

DRAFT

# **DISASTER PREPAREDNESS AND CONTINGENCY PLAN FOR DIALYSIS FACILITIES**

**A Manual for Hospital and Dialysis Facilities**

**First Edition (DRAFT)**

**2015**

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## 1.0 INTRODUCTION

This disaster management manual has been prepared to assist hospital-based and stand-alone dialysis facilities to cope with disasters which may affect dialysis operations and severely impact patients' access to care. A natural disaster is any unplanned event that can cause deaths or significant injuries to employees, patients or the public, or cause disruption to a facility operation with physical or environmental damage. Natural disasters such as floods do occur in Malaysia and dialysis organizations must be ready to deal with any type of disaster. A disaster can occur suddenly but our reasoned response will determine the extent to which damage can be mitigated and operations resumed.

This manual establishes specific measures that will minimize risk to lives, enable the facility to prevent and/or minimize damages, and quickly resume operations, using internal and external resources and expertise. This manual will assist hospital-based and stand-alone dialysis facilities to be prepared for timely and efficient disaster response and provide coordinated information on recovery efforts. This disaster preparedness plan will have provisions to:

- Ensure the life safety of employees and patients.
- Train all dialysis employees and patients to react appropriately in a disaster.
- Ensure the availability of dialysis care (which may necessitate adjusting treatment times or adding shifts).
- Protect electronic data and hard copy clinical and business records.
- Mitigate damage to property and facility/building contents.
- Encourage year-round collaboration with key partners on local, state, and federal levels.
- Encourage planning and sharing of resources (workforce, equipment, facilities, and supplies) with other local medical facilities during and following a disaster.
- Expedite swift resumption of dialysis operations.
- Review and make necessary, reasonable changes to buildings, systems, and equipment to ensure the integrity of structures and services.
- Comply with federal, state, and local laws and regulations, in addition to facility policies.

This manual has been prepared in a standard operating procedure (SOP) format and organized using the principles of emergency management: **Mitigation, Preparedness, Response and Recovery**. The manual is intended as a general guide and is not a comprehensive document to address all types of disasters or the specific needs of various types or locations of dialysis facilities. These guidelines are prepared after reviews and adaptation from a number of documents including the Centre or Medicare and Medicaid Services guidelines.

## 1.2 EXPECTED DISASTER SCENARIOS FOR HOSPITAL AND DIALYSIS FACILITIES

The impact of internal disasters such as a fire, hazardous material exposure, utility failures, etc., is typically limited to the hospital and dialysis facilities while external disasters include scenarios such as earthquakes, mass casualty events or epidemics where the hospital itself may or may not be affected but is a critical part of the larger response. As such three scenarios can be expected when disasters strike. They are as follows:

***(1) Community Affected – Hospital / Dialysis facility Unaffected:***

During such scenarios, hospitals play a vital role in the larger disaster response being undertaken. For hospitals such scenarios would imply a sudden increase in demand because of the surge in the number of patients seeking medical attention. There is a possibility of the hospital and dialysis facility getting overwhelmed if adequate preparedness and response mechanisms are not swung into action as soon as the disaster occurs.

***(2) Community Unaffected – Hospital / Dialysis facility Affected:***

Such scenarios arise from the internal disasters of hospital/ dialysis facilities. As such, partial or complete evacuation and transfer of critical patients to networked hospitals/ other dialysis facilities is the key to successful response. Such scenarios also demand a high degree of preparedness on the side of the hospital/ dialysis facility administration and staff, as well as a speedy response from the surrounding community and hospitals.

***(3) Community Affected – Hospital / Dialysis facility Affected:***

Such situations exacerbate the challenge posed to hospitals and dialysis facilities, as they not only need to cater to the existing demand on their facilities but also need to address the sudden increase in demand on their facilities because of the surrounding community being affected by a disasters. In such situations the hospitals may even find themselves facing the added challenges of loss of essential services, like water supply, electricity, medical gases, etc. and a reduction in man-power.

