

LONE STAR HOME DIALYSIS, INC.
(LSHD)
Patient Handbook

Thank you for choosing us for your dialysis services. We believe that patients are very important and we will ensure that you are provided with safe and professional care at all times.

This handbook was prepared to provide you and your family with important information about your dialysis treatments.

We hope that it will help you to understand kidney failure, your dialysis treatment plan, and general information about our facility.

We encourage you to participate in your care. You are the most important member of the team and we believe that your treatment goals cannot be achieved without your participation.

We are in this together!

**Main Office Hours:
Monday to Friday
8:00 AM to 5:00 PM**

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PATIENT'S RIGHTS

The patient has the **RIGHT** to:

1. Be treated at the facility of his/her choice.
2. Be fully informed by his/her personal physician of his/her medical condition unless medically contraindicated and so recorded in his/her medical record.
3. Be treated with consideration, respect and in full recognition of the patient's individual and personal needs, including the right for privacy in treatment, interviews and examinations to the extent possible and in accordance with HIPAA guidelines.
4. Be made aware of his/her rights and responsibilities, which include rules governing patient's conduct.
5. Accept or refuse any medication or treatment offered to him/her, and be informed of risks/consequences of such action.
6. Be afforded the opportunity to participate in the planning of his/her medical treatment and to refuse to participate in experimental research.
7. Be provided with complete information regarding: a) the total costs involved and b) the estimate of costs or percentage thereof which may be reasonably undertaken by third party payers, Medicare, private insurance, state funding, or combination.
8. Be informed regarding the costs of treatment and associated needs, which must be assumed by the patient.

9. Be informed of the right to accept funding from any source for which the patient may be eligible.
10. Be ensured confidential treatment of his/her personal and medical records in accordance with HIPAA guidelines, and approve or refuse release of such records to any individual outside the facility, except in case of his/her transfer to another health care institution or as required by Federal, State, or local law.
11. Receive high quality medical care consistent with current professional knowledge and delivered by trained and competent personnel.
12. Be informed of alternative forms of treatment and be assisted in exploring alternatives including referral for further discussion or evaluation if needed.
13. Be assisted and supported in reaching long-term treatment goals.
14. Be informed of all treatment options and has the right to change their modality of therapy when feasible and approved by the physician or dialysis facility.
15. Voice grievances and recommend change in policies without fear of discrimination or reprisal. Grievances and recommendations may be addressed to facility staff, administrator, the ESRD Network of Texas, or regulatory agencies with jurisdiction over the facility.
16. Discontinue treatment at any time to the extent permitted by law

17. No patient may be transferred or discharged against their will except for medical reasons, for his/her welfare or that of other patients, or for non-payment of fees (except as prohibited by the Title XVII of the Social Security Act).
18. The patient must be given advance notice to ensure orderly transfer/discharge and such action must be documented in the medical record.

PATIENT'S RESPONSIBILITIES

The patient is **RESPONSIBLE** for:

1. Understand his/her health problem and services/treatment being provided.
2. Follow the instructions/recommendations of his/her physician or assume full responsibility for their neglect and consequences.
3. Comply with facility rules and regulations, which have been developed to protect patients, ensure safety and affect quality care.
4. Follow the prescribed diet, medications, and treatment in accordance with the physician's orders.
5. Arrive on time for treatment and give advance notice (when possible) of delay or absence.
6. Provide his/her own transportation to and from treatment. If assistance is needed, patient will inform the social worker.
7. Inform staff of any health problems, changes, or concerns.

8. Take an active part in his/her treatment plan and establish long-term treatment goals.
9. Pay for all services rendered and be aware of those services covered by Medicare, Medicaid, or other insurance. It is the patient's responsibility to inform the business office of any changes in coverage.
10. Conduct themselves in a manner that is respectful and considerate of staff and other patients.
11. Have specific knowledge of what to do and who to contact in case of an emergency.
12. Bring all home medications to the facility for review when requested.
13. Inform the staff or physician if instructions or explanations given are not understood or will not be followed.

PATIENT GRIEVANCE PROCEDURE

Current or potential patients who believe they have a valid grievance may proceed as outlined in this procedure. If you need help in understanding or initiating the grievance process, the facility Social Worker is available for assistance.

1. Detail the grievance in writing to the Administrator of the facility. The Center Director will make a copy of the grievance for your records. If the grievance involves the Administrator, the patient may proceed to step two. The Administrator will investigate the grievance, attempt to resolve it, and communicate a decision to the patient in writing within 10 working days. The Administrator will prepare a written and dated summary of the grievance and the proposed attempts by the Administrator to resolve the matter. If the patient is physically unable to write the grievance, the grievance may be made verbally to the Administrator who will write out the grievance as stated by the patient.
2. If the patient is not satisfied with the answer given by the Administrator, the patient should then forward a copy of the decision along with a copy of the original grievance to the Medical Director. The patient may request a personal meeting with the Medical Director. The Medical Director will confer with the patient, Administrator, and any other appropriate parties to investigate all issues. The Medical Director will communicate a decision in writing to all parties within 30 working days of receipt. In rare circumstances where a personal meeting is requested and cannot be immediately granted due to travel restrictions, a reasonable extension of this time frame may occur.
3. If the patient is not satisfied with the decision of the Medical Director, he/she may submit the grievance to the appropriate regulatory agencies.

The patient may submit in writing to Network # 14 Grievance Committee or Texas Department of Health at:

*Chairperson – Grievance Committee
ESRD Network, Inc. – Network #14
14114 Dallas Parkway, Suite 660
Dallas, Texas 75249-04381
Phone: 972-503-3215*

THE HEALTH CARE TEAM

The dialysis unit employs many qualified professionals. They include doctors, nurses, dietitian, social worker, water and equipment technician, and administrative staff.

Medical Director

The Medical Director is a Board Certified Nephrologist. His responsibility is to ensure adequate and appropriate medical and clinical supervision of all the patients treated in the dialysis unit.

Administrator

The administrator is responsible for the administrative functions of the dialysis unit.

Director of Nurses

The Director of Nurses of the Hemodialysis program. Plans, organizes, and directs the clinical functions of the dialysis department. Is responsible for the overall efficiency and the quality of patient care administered in the unit. Works closely with the Medical Director, Administrator, and the Governing Body.

Registered Nurse

The Registered Nurse (RN) is responsible for administering safe and professional nursing care to the dialysis patients in accordance with the established nursing practice in Texas and applicable regulations. The RN reports to the Director of Nurses.

Primary Nurse

The Primary Nurse is a nurse who assumes special responsibilities to know the most about you, your treatment and your general well-being. She/he will attempt to keep you informed about the dialysis procedures, possible side effects and problems related to kidney failure.

Licensed Vocational Nurse

The Licensed Vocational Nurse (LVN) is responsible for administering professional nursing care to the dialysis patients in accordance with established nursing service standards of practice. She/he works under the supervision of the registered nurse.

Chief Technician (Water and Equipment Technician)

His/her primary responsibility is water treatment and machine maintenance and repair. He/she also responsible for making sure that all the dialysis staff is using the machine and equipment properly.

Social Worker

The Social Worker is a professional with a Masters Degree from an accredited school of social work and is certified in the State of Texas. She/he evaluates your psychosocial needs and makes recommendations accordingly. She/he can also assist you with Medicare, Texas Kidney Health Care Program, transportation and medication problems related to kidney disease and family or personal problems. In addition, when you wish to travel, she/he can assist in making temporary arrangements for dialysis for you at a facility near your destination. She/he must have several weeks notice. If you wish to speak with her/him, ask a staff member to leave her/him a message and she/he will get back to you.

Dietitian

The Dietitian is a professional who has a minimum of a Bachelors Degree in Nutrition and Dietetics and is registered by the state. She/he has an understanding of the renal diet and is qualified to help you understand your diet and to help you understand how the food that you eat affects your monthly blood work. She/he will help you make good choices, using the foods that you like, and still stay within your diet plan.

Administrative Secretary

The Administrative Secretary maintains all the business office functions necessary to operate the dialysis unit. She/he assists in the

admission and orientation of new patients to the dialysis unit. She/he will also be available to answer any billing related questions. Please let her/him know of any changes in your address, telephone numbers, emergency contact, and/or changes in insurance coverage or third party billing. You may stop in the office or call her/him from your home when you wish to speak to her.

YOU, THE PATIENT

Take an active role in your treatment. You can do a lot of things to help ensure that you are getting the most from your treatment, so you can feel better and live longer:

- Know the important numbers that tell how much dialysis you are getting. These include your Kt/V and URR.
- Keep all your dialysis appointments. Arrive on time, stay for the full time prescribed for you, and try not to interrupt your treatments.
- Speak to your dialysis care team if you are having cramps or other uncomfortable feelings during dialysis. Ask what can be done to help.
- Follow your special diet. If you are having a problem, ask your renal dietitian for recipe suggestions to make your meals taste better.
- Take all your medications just as they are prescribed for you.
- Do not exceed your fluid allowances between treatments. Too much fluid weight gain increases the amount of fluid removal you need and may cause symptoms like cramps, dizziness, headaches or nausea during your treatment.
- Avoid salty foods. Too much salt can make you thirsty, and you will want to drink more fluid.
- Ask your doctor about an exercise program that is right for you. Exercising on a regular basis can make you feel stronger.

- Learn the steps to good access care. This can help to keep your access working well longer.
- Learn all you can about your treatment. Speak to your dialysis care team if you have any questions at all. They are there to help you do well on your treatment.

The Kidney and Kidney Failure

How do kidneys work?

The healthy balance of our body's chemistry is due in large part to the work of two organs, the kidneys. These bean-shaped organs are located just above the waist in your back and are partially protected by the ribs. Each kidney is about the size of your fist. Our survival depends on the working of these vital organs.

The major functions of the kidneys are to:

- Rid the body of excess waste products
- Rid the body of excess fluid
- Regulate fluid and chemicals needed by the body
- Regulate blood pressure
- Stimulate the production of red blood cells

The entire blood supply circulates through the kidneys every two minutes. Inside each kidney are approximately one million tiny units called nephrons. Nephrons filter and remove excess fluid, waste products and toxic chemicals from the blood.

The excess fluid and waste products filtered out of the kidneys are excreted as urine, which travels through tubes called ureters into the bladder. The bladder is the storage sac for urine. Urine is eventually carried from the body through the urethra, a tube-like structure leading to the opening from which you urinate.

What happens when your kidneys fail?

Sometimes the kidneys become unable to perform their life-maintaining functions because of disease or physical damage. This is known as kidney or renal failure. There are two types of renal failure, acute and chronic. Acute renal failure is sudden, severe damage to or loss of kidney function. Its causes include severe infections, extensive burns, chemical or drug poisoning, and injury or blockage to the kidneys. This condition can usually be reversed when the source of the problem is eliminated. People with acute renal failure

sometimes go on dialysis to give the kidneys time to recover.

Chronic renal failure is a condition that cannot be reversed or cured. There are different stages of chronic kidney failure. The degree of kidney failure can be measured by blood and urine tests. Some patients with chronic renal failure may be monitored by their doctors for a period of time before they reach end-stage renal disease (ESRD), when medical treatment is needed to help replace lost kidney function. Other patients will progress to this stage in a short period of time.

Symptoms of chronic renal failure include:

- Swelling of face or feet
- Fatigue
- Nausea
- Headache
- Blurred vision
- Itchiness
- Vomiting
- Shortness of breath
- Loss of appetite

Some symptoms are due to the build-up of waste products in the bloodstream that are harmful to the body. This build-up is called uremia. Symptoms may also be due to the accumulation of excess fluid in the body.

Some people with chronic renal failure may keep urinating. Even if you urinate, the amount of waste products in the urine is low and will continue to build-up in the blood without treatment. Periodically, you may be asked to collect your urine over a 24-hour span of time. This enables your doctor to see how much kidney function remains and to set your fluid intake guidelines.

What causes chronic kidney failure?

There are many diseases that can directly or indirectly cause chronic renal failure. Some of the conditions that can damage kidney function are:

- Infection
- Glomerulonephritis
- High blood pressure
- Arteriosclerosis
- Diabetes
- Polycystic kidney disease
- Kidney stones
- Congenital abnormalities of urinary system
- Obstructions of urinary system
- Trauma (physical injury)
- Toxins

Ask your doctor or patient care staff for more information about the causes of renal failure.

