **Neoral, Sandimmune, Myfortic (Novartis):**
800-277-2254

PRE-TRANSPLANT PLANNING

What if I lose my prescription benefits after my transplant?

- Charity programs may be able to help. Here are some you can find online:



- www.rxhelpforwa.org
- www.together-rx.com
- www.rxoutreach.com
- www.themedicineprogram.com
- www.pparx.org
- www.rxhope.com
- www.rxassist.org

PRE-TRANSPLANT PLANNING

If **Medicare** is your primary insurance at the time of your transplant:

- **Part A** pays for your hospital stay.
- **Part B** pays for your:
 - Doctor visits and supplies once you are out of the hospital.
 - Immunosuppressive medicines (with a 20% co-pay).

Note: Your pharmacy is required to bill Part B for your medicines. You will need to make sure your pharmacy will do this for you.

PRE-TRANSPLANT PLANNING

Medicare **Part D**:

- May be optional, or enrollment may be required by your secondary insurance plan.
- Pays for other prescription medicines, but not immunosuppressives if you have Part B.
- Does not pay the 20% co-pay on medicines that are billed to Part B.

Note: Your secondary insurance may help pay your Medicare co-pay.

PRE-TRANSPLANT PLANNING

Medicare Part D “Medicare Coverage Gap” or “Donut Hole”:

- Most Part D prescription plans help pay for covered drugs until your total retail drug costs reach a certain amount (for example, about \$2,000 to \$3,000).
 - Transplant patients will reach this amount within 1 to 2 months.
- Then, you will have to pay entirely out-of-pocket until you reach the annual limit. This period is called the “Medicare coverage gap” or “donut hole.”
- After you reach this annual limit, your insurance resumes coverage of your medicines.

PRE-TRANSPLANT PLANNING

Your pharmacy benefits may not pay for all of your medicines because:

- You do not need a prescription for these medicines. These are called “over-the-counter” medicines.
- The medicines may not be listed on your company’s **formulary** (these are the medicines that your insurance company will pay for).



Note: Know what transplant medicines your insurance company will pay for **before** your surgery.

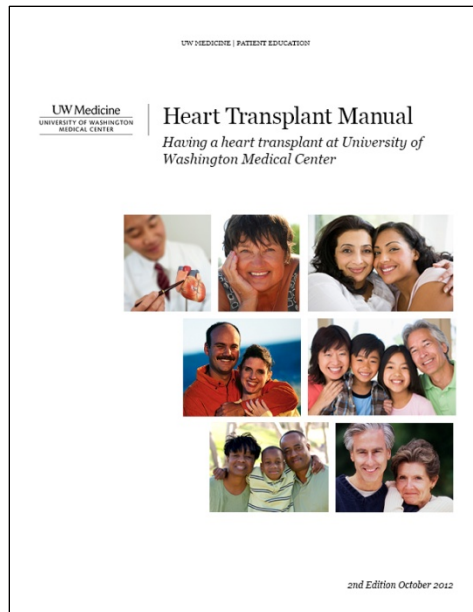
PRE-TRANSPLANT PLANNING

- You may have higher co-pays or poor coverage for certain medicines. Higher co-pays are common with many Medicare Part D programs.
- It may take your pharmacy several days to fill your prescriptions and refills because they may need to:
 - Special order some of your medicines. This is because they are expensive to keep in stock.
 - Call your insurance company for approval of certain medicines. This is called ***prior authorization***.



IN THE HOSPITAL

Bring these things with you when you are called in for your transplant:



- Your Heart Transplant Manual
- List of your current home medicines and doses
- The medicines you are currently taking, in case they are not available in the hospital pharmacy
- Your pharmacy insurance card
- Personal items (reading glasses, contact lenses, cell phone, etc.)

IN THE HOSPITAL

After your transplant:

- A pharmacist will meet with you to teach you about your new medicines and doses.
- Plan to meet at a time when everyone who should learn about your medicines can be there, including caregivers.