## **2.0 MITIGATION (PREVENTION)**

A hazard is any source of danger that may threaten homes or businesses, including dialysis facilities. A hazard can be a natural weather event (such as a flood, a hurricane, a thunderstorm, severe heat, a tornado, a tropical storm, or a wildfire) or geophysical activity (such as a volcano eruption, tsunami or an earthquake). Hazards can also be manmade or technological, such as a toxic chemical spill, civil riot, war and a terrorist attack. A hazard can vary in levels of magnitude and rate of occurrence, and fluctuate across geographic areas. Any hazard has the potential to cause a disaster.

Synonymous with prevention, mitigation concerns itself with reducing or eliminating hazards. Hazard mitigation includes steps the facility can take to reduce or eliminate the long-term impacts of potential hazards. Understanding hazard mitigation at the local level enables a facility to lessen vulnerability to various hazards, which can result in less business disruption and a faster return to normal after an emergency.

Identifying potential hazards is the first step in mitigation. Hazard identification varies based on region as well as facility, which means that every organization and community will have its own unique mitigation plan.

<b>DISASTER CONTINGENCY PLAN FOR HOSPITAL AND DIALYSIS SERVICES</b>	<b>REF: 03/ 2015</b>
<b>2.0 MITIGATION</b>	<b>ISSUE 1</b>

**OBJECTIVES**

1. To lessen disaster impact by risk identification and hazard prevention.
2. To ensure functioning of facility and availability of dialysis treatment.

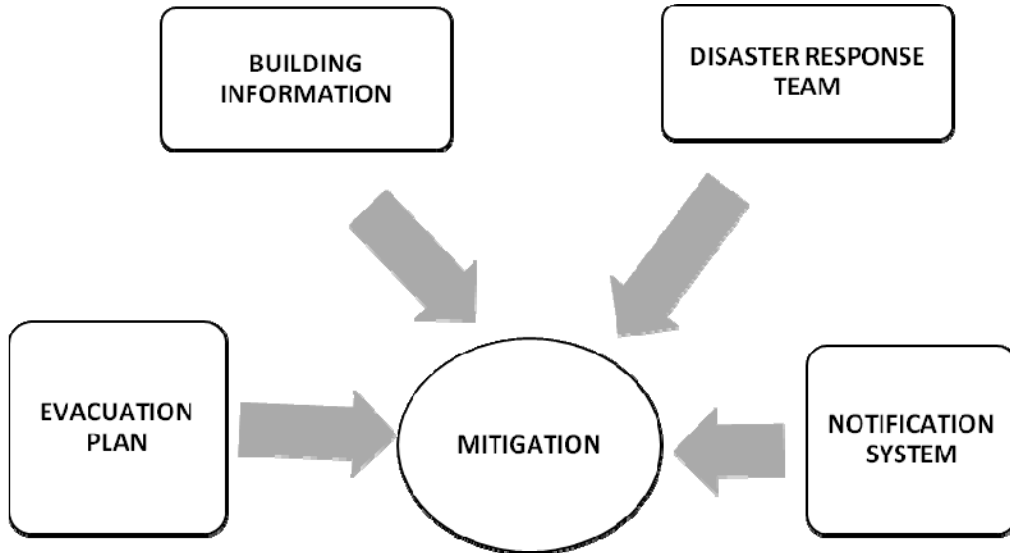
<b>No</b>	<b>Action/ Issues</b>	<b>Responsibility</b>
1.0	<b>Compile Building information</b>	Person In Charge  Dialysis Facility Manager
1.1	It is important to make certain that the facility has detailed site plans, maps and inventories.	
1.2	Each building must be assessed to ensure that the facility's vulnerability to various hazards is lessened. This is to reduce business disruption and enable a faster return to normal operations after disaster.	
1.3	The following information of building required: A. Certificate of Occupancy- location of building including name of the building and street name B. Floor plans C. Map showing all exits and the relocation area(s) outside the building D. Utility, water, gas, and electrical shutoffs E. Water main valves and hydrants F. Sprinkler shut-offs (both regional and main) G. Gas, water, and sewer lines H. Electrical substations and mains I. Storm drains J. Alarms K. Fire extinguishers and fire suppression systems and their operation L. Exits M. Stairwells N. Hazardous material storage (include diesel/fuel storage) O. Location of evacuation kit/emergency box and high value items P. Location of any pertinent safety equipment, including supplies, tools, and first aid kits Q. Dialysis treatment locations and other potential	