MEDICAL PROBLEMS RELATED TO KIDNEY FAILURE

Many changes in the appearance and function of the body take place with kidney failure. As a result of renal failure, you may develop other medical problems. You can help avoid these disorders by following your dialysis schedule, diet, and medication routine. And, by understanding their signs and symptoms, you can report problems before serious complications occur. Common changes and problems are discussed in the following paragraphs.

High Blood Pressure (Hypertension)

When blood pressure is consistently above normal, this condition is known as high blood pressure or hypertension. High blood pressure can be both a cause and a complication of kidney disease. Symptoms include headaches and blurred vision.

Adequate control of blood pressure is necessary for any patient on hemodialysis. As blood pressure climbs, so does the risk of heart disease and stroke. Persistently high blood pressure can over work the heart to such a degree that congestive heart failure develops.

In chronic renal failure, hypertension is often related to fluid excess. As sodium and fluids accumulate in your body, your blood pressure elevates. So it is extremely important that you control your sodium and fluid intake, which your dietitian will instruct you on. Your physician may also prescribe medication to help control your blood pressure.

Anemia

Anemia is a low red blood cell count. This condition is common in dialysis patients because of decreased production and shortened life span of red blood cells, and small amounts of blood loss with each dialysis treatment.

Symptoms of anemia include:

- ❖ Lack of energy
- ❖ Easily tired

- ❖ Shortness of breath, chest pain
- ❖ Increased irritability

The degree of anemia is determined by measuring hematocrit, the percentage of red blood cells in the blood, and hemoglobin, a portion of the red blood cell that carries oxygen. The hematocrit is maintained at a level prescribed by your physician. Some patients can tolerate low hematocrits without having any symptoms. But if symptoms of anemia do occur, notify your physician.

To treat anemia, vitamins, iron and medication may be prescribed. Some patients may need blood transfusions. Another treatment is the drug that acts as erythropoiesis stimulating agents or EPO. This medication acts like the hormone by the same name. It simulates red blood cell production and lessens anemia. EPO thereby improves energy levels and may also reduce the need for transfusions. Women on this medication may start getting menstrual periods again. Your physician will determine the appropriateness of EPO therapy for you based on your medical history.

Pericarditis

Patients who are extremely ill with uremia (retention of nitrous waste products) may develop pericarditis, an inflammation of the membrane or sac that surrounds the heart. It causes persistent pain in the center of the chest that may be reduced by sitting up and increased by deep breathing. If you experience these symptoms, report them to your doctor immediately.

Your doctor may order nerve conduction studies (NCV) to determine the amount of nerve damage and differentiate between neuropathy and CTS.

Itching

Inching, also known as pruritus, may develop in kidney failure patients along with dry skin. Itching may be a result of waste buildup or hyperparathyroidism. Adequate dialysis, removal of the

parathyroid glands, or medical treatment of hyperparathyroidism should improve these conditions and eliminate itchiness. The sudden onset of itchiness may be a result from an allergic reaction to a medication you are taking. You should report this to your physician who will prescribe appropriate treatment.

Sleeping Problems

A common problem among patients with kidney failure is the inability to sleep (insomnia). Its cause is not known, but the emotional stress and strain of undergoing dialysis may be a contributing factor. Discuss this problem with your doctor and social worker.

Bleeding Abnormalities

Bleeding abnormalities in individuals with chronic renal failure are due to very complex blood factor changes. Bleeding problems can be avoided with consistent and effective dialysis. Symptoms include easy bruising, gastrointestinal bleeding, blood in stools or black tar-like stools, nosebleeds and excessive bleeding after shaving or nicks. If any of these symptoms occur, notify your physician.

Aspirin affects the body's clotting mechanism and increases your risk for bleeding. Don't take aspirin or any drug containing aspirin such as Anacin, Alka Seltzer or Bufferin unless directed by your physician.

Reproductive System Changes

Changes in your reproductive system occur as chronic renal failure progresses. Women with kidney failure often have irregular periods or stop menstruating. Some have periods that are excessive in flow, or last longer than usual. This situation is likely to be worsened by heparin during dialysis, and heparin doses may have to be changed during menstruation. Since excessive blood loss must be avoided, tell your physician if this problem occurs.

Weight Gain

Rapid weight increases between dialysis treatments; such as five to

six pounds (two to three kilos) between treatments are due to consuming and retaining fluids. You should strive to keep your weight gain at or below the limit set by your physician. This will be an amount that can be easily removed during dialysis. Rapid weight gains can result in swelling, shortness of breath, high blood pressure or congestive heart failure.

To help you monitor your fluid and salt intake, you will be given an “ideal” or “dry” weight. This is the weight you will reach after all excess fluid has been removed, and is the target weight at which you should come off dialysis. Your dry weight is also monitored by the patient care staff to assess the effectiveness of your dialysis treatment.

DIET

Your doctor will prescribe the diet, which is best for you. Protein, sodium, potassium, phosphorus, and fluids must be controlled. The dietitian will work with you to develop a diet plan, which will meet your food preferences and lifestyle as much as possible.

THE DIALYSIS ACCESS: YOUR LIFELINE

Before a patient can be dialyzed they must have an access. The usual types of accesses are described as follows:

The *Subclavian Catheter* or *Internal Jugular* is a single catheter with two ports. It is made out of a synthetic material and is inserted from the front shoulder area into the subclavian or jugular vein by the physician. The catheter is used as a temporary access in acute and chronic situations. The catheter can be left in place between dialysis treatments without affecting the patients' ability to move about. The dialysis nurses are the only nurses who can care for this catheter. If you have a catheter in place, you are not allowed to take a shower. You must use extreme care when washing your hair. The dressing must not get wet. This is to prevent infection at the catheter exit site. If the dressing becomes loose, do not remove it. You may reinforce it with additional dressings. You are allowed to take sponge baths. The *A.V. Graft* is a tube made out of synthetic material. It is surgically implanted under the skin and connects an artery to a vein. Most of the time the graft is placed in the forearm or upper arm and occasionally it is placed in the thigh area. The A.V. graft is ready to use when the swelling subsides—usually about 5 to 10 days. During this time, we encourage our patients to elevate their limb on 1 or 2 pillows to help reduce the swelling.

The *A.V. Fistula* is the preferred. It is surgically created by sewing an artery to a vein. The pumping action of the artery causes the vein to "arterialize" or grow big enough to accommodate the dialysis needles and blood flow rate. This may take from a few weeks to several months. This process can be helped along by having the patient squeeze a soft rubber ball with the affected hand.

Some things to remember about your fistula or graft:

1. Do not allow anyone to take blood pressure or draw blood in that arm.
2. Do not wear anything tight on that arm, such as a watchband or clothing with elastic or bands.
3. Try not to sleep lying on that arm.
4. Do not hang that arm out of the car window.

These things can cause your graft/fistula to clot off.

To maintain longevity in your vascular access (whether it is a graft or fistula), you should begin by checking your access daily.

What are you checking for?

You are checking your access for patency and signs of infection. The sooner you notice changes in your access, the sooner you can alert the staff and we can notify your doctor.

What does patency mean?

It means your access is working and is not clotted. If your access is clotted upon arrival to the unit then you will be unable to have your dialysis at that time. It may mean having a central access line put in. This will delay your dialysis by several hours. But, if you discover that your access is clotted between treatments, notify the staff at the unit. We will be able to check it and notify your doctor if there is a problem.

How do you check for patency?

Take your fingertips and place them gently on your access near the anastomosis (surgical site). What you are feeling for is a buzzing or a constant vibration on your access. This buzzing is called a "thrill". A thrill indicates that your graft is working (patency). An access that does not have a thrill may be clotted or have a decreased flow of blood. Your primary nurse can show you how to do this. This must be checked several times per day.

When you are admitted to the unit, make sure the staff member taking care of you checks your access before they begin cleaning it.

Be sure to check for signs of infection. Signs of infection may include redness, swelling, warmth in an area, increased tenderness, and maybe drainage. If you notice drainage or any signs of infection from your access, notify the unit immediately.

Please remember to allow the staff to rotate your needle stick sites to maintain the long life of your access.

As a hemodialysis patient you should also know which side of your graft is arterial and which side is venous. If you don't know or are not sure ask your nurse.

For your safety, keep your access visible during treatment at all times. This will ensure that accidental bleeding is detected immediately.

TREATMENT OPTIONS

There are several types of treatment options available for patients with ESRD (End Stage Renal Disease). If you have any questions about your type of treatment, please ask one of the staff and they will answer them for you.

Interim Hemodialysis

Interim Hemodialysis is provided for patients requiring treatments on a temporary basis. Individuals treated by chronic hemodialysis are assigned specific days and times for their treatments. Treatments are usually three times per week, either Monday/Wednesday/Friday or

Tuesday/Thursday/ Saturday. Each treatment generally lasts 4 hours. An individual's place in the treatment schedule generally remains constant.

In Center Hemodialysis

In-center hemodialysis is when a person goes to a dialysis center for their hemodialysis treatments. Hemodialysis is a treatment that filters the blood of wastes and extra fluid when the kidneys are no longer able to perform this function.

Some people prefer to go to a dialysis center for treatment because: treatment is administered by trained renal professionals, they enjoy being around and interacting with fellow dialysis patients , and dialysis is only three times a week; so there are four free days.

Home Assisted Hemodialysis

Our facility offers Home assisted Hemodialysis performed one on one by Trained Licensed Staff in the patient's home. There are currently 2 types of treatment that can be performed at home, hemodialysis and peritoneal dialysis. The treatment is performed by a staff member of LSHD Facility. The approval process for our home assisted program can be determined by calling our Billing Manager, Adrian Brown, at 713-861-7500. We are one of the few facilities in the Houston metroplex that provide this exclusive care.

Nocturnal Dialysis

In-center nocturnal dialysis is performed three times per week overnight. The longer, slower treatments are gentler on the body resulting in clinical benefits for the patients as compared to traditional in-center dialysis. In general, after patients start nocturnal dialysis they have more energy, an improved appetite and take fewer medications. Other benefits include treatments during inactive sleep time, so patients are often able to work during the day.

Peritoneal Dialysis

The patient and partner are trained by the licensed home peritoneal dialysis nurse and physician in the safe environment of the facility. A

staff member is on call 24 hours, seven days a week for support. We have private rooms to train each patient and family as if they are in the comfort of their home. Most patients, who learn about peritoneal dialysis, love it due to the independence of self-care and minimum visits in the facility.

Transplantation

Kidney transplantation is an excellent option for many patients on dialysis. Not only can it free the patient from the reoccurring burden of regular dialysis treatments but also it can lead to significant rehabilitation and improved quality of life.

There are few absolute contraindications to transplantation and these can be best discussed with the transplant center. We (the doctors, nurses, technicians, social worker, and dietitian of LSHD) strongly recommend that you call a transplant coordinator for more information if you have any interest at all. If you have questions, you may discuss it with your primary nephrologist or the nursing staff.

The following are Transplant centers in the Houston area:

UTMB-Galveston
(John Sealy Hospital)

(409) 772-1451 Transplant
(800) 323-4109 Patient info.

Hermann Hospital

(713) 704-4000 main hospital
(713) 704-4071 transplant

Methodist Hospital

(713) 441-5451 main hospital
(713) 441-8900 referral number

St. Luke's Hospital

(713) 785-8537 main hospital
(832) 355-3128 transplant

Your care team member can give you more information on each of the options discussed above. Please let them know if you have any questions.

No Treatment

It is every person's right to choose if they want dialysis or not. A person may choose not to start dialysis when they are first diagnosed, or may later decide to stop dialysis. If either of these decisions are made, the person will die without treatment. If a kidney failure patient decides to stop dialysis, the treatment team will meet with that person and their family to be sure that the decision has been well thought out.

PLAN OF CARE

Your plan of care defines the treatment alternatives that have been chosen for you and the reasons for choosing them. This plan is developed by the nephrologists, nurses, social worker, and dietitian based on your laboratory values, experience during treatments, medical or social conditions and needs, your requests, and other matters deemed significant in your treatment. You are the most important part of this process, therefore are encouraged to participate by attending the meeting when the plans are discussed. The plans for your care will be explained to you and you should talk to your team if you have any concerns or requests regarding it. If you are not able to attend the meeting in person or by phone, the plans will be shared with you. The plans of care are evaluated every month and revised if any changes are needed. A copy of your treatment plan is kept in your medical record and you can request to review by letting your Director of Nurses know.

