

## ESRD Patient Emergency Preparedness

*(Information extracted from KCER Coalition document)*

### Clamp and Cut or Clamp and Cap Procedures

These directions are for emergency situations only. Access needles will be left in place until the patients get to a safe place and are assisted with removal of needles.

- Locate the emergency pack. It should contain clamps, a pair of scissors, tape, Band Aides, and gauze.
- Clamp both access needle lines.
- Clamp both of the thicker bloodlines.
- If the lines have pinch clamps, pinch all four clamps closed.
- Cut or unscrew the lines **between** the closed clamps.
- If you must cut the lines, cut **ONLY** the *thicker* blood lines.
- **NEVER** cut the access needle lines.
- **NEVER, NEVER** cut between the clamp and the access, the patient will bleed to death.

“Clamp and Cut” or “Clamp and Cap” should be simulated during the drill. For demonstration purposes, consider performing the procedure on a patient who has just had their blood returned, but is not yet disconnected. Actually clamp and cut the lines with the emergency kit available on the patient’s machine at the chairside.

### Hand Crank

Staff and/or patients may need to hand crank blood pumps during a power failure. This will prevent the blood from clotting. Here are suggested steps to use if you have no specific unit policy:

- Disarm the air detector (remove venous line from clamp).
- Locate and retrieve crank.
- Double check that all blood line clamps are open.
- Turn crank with direction of blood flow.
- Crank slowly, counting, for example, 1:1,000 2:1,000, 3:1,000, etc.
- Observe bloodlines for presence of air or foam.
- Determine how long the power will be off (if you can).
- Crank patients blood pump no longer than 10 minutes.
- Return blood per unit policy after 10 minutes.

The “Hand Crank” should be performed in the drill procedure. Competent patients can be taught to “Hand Crank” their own blood on the machine. In an emergency situation, there is usually not enough staff available to hand crank all of the machines.

### Dialysis Patient Survival Instructions (Disaster + 72 hours)

Patient education is essential for post-disaster survival. Reassure patients that one missed treatment is usually not considered an emergency and can be managed. Review these guidelines on a quarterly basis with all patients.

- Emergency disconnect procedures, “Clamp and Cut or Clamp and Cap”.
- Importance of fluid and diet management.
- Self-protection if a catastrophe occurs while receiving dialysis.
- Location of emergency packs at each chairside.
- Medications to have on hand (under direction of physician).
- Importance of Medic Alert emblems.
- Location of hospitals and nearby dialysis centers.
- Instructions on when to stay home.
- Description of the facility plan.
- Instructions on care of their access.
- Emergency supplies for car.

Many of these topics are covered in the Medicare booklet *Preparing for Emergencies; A Guide for People on Dialysis*, published by the Centers for Medicare and Medicaid Services. See

[www.medicare.gov](http://www.medicare.gov) for Publication #10150.

Encourage patients to post these simple five points at home. The front of the refrigerator is a great place for this information because it is easy to see.

- Stay home unless you are hurt.
- Start emergency diet that you should have received from your renal dietitian. Limit fruits and vegetables.
- Limit fluids to 1/2 normal current intake.
- Wait at home for instructions and details about available dialysis services. You may get instructions on TV or radio or by phone or messenger.
- If you must go to a shelter, alert the shelter manager of your dialysis needs.
- Inform your dialysis facility of your location.

*Remember- most hospitals will not be equipped  
to provide chronic dialysis treatments*

### **Emergency Diet**

The following guidelines are for use in the event of an extended emergency. Dialysis may not be available or patients may have to miss or delay dialysis. Survival will depend on the ability to follow a limited diet.

#### Diet Recommendations

- Stay calm. Food stored in a refrigerator and/or freezer will stay fresh for several days if appliances are opened for meal preparation only. It is best to use foods from the refrigerator before shelf-stored foods.
- Keep a one-week supply of all medications.
- It is important to eat, but choose wisely and limit fluid intake.

Diet Guidelines

Potassium

- Avoid high potassium foods, limit fruits and vegetables, select bread, rice, and pasta instead of potatoes.
- Avoid chocolate, dried beans, and dried fruit.

Fluid

- Restrict fluid to approximately one-half current intake. If patients usually gain too much weight between dialysis treatments, they will need to cut back even more.
- Avoid foods that are liquid at room temperature, such as: gelatin, ice cream, sherbet, and ices.

Salt

- Use salt-free or low sodium foods whenever possible. Do not use table salt or salt substitute (Salt substitute can be very dangerous, typically they are made from potassium chloride).