	staff or patient locations such as restrooms etc.	
<b>2.0</b>	<b>Establish Emergency Response Team</b>	Person In charge
2.1	Every hospital and dialysis facility is required to establish an emergency and disaster response team.	Dialysis Facility Manager
2.2	The objective of the team is to respond quickly and effectively to disasters including floods, fire and interruption of power supply.	
2.3	The Person In Charge of dialysis facility will be an Emergency Team Leader and others staff will be appointed as team members to accomplish all the tasks during emergencies.	
2.4	It is advisable that a <b>chain of command</b> is established with details of the personnel's name, contact number and the responsibilities of each of the team member.	
<b>3.0</b>	<b>Prepare Emergency Evacuation Plan</b>	Dialysis Facility Manager
3.1	<b>Emergency evacuation</b> is the immediate and rapid movement of people away from the threat or actual occurrence of a hazard.	and
3.2	The <b>Evacuation Instruction</b> lists the actions to take when evacuating the building.	Emergency Response Team Members
3.3	A copy of each of these sheets will be posted at each entrance and exit of all facilities.	
3.4	The occupants are reminded not to re-enter the building until it is declared safe.	
3.5	In the case of a major disaster, patients will be re-scheduled for dialysis treatment and patients may be advised on emergency diet.	
3.6	<b>Evacuation Assembly Point</b>	
3.6.1	Every dialysis facility needs to identify the safest evacuation assembly area for their staff and patients.	