MEDICATIONS

It is important to know the names of your medications and why you are taking them. Many medicines are removed from the body by the kidneys. Since your kidneys are not working properly you should ask your nephrologist before you take any over-the-counter medicines because they might not be safe for you. You will be asked to bring in your medications at least every month for the nurses to check and review with you. It is your responsibility to bring them when asked.

Phosphate Binders

Calcium Carbonate preparations (TUMS)

Calcium Acetate preparations (Phos-Lo)

Sevelamer hydrochloride (Renagel)

Lanthanum Carbonate (Fosrenal)

These medications are prescribed for dialysis patients to lower their serum phosphorus and aid in calcium/phosphorus control. They are taken around mealtime and bind with the phosphorus in the food you eat and you eliminate it in your stool. It is important to take these pills as your physician directs.

Antihypertensives

Medicines to control high blood pressure. Some examples of antihypertensive medications are:

Clonidine

Minipres

Minoxidil

Inderol

Catapres

Vasotec

Most of our hemodialysis patients do not take their blood pressure pills before their dialysis treatment. Usually these pills cause the blood pressure to drop and this interferes with the dialysis treatment. Your physician will tell you if he wants you to take your blood pressure pills before dialysis.

Aspirin

Aspirin is not to be taken by the dialysis patient unless the nephrologist specifically orders it. Dialysis patients are usually requested to take Tylenol for pain relief instead of aspirin. Aspirin can cause bleeding in the stomach or intestine. Occasionally the nephrologist will order an aspirin for clotting problems in the graft, or for certain heart conditions.

Stool Softener

Surfak

Colace

These medications are ordered to soften the stool. They work by drawing fluid into the stool. Stool softeners usually work best if they are taken on a regular basis.

Vitamins

Folic Acid

Iberet Folic

Others...

Vitamins are given to replace the vitamins that are lost through dialysis. It is best to take these after dialysis in order to get the most benefit from them.

Iron Preparations

Ferrous Sulfate

Chromagen

These are oral iron preparations given to increase the iron levels in your blood.

Intravenous Iron

When the doctor feels it is necessary, he might order Iron replacement. This intravenous iron preparation is given during your dialysis treatment. It is usually ordered for several doses depending on your need. While you are receiving IV iron therapy, do not take oral iron preparation. After the IV iron course is completed, you can resume your oral iron tablets.

Anticoagulants

Heparin is used during your hemodialysis treatment to prevent your blood from clotting in the dialyzer. It is important that you report any bleeding at home or scheduled surgeries to your nurse as your heparin dose may need to be adjusted.

Epogen/Aranesp

Epogen, a synthetic form of erythropoietin may be given during the dialysis treatment if the doctor prescribes it. It helps to elevate the red blood cell count and reduce the symptoms of anemia.

Antibiotics

Keflex

Penicillin

Bactrim

Cipro

Vancomycin

Others...

These medications are prescribed to treat infection. It is important to take them as the doctor orders and finish the whole prescription. Please report any unexpected response to the antibiotics to your physician.

Gentamicin, Tobramycin, Vancomycin are just a few of the intravenous antibiotics that might be prescribed to treat infections. These are given either during or after your treatment according to the doctor's orders.

IMPORTANT- if you know you are allergic to an antibiotic or any other medications, please let the nursing staff know so they can make a note of it on your chart.

BLOOD WORK AND ANCILLARY TESTS

Blood work and other tests performed routinely will reflect the effectiveness of your dialysis treatment and how well you are responding to your diet and medications. A group of blood tests are done monthly to monitor the levels, or values, of certain substances in your blood.

Blood values have several purposes. They help your physician determine the length of your dialysis treatments, frequency of treatment, and dialyzer size. They are also used to determine which medications or diet changes may be needed. The results may indicate when more extensive testing is needed to evaluate problems. Your physician, nurse, or dietitian will review your lab results with you each month. Listed in the following chart are some of the tests that are used to monitor your progress. You can control the results of some of these tests through diet.

Test	Short Name	Frequency	Reason for Test
Hematocrit	Hct or Crit	Every 2 weeks	Measures the percent of red blood cells in the blood.
Blood Urea Nitrogen	BUN	Monthly	Measures urea nitrogen waste products in the blood that result from metabolizing protein. BUN can be an indicator of protein intake.
Albumin	Alb	Monthly	Measures protein substance that indicates nutritional status.
Creatinine	Creat	Monthly	Indicates toxin levels in the blood.
Calcium	Ca+	Monthly	Abnormal levels may indicate too much or too little calcium.
Phosphorus (phosphate)	PO4	Monthly	Elevated levels can indicate improper absorption of calcium. Consumption of too much phosphorus or inadequate intake of phosphate

			binders.
Potassium	K+	Monthly	Essential element of blood. High or low levels could adversely affect heartbeat.
Sodium	Na+	Monthly	Essential element of blood. Low levels can cause muscle cramping; high levels can cause high blood pressure and/or excessive thirst.
Hepatitis B Antigen	HBsAg	Monthly	Shows if patients have been infected with hepatitis B virus.
Urea reduction ration	URR	Monthly	Shows how well your dialysis treatments are doing their job.

The following are ancillary tests, which are performed as directed by your physician:

Chest X-rays are taken to monitor the status of your heart and lungs. They also aid in the determination of fluid overload due to inadequate fluid removal over a period of time.

An **electrocardiogram** (EKG) measures the electrical impulses of the heart. It can help in determining heart irregularities, potassium and calcium abnormalities, pericarditis and heart attack.

INFECTION CONTROL

Because hemodialysis processes are invasive (require entering the blood stream), they provide a way for bacteria and viruses to enter the body and potentially cause infections. This facility's procedures are designed to protect you and the dialysis staff from the spread of infections. There are fully trained infection control procedures including frequent hand washing and wearing protective eyewear, masks and gloves.

Here are a few things you can do to prevent infection and from spreading infection to those around you:

- If you can, wash your access arm with soap and water as you come into the treatment area right before your treatment.
- Always wash your hands carefully after you get off the machine, after using the bathroom, and before and after eating.
- If you are about to sneeze or cough, turn your head away from anyone near you. If possible, use a tissue to cover your nose and mouth and throw it away when you finish.
- Maintain good personal hygiene.
- It is recommended to only consume 2 cups (16 oz.) of fluid during your dialysis treatment.
- Never share food or drink and always throw your trash in the wastebasket.
- No smoking is allowed in the dialysis unit.
- If a family member assists in dialysis procedures, which result in contact with blood or body fluids (an example is holding the patients access sites to stop bleeding after dialysis), they will be required to wear protective eyewear, masks, and gloves.

ISOLATION PRACTICES

Patients with certain infections are also required to be isolated or separated from the general patient population. Patients infected

with Hepatitis B or Tuberculosis are required to be treated in a separate room. This facility does not have an isolation room to treat a Hepatitis B patient but has an agreement with another facility in the area. Patients with Tuberculosis are treated in the hospital. Patients with open and draining wounds or infected with bacteria that are resistant to common antibiotics will be treated within the facility as far away as possible from the other patients and away from the flow of traffic. These isolation practices are practiced in the facility based on Centers for Disease Control recommendations.

The Hepatitis B Vaccine

Dialysis patients are at an increased risk for the Hepatitis B virus, an infection that can damage or destroy the liver. A vaccine is available, but may have limited effect for some dialysis patients. Your physician will determine if it will be effective for you.

(See Hepatitis B Vaccine Information Sheet for more detailed information)

What is Hepatitis B?

- Hepatitis B is a viral disease of the liver that infects approximately 200,000 to 300,000 people in the United States annually.
- The primary mode of transmission of the virus is blood.
- The Hepatitis B virus is tough; it can survive for at least a week on surfaces contaminated with dried blood.

Who should receive the vaccine?

- HDC recommends that all dialysis patients without current Hepatitis B antibody protection be offered the vaccination.
- It is highly recommended that individuals with renal disease receive the vaccine since:
 1. The possible exposure to blood during the dialysis treatment places the dialysis patient at higher risk.
 2. The immune systems, which can fight off viruses, are frequently weakened in a person with chronic illness.

- Many people are currently receiving the vaccine. For example, in some states, it is now required for all children entering kindergarten to receive the series.

What is involved in receiving the vaccination?

- The vaccine is given in a series of 4 administrations. The second administration is given 1 month after the initial administration; the third administration is given 2 months after, and then the fourth administration after 6 months.
- Each administration involves 2 intramuscular (IM) injections, 1 in each arm.
- If, a year after receiving your series, your blood test shows that your antibody level for Hepatitis B remains low, a booster injection may be given.
- You will be asked to sign a consent form before the series is started.

Are there side effects/complications to the vaccine?

- The injection site may become tender & you may experience fatigue or a low-grade fever.
- You should not receive the vaccine if you are allergic to yeast.
- If you have further questions, please ask your physician.

PNEUMOVAX AND FLU VACCINE

Dialysis patients are recommended to receive the Flu and Pneumonia vaccine regularly. Your physician will prescribe the vaccines as clinically indicated.

PATIENT BENEFIT INFORMATION

1. If you do not have Medicare, please call the Social Security Administration office to apply for End Stage Renal Disease (ESRD) Medicare within the next seven (7) days. The telephone for the Social Security office is (800)-772-1213. Please write down the name of the local Social Security office your case is assigned to and bring this information to the Social Worker within ten (10) working days.
1. Please bring all private insurance cards (including prescription cards) to the Secretary before your first or second treatment/training session.
1. Please bring your Medicare card, Medicaid sheet, QMB sheet, and/or SLMB sheet to the Secretary before your first or second treatment/training session. The Medicare phone number is (800)-MEDICARE. The Medicaid phone number is (800)-500-4266.
1. Please bring your Social Security card and Texas Driver's license or Texas identification card to the Secretary before your first or second treatment/training session. If you do not have your Social Security card, you may call the Social Security Administration office at (800)-772-1213 and request a new card
1. The State of Texas offers a Kidney Health Program to assist chronic dialysis and renal transplant patients with round trip mileage and non-insured covered medications. Your family's adjusted gross income must be less than \$60,000 per year. The Social Worker and Secretary will assist you when applying for this program. Please clock your round trip mileage and determine your exact income if you are interested in applying for this program. The phone number for the Texas Kidney Health Care program is (512)-458-7150.

The above information is requested for Lone Star Home Dialysis, Inc.

to assist you with obtaining your benefits in a timely manner.

Copies of the above information will be copied and placed in your chart. Our Secretary is available at the business office Monday through Friday from 9:00 am to 5:00 pm.

If you have any changes in insurance, please call the the Social Worker at: (936) 271-9442.

PATIENT RESOURCES

There are many national and local organizations that provide information and services to kidney patients and their families. A few of these are listed here.

AAKP (The American Association for Kidney Patients) is a patient organization with chapters across the country. Their services include sponsoring groups, acting as patient advocates, and educating patients and the public. AAKP publishes the quarterly magazine *RenaLife*, which features accounts of personal experiences and news of interest to kidney patients. For more information, contact: AAKP, Davis Blvd, Suite LL1, Tampa, FL 33606
(800)-749-2257

The American Kidney Fund, Inc. (AKF) is a non-profit organization that serves as a financial resource for kidney dialysis and transplant patients in need of assistance. In addition, AKF provides community services, and public and professional education about kidney disease. Pamphlets are available free from AKF in English and Spanish.

For more information, contact: American Kidney Fund, 6110 Executive Blvd, Rockville, MD 20852. (800) 638-8299.

The ESRD Network was established in 1977 by the federal government to act as a liaison between the government and the dialysis community. The United States is divided into 18 geographical regions, each of which has a Network Council. The purpose of the network is to oversee administration of benefits to kidney patients, review dialysis and transplant facilities, and collect data. Network Councils are also a source of information about kidney disease and treatment for patients.

Local Organizations

There are many organizations that serve individuals with chronic renal failure who live in particular towns or parts of the country. Check with your social worker about what is available in your area.