IN THE HOSPITAL

The pharmacist will give you a:

- Medicine list
- Mediset (box to hold your medicines)
- 1-week supply of your medicines

You will begin taking your medicines while you are still in the hospital.



IN THE HOSPITAL

- Your medicine list will include:
 - Immunosuppressive medicines
 - Other prescription medicines
 - Non-prescription medicines
- Take **only** the medicines your doctor prescribed.
- Talk with your doctor before taking any new medicines. This includes over-the-counter medicines and herbal, natural, and vitamin supplements.
- Know the side effects of your medicines and call your doctor if you have concerns.

WHEN YOU LEAVE THE HOSPITAL

- You will leave with:
 - A 3- to 5-day supply of your medicines
 - Prescriptions for all of your medicines (for a 1-month supply plus refills)



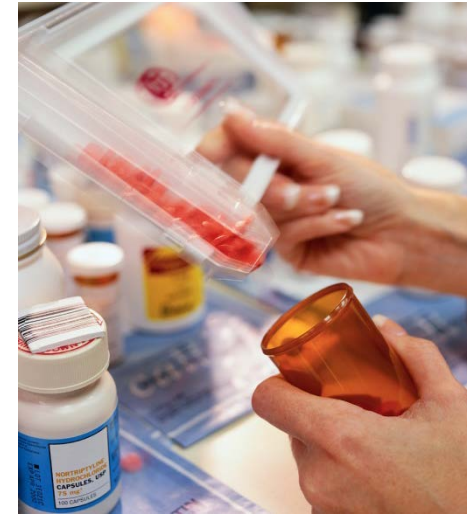
- You may need to stop at a pharmacy on the way home to fill your prescription for pain medicine.
- Give all of your prescriptions to your pharmacy as soon as possible.

IMMUNOSUPPRESSIVE MEDICINES

You will need *immunosuppressive medicines* after transplant because your body will see your new heart as “foreign.”

Immunosuppressives will:

- Prevent or treat rejection.
- Increase your risk of infection after transplant.
- Suppress your body’s immune system by decreasing the effects of white blood cells (*lymphocytes*).



IMMUNOSUPPRESSIVE MEDICINES

- You will take immunosuppressive medicines as long as you have your new heart.



- Your cardiologist will create a medicine plan for you that best meets your needs.
- Your medicine plan may be different from another heart transplant patient's plan.

IMMUNOSUPPRESSIVE MEDICINES

You will take up to 3 immunosuppressive medicines:

- Each one works differently. By taking 3 of them, you will be able to take lower doses of each one.
- Your doses will be higher right after transplant, but they will be lowered over time until you reach your ***maintenance*** dose. This is the dose you will take most of the time.
- It is very important to take these medicines at the right times and the right doses to help prevent rejection.

You may take a combination of:

- Tacrolimus (Prograf, FK-506)
- Mycophenolate (Myfortic, Cellcept)
- Prednisone

IMMUNOSUPPRESSIVE MEDICINES

Tacrolimus (Prograf, FK-506)

- Decreases the number and function of white blood cells (lymphocytes).
- Is started while you are in the hospital.
- Is taken by mouth 2 times a day, 12 hours apart (for example, at 9 a.m. and 9 p.m.).
- Costs about \$500 to \$1,000 a month.

You will keep taking tacrolimus as long as you have your new heart.

Note: All estimates for medicine costs in this slideshow are based on UWMC Outpatient Pharmacy pricing without insurance. Your costs may be different.

IMMUNOSUPPRESSIVE MEDICINES

Tacrolimus *(continued)*

- The amount of tacrolimus in your blood will be measured to control side effects and to make sure it is working well.
- Your dose will be adjusted based on the level of medicine in your blood.
- On clinic days when you have a blood draw:
 - Do **not** take your morning dose of tacrolimus at home.
 - Bring your dose with you. Take it **after** your blood draw.
- Do **not** eat grapefruit or drink grapefruit juice. They change the way tacrolimus works in your body.