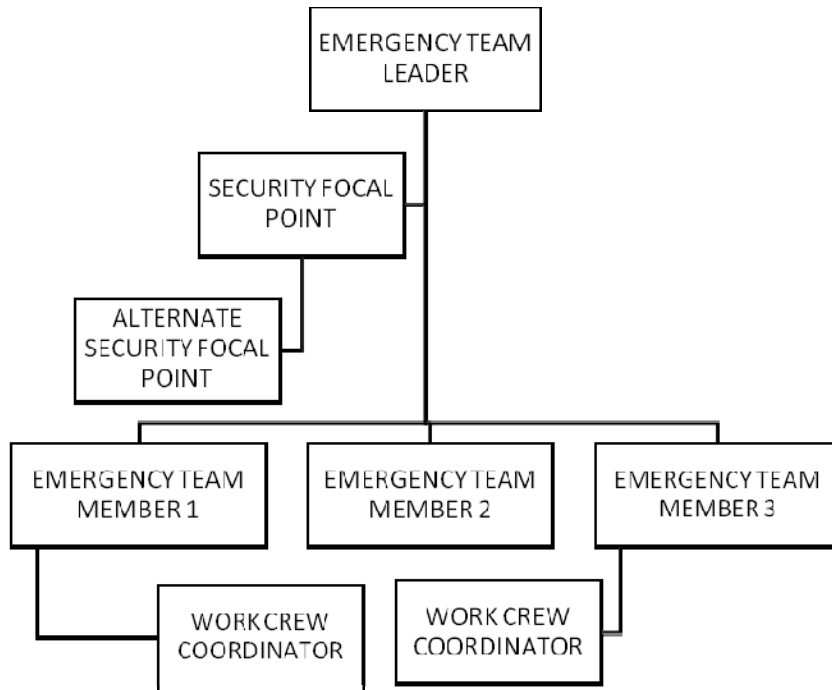


<p>3.6.2</p> <p>3.6.3</p>	<p>All patients and their relatives should be informed of the assembly location, and the plan should be pasted inside the facility.</p> <p>The Person In Charge/ Dialysis Facility Manager should have a system to organize all the staff and patients into groups to help ensure that everyone from the facility is safe and accounted for.</p>	
<p><b>4.0</b></p> <p>4.1</p> <p>4.2</p>	<p><b>Formulate Notification System</b></p> <p>Staff and patients of the dialysis facility can be notified by:</p> <ul style="list-style-type: none"> <li>• Telephone/ fax,</li> <li>• Social media such as whatapps, facebook, wechat, viber</li> <li>• Email / sms</li> <li>• Pager/ 2 ways radio</li> </ul> <p>Monitor weather broadcast/ water level from time to time from the following links or any other trusted website.</p> <ul style="list-style-type: none"> <li>• <b>Flood and water level</b> <ol style="list-style-type: none"> <li>a. myJPS</li> <li>b. infobanjir.water.gov.my</li> </ol> </li> <li>• <b>Tsunami and weather</b> <ol style="list-style-type: none"> <li>a. met.gov.my</li> <li>b. www.accuweather.com</li> </ol> </li> </ul>	<p>Person In Charge</p> <p>Dialysis Facility Manager</p>
<p><b>5.0</b></p> <p>5.1</p> <p>5.2</p> <p>5.3</p>	<p><b>Emergency Transportation Plan</b></p> <p>Coordinate with local Public Works Department (JKR) to plan and prepare for weather, emergencies or situations that may impede or affect road and bridge access.</p> <p>Communicate with other emergency departments to provide transportation during disasters e.g.:</p> <ul style="list-style-type: none"> <li>• Jabatan Pertahanan Awam Malaysia (JPAM)</li> <li>• BOMBA</li> <li>• Pusat Operasi Tentera Udara</li> </ul> <p>Communicate with District Health Office Crisis Preparedness and Response Centre (CPRC) and/or State Health Department CPRC.</p>	