Medic Alert Foundation

Medic Alert offers, for a fee, necklaces and bracelets with the international Medical Alert emblem on the front and the wearer's medical problem and identification number engraved on the back. In the event of an emergency, more detailed information about your medical history and the name of a contact can be obtained by calling a Medic Alert number.

To obtain an application or order by phone, contact:
Medical Alert Foundation, PO Box 1009, Turlock, CA 95381-1009.
(800) ID-ALERT/ (800)-432-5378.

The National Kidney Foundation (NKF) is a nonprofit organization with 50 affiliates and local chapters nationwide. NKF's goals are to prevent diseases of the kidney and improve the care and treatment of individuals with these diseases. Their programs include research, public information, professional education and patient and community services. NKF has an extensive list of publications available to the public.

For more information contact: The National Kidney Foundation, 30 E. 33rd Street, New York, NY 10016.
(212) 889-2210 or (713)-952-5499.

The National Kidney and Urological Disease Information Clearinghouse (NKUDIC) is a resource and referral service for patients and health professionals. It was established in 1987 as a service of the National Institute of Diabetes and Digestive and Kidney Diseases, part of the National Institutes of Health. NKUDIC collects, manages, and distributes information with a focus on patient education materials. Reprints of articles, fact sheets, pamphlets and mini-bibliographies that address specific topics are available, many of them free of charge.

To request information or find out more about NKUDIC, contact:
National Kidney and Urological Diseases Information Clearinghouse,
Box NKUDIC, Bethesda, MD 20892.
(800)-891-5390

FACILITY GUIDELINES, RULES AND STANDARDS OF CONDUCT

As a patient of this facility, you are expected to observe the following rules:

Transportation: Patients are responsible for providing their own transportation to and from the dialysis unit. We provide parking for patients and employees. Please be considerate when parking your car. There is adequate parking if everyone is courteous. If you have a problem with transportation, please speak with the Social Worker. She may be able to help you with other arrangements.

Phone: A phone is available through the receptionist. Phones are for emergency calls and brief local personal calls. Inform your family not to call into the dialysis unit unless it is an emergency. The nursing staff will call them if you experience any problems.

Waiting Room: The waiting room is for your convenience, and your help is appreciated in reducing crowding by encouraging your

visitors to come for a short time unless necessary to stay throughout your treatment/appointment time. Unfortunately, children cannot be brought to the clinic and left unattended in the waiting room or remain during the treatment/appointment.

Visitors: If you are doing interim dialysis in the clinic, you are allowed to have visitors here while you are on dialysis, but we do ask that visitors check with the receptionist before going into the clinic. Visitors may stay in the unit only for limited periods of time, but **not during initiation and termination** of your treatment. This is a very busy time, and there are no exceptions. Visitors under the age of 12 years are permitted in the treatment area only with the permission of the nurse in charge. Please do not plan to baby-sit children in the waiting room. You are unable to be responsible for them while you are on the machine, and the staff cannot assume these responsibilities for you.

Dialysis/Clinic Appointments: For Home Assisted Hemodialysis Patients, you will have a set schedule with your nurse who does dialysis in your home. If, due to unusual circumstances, you require special scheduling, check with your nurse or the Director of Nursing to see if your appointment can be rescheduled. Please schedule other appointments around your dialysis schedule, if possible. If for any reason, you must cut a treatment short and it has not been previously approved by your physician, you must sign an Against Medical Advice form, which states that you assume responsibility for any consequences of shortening the treatment time. If you are missing your treatment due to a hospitalization, please let us know if you can.

For Peritoneal Dialysis Patients, at minimum you will have one clinic visit a month. We ask that you please come to your appointment on time as the clinic can get busy and this will help us keep an orderly flow. If you need to reschedule an appointment or are running late please make a courtesy call to inform the nurses.

When you come for your first appointment, bring all medical

insurance cards (Medicare, private insurance, etc.) so we can photocopy them for our records. It is your responsibility to notify the facility if your insurance changes.

Smoking: Smoking is not permitted within the building.

Restroom Breaks: Due to the importance of dialyzing your full scheduled time, it is not our policy to terminate or shorten treatment time for restroom use. Please try to use the restroom before treatment is initiated. If you have problems such as diarrhea, alert the nurse before dialysis.

Home medications: Bring any routine medications you take during the hours you are in the clinic with you. We only keep emergency medications in the unit.

Clothes: Wear comfortable, washable, loose-fitting clothes with short or very loose sleeves when you come to do interim hemodialysis in the center. You may carry a change of clothing with you in case your clothing becomes soiled.

Food: Patients are allowed to bring food items to the dialysis center to consume during their dialysis treatment. These food and beverage items should follow the recommended renal diet plan discussed with the dietitian. The smart snack items listed below do not contain sodium, potassium, or phosphorus. These include: unsalted pretzels, popcorn, dry cereal, graham crackers, poptarts, bagel with cream cheese, apples, peaches, grapes, apple juice, grape juice, Sprite, lemonade, Lifesavers, and/or chewing gum. We recommend that you only consume 2 cups (16oz.) of fluid during your dialysis treatment. There can never be sharing of any food between patients and/or staff.

Violence: The facility has zero tolerance for violence. Weapons are not permitted in the facility. Patients shall not engage in threatening remarks or behaviors or other inappropriate conduct directed to

staff, physicians, visitors, or other patients. Patient's expression of verbal or physical threat toward staff member, visitors, or other patients can be grounds for immediate discharge.

ABUSE, NEGLECT, AND EXPLOITATION

Patients have the right to be free from mental, physical, sexual and verbal abuse, neglect and exploitation. LSHD Facility has a responsibility to protect patients from known real or perceived abuse, neglect or exploitation from anyone, including staff members, students, volunteers, other patients, visitors or family members. LSHD mandates that, under the guidance of applicable laws, any healthcare worker having reasonable cause to believe that any person is in the state of abuse, exploitation or neglect shall report the information to the appropriate regulatory agency.

Abuse includes involuntary seclusion, intimidation, humiliation, harassment, threats of punishment, deprivation, hitting, slapping, pinching, kicking, any type of corporal punishment, any sexual contact without informed consent, sexual harassment, verbal abuse, or any oral, written, or gestured language that includes disparaging or derogatory terms, regardless of the person's ability to hear or comprehend.

Exploitation includes a caretaker's using the resources of an elderly or disabled person for monetary or personal benefit, profit, or gain.

If you suspect a problem, discuss the matter with the LSHD administrator. If you are aware of specific acts of abuse, neglect, or exploitation, you are required by law to report it by calling the Texas Department of Aging and Disability Services (DADS) at 1-800-458-9858. Otherwise, call The Department of Family and Protective Services (DFPS) at 1-800-252-5400.

ELDERLY BILL OF RIGHTS

LSHD takes seriously the rights of our patients, including additional rights of person above the age of sixty.

§ 102.003 Texas Human Resources Code says:

- (a) An elderly individual has all the rights, benefits, responsibilities, and privileges granted by the constitution and laws of this state and the United States, except where lawfully restricted. The elderly individual has the right to be free of interference, coercion, discrimination, and reprisal in exercising these civil rights.

- (b) An elderly individual has the right to be treated with dignity and respect for the personal integrity of the individual, without regard to race, religion, national origin, sex, age, disability, marital status, or source of payment. This means that the elderly individual:
 - (1) has the right to make the individual's own choices regarding the individual's personal affairs, care, benefits, and services;
 - (2) has the right to be free from abuse, neglect, and exploitation; and
 - (3) if protective measures are required, has the right to designate a guardian or representative to ensure the right to quality stewardship of the individual's affairs.

ADVANCE DIRECTIVES

A living will allows you to document your wishes concerning medical treatments at the end of life.

Before your living will can guide medical decision-making two

physicians must certify:

- You are unable to make medical decisions,
- You are in the medical condition specified in the state's living will law (such as "terminal illness" or "permanent unconsciousness"),
- Other requirements also may apply, depending upon the state.

A medical power of attorney (or healthcare proxy) allows you to appoint a person you trust as your healthcare agent (or surrogate decision maker), who is authorized to make medical decisions on your behalf.

Before a medical power of attorney goes into effect a person's physician must conclude that they are unable to make their own medical decisions.

In addition:

- If a person regains the ability to make decisions, the agent cannot continue to act on the person's behalf.
- Many states have additional requirements that apply only to decisions about life-sustaining medical treatments.
- For example, before your agent can refuse a life-sustaining treatment on your behalf, a second physician may have to confirm your doctor's assessment that you are incapable of making treatment decisions.
- Advance directives are legally valid throughout the United States. While you do not need a lawyer to fill out an advance directive, your advance directive becomes legally valid as soon as you sign them in front of the required witnesses.
- Emergency medical technicians cannot honor living wills or medical powers of attorney. Once emergency personnel have been called, they must do what is necessary to stabilize a person for transfer to a hospital, both from accident sites and from a home or other facility. After a physician fully evaluates the person's condition and determines the underlying conditions, advance directives can be implemented.
- One state's advance directive does not always work in another state. Some states do honor advance directives from another

state; others will honor out-of-state advance directives as long as they are similar to the state's own law; and some states do not have an answer to this question. The best solution is if you spend a significant amount of time in more than one state, you should complete the advance directives for all the states you spend a significant amount of time in.

- Advance directives do not expire. An advance directive remains in effect until you change it. If you complete a new advance directive, it invalidates the previous one.
- You should review your advance directives periodically to ensure that they still reflect your wishes. If you want to change anything in an advance directive once you have completed it, you should complete a whole new document.

Please let your social worker know if you are interested in or have questions about advance directives.

INVOLUNTARY DISCHARGE AND TRANSFER

It is the facility's policy that a patient will be transferred or discharged only for medical reasons, for the patient's welfare or that of other patients or staff members, or for nonpayment of fees. A patient shall be given 30 calendar days advance notice to ensure orderly transfer or discharge, except in cases where the patient presents an immediate risk to others. We will also report to our ESRD discipline of action taken.

EMERGENCY TREATMENT

Sometimes a dialysis patient will experience a medical emergency, or the forces of nature will interfere with patient's regular dialysis treatments. Below are guidelines for these events.

It is the policy of the dialysis unit to have the patient and/or family, name a person to be notified in case of emergency. The unit will make every effort to notify the appropriate person of any significant change in the patient's condition. The dialysis unit has written

procedures to follow in case of a medical emergency, and all patient care staff are trained and certified in basic cardiopulmonary resuscitation. If the patient is not at the unit and needs emergency medical services (911) should be called to take to the patient to a hospital emergency room.

PLANNING AHEAD FOR A NATURAL DISASTER

LSHD, Inc has developed procedures to be followed by patients and staff in case of fire; natural disaster such as earthquake, tornado or hurricane; or other emergency. The staff is instructed on all aspects of the disaster procedures. Patients and staff on each shift take part in evacuation drills on a routine basis. Patients are also instructed in appropriate natural disaster procedures. Knowing what to do in case of an emergency will make you feel more secure if one should occur. If a disaster happens in your area, stay indoors and listen to your emergency broadcast system. In a large-scale disaster, you may not be able to get to the dialysis unit, and you may need to follow an emergency plan.

To prepare for an emergency, you should:

- Get and wear a medical emblem. This will alert medical personnel to your special needs. Medic Alert Foundation, found in the “Resources” chapter of this handbook, is one source for an emblem. If you need help getting an emblem, ask your social worker.
- Keep a current list of your medicines and dosages and carry it with you. Keep a two-week supply of medicines at home, and check them periodically for expiration dates. If you work, keep a seven-day supply of medicines at your job.
- Keep emergency supplies in a secure place. Supplies should include a battery-powered AM/FM radio and extra batteries; and a flashlight with extra batteries, or candles and matches. For a complete list of emergency items, contact your local police or fire department.

If able, call us for instructions on where to go for your treatment or for possible schedule changes. The alternate phone number for the facility is **(832) 247-9082**. You should only call this number if the facility's regular phone is not working. If you can't get to your dialysis center, be prepared to manage without dialysis for a period of time using the Emergency Meal Plan (in this book). The dialysis unit will help you make other dialysis arrangements if necessary. Keep in close contact with the staff so they can advise you.

Find out what the emergency broadcast system is in your area. The dialysis unit will broadcast emergency messages to its patients via KTRH 740 AM. And TV stations 2, 11, and 13. If you are unable to contact the dialysis unit by phone for information, tune to the emergency broadcast system. During a major disaster, local transportation may not be running or may be irregular. Patients should be prepared to arrange their own transportation to dialysis if this happens.

