

DISASTER PREPAREDNESS GUIDE FOR HAEMODIALYSIS PATIENTS

In Malaysia, natural disasters and severe weather conditions, for example floods, remain among the unpredictable parts of life.

Dialysis patients are particularly at risk, being entirely dependent on electricity supply and water for dialysis treatment. These utilities may be down for several days. In emergency situations, telephones may not work, and roads and bridges may be impassable. You or your facility staff may not be able to get to your dialysis centre.

This guide is provided to you as a general resource and reference. It will help **you** to be prepared in case the unexpected happens. It is important for you to know the emergency plan for your centre, know how to survive two or more days if your facility is unable to operate, and know how to limit your food and fluid intake. It is important to talk with your dietitian or doctor for more detailed advice.

Frequently asked questions (FAQ)

1. When is there an emergency situation?

It is when there are hazardous conditions, such as fire, flooding etc. You will be unable to be dialysed as usual.

2. Where do I go if my dialysis centre is closed?

Your dialysis unit provider should contact you with information on where to go for dialysis or you should contact the **National Hotline For Dialysis Disaster Relief** (Tel: _____)

3. What happens if I can't find a dialysis unit and I am feeling sick?

Go to the nearest available hospital or call 999.

4. How do I pay for my treatment if I have to go to another facility?

Do not worry about payment - your dialysis providers will have sorted this out with other dialysis centres or your payer.

5. Will I receive a regular 4 hours 3 times a week dialysis during disaster?

Due to the emergency situation, your dialysis schedules and durations may be modified.

OUTLINE OF EMERGENCY PREPAREDNESS PLAN FOR DIALYSIS PATIENTS

- A. General Survival requirements – food, medications, safety
- B. Ensuring continued access to dialysis treatment
- C. Preparedness for emergencies during dialysis treatment

A. GENERAL SURVIVAL REQUIREMENTS - FOOD, MEDICATIONS, SAFETY

- Know the **Emergency Preparedness Plan** of your dialysis facility.
- Consider staying with relatives in unaffected areas which can provide dialysis facilities during the predicted disaster period (e.g. monsoon season)
- Provide your dialysis facility with current telephone numbers: personal, relatives, and friends.

DRAFT VERSION

- Keep copies of your medical and dialysis history.
- Wear an identifying bracelet and keep your dialysis identification card with you.
- Maintain a week's supply of your current medications at all times and a stand-by supply of potassium binders (a medicine that helps the body remove excess potassium via bowel movements), if advised by your Nephrologist.
- Know how to care for your dialysis access.
- Maintain emergency general survival kits:

EMERGENCY GENERAL SURVIVAL KITS

Hand phone

Extra batteries/charged power bank

Torch light/battery powered lantern,

Foldable mats/sleeping bags/blanket

Insecticide spray/ mosquito nets/coils

Important personal items

- Towel and extra clothes,sandals/rubber slippers
- Toiletries-Tooth brush, tooth paste, haircomb/brush, shaver, and etc

Manual can opener

Disposable eating utensils eg: paper/plastic cups, spoons etc

First aid kit i.e. cotton, gauze, tourniquet, plaster, scissors etc

Drinking water

Radio

Candles and matches/lighter

Wet wipes

Prescribed medications

- Prepare at least a week supply of your medications. Check the expiry date and replace items when needed
- You may also want to carry oral potassium binders, just in case you need it.

- Remain at home and listen for public service broadcasts on local radio or TV stations. Your dialysis facility staff will attempt to contact you.
- If you must seek shelter, take your week's supply of medications, emergency supplies, personal items, foldable mats/sleeping bags/blanket, medical information and identifying bracelet. Tell the person in charge at the shelter about your special needs.
- Know your dietary guidelines for emergency preparedness.
 - Follow the Diet Plan for Disaster Situations
 - Maintain dietary supplies (see the 3-day grocery/shopping list in Appendix 1 for suggested items and Appendix 2 for a 3-day Menu plan)

DIET PLAN FOR DISASTER SITUATIONS

During disasters, you may not be able to be dialysed adequately as the duration of dialysis may be shortened and you may only be able to be dialysed twice a week instead of the usual three times per week.

Therefore until the dialysis is able to be recommenced properly, your diet should be more restricted than your usual diet. You need to:

- **restrict fluid** intake, stricter than normal
 - limit to 2 cups per day or half of your usual fluid consumption
 - practice the usual tips to reduce thirst such as chewing gum, rinsing of mouth, use of smaller sized cups
- **follow a lower protein diet** to reduce urea and creatinine in the blood
 - Take half ($\frac{1}{2}$) to two third ($\frac{2}{3}$) of your usual protein portions, twice a day.
- **follow a lower potassium diet** to reduce the risk of elevated potassium in the blood.