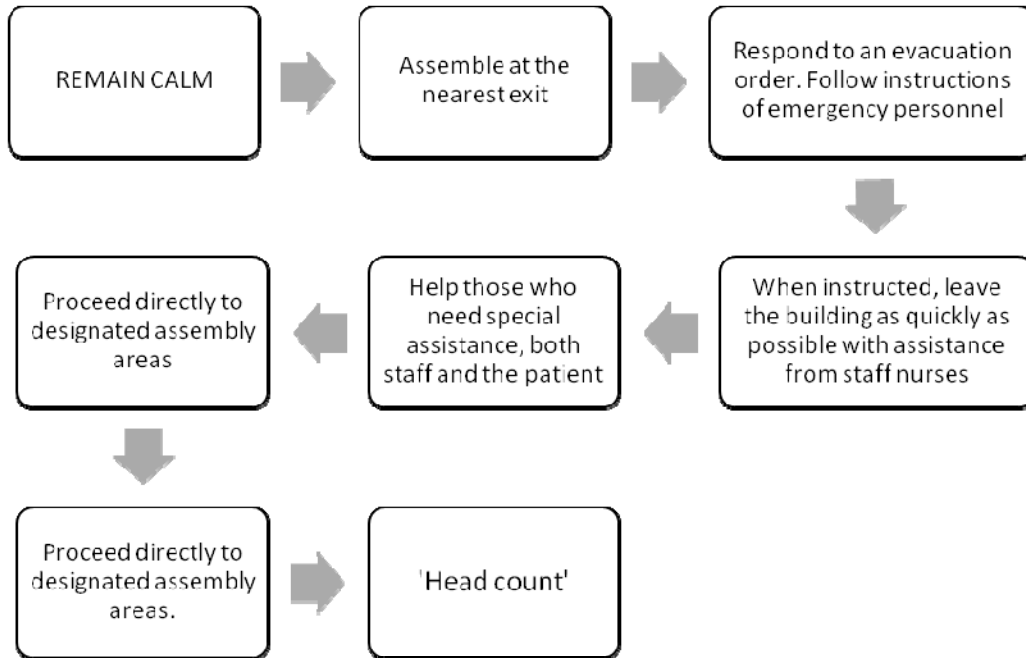
**FIGURE: 1.0 Mitigation Process**



**FIGURE 2.0: Flowchart of Disaster Response Team**



**FIGURE 3: Chart of Evacuation Instruction**



**Table 1: Evacuation Assembly Point**

Type of Evacuation	Evacuation Procedure	Designated gathering Location
1. Building Evacuation		
2. Local Area Evacuation		
3. Widespread Evacuation		

## Flood Mitigation Strategies

Dialysis facilities should not be built in areas that are prone to floods. In places where seasonal monsoon floods may occur, these floods usually develop slowly over a period of days and there is usually time to secure the environment. There should be heightened awareness and preparedness when the season or monsoon period approaches. Flash floods after heavy rains and thunderstorms may develop in a matter of minutes. If you are in an area prone to flash flooding, these strategies must be employed.

1. Establish warning and evacuation procedures for the facility.
2. Store all sensitive equipment high above where probable floodwaters will reach.
3. Mount electrical substations and junction boxes above floodwater heights.
4. Have plastic sheets and duct tapes on hand to cover equipment or windows if necessary.
5. Consider having sandbags, sand and shovels on site.
6. Monitor for flood warnings from the mass media and the social media.
7. Store all critical records at least 24" off the floor in case flooding occurs during a facility closure.
8. Permanent flood proofing measures are taken before a flood occurs and require no human intervention when flood waters rise. They include:
  - Stacking Haemodialysis machines on top of elevated tiled cement mound in the parts of the facility that are particularly susceptible to flood damage.
  - Installing check valves to prevent water from entering where utility and sewer lines enter the facility.
  - Reinforcing walls to resist water pressure; sealing walls to prevent or reduce seepage.
  - Consider constructing floodwalls or levees outside the facility to keep flood waters away.
9. Contingent flood proofing measures are also taken before a flood but require some additional action when flooding occurs. These measures include:
  - Installing watertight barriers called flood shields to prevent the passage of water through doors, windows, ventilation shafts or other openings
  - Installing permanent watertight doors and constructing movable floodwalls
  - Installing permanent pumps to remove flood waters
10. Emergency flood proofing measures are generally less expensive than those listed above, though they require substantial advance warning. They include:
  - Building walls with sandbags
  - Constructing a double row of walls with boards and posts to create a "crib," then filling the crib with soil
  - Constructing a single wall by stacking small beams or planks on top of each other

<b>DISASTER RECOVERY CONTINGENCY PLAN FOR HOSPITAL AND DIALYSIS SERVICES</b>	<b>REF: 03/ 2015</b>
<b>3.0 DISASTER PREPAREDNESS</b>	<b>ISSUE 1</b>

**OBJECTIVES**

1. Ensure safety of staff, patients and visitors.
2. Return to dialysis operations as soon as possible after the disaster.

<b>No.</b>	<b>Action/ Issues</b>	<b>Responsibilities</b>
<b>1.0</b>	<b>EFFECTIVE COMMUNICATION PLANNING</b>	Dialysis Facility Manager
1.1	<b>Update contact numbers and addresses</b> of the following: <ul style="list-style-type: none"> <li>• Staff</li> <li>• Patients</li> <li>• Next to-kin/ caregiver</li> </ul>	
1.2	Have an <b>Emergency contact number</b> AVAILABLE at all times. This can be a local or national; mobile or toll-free hotline number for staff and patients to call to check on the facility's status, availability of treatment or changes in dialysis schedules and other critical information.	
1.3	<b>Develop relationship with the following authorities/ vendors and update their contact numbers</b> <ul style="list-style-type: none"> <li>• BOMBA</li> <li>• Polis</li> <li>• Syarikat Bekalan Air</li> <li>• TNB</li> <li>• JPAM</li> <li>• Bilik Gerakan Banjir Daerah/Negeri (CPRC)</li> <li>• Pusat Operasi Tentera Udara</li> <li>• Supplier of dialysis disposables</li> <li>• Alternative (back-up) dialysis centres – prior agreements and arrangements is encouraged</li> </ul>	