IMMUNOSUPPRESSIVE MEDICINES

Tacrolimus Side Effects

- Decreased kidney function
- Decreased magnesium level in your blood
- Higher blood pressure
- Higher potassium level in your blood
- Shakiness or tremors
- Headaches
- Convulsions
- Higher blood sugar levels
- Higher cholesterol levels
- Nausea or vomiting
- Higher risk of infection

IMMUNOSUPPRESSIVE MEDICINES

Mycophenolate (Myfortic, Cellcept)

- Decreases the number of white blood cells (lymphocytes).
- Is taken by mouth 2 times a day, with food.
- Costs about \$100 to \$250 a month.

Note: Only some transplant patients will take this medicine.

IMMUNOSUPPRESSIVE MEDICINES

Mycophenolate Side Effects

- Severe decrease in the number of white blood cells
- Lower number of platelets
- Lower number of red blood cells
- Nausea or vomiting
- Diarrhea
- Stomach pain
- Higher risk of infections

IMMUNOSUPPRESSIVE MEDICINES

Prednisone

All patients receive large IV doses at the time of their transplant. Prednisone:

- Decreases the function and activity of white blood cells (lymphocytes).
- Is called a **steroid** or **corticosteroid**.
- Is related to a natural hormone in your body called **cortisol**.
- Is taken by mouth 2 times a day at first.
- Is decreased to 1 dose a day later on.
- Costs less than \$10 a month.



IMMUNOSUPPRESSIVE MEDICINES

Prednisone Short-term Side Effects

- Upset stomach, heartburn, or ulcers
- Disturbed sleep
- Higher blood pressure
- Higher blood sugar levels
- Slowed wound healing
- Higher risk of infections
- Emotional changes and mood swings
- Weight gain caused by fluid buildup and increased appetite
- Face swelling (“moon face”)
- Blurred vision

IMMUNOSUPPRESSIVE MEDICINES

Prednisone Long-term Side Effects

- Muscle, bone, or joint weakness
- **Osteoporosis** (weak, brittle bones)
- Weak, dry, or thin skin and easy bruising
- High cholesterol
- Visual changes and cataracts
- Higher risk of certain infections and cancers
- Round shoulders (“buffalo hump”)

Note: Getting regular exercise and eating a healthy diet will help keep your bones and muscles strong while you are taking prednisone.



OTHER PRESCRIPTION MEDICINES

Your medicine plan may also include some or all of these prescription medicines:

- Clotrimazole (Mycelex)
- Valganciclovir (Valcyte)
- Trimethoprim/Sulfamethoxazole (Bactrim or Septra)
- Pravastatin (Pravachol)
- Omeprazole (Prilosec)
- Docusate (Colace)
- Antibiotics

OTHER PRESCRIPTION MEDICINES

Clotrimazole (Mycelex) is an antifungal (anti-yeast) medicine that:

- Prevents an overgrowth of yeast (called ***thrush***) in the mouth.
- Is taken as a lozenge (called a ***troche***) in the mouth 4 times a day – after meals and at bedtime.
- Is taken for several months after transplant.
- Costs about \$50 to \$120 a month.

OTHER PRESCRIPTION MEDICINES

Valganciclovir (Valcyte) is an anti-viral medicine that:

- Prevents and treats *herpes* and *cytomegalovirus* (CMV) infections.
- Is taken once a day by mouth.
- Is taken for about 3 months after transplant.
- Costs about \$1,500 to \$2,000 a month.