Your dialysis orders may change in a severe disaster. The dialysis unit may need to use emergency orders, which may include a different type of dialyzer and a shorter treatment time.

The dialysis unit has a procedure for emergency evacuation. If you are dialyzing and a disaster occurs, the dialysis staff will direct you in the procedure to evacuate. They will assist you in getting off the dialysis machine as quickly as possible. The dialysis lines will be clamped, and cut if necessary, and your needles will usually be left in place. The staff will direct or assist you to the evacuation meeting place where you will be evaluated by clinical staff. The meeting spot is located in the front parking lot near the white light pole.

Diabetics

- Keep extra batteries for your blood sugar tester.
- Have extra insulin and syringes.
- Keep a supply of glucose tablets, juice boxes and hard candy in case of low blood sugar reactions.

EMERGENCY MEAL PLAN AND GUIDELINES

The emergency meal plan and guidelines below are for in the event of a natural disaster or any emergency where dialysis is not available for a short period of time, including times when weather conditions are too severe for safe travel. This daily diet is stricter than the “normal” renal diet. It gives you safe suggestions until dialysis is available.

If you are diabetic, ask your doctor about how to adjust your insulin dosage during emergency situations. Also, talk with your dietitian about how to adjust the Emergency Meal Plan and high calorie choices to fit your diabetic diet.

Emergency Meal Plan

- 2-3 ounces salt-free canned meat
- 2-4 serving of bread choices
- 1 serving of canned vegetables
- 3 servings of fruit
- 1/3 cup evaporated, whole, canned milk
- High calorie foods as desired
- Limited intake of beverages

If your stove and oven are working, you may use fresh or frozen meat and vegetables. If your refrigerator is running, use fresh milk. Reduce your fluid intake to about one-half of your current intake. If you routinely go over your fluid limit, cut back even more.

If the electricity is not working, open your refrigerator only when absolutely necessary. It's best to eat foods from your refrigerator first, and then foods that have a longer shelf life.

Once you have opened a can of tuna fish or chicken, use only the amount you need immediately and throw away the rest unless the

item can be refrigerated at the right temperature.

High calorie foods should be chosen from those allowed in your usual renal diet. Each of the following will provide 100 calories without adding any protein, phosphorus, potassium or sodium to your diet. Remember that this list should be modified for the diabetic.

Gumdrops..... 10 pieces
Hard candy..... 6 pieces
Marshmallows..... 5 large
Unsalted margarine.. 1 tablespoon

To be prepared for emergency situations:

- Keep sugarless gum, sugarless hard candy, or mouthwash on hand to control thirst.
- Always keep at least a half loaf of bread per person frozen. If the electricity is out, remove the bread on the first day and don't refreeze.
- Keep a copy of the Emergency Meal Plan with your food supplies.

GLOSSARY OF COMMONLY USED WORDS IN DIALYSIS

Access	A means to enter into; pertaining to dialysis is a means to get into the blood stream. Example: femoral or subclavian catheter or graft and fistula.
Acute	A sudden onset with serious symptoms, usually reversible.
Acute Renal Failure	Sudden and severe decrease in kidney function; usually of short duration.
Ambulatory	Able to walk
Anemia	A condition characterized by a reduction of red blood cells.
Antibiotic	A medication with the ability to inhibit or destroy germs/bacteria- thereby helping to fight infection.
Anticoagulant	Medication, which prevents or delays the clotting of blood. Relating to dialysis: Heparin, Aspirin, and Coumadin
Antihypertensive	Medication to lower blood pressure.
Arrhythmia	A disturbance in the rhythm of the heartbeat.
Arterial Line	The line (or tube) that carries blood from the body into artificial kidney.
Artery	A blood vessel that carries blood from the heart to the tissue of the body.

Artificial Kidney	The filtering device used to remove excess fluid and waste products from the body. Also known as “dialyzer” or “hemodialyzer”
Artificial Kidney Machine	The machine that monitors and aids in the function of the artificial kidney or dialyzer.
Bath	Also known as dialysate.
Blood Cells	Corpuscles in blood-such as red blood cells or white blood cells.
Blood Chemistries	The measurements of certain chemicals in the blood.
Blood Flow	In dialysis, the rate at which the patient’s blood is pumped through the dialyzer. The physician orders this as part of the dialysis prescription.
Blood Pressure	The pressure exerted by the blood against the walls of the arteries.
Blood Pump	The part of the dialysis machine that pulls blood from the patient’s access through the blood tubing, through the dialyzer and back to the patient.
Blood Sugar	The glucose circulating in the blood- normally 80-120 mg/100ml of blood.
Bruit	The murmur or sound heard from the blood flowing through the graft or fistula.

BUN	Blood Urea Nitrogen-measurement of protein (urea) waste in the blood.
Cadaver Donor	Refers to kidneys taken for transplantation from an individual who has died.
Calcium	Mineral found in the body. Necessary for bone growth and development and certain body functions.
Cardiac	Refers to the heart.
Catheter	A hollow tube used to inject or remove fluids.
Chronic Renal Failure	Progressive damage to the kidneys over a long period of time. Not Reversible.
Clearance	Refers to the removal of waste products through dialysis.
Clotting Time	The amount of time it takes for blood to clot. The dose of Heparin is determined by the clotting time.
Conductivity	A test for checking the presence of electrolytes in dialysate
Congestive Heart Failure	Condition in which the heart fails to pump effectively resulting in a backup of fluid in the lungs.
CAPD	Continuous Ambulatory Peritoneal Dialysis (CAPD) is a form of home dialysis that uses the peritoneal membrane as the dialysis membrane. This type of therapy requires

insertion of a permanent peritoneal catheter and is a continuous process involving four “exchanges” per day. The training period is usually one to three weeks. During that time, the patient (no partner is needed) is trained by the CAPD staff in the safe performance of this therapy at home.

CCPD	Continuous Cycling Peritoneal Dialysis (CCPD) is another form of peritoneal dialysis which utilizes a machine to perform the exchanges of dialysis solution. A partner may be required to assist in connecting the machinery, or monitoring the patient during dialysis, which occurs at night.
Creatinine	A waste product formed by normal tissue breakdown and removed by the kidneys or by dialysis.
Cross Matching	A test done before a blood transfusion to determine blood compatibility. Also a test of tissue and blood to check for the compatibility of patient and a donor kidney for kidney transplantation.
Dialysate	The “bath” containing water and electrolytes and sometimes glucose that flow around the fibers of the artificial kidney to remove excess fluids and wastes from the body.
Dialysis	Procedure used to cleanse the body of excess waste, fluid and toxins through a semipermeable membrane.
Dialyzer	Artificial Kidney
Diffusion	Movement of particles from a solution of higher

concentration to a solution of lower concentration through a semipermeable membrane.

Dry Weight	The weight after dialysis at which the patient feels good and the blood pressure is at a reasonable level with no symptoms of excess fluids.
Edema	An accumulation of fluid in the body-usually present as a swelling or puffiness most noticeably in the ankles, hands, and face.
ESRD	End Stage Renal Disease- state reached when the kidneys are no longer able to support life.
Exit site	The area where the fistula needle or peritoneal dialysis catheter enters and exits the skin.
Fistula	The dialysis access that is surgically created by suturing (sewing) an artery to a vein. This causes the vein to enlarge due to the pressure of the arterial blood flowing through it.
Fluid Overload	Symptomatic condition that occurs when excess fluid in the body (i.e. shortness of breath, swelling of ankles and feet.)
Graft	The dialysis access that is surgically created by the placement of a tubular material between an artery and a vein.
Hematocrit	HCT the volume percentage of red blood cells in whole blood.
Hemodialysis	Procedure used to remove excess fluids and waste products by passing blood through an

	artificial kidney.
Hemorrhage	Excessive or profuse bleeding.
Heparin	Medication with anticoagulant properties used to prolong the clotting time so that blood does not clot in the dialyzer.
Hepatitis	An inflammation of the liver. In the dialysis patient, it is usually associated with an exposure to the Hepatitis B Virus.
Hepatitis B Surface Antigen	(HBSAG) The substance that is present in an infection with Hepatitis B. Dialysis patients are checked monthly for the presence of HBSAG.
Hyperparathyroidism	Condition that results when the overactive parathyroid gland disrupts the body's calcium balance.
Hypertension	High blood pressure
Hypotension	Low blood pressure.
Immuno- suppressive Drug	Type of medication given to suppress the body's immune response. These medications are given to kidney transplant patients to help prevent rejection of the transplanted organ.
Infection	The condition in which the body is invaded by disease producing organisms.
Infiltration	In dialysis it refers to the accumulation of blood or fluid in the tissue when the needle is not in

	the graft or fistula.
Intravenous	(I.V.) Within a vein.
Kidney	One of two bean shaped organs located in the back, one on each side of the spine. The kidneys rid the body of excess fluid and waste in the form of urine.
Kilogram	1,000 grams. 1 Kilogram=2.2 pounds.
Liter	A basic unit of volume measurement (100cc) of the metric system equals to approximately one quart.
Membrane	A thin layer of tissue. Also refers to the artificial kidney.
Monitor	The act of observing or checking frequently. An electronic device or an apparatus by which certain conditions can be constantly observed.
Nausea	Upset stomach.
Nephrectomy	Surgical removal of the kidney.
Nephritis	Inflammation of the kidney.
Nephrologist	Medical doctor specializing in disorders of the kidney.
Neuropathy	Any disease of the nerves. In dialysis patients, it usually refers to peripheral neuropathy characterized by weakness, tingling, pins, needle complaints, and/or loss of sensation of the lower extremities. "Restless Leg Syndrome".

Normal Saline	A sterile salt water solution containing 0.9% sodium chloride. This solution is equal to the sodium chloride concentration of the blood.
Occlude	To close off.
Osmosis	Movement of fluid through a semipermeable membrane from an area of higher concentration to an area of lower concentration.
Palpable	Felt by touch.
Palpitation	Irregular “pounding” of the heart.
Parathyroid	Four tiny, pea size endocrine glands located near the thyroid gland that secrete a hormone which regulate calcium and phosphorus metabolism in the body.
Parathyroidectomy	Removal of the parathyroid glands.
Pericarditis	Inflammation of the pericardium (the sac around the heart).
Peritoneal Dialysis	A type of dialysis in which the semipermeable membrane used is the peritoneal membrane (lining of the abdomen.)
Peritoneum	The peritoneal membrane is smooth, thin, and semipermeable lining the abdominal cavity.
Peritonitis	Inflammation of the peritoneal membrane.
Phosphate	Medications that dialysis patients take

Binder	to bind with the phosphorus in the food that they eat so that it can be eliminated from the body. Used to help maintain the calcium/phosphorus levels in the body.
Phosphorus	An important element in the body. Closely related to the metabolism of calcium. Kidney failure causes phosphorus to accumulate in the body because it is not excreted properly.
Potassium	A mineral needed by the body for normal muscle and nerve function, especially the heart.
Priming	Refers to “priming the dialyzer”. Replacing the air in the dialyzer and lines with normal saline before beginning a dialysis treatment.
RBC	Type of hemoglobin containing blood cells that carry oxygen to the tissue.
Renal	Refers to the kidneys.
Semipermeable Membrane	A membrane that is permeable (or allows) fluid and small particles to pass across. It does not allow larger particles to pass across.
Sodium	Mineral found in the body that helps to regulate body fluids.
Spasm	Involuntary muscle contraction; a tightening of a blood vessel. Spasms can interfere with blood flow in an underdeveloped fistula.
Steal Syndrome	Decrease in blood flow to the access arm, hand or leg characterized by tingling, numbness, and coolness and sometimes pain.

Thrill	The feeling of vibration or buzzing felt over the graft/fistula.
Tissue Typing	Matching the blood cells of transplant candidate.
Tourniquet	A band placed around the arm of a patient with a fistula. It helps the vein stand out so needle insertion is easier.
Urea	Waste product formed from the breakdown of protein in the body.
Vein	The blood vessels that carry blood back to the heart.
Vital Signs	Temperature, pulse, respiration, and blood pressure.