<p><b>2.0</b></p> <p>2.1</p> <p>2.2</p> <p>2.3</p>	<p><b>Review Existing Contingency Plan</b></p> <p>Review, refine and update contingency plan regularly to be sure it remains effective in the following areas:</p> <ul style="list-style-type: none"> <li>• The evacuation route</li> <li>• Protection of equipment</li> <li>• Transportation plan</li> <li>• Medication &amp; consumables supply</li> </ul> <p>Make sure adequate information is provided to patients and staff on contingency plan.</p> <p>Any changes on procedures should be informed to staff and patients.</p>	<p>Person In Charge</p> <p>and</p> <p>Emergency Response Team</p>
<p><b>3.0</b></p> <p>3.1</p> <p>3.2</p> <p>3.3</p>	<p><b>Record Management: ‘The Emergency Box’</b></p> <p>Every dialysis facility should have a box to keep important documents pertaining to facility operations, staffing and secured patient records. Place this Emergency Box in a safe place in the dialysis centre.</p> <p>The contents Emergency Box should include:</p> <ul style="list-style-type: none"> <li>• Telephone numbers and email addresses of staff and emergency contacts</li> <li>• Patient census with names, contact numbers and email addresses.</li> <li>• Copies of the Medical Summary and haemodialysis orders for every patient</li> <li>• Blank copies dialysis charts</li> <li>• Copies of mutual aid agreements and contracts</li> <li>• Important schematics, such as the water system’s flow pattern and operation</li> <li>• List of critical service providers (vendors, suppliers) with contact numbers/email addresses</li> <li>• Disposable camera</li> <li>• Flashlight with extra batteries</li> </ul> <p>Staff should be educated about the emergency box and informed of its location. Integrate the protection of this emergency box into the disaster plan, incorporate its use into facility drills and designate a person to be responsible for the box.</p>	<p>Person In Charge</p> <p>and</p> <p>Dialysis Facility Manager</p>

<p>4.0</p> <p>4.1</p> <p>4.2</p> <p>4.3</p> <p>4.4</p> <p>4.5</p>	<p><b>Utilities and Inventory (supply) Check for Emergency situations</b></p> <p>Ensure adequate supply and monitor stock usage. Keep track on medication lists and dialysis consumables.</p> <p>Ensure alternative sources of essential utilities are in place to meet the needs of patient care and support functions during an internal disaster.</p> <ul style="list-style-type: none"> <li>• Generator: supply emergency power to patient care and other critical areas during a power outage.</li> <li>• Tanker (and other alternative water supply): supply water to the Hospital/ dialysis facilities during emergency situations.</li> <li>• Medical gas: to be supplied by cylinders</li> </ul> <p>Maintain an emergency <b>tool box</b> that contains extension cords, flashlights, batteries, and other supplies essential during a facility emergency.</p> <p><b>Procurement and delivery</b> procedures for supplies and equipment known to be required during specific emergency situations have been incorporated into the specific contingency plan.</p> <p><b>If additional or unanticipated emergency supplies are needed:</b></p> <ul style="list-style-type: none"> <li>• The Dialysis Facility Manager will inform the Head of Department of supply and equipment needs.</li> <li>• The Head of Department will work with the Finance Department, to procure additional supplies as needed.</li> </ul>	<p>Person In Charge</p> <p>and</p> <p>Dialysis Facility Manager</p>
<p>5.0</p> <p>5.1</p> <p>5.2</p>	<p><b>Affiliated Agreements</b></p> <p>The hospital/ dialysis facility has established agreements with its <b>vendors</b> to supplement routine supply/ medications and equipment needs.</p> <p>The hospital/ dialysis facility has established mutual aid agreements with <b>other hospitals/ back-up dialysis</b></p>	<p>Person In Charge</p> <p>and</p> <p>Dialysis Facility Manager</p>