You still need to consume:

- **adequate calories**
 - continue with usual intake of carbohydrate food (starchy food)
 - add in oils/ margarine 2 – 3 tps/ meal whenever appropriate
 - add in jam 2 – 3 tps/ meal whenever appropriate
- **low salt diet** to reduce the risk of high blood pressure and fluid overload

Other considerations include:

Food safety:

1. For food that usually needs to be refrigerated, consume within four (4) hours
2. Discard the balance
3. Throw away disposable utensils once used.

Food storage:

1. Keep dried food in airtight containers
2. Keep food away from water, animals and protect from insects.
3. Check and replace food before expiry dates
4. Replace bottled water twice yearly

B. ENSURING ACCESS TO CONTINUED DIALYSIS TREATMENT

Disasters usually happen suddenly, but to certain extent, it can be predicted especially the monsoon flooding season. You should be informed whether your area will be affected. You can keep yourself updated by monitoring warnings from the related governmental agencies.

You also may opt to move away from your area to other safe places with dialysis capability (e.g. staying with relatives) prior to the predicted timing of disaster.

If you cannot do this, and find that you **cannot be dialysed in your own centre during disaster, the following steps are advised:**

- You need to contact your own dialysis centre/manager to be informed what will be the next step. You may be instructed to go to another centre for dialysis, which may already have been identified previously
- Alternatively you may also be contacted by your own dialysis manager regarding the disaster. This is why it is important to always keep your contact information updated with the dialysis centre and to provide as many phone numbers as possible for you, your relatives or friends.
- If you have to seek shelter take your week's supply of medications and bring along the emergency dialysis kit with you (see below) .
- If you have to evacuate immediately to safety and do not have time to contact your dialysis centre, you should identify yourself to the disaster relief personnel who are in charge of the shelter that you are taken to

EMERGENCY DIALYSIS KIT

Checklist:

1. General instructions/information
2. Personal Medical and Dialysis information Form/ Card
3. Information on emergency dialysis centres /contact numbers
4. Dialysis bracelet

General instructions

In an emergency situation, you may need to be dialysed in other centres which will not have important information about you for safe dialysis. Therefore, the dialysis information/medical card must be with you and please wear your identifying bracelet.

Patient Medical History and Dialysis Treatment Information Form

DIALYSIS CENTRE: _____ **TEL NO:** _____

Name of Dialysis Manager: _____ **TEL NO:** _____

Patient's Name: _____ **NRIC no:** _____

Address: _____

Tel.: _____ **Email:** _____

Name of Next-of-Kin: _____ **Tel. of Next-of-Kin:** _____

MEDICAL HISTORY AND CLINICAL INFORMATION

Nephrologist's Name: _____ **Tel. No.:** _____

Primary Cause of Kidney Failure: _____

Allergies: _____

Other Medical Conditions Being Treated: _____

Hepatitis Status: _____ **Date of Test:** _____

Medications:

HEMODIALYSIS PRESCRIPTION

Type of Haemodialysis Treatment: Normal Haemodialysis Haemodiafiltration

Treatment Time: _____ Hours **Dry Weight:** _____ kg

Dialyzer Name: _____ **Dialysate:** Normal Calcium Low Calcium

Blood Flow Rate: _____ ml/min **Heparin Dose:** _____ units

Vascular Access : _____

Erythropoietin: Type : _____ **Dosage :** _____

Personal Medical and Dialysis Information Form/Card:

What is this?

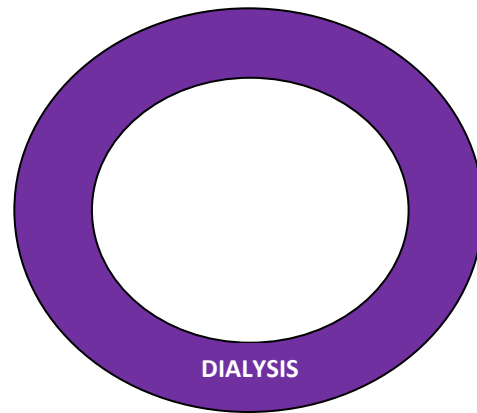
It is an important card containing your personal data and information on your medical conditions and dialysis treatment information and medication.

Where to get it?

You will need to fill in the information card provided by the dialysis centre within 1 month of starting your dialysis. You will need to carry this card with you at all times.

IDENTIFYING BRACELET

Colour: lavender



What is this?

A dialysis bracelet is a waterproof rubber band that is meant to be worn around the wrist by dialysis patients during disasters. The word “DIALYSIS” is printed on its surface for easy identification

Where to get it?

All dialysis patients will be provided with this band by their respective dialysis centres. You should keep it in your emergency dialysis kit.

When to wear it?

All dialysis patients should start wearing the dialysis bracelet once the monsoon season starts. Please let your dialysis need be known to the evacuation centre staff . You can take off your bracelet and store it back in the emergency kit once the disaster is over.