OTHER PRESCRIPTION MEDICINES

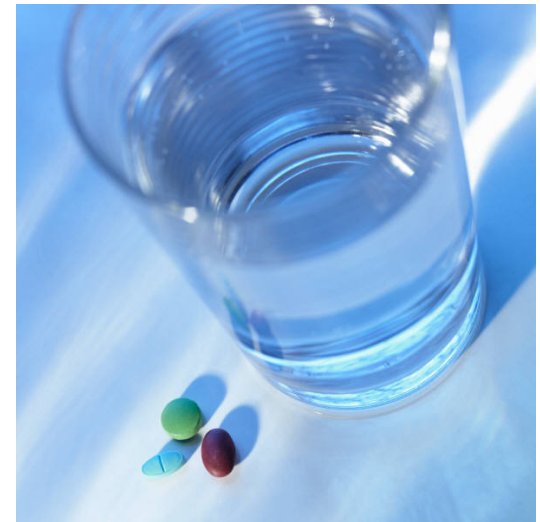
Valganciclovir (Valcyte) Side Effects

- Nausea
- Headaches
- Decreased kidney function
- Lower number of white blood cells

OTHER PRESCRIPTION MEDICINES

Trimethoprim/Sulfamethoxazole (Bactrim or Septra) are antibacterial medicines that:

- Prevent a lung infection called *pneumocystis pneumonia*.
- Are taken as a tablet by mouth at bedtime with a full glass of water.
- Are taken for the rest of your life.
- Cost about \$10 a month.



OTHER PRESCRIPTION MEDICINES

Trimethoprim/Sulfamethoxazole Side Effects

- Rashes
- Nausea
- Decreased number of white blood cells
- More likely to get sunburn

OTHER PRESCRIPTION MEDICINES

Pravastatin (Pravachol) lowers cholesterol and helps prevent heart disease. It:

- Is taken by mouth 1 time a day.
- Is taken for the rest of your life.
- Costs about \$5 to \$10 a month.

Pravastatin Side Effects

- Muscles aches or weakness
- Abnormal liver labs

OTHER PRESCRIPTION MEDICINES

Omeprazole (Prilosec) helps prevent heartburn and stomach ulcers. It:

- Decreases stomach acid.
- Is taken once a day.
- Costs about \$10 to \$20 a month.

Note: Your doctor may prescribe a similar medicine, such as Protonix, Prevacid, or Nexium.

OTHER PRESCRIPTION MEDICINES

Docusate (Colace) makes your stools softer. It:

- Helps prevent constipation.
- Is taken 2 times a day for a short time after your transplant.
- May be stopped or your dose may be lowered if you have loose stools or diarrhea.
- Costs about \$5 a month.

NON-PRESCRIPTION MEDICINES

Your medicine plan may also include some or all of these over-the-counter medicines:

- Multivitamin with folic acid
- Calcium and vitamin D
- Iron (ferrous sulfate)

NON-PRESCRIPTION MEDICINES

Multivitamin with Folic Acid (prenatal vitamin):

- Is taken 1 time a day.
- Is taken for the rest of your life.
- Costs less than \$10 a month.

NON-PRESCRIPTION MEDICINES

Calcium and Vitamin D (Tums)

- Calcium helps prevent bone disease (osteoporosis).
- Vitamin D helps your body use calcium.
- Suggested daily doses:
 - 2,000 mg calcium, but take only 500 mg at a time
 - 2,000 units of vitamin D
- Both are taken for the rest of your life.
- They cost about \$5 to \$20 a month.

NON-PRESCRIPTION MEDICINES

Iron (*ferrous sulfate*) helps prevent anemia (low red blood cell count). It:

- Is taken 2 times a day with food, to help reduce stomach upset and dark urine or stool.
- Is taken for a short time after your transplant.
- Costs less than \$10 a month.

NON-PRESCRIPTION MEDICINES

Your doctor may also advise you to take **magnesium** or **phosphate** after your transplant.

These non-prescription medicines are for ***electrolyte deficiencies***, if they occur.



FOR YOUR FOLLOW-UP CLINIC VISITS

At home:

- Create a system that works for you to get and keep your medicine information organized.



- Keep track of changes to your medicine plan.
- Write down your questions as you think of them.

FOR YOUR FOLLOW-UP CLINIC VISITS

What to bring to your follow-up visits:

- Your mediset, medicine list, and medicines.
- Any records you are keeping, such as blood pressures, weights, and blood glucose values.
- Your list of questions.