	<p><b>facilities</b> to share facilities, supplies, equipment and personnel resources in the event of a disaster in order to provide essential services to patients.</p> <p>The agreement serves to confirm the willingness of all participating hospitals and dialysis facilities to accept patients required to be evacuated from another facility due to disaster.</p> <p>The <b>receiving hospital / dialysis facility</b> will accept patients based on its operating capability at the time of the notification.</p>	
<p><b>6.0</b></p> <p>6.1</p> <p>6.2</p>	<p><b>Staff Education and Preparedness</b></p> <p>The hospital/ dialysis facility will provide staff training and education related to:</p> <ul style="list-style-type: none"> <li>• The Facility’s Emergency Evacuation Plan</li> <li>• Emergency telephone numbers and procedures</li> <li>• Roles and duties in disaster response and recovery – “Chain of Command</li> <li>• The facility’s physical lay-out</li> <li>• The location of the nearest exit and alternate exit, and the direct routes to each</li> <li>• The location and proper use of fire extinguishers</li> <li>• Basic life support (BLS/CPR) and First Aid</li> <li>• The patient evacuation priorities of the facility</li> <li>• The “Clamp and Cap” procedures</li> <li>• How to evacuate patients</li> <li>• How to assume control, maintain calm and prevent panic</li> <li>• How to instruct co-workers in their disaster roles</li> <li>• Evacuation routes and a safe meeting place</li> <li>• Utility and water shut-offs.</li> </ul> <p><b>The “Clamp and Cap” procedure</b></p> <p>In a disaster situation when <b>immediate</b> evacuation of the facility is required, the patient’s blood will not be returned and access needles will remain in place until the patients arrive in a safe place and can receive assistance in removing needles. “Clamp and Cap” procedures should be simulated during a disaster drill.</p> <ul style="list-style-type: none"> <li>• Locate the emergency pack.</li> </ul>	<p>Dialysis Facility Manager</p> <p>Nursing Sister</p> <p>Senior Staff Nurse</p>



	<ul style="list-style-type: none"> <li>• Clamp both lines which are directly connected to the needles or catheter.</li> <li>• Clamp both of the thicker bloodlines.</li> <li>• If the lines have pinch clamps, pinch all four clamps completely closed.</li> <li>• Unscrew the lines between the closed clamps and cap the ports of the lines still connected to the catheter or needles.</li> </ul>	
<b>7.0</b>	<b>Patients Management and Education</b>	
7.1	Difference types of disasters require different patient management strategies.	Nephrologist
7.2	In order to treat incoming disaster, patients may be transferred to other hospitals/ dialysis facilities. <b><u>The Medical History and Clinical Information sheet</u></b> and <b><u>Patient Identification card</u></b> accompanies the patients for appropriate processing and continuity of care.	Person In Charge Dialysis Facility Manager
7.3	The Dialysis Facility Manager will oversee patient tracking and flow of patient information.	Nursing Sister Senior Staff Nurse
7.4	Patients and family members will be informed with regards to the relocation and re-scheduling of the dialysis treatment.	
7.5	At the same time, patients and their caregivers will be educated on; <ul style="list-style-type: none"> <li>• Guide for disaster preparedness</li> <li>• To update medication lists</li> <li>• Stock-up food (shelves-life)</li> <li>• Emergency diet- monitor food intake/ limit fluid consumptions</li> <li>• Shelter information - encourage patient to inform their whereabouts</li> <li>• Safety/care of vascular access</li> <li>• First Aid at home</li> <li>• Advice for patient to move to non-flood prone areas during the flood season e.g.: stay with children in other towns.</li> </ul>	
<b>8.0</b>	<b>Security of building/ equipment</b>	