Monthly Patient Education Suggested Topics

January/August – Fire Protection
February - Hypertension
March/September – Infection Control
April – Access Care
May – Hurricane Preparedness
June – Binders and Skin Problems in the Dialysis Patient
July – Medication Compliance
October - Influenza
November - Transplant
December – Fluid Management

This book has been compiled and organized by your care team at Lone Star Home Dialysis, Inc. as a resource for you as questions arise about your dialysis care. Please know that we care about your health and well-being and want to ensure you maintain a good quality of life while on dialysis. We are here to assist you and answer any questions that you may have so please don't hesitate to give us a call as questions arise.

January/August: Fire Protection

How to Conduct a Home Fire Drill:

1. **Hold a family meeting and discuss various ways on how you can evacuate your home safely and promptly in the event of a fire.** Afterward, walk through your entire house with your family and look for means of quick escape. Make sure all doors and windows can be easily opened, and that there are no obstructions by these exits that could slow down your evacuation.
2. **Draft a floor plan of your home, and ensure that all exits are clearly marked.** Use different colors to indicate the routes out on each floor, and go over the map with your family periodically and before fire drills so that no one forgets exactly where to head in the event of a fire emergency.
3. **Check to make sure you have the proper fire safety and evacuation supplies to use for your drill, and in a real house fire.** These items include everything from fire extinguishers to escape ladders, as well as working smoke detectors. If you have them, test them out before the drill (or at least from time to time) to guarantee that they are functioning properly. If not, you can find all of the items listed above and more at any hardware or equipment store, or online.
 - a. Train children to use a fire extinguisher before the drill. Let them know that it is not a toy, but rather a device that can stop the spread of nearby flames and allow them time to escape. Buy an extra extinguisher and show them how to use it in your backyard or somewhere outdoors to avoid a mess, and keep it somewhere safe.

- 4. Practice using the fire-escape ladders if you need them.**
Demonstrate how to configure the equipment and show the family how to use it. For safety reasons, do this from a first-floor window. When you're done, store the ladder beside the window for quick access in the event of a fire.
- 5. Choose a safe place outside of your home for your family to meet up during drills and in the event of a real fire.** Make sure the location is far enough from your home to avoid being harmed by the fire, but still close by. A spot across the street or a neighbor's lawn are good ideas. Always have a phone or cell phone with you to contact emergency services, even if your smoke detectors are working properly.
- 6. Conduct the drill at night, or at some time when your family is present at home but unsuspecting.** Blow a whistle in place of the smoke alarm, and help your family out as quickly as possible, just as in a real fire. Stay low to the floor to avoid inhaling "smoke", use the fire-escape ladders, and take out fire extinguishers as if there were a real fire. There may not be a real fire, but as is the point of the drill, it's good practice!
- 7. After the drill, store everything away as it was before.**
Congratulate your family on a job well done, and if you'd like to learn more, visit a local fire station or emergency preparedness center. The workers and firefighters can offer additional tips, recommendations for equipment, and smoke alarm inspections.

February: Medication

The Treatment of Kidney Failure

Different kinds of medication

- Phosphate Binders
- Antihypertensives (blood pressure pills)
- Diuretics
- EPO
- Iron and Vitamins
- Laxatives

Phosphate Binders

Dialysis can control the level of virtually all the substances in the blood, but phosphates can cause problems – they can build up and combine with calcium in the blood, and this mixture can cause damage by being deposited on the blood vessel walls. It can also cause itchiness and affect the strength of the bones and joints.

Phosphate levels are difficult to control through diet, as they are present in most foods. You will be given advice on how to lower your phosphate intake through diet, but drugs called Phosphate binders are likely to be prescribed in addition to this.

These prevent the absorption of phosphates into the bloodstream. They are usually calcium carbonate (chalk) tablets, or other calcium salts such as calcium acetate.

Sometimes, aluminum hydroxide gel or capsules are prescribed to bind phosphates. However, aluminum can have toxic effects if used on a long-term basis

Some Examples of Phosphate Binders:

- Calcium salts (carbonate, lactate or acetate)
- Aluminum Hydroxide (eg Alucaps)

Antihypertensives (Blood pressure pills)

Antihypertensive medication reduces blood pressure. There are various different types and the majority of renal patients will be on one or a combination of several antihypertensives. These may relieve the symptoms of breathlessness and may also prolong the functioning of the kidneys.

Some examples of antihypertensive drugs:

- Calcium antagonists (their names end in '-pine')
- ACE inhibitors (their names end in '-pril')
- ATI antagonists (their names end in '-artan')
- Beta blockers (their names end in '-lol')

Diuretics (Water tablets)

Diuretics are used when there is too much water in the body. The tablets remove fluid by increasing the amount of urine that is passed.

Some examples of diuretics:

- Frusemide
- Bumetanide

EPO

EPO (Erythropoietin) is one of the hormones manufactured by healthy kidneys. It stimulates the bone marrow to make red blood cells, which transport oxygen around the body. In kidney failure, the body cannot make its own EPO, and this leads to anemia.

EPO is often prescribed, initially to correct anemia, and sometimes (at a lower dose on an ongoing basis) to keep the red blood cell count up. Not everyone needs it, however. For instance, in kidney diseases where the kidneys remain large (such as in polycystic kidney disease) EPO production is not as severely affected.

If it is decided that you would benefit from commencing EPO therapy, you are likely to see the doctors and maybe an EPO Nurse Specialist who will discuss this with you, organise the prescription, and answer any questions you may have.

Iron and Vitamins

Most renal patients are also prescribed iron tablets to help counteract anemia, and some people need vitamin supplements (usually vitamin B, sometimes vitamin C and a special form of vitamin D).

Vitamins B and C are water soluble, so they can be lost during dialysis.

Vitamin D is associated with the health of bones. Damaged kidneys are unable to convert ordinary vitamin D for use in the body, so when vitamin D is prescribed, it is likely to be in its active form - which is called alpha calcidol.

Excessive vitamins can be dangerous. Please do not buy any without medical advice.

Laxatives

Constipation can be a problem, particularly for dialysis patients because their fluid intake is so restricted. If you are constipated, please talk to staff at your Renal Unit - don't buy laxatives yourself from a high street chemist, as not all laxatives are suitable for renal patients.

March/September: Infection Control

Standard Precautions in Health Care

Background:

Standard precautions are meant to reduce the risk of transmission of bloodborne and other pathogens from both recognized and unrecognized sources. They are the basic level of infection control precautions which are to be used, as a minimum, in the care of all patients.

Hand hygiene is a major component of standard precautions and one of the most effective methods to prevent transmission of pathogens associated with health care. In addition to hand hygiene, the use of personal protective equipment should be guided by risk assessment and the extent of contact anticipated with blood and body fluids, or pathogens.

In addition to practices carried out by health workers when providing care, all individuals (including patients and visitors) should comply with infection control practices in health care settings. The control of spread of pathogens from the source is key to avoid transmission. Among source control measures, respiratory hygiene/cough etiquette, developed during the severe acute respiratory syndrome (SARS) outbreak, is now considered as part of standard precautions.

Worldwide escalation of the use of standard precautions would reduce unnecessary risks associated with health care. Promotion of an institutional safety climate helps to improve conformity with recommended measures and thus subsequent risk reduction. Provision of adequate staff and supplies, together with leadership and education of health workers, patients, and visitors, is critical for an enhanced safety climate in health-care settings.

Important Advice

- Promotion of a safety climate is a cornerstone of prevention of transmission of pathogens in health care.
- Standard precautions should be the minimum level precautions used when providing care for all patients.
- Risk assessment is critical. Assess all health-care activities to determine the personal protection that is indicated.
- Implement source control measures for all persons with respiratory symptoms through promotion of respiratory hygiene and cough etiquette.

Health Policy

- Promote a safety climate
- Develop policies which facilitate the implementation of infection control measures.

Hand Hygiene

- Perform hand hygiene by means of hand rubbing or hand washing
- Perform hand washing with soap and water if hands are visibly soiled, or exposure to spore-forming organisms is proven or strongly suspected, or after using the restroom. Otherwise, if resources permit, perform hand rubbing with an alcohol-based preparation.
- Ensure availability of hand-washing facilities with clean running water.
- Ensure availability of hand hygiene products (clean water, soap, single use clean towels, alcohol-based hand rub). Alcohol-based hand rubs should ideally be available at the point of care.

Personal Protective Equipment (PPE)

- ASSESS THE RISK of exposure to body substances or contaminated surfaces BEFORE any health-care activity. Make this a routine!
- Select PPE based on the assessment of risk:
 - Clean non-sterile gloves
 - Clean, non-sterile fluid-resistant gown
 - Mask and eye protection or a face shield

Respiratory Hygiene and Cough Etiquette

- Education of health workers, patients and visitors.
- Covering mouth and nose when coughing or sneezing.
- Hand hygiene after contact with respiratory secretions.
- Spatial separation of persons with acute febrile respiratory symptoms.

Health-Care Facility Recommendations for Standard Precautions

Hand hygiene

Summary technique:

- Hand washing (40-60 sec): wet hands and apply soap; rub all surfaces; rinse hands and dry thoroughly with a single use towel; use towel to turn off faucet.
- Hand rubbing (20-30 sec.): apply enough product to cover all areas of the hands; rub hands until dry.

Summary indications:

- Before and after any direct patient contact and between patients, whether or not gloves are worn.

- Immediately after gloves are removed.
- Before handling an invasive device.
- After touching blood, body fluids, secretions, excretions, non-intact skin, and contaminated items, even if gloves are worn.
- During patient care, when moving from a contaminated to a clean body site of the patient.
- After contact with inanimate objects in the immediate vicinity of the patient.

Gloves

- Wear when touching bloody, body fluids, secretions, excretions, mucous membranes, nonintact skin.
- Change between tasks and procedures on the same patient after contact with potentially infectious material.
- Remove after use, before touching non-contaminated items and surfaces, and before going to another patient. Perform hand hygiene immediately after removal.

Facial Protection (eyes, nose, and mouth)

- Wear (1) a surgical or procedure mask and eye protection (eye visor, goggles) or (2) a face shield to protect mucous membranes of the eyes, nose, and mouth during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions.

Gown

- Wear to protect skin and prevent soiling of clothing during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
- Remove soiled gown as soon as possible, and perform hand hygiene.

Prevention of Needle Stick and Injuries from other Sharp Instruments

Use care when:

- Handling needles, scalpels, and other sharp instruments or devices.
- Cleaning used instruments.
- Disposing of used needles and other sharp instruments.

Respiratory Hygiene and Cough Etiquette

Persons with respiratory symptoms should apply source control measures:

- Cover their nose and mouth when coughing/sneezing with tissue or mask, dispose of used tissues and masks, and perform hand hygiene after contact with respiratory secretions.

Health-care facilities should:

- Place acute febrile respiratory symptomatic patients at least 1 meter (3 feet) away from others in common waiting areas, if possible.
- Post visual alerts at the entrance to health-care facilities instruction persons with respiratory symptoms to practice respiratory hygiene/cough etiquette.
- Consider making hand hygiene resources, tissues and masks available in common areas and areas used for the evaluation of patients with respiratory illnesses.

Environmental Cleaning

- Use adequate procedures for the routine cleaning and disinfection of environmental and other frequently touched surfaces.

Linens

Handle, transport, and process used linen in a manner which:

- Prevents skin and mucous membrane exposures and contamination of clothing.
- Avoids transfer of pathogens to their patients and or the environment.

Waste Disposal

- Ensure safe waste management.
- Treat waste contaminated with blood, body fluids, secretions and excretions as clinical waste, in accordance with local regulations.
- Human tissues and laboratory waste that is directly associated with specimen processing should also be treated as clinical waste.
- Discard single use items properly.

Patient Care Equipment

- Handle equipment soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of pathogens to other patients or the environment.
- Clean, disinfect, and reprocess reusable equipment appropriately before use with another patient.

April: Access Care

Hemodialysis Access

How Your Access Works

A hemodialysis access, or vascular access, is a way to reach the blood for hemodialysis. The access allows blood to travel through soft tubes to the dialysis machine where it is cleaned as it passes through a special filter, called a dialyzer. An access is placed by a minor surgery. As a hemodialysis patient, your access is one of the following:

- A fistula, an access made by joining an artery and vein in your arm.
- A graft, an access made by using a piece of soft tube to join an artery and vein in your arm.
- A catheter, a soft tube that is placed in a large vein, usually in your neck.