Protein

- Limit protein to one-half current intake. For example, if someone eats two eggs at breakfast, decrease intake to one. If four ounces of meat at each meal is typical, reduce intake to two ounces of meat per meal.

Suggested Emergency Food Lists

This food list is more limited than the usual renal diet. It is designed to help prevent the build up of excess fluid and waste products until dialysis is available.

Meat & Protein

- 2-3 ounces per day
- Use canned salt-free or low sodium meats such as chicken, turkey, tuna, shrimp, crab, and salmon. If not salt-free, rinse with hot water and drain.
- Two tablespoons of peanut butter are about one ounce of protein.
- Use canned fruit such as applesauce, cherries, peaches, pears, plums, and pineapple. Drain off liquid.

Vegetables

- Limit to 2- ½ cup servings per day
- Use canned low sodium vegetables such as corn, carrots, green beans, and peas.

Fluids

- Limit to one-half usual intake
- Use bottled water, soft drink, coffee, tea, juice, Kool-Aid, and Tang. No Gatorade or sport drinks!

Milk

- ½ cup per day
- Do not save leftover milk unless refrigerated or on ice

Fruit

- Limit to 2- ½ cup servings per day (**No raisins**)

Fats

- 6 or more teaspoons per day
- Use salt-free salad dressings, margarine, oils, and mayonnaise (with refrigeration).

Sweets

- Use as needed to increase calories.
- Diabetics use caution, but may be needed for low blood sugar reactions
- Use sugar, honey, hard candy, sourballs, gumdrops; jelly beans, jam, jelly, and marshmallows.

### Breads, Cereals & Pasta

- 4-6 servings per day
- Use dry cereals (3/4 cup) puffed wheat, rice, or shredded wheat (No Raisin Bran), plain pasta or rice (1/2 cup), crackers, salt-free (4 crackers), plain cookies or vanilla wafers (4-10), regular bread (1 slice), graham crackers (3 squares)

### Emergency Food Box Shopping List: (purchase one serving sizes when possible)

- Low sodium canned meats/seafood
- Bottled water
- Dry powdered milk or canned milk
- Coffee whitener
- Canned low sodium fruits/vegetables
- Loaf or regular bread
- Individual size cereals (No Raisin Bran)
- Vanilla cookies, wafers
- Mayonnaise, salt-free salad dressing packets, jelly
- Soft drinks & powdered drink mixes
- Peanut butter
- Hard candy, gum, marshmallows
- Low sodium crackers
- Sugar or Sweet N' Low packets
- Fruit Juices (4oz. cans or boxes)

### Storage of Foods

- Keep foods stored in a sturdy box on the floor in a closet, service porch or garage, away from water and animals.
- Rotate bottled water every six months.
- Breads should be stored in the freezer. Crackers and cereals should be stored in a tin or sealed container and rotated monthly.
- Check canned foods for swelling, leakage, and the expiration date. Rotate canned foods every year, and replace as needed.
- Powdered drinks such as Tang, Kool-Aid, or Crystal Light can be kept on hand, but require water.
- Store sugar, candies, and dry milk in a sealed container to protect them from insects.

### **Drinking Water Disinfection and Storage**

Bottled distilled water is preferred for drinking. However, if bottled water is unavailable, first strain water through a clean cloth or handkerchief to remove any sediment, floating matter or glass before disinfecting.

The preferred method of disinfection is boiling. Bring to a rolling boil for 10 minutes. Let cool for at least 30 seconds. You may also elect to add bleach. When added, it is essential that the water be cool prior to adding bleach.

Water may be disinfected with 5.25% - 6% sodium hypochlorite solution (household chlorine bleach). The bleach you use should not have any added soaps, fragrances, or active ingredients other than hypochlorite. After mixing, let it stand for 30 minutes. There should be a slight odor of bleach.

The preferred method for measuring bleach is an eyedropper. Other methods will produce poor results.

Use the following proportions:

Amount of Water	Clear Water	Cloudy Water
One quart	2 drops of bleach	4 drops of bleach
One gallon	8 drops of bleach	16 drops of bleach
Five gallons	40 drops of bleach (1/2 tsp.)	80 drops of bleach (1 tsp.)

The only agent used to treat water must be household liquid bleach (5.25% - 6% sodium hypochlorite solution). Other products sold in such as iodine tablets or other products commonly found in camping stores that do not contain 5.25% - 6% sodium hypochlorite solution are not recommended.

**Note: Due to the chemical content, swimming pool or spa water should not be used as a primary sources of drinking water.**