Why should I wear the identifying bracelet? Identification of dialysis patients can be difficult when there are many other people needing help in an emergency. The provided dialyzing bracelet should be worn during an emergency for easy identification. If you are injured or unable to talk, medical workers need to know quickly that you are a person on dialysis.

C. EMERGENCY HAPPENING DURING DIALYSIS TREATMENT

What should you do in the event of an emergency while you are undergoing haemodialysis treatment?

Follow the instructions of the dialysis staff:

1. If there is time for blood return before evacuation :

1.1 If you are familiar with connecting, disconnecting and the procedure to return blood

- Return blood immediately
- Clamp both the clamps on needles/catheter (Put pictures)
- Clamp both the big clamps on the thicker blood lines
- Unscrew the thicker blood lines from the dialysis needles.
- Disconnect the thicker lines from dialysis needle
- Apply cap to the needle or catheter
- Evacuate

1.2 If you do not know the procedure to return blood and disconnect call for help from staff to help return blood and disconnect lines from

needle/catheter

- Evacuate

2. **If you have to evacuate immediately**

1) If you are familiar with disconnecting procedure

- Stop Pump
- Clamp both red and blue lines
- Clamp both red and blue needles
- Disconnect lines from needles
- Evacuate immediately

2) **If you are not familiar with disconnecting procedure**

- Clamp the big clamps on each of the blood lines
- Clamp the small clamps on each of the needles
- Turn the luer lock anti-clockwise to unlock both needles

(Cut the blood lines only **the thicker** blood lines with scissors if it cannot be unlocked)

NEVER cut the access needle lines or between the clamp and the access. Dialysis Catheters should NEVER be cut.

- Disconnect both needles from blood lines
- Evacuate immediately

Appendix 1**THREE-DAY GROCERY/ SHOPPING LIST**

Item	Amount (per person)
Bread/ Starchy food	
Rice	1 packet (1 kg/ packet)
Bread (white/ bun / prata / nan/ kebab bread)	1 loaf/ packet
Instant cup noodles *	
Biscuits (low salt crackers/ Marie/ biscuit with cream/ wafer)	1 pack (~ 500gm)
Kuih–muih (cake/ muffin)	3 small packets
Fish/Meat	
Canned chicken (curry/ kurma/ lemak/ sambal) *	3 small cans
Canned meat (curry/ kurma/ lemak/ sambal)	3 packets
Chicken floss/ home-made low salt serunding	
Tuna*	
Sweets (to increase calories)	
Jam/ kaya	1 small bottle
Honey	1 small bottle
Sweets	1 small pack
Fat & Oils (to increase calories)	
Low salt margarine/ soft margarine	1 small tub
Water/ drinks	
Bottled water	3 bottles (500 ml/ bottle)
Vegetables	
Canned vegetables *	1
Fruits	
Canned fruits (rambutan/ lychee/ pineapple)*	2 cans

* to discard soup/ can water/seasoning/gravy

Appendix 2

3 DAY MENU PLAN

Meal	Day 1	Day 2	Day 3
Breakfast	Bread 2 slices (+ 2 tsp jam + 2 tsp margarine) Water/coffee +/- sugar (100 ml)	Cream bun 1 pc Water/coffee +/- sugar (100 ml)	Cracker Biscuits 6 pcs (+ 2 tsp jam + 2 tsp margarine) Water/coffee +/- sugar (100 ml)
Lunch	Roti Nan 1 + 1 ½ matchbox-sized piece of chicken + ½ cup canned fruit (peach) + °packet drink (150 ml)	Prata +1 ½ matchbox-sized piece of meat (without gravy) + ½ cup canned vegetable + ½ cup canned fruit + °packet drink (150 ml)	Roti kebab + 1 ½ matchbox size tuna + ½ cup canned vegetable + ½ cup canned fruit + °packet drink (150 ml)
A/ tea	Cake e.g. Twiggies @ (1 pc) + °packet drink (100 ml)	Muffin(1pc) + °packet drink (100 ml)	Biscuit Marie @(6 pcs) + °packet drink (100 ml)
Dinner	Instant cup noodles *without seasoning (+ 1 ½ matchbox chicken) + ½ cup canned vegetable + ½ cup canned fruit + plain water (150ml)	Bread 3 slices + 1 ½ matchbox-sized piece of meat (without gravy) + ½ cup canned vegetable + ½ cup canned fruit + plain water (150ml)	Instant cup noodles – meehoon* + 1 ½ matchbox-sized serving of tuna* + + ½ cup canned vegetable + ½ cup canned fruit + plain water (150ml)

For people with diabetes, avoid sweets/sugary drinks in this plan unless experiencing symptoms of low blood sugar levels

* to discard soup/can water/seasoning or gravy