If your access is a fistula or graft, your nurse or technician will place two needles into the access at the beginning of each treatment. These needles are connected to soft tubes that go to the dialysis machine. Your blood goes to the machine through one of the tubes, gets cleaned in the dialyzer, and returns to you through the other tube. If your access is a catheter, it can be connected directly to the dialysis tubes without the use of needles.

A fistula should be considered the first choice for your access because it generally lasts longer and has fewer problems such as infections and clotting. However, some patients may not be able to receive a fistula because their blood vessels are not strong enough. A graft is considered the second choice for an access. Catheters are generally used as a temporary access, but sometimes they are permanent. Sometimes, it may be possible to switch to a fistula from another type of access. If you do not have a fistula, ask your dialysis care team if a switch would be possible for you.

Caring For Your Access

Whether your access is a fistula, graft or catheter, you should make sure to take good care of it. Your dialysis care team will teach you the steps of good access care. The chart below gives you some general tips about everyday access care and how to prevent problems.

Fistula or Graft

- Wash with an antibacterial soap each day, and always before dialysis. Do not scratch your skin or pick scab.
- Check for redness, a feeling of excess warmth or the beginning of a pimple on any area of your access.
- Ask your dialysis care team to rotate the needles when you have your dialysis treatment.

Catheter

- Keep catheter dressing clean and dry.
- Make sure the area of the access is cleaned and the dressing is changed by your care team at each dialysis session.
- Keep an emergency dressing kit at home in case you need to change your dressing between treatments.
- Never open your catheter to the air.

Keeping Your Access Working

Your dialysis care team will check your access often to make sure it is working well. An access that is not working well can decrease the amount of dialysis you receive. Your dialysis care team will teach you how to check your fistula or graft at home each day. Here are some tips you should follow to help keep a fistula or graft working longer:

- Check the blood flow several times each day by feeling for a vibration, also called a pulse or thrill. If you do not feel this, or if there is a change, call your doctor or your dialysis center.
- Do not wear tight clothes or jewelry on your access arm.
- Do not carry anything heavy or do anything that would put pressure on the access.
- Do not sleep with your head on the arm that has your access.
- Do not let anyone use a blood pressure cuff on your access arm.
- Do not let anyone draw blood from your access arm.
- Do not be afraid to ask your dialysis care team to rotate needle sites.
- Apply only gentle pressure to the access site after the needle is removed. Too much pressure will stop the flow of blood through the access.
- If you have breakthrough bleeding after you have dialysis, apply gentle pressure to the needle site with a clean towel or gauze pad. If the bleeding does not stop in 30 minutes, call your doctor or your dialysis center.

If Access Problems Occur

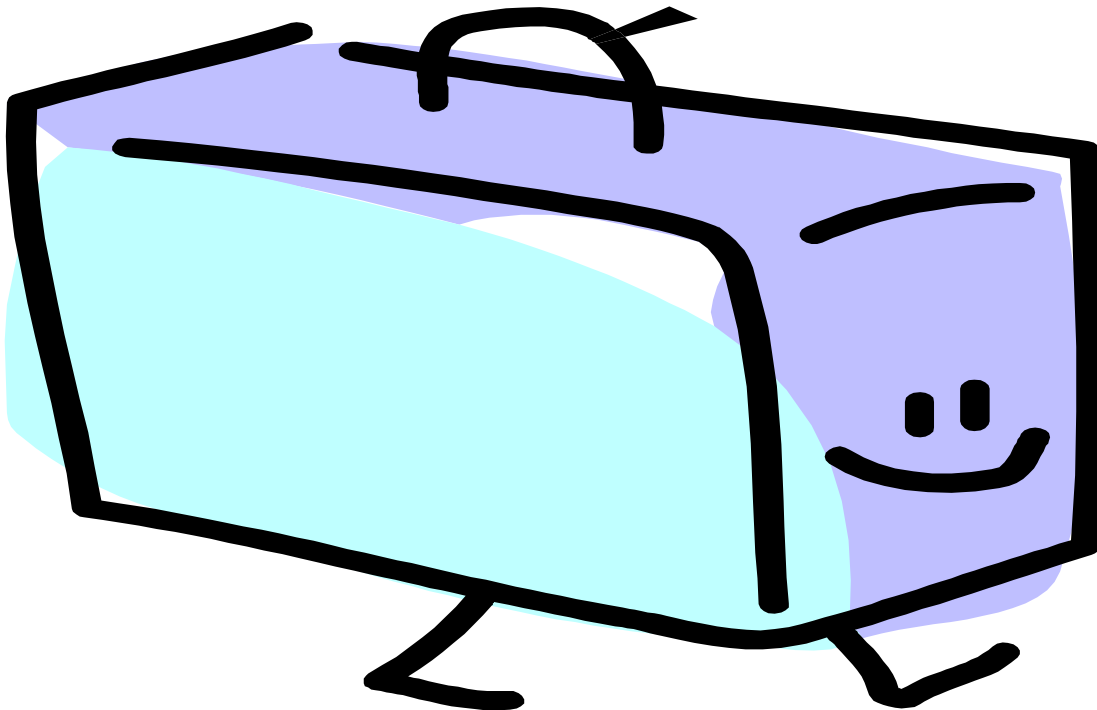
Sometimes, even when you are very careful, your access may clot or become infected. If an infection occurs, your doctor will order antibiotics for you. If your

access develops a clot, you may need to go to the hospital for treatment. Removing the clot can usually be done on an outpatient basis, and you will not need to stay overnight.

May: Hurricane Preparedness

Are You R.E.A.D.Y?

- R is for **Rx** (Prescriptions). Keep a list of all medicines you take. Always have a week's supply on hand.
- E is for **E.R.** Go to the emergency room if you have serious problems. Here's a list to remind you.
- A is for **access** to people & places. Make a list of phone numbers most important to you.
- D is for **diet & liquids**. Keep safe supplies on hand. When you can't go to dialysis, you can't drink much at all!
- Y is for **YOU!** Make a plan with family, friends & neighbors to stay safe.



R is for **Rx** (Prescriptions). Keep a list of all medicines you take. Always have a week's supply on hand.
(See prescription list)

E is for **E.R.**, The Emergency Room. Go to the Hospital E.R. if you have serious problems, like:

Major Injury. How are you hurt? _____

Pain that is not normal for you. _____

Unusual **swelling.** _____

Shortness of breath, trouble breathing. _____

Chest pain. _____

Blurry vision. _____

Others: _____

A is for **access** to people & places.

Dialysis clinic: _____

Address: _____

Phone: _____

Hospital E.R.: _____

Address: _____

Phone: _____

Pharmacy: _____

Address: _____

Phone: _____

Nearest Relative: _____

Relationship: _____

Phone: _____ Cell: _____

Emergency Contact: _____

Phone: _____ Cell: _____

Out of State Emergency Contact: _____

Phone: _____ Cell: _____

*****Very Important!! Contact out of the area can serve as central contact to help you locate family and friends since you may not be able to contact them directly.*****

AM radio stations: _____

FM radio stations: _____

D is for **diet & liquids**. Keep these supplies on hand.
Use an air-tight, insect-proof container. Replace each year.
Don't forget – if you can't go to dialysis, you can't drink much!

GOOD PROTEIN

(2 - 3 oz a day)

canned, drained, salt free:
Tuna, Chicken, Salmon (no bones)

FRUITS

(2 servings a day)

canned, drained: Pears, Plums
Peaches, Fruit Cocktail
Pineapple, Applesauce

DRINKS

(cut in half)

Water, Koolaid, Cranberry juice
Root Beer, Lemon/lime Soda

FAT (good for calories):
Cooking oils, like Canola oil

VEGETABLES

(2 servings a day)

canned, drained, salt-free:
Carrots, Green beans, Green peas

BREADS & STARCH

(2 - 4 servings a day)

White Rice, Noodles, Macaroni
White Breads & Rolls
Cooked cereals
Crackers, salt-free
Graham crackers, Wafer cookies

SWEETS (good for calories)

Sugar, Gum drops, Hard Candies
Jam, Jelly, Syrup, Honey
Cranberry sauce, Marshmallows
Skittles®, Starburst®, Lifesavers®

- **Eat only** half (1/2) of the meat that you would usually eat.
- **Drink only** half (1/2) of what you would usually drink. Even limit foods high in water like cooked cereal/pastas, fruits, vegetables, gelatin, ice cream, sherbet, ice.
- **Plan to have only salt-free foods!**
- **Avoid all high-potassium foods.** Some of these are milk (all kinds), beans (all kinds), nuts (all kinds), bananas, potatoes (French fries, baked potatoes, yams), oranges & orange juice, prunes, spinach, avocado and substitute salt. Keep a list from your dialysis dietitian in your emergency box.
- **If you have diabetes, plan for ways to treat low blood sugar.**

No Electricity? Food in the refrigerator will stay fresh for a few days. Open the refrigerator as little as possible to keep foods cold. Use foods from your refrigerator first!

Y is for YOU! Make a plan with your family, friends & neighbors to stay safe. Write down things to do and things to remember:

A few key parts of the plan:

1. Establish a reunion location close to home—easy to remember and easy for everyone to find.
2. Establish a reunion location further away from home in case you can't return to your neighborhood.
3. Take time to plan now! You'll be glad you did



Are You “R.E.A.D.Y.”?

Things to Remember:

- ✓ Put on your purple fanny pack
- ✓ Put on your purple wrist band
- ✓ Take your medications
- ✓ Make sure the records from your clinic are in the fanny pack

June: Binders and Skin Problems in the Dialysis Patient

SHOW PRIDE IN YOUR BONES!

What is Phosphorous?

- Phosphorous is a mineral found mostly in your bones. Along with calcium, phosphorous is needed for building healthy strong bones.

Why is phosphorus important?

- Kidneys remove extra phosphorous from your blood. When you have chronic kidney disease (CKD) your kidneys cannot remove phosphorus very well. High phosphorus levels can harm you. Extra phosphorous pulls calcium out of your bones, making them weak. High calcium levels can also lead to dangerous calcium deposits in heart, blood vessels, lungs, and eyes. Phosphorous and calcium control is very important for overall health.

What are Phosphate Binders?

- Phosphate binders help to pass excess phosphate out of your body in your stool, reducing the amount of phosphate that gets into your blood.
- These medicines “bind” the phosphate in your digestive tract by combining with it to form a compound that isn’t absorbed into your blood.

Why are Phosphate Binders important?

- It is very important to control phosphate levels when you have kidney disease. Doing so can help reduce the risk of a variety of complications. It’s also important to control your calcium levels, especially when your phosphate levels are high. Most of your calcium intake is from food (dairy products), calcium containing phosphate binders and dialysis solutions.

What can happen if I don’t control Phosphorus and Calcium?

- Damage your bones, tissue, joints, organs especially the HEART.
- Reduce chances of getting a transplant.
- Higher risk of illness, hospitalization and even DEATH!!!

What are ways I can control my Phosphorus?

- Make healthy low phosphorus choices
 - Read food labels/ingredient lists
- **Take your phosphorus binders within 10 minutes of every meal and snack**
 - Phosphorus binders soak up extra phosphorus from food before it can enter your body
- **Complete your full treatment!**

**REMEMBER TAKE YOUR BINDERS (REVELA, FOSRENAL, TUMS or CALCIUM ACETATE)
YOUR BONES AND HEART WILL THANK YOU!!**

July: Medication Compliance

The Importance of Taking Your Medications Correctly

To get maximum benefit from your medications, it is important to take them exactly as prescribed by your doctor. In fact, your chance of a better health outcome improves when you take your medications as directed.

But four out of 10 older people who take more than one drug still do not take one or more of their prescriptions according to their doctor's instructions. Could you be one of them?

Talk to your health care professional

Make sure you understand the following points before you start taking any medication

- Why you need the drug
- How and when to take the drug
- How to store the drug
- What might happen if you don't take the drug as prescribed

Don't hesitate to ask your health care professional to write down any medication instructions.

Other tips

When it comes to taking your medications, it's essential to follow your health care professional's instructions. Make sure you never:

- Use your medication for any symptom of illness other than the one for which it was prescribed
- Take someone else's medication or give your medication to someone else
- Take more or less of a medication, unless directed by your health care professional

Get organized

The following steps are designed to make it easier for you to organize your medications and related information.

- List all medications that you take, which include prescriptions, over-the-counter drugs, vitamins, and supplements.
- Jot down questions you want to ask your health care professional.
- Write down your medical information. This includes emergency contact, primary physician, and allergies. Keep it in your wallet along with your insurance information.
- Review the tips and information on this site to understand the importance of taking your medications correctly.

How do you fare?

Read the following statements. If any of these apply to you, you may not be getting the full benefit of your medications.

Remembering

- I sometimes forget/put off having my medication refilled
- I sometimes forget to take my medication.
- I sometimes take my medication at the wrong times.
- I take many different medications and sometimes it's hard to keep them straight.

"Playing Doctor"

- I sometimes stop taking medication once I feel better.
- I sometimes take more or less of my medication than my doctor prescribed.
- I sometimes stop taking my medication because I think it is not working.

Other

- I don't understand when I am supposed to take my medication.
- I don't ask my health care professional questions about my medication because I am shy or embarrassed.

We encourage you to talk to your health care professional about taking your medications correctly.

October: Influenza Shot

What is the flu?

Influenza (the flu) is a contagious respiratory illness caused by influenza viruses.

It can cause mild to severe illness, and at times can lead to death.

5-20% of the United States population gets the flu x Approximately 36,000 people die from the flu

When should I get flu shot?

October or November is the best time of year to get the shot, but you can still get your shot in December or later.

What are the side effects that could occur?

Soreness, redness, or swelling where the shot was given. If these problems occur, they begin soon after the shot and usually last one to two days.

How does the flu spread?

The flu is spread by direct and indirect contact and by droplet contact.

The virus is easily spread from person to person via coughing, sneezing, and contact with dirty surfaces or items.

Does flu vaccine work right away?

No. It takes about two weeks after the shot for antibodies to develop in the body and provide protection against the virus. In the

meantime, you are still at risk for getting the flu.

That's why it's better to get vaccinated early in the fall, before the flu season really gets under way.

I am a dialysis patient, should I get the flu shot? In general, anyone who wants to reduce their chances of getting the flu should get the flu shot.

As a dialysis patient, you are have an greater chance of having serious problems from the flu and are considered a priority group.

Can I get the flu from the flu shot?

NO. The flu shot **CANNOT** give you the flu.

The vaccine contains dead virus that cannot cause the flu in any way!

November: Transplant

What is a kidney transplant?

During surgery, failing kidneys are replaced with a healthy kidney from a donor. Transplanted kidneys may come from living donors (such as a family member or friend) or from people who've died. Your new kidney needs to match your tissue and blood type to increase the chances that your body will accept it. A family member isn't always suitable; the best donor kidney for you might come from a stranger.

Why do I need a kidney transplant?

If you have permanent kidney failure, also called *end-stage renal disease* ("renal" means kidney), your kidneys have nearly stopped working and you need either dialysis or a kidney transplant to survive. A kidney transplant may be the better option because it can help you feel better and let you lead a normal life without dialysis.

If your healthcare provider recommends a kidney transplant for you, you'll be evaluated at a transplant center. This evaluation includes tests to determine if you're healthy enough to have surgery and if you have any other diseases or conditions that could damage a new kidney. You must be willing to take medicines called immunosuppressants for the rest of your life to prevent kidney rejection.

A committee will review results of the evaluation and decide if you're a good candidate for kidney transplant. When you're approved, the search for a donor begins. If family members are willing to donate a kidney, they'll be tested to see if their tissue and blood types match yours. If not, you'll be put on a waiting list for a nonliving donor.

What can I do to prepare for my transplant?

Before surgery, stay healthy by taking your medicines as prescribed and following the diet and exercise guidelines that your healthcare provider gave you. You may have to wait for a while before a donor kidney is found, so be prepared to wait. You may be disappointed if the donor's

kidney isn't a match. Try to stay positive and think about joining a support group to talk with others who are waiting for a kidney transplant or who've already had one.

What happens during and after the transplant?

A kidney transplant usually takes about 3 hours. Depending on your condition, the surgeon may remove one or both of your kidneys before placing the donor kidney in your abdomen. If they're not causing problems, he won't remove them. The new kidney will usually start to work right away, but it may not start producing urine for a few weeks.

After your transplant, you'll spend about 12 hours in the intensive care unit and 7 to 10 more days in the hospital. You'll feel some soreness and pain around the incision. Your healthcare provider will prescribe pain medicines that you either take by mouth or through patient-controlled analgesia, which lets you control the amount of pain medicine you get through an I.V. line with the push of a button. After discharge, stay close to the hospital for 3 to 4 weeks for regular checkups. To prevent problems, take all medicines exactly as prescribed.

The biggest worry after kidney transplant is rejection. This occurs when your immune system attacks the new kidney as a foreign "invader," damaging or destroying it. Rejection can happen in the first few weeks or months after your surgery. Immunosuppressant medicines usually prevent or treat rejection, so take them as prescribed for the rest of your life. If they don't work, you'll need to start dialysis or get another transplant.

Some medicines have side effects that can cause you to gain weight, develop acne or facial hair, or have stomach problems. These effects usually decrease with time. Immunosuppressants may make your body more prone to infection, certain cancers, high blood pressure, and high cholesterol. Discuss any problems with your healthcare provider. He'll prescribe medicines and regular screening tests to reduce your risk.

How can I keep my new kidney healthy?

By taking your medicine, exercising regularly as advised by your healthcare provider, developing healthy eating habits, quitting smoking if you smoke, decreasing the amount of alcohol you drink if necessary,

wearing sunscreen, and getting regular checkups, you can help keep your new kidney functioning well for years to come.

Houston Transplant Hospitals

Methodist J.C. Walter Jr. Transplant Center

6500 Fannin Street

Smith Tower, 12th Floor

Houston, TX 77030

Phone: (713) 441-8900 (main referral number)

Sugar Land Location:

Medical Office Building (MOB) # 3, Suite 300

16605 Southwest Freeway

Sugar Land, TX 77479

Phone: 281-275-0300

West Houston Location:

18400 Katy Freeway

Medical Office Building, Suite 260

Houston, TX 77094

Phone: 832-522-8250

St. Luke's Episcopal Hospital

6720 Bertner Avenue

Houston, TX 77030

Phone: (832) 355-3128

Memorial Hermann Hospital – Texas Medical Center

Texas Kidney Institute

6411 Fannin Street, Suite B-600

Houston, TX 77030

Phone: (713) 704-4071

December - Fluid Management

Fluid Control for Kidney Disease Patients on Dialysis

If you were stranded on a desert island, you would feel thirsty sooner than you would feel hungry. We are told the healthy body normally needs up to eight glasses of water a day to maintain fluid balance. For people in the later stages of chronic kidney disease, these normal amounts of fluid may cause problems. Too much fluid can build up in the body and be dangerous.

Fluid control for those on hemodialysis

The goal of fluid restriction is to help you feel comfortable before, during and after your dialysis sessions. Even though dialysis gets rid of excess fluid and waste in the body, it is not as effective as healthy kidneys. Why? Healthy kidneys work all the time—24 hours a day, 7 days a week. Most people on hemodialysis get treatments three times a week for about three or more hours at a time. This means, in the days between your dialysis treatments, your body holds on to excess fluid and waste your kidneys cannot remove.

Going over your recommended fluid allowance can lead to too much fluid building up in your body between treatments. This build up causes swelling and increases your blood pressure, which makes your heart work harder. Too much fluid can build up in the lungs, making it difficult for you to breathe.

Hemodialysis removes fluid as the blood is filtered through the dialysis machine. However, there is a limit on how much fluid can be safely removed during a dialysis session. If you exceed your fluid allowance, more fluid must be removed. Your body may not be used to having so much fluid removed at once. Some people experience muscle cramping during dialysis when they gain too much fluid weight. Taking out a lot of fluid can also cause a drop in blood pressure, which can leave you feeling nauseated, dizzy and

weak after the treatment. Sometimes, an extra dialysis session may be required to remove all the extra fluid.

Fluid control for those on peritoneal dialysis

People on peritoneal dialysis (PD) may not be as limited with their fluids as people on hemodialysis. This is because PD treatments are performed every day, unlike hemodialysis, which is done several times a week.

Although patients on PD are allowed more liquid, they are encouraged to keep track of their fluid intake and the amount of fluid removed in their dialysis exchanges. Too much fluid can still lead to complications like swelling, high blood pressure and shortness of breath.

How is my fluid restriction determined?

Fluid restriction may vary for each individual patient. Factors such as weight gain between treatments, urine output and swelling are considered. If you are on hemodialysis, your weight is recorded before and after your dialysis session. Your nurse uses weight changes to help determine how much fluid to remove during dialysis. If you are on peritoneal dialysis, your nurse will have you record your weight every day. Sudden weight gain may mean you are drinking too much fluid. Your dietitian will coach you on individual goals for your fluid intake.

What are the complications associated with too much fluid?

For dialysis patients, the complications of excess fluid are:

- High blood pressure
- A sudden drop to low blood pressure (generally occurs during hemodialysis)
- Shortness of breath (and in some instances, fluid in the lungs)
- Heart problems, which can include a fast pulse, weakened heart muscles and an enlarged heart

Exercise and fluid intake

Before you start an exercise program, let your doctor and health care team know. Exercise may change your fluid requirements, especially if you are exercising and perspiring heavily. Your dietitian can coach you on how much fluid to drink. Talk to your dietitian before making changes in your fluid intake.

Tips for managing your thirst

Your dietitian—as well as fellow patients—can give you many helpful hints to manage your thirst. Here are some tips to get you started:

- Salty and spicy foods make you thirsty. To help control thirst, your dietitian will recommend that you limit the amount of sodium and spicy foods in your diet.
- Be aware of hidden fluids in foods. Your dietitian will provide you with guidelines to help you count your fluid intake. Fluid isn't just what you drink; it's also in what you eat. Your dietitian will suggest limiting foods with high water content, such as: gelatin, watermelon, soup, gravy and frozen treats like Popsicles™ and ice cream.
- Stay cool. Keeping cool will help reduce your thirst, especially in warmer weather. Try drinking cold liquids instead of hot beverages. And, if you're thirsty between meals, try snacking on approved vegetables and fruits that are ice cold.
- Sip your beverages. Sipping will let you savor the liquid longer. Use small cups or glasses for your beverages.
- Try ice. Many patients find that ice is more satisfying than liquids. Try freezing your allotted amount of water into an ice tray. You can also try freezing approved fruit juices in ice trays for a special treat. Remember to include the ice you consume when tracking your fluid intake.
- Take your medicines with your meal, if possible. Try swallowing pills with applesauce instead of liquids. (Check with your doctor before changing the times you take medications.)
- Battle dry mouth. Dry mouth can be uncomfortable. Instead of drinking fluid to refresh your mouth, try using mouthwash or brushing your teeth. Sucking on hard candy or a wedge of lemon or lime will also help.
- If you have diabetes, maintain good blood glucose levels. High blood glucose levels will increase your thirst. Managing your diabetes by following your doctor and dietitian's recommendations will help you manage your thirst.

Restricting fluids isn't easy, but if you get tips from your dietitian and ask other patients what they do, you may find it isn't as difficult as you thought. The reward is you will feel better by preventing uncomfortable treatments, cramping and blood pressure fluctuations and stay healthier.

I, _____ received the **Patient Handbook** which includes the following information. I understand that the staff is available to answer any questions I may have.

Patient Grievance Procedure
Healthcare Team and Role
Kidney and Kidney Failure
Medical Problems Related to Kidney Failure
Dialysis Access
Treatment Options
Plan of Care
Medications
Blood Work and Ancillary Tests
Infection Control
Isolation Practices
Hepatitis B Vaccine
Pneumonia and Flu Vaccines
Patient Benefits Information
Patient Resources
Facility Guidelines, Rules, and Standards of Conduct
Abuse, Neglect, and Exploitation
Elderly Bill of Rights
Prescriptions
Electronic Appliances
Violence
Advance Directives
Abuse, Neglect, and Exploitation
Rights of the Elderly
Involuntary Discharge and Transfer
Emergency Dialysis Treatment
Planning Ahead for a Natural Disaster
Emergency Meal Plan and Guidelines
Glossary of Commonly Used Words in Dialysis

Patient Signature

Date