	<ul style="list-style-type: none"> <li>• Risk assessment on physical conditions</li> <li>• Secure entrance and exit – lock and keys</li> <li>• Shift dialysis equipment to higher location</li> <li>• Ensure consumables and dialysis equipment are at safe location</li> </ul>	<p>Dialysis Facility Manager</p>
<p><b>9.0</b></p>	<p><b>Lists for Disaster Preparedness</b></p> <ul style="list-style-type: none"> <li>• Emergency providers contact number</li> <li>• Local utilities contact number and addresses</li> <li>• Patient registration list including contact number, addresses and next to kin</li> <li>• Dialysis staff's contact number and addresses</li> <li>• Affiliated HD Facilities (back-up)</li> <li>• Contingency Plan Checklist</li> </ul>	<p>Dialysis Facility Manager</p>

**CHECKLISTS:****Table 2.1: Emergency Providers Contact Number****(Example)**

<b>No</b>	<b>Emergency Providers</b>	<b>Address</b>	<b>PERSON IN CHARGE</b>	<b>No. Tel/ HP</b>
1.	Polis Diraja Malaysia (Kelantan)	Ibu Pejabat Polis Kontigen Kelantan, Jalan Bayam, 15990 Kota Bharu, Kelantan	Insp. XXXX	09-748 5522/ 019-930XXXX
2.	Jab. BOMBA dan Penyelamat			
3.	Jab. Perkhidmatan Awam (JPAM)			
4.	Pusat Operasi Tentera Udara			
5.	Majlis Bandaran (Bilik Gerakan Banjir)			
6.	Bilik Tindakan Banjir (CPRC)			
7.	Ambulance			

**Table 2.2: Local Utilities Contact Number and Addresses****(Example)**

<b>No</b>	<b>Local Utilities</b>	<b>Address</b>	<b>PERSON IN CHARGE</b>	<b>No. Tel/ HP</b>
1.	Syarikat Air Kelantan	Lot 1438, Tmn Koperatif Tanjung Chat, Jln Wakaf Mek Zainab, 15300 Kota Bharu, Kelantan	En. XXX	09- 7435777/ 019-959 XXX
2.	Tenaga Nasional Berhad (TNB)			
3.	Majlis Bandaraya			
4.	Pejabat Daerah			
5.	Penghulu Mukim			

**Table 2.3: Dialysis Staff Contact Number**

<b>No.</b>	<b>Staff Name</b>	<b>Position</b>	<b>Address</b>	<b>Contact no.</b>

**Table: 2.4: Patient Registration List**

No	Pt Name	Hep. status	Date of 1 <sup>st</sup> HD	Cause of CKD	Address	Tel no.	Next of kin	HP no.

**Table 2.5: List of Affiliated HD facilities (EXAMPLE)**

STATE	AREA	HAEMODIALYSIS UNIT/ CENTRES	ADDRESS	TEL.NO	FAX NO.	PERSON IN CHARGE
TERENGGANU	Dungun	Pusat Dialisis Maidam	Lot 3649, No. 10 GR/F, Jalan Baru Kg Pak Sabah, 23000 Dungun, Terengganu	09- 8422350	09- 8422351	
	Jerteh	Pusat Dialysis Sayang	Kg Tok Has, 22000 Jerteh, Terengganu	-	-	
	Kuala Terengganu	Pusat Rawatan Dialisis Islah	No.199 Jalan Sultan Zainal Abidin, 20000 Kuala Terengganu	09- 6315603	09- 6227703	
		Pusat Dialisis Nuraeen	Lot PT 1171 Jalan Kenanga, Mukim Batu Burok, 20400 Kuala Terengganu	09- 6226336	09- 6311136	
		Pusat Hemodialisis Prihatin Tengku Besar Terengganu	No. 134-T & 134 U, Ground Floor, Jalan Sultan Zainal Abidin, 20000 Kuala Terengganu	09- 6220871	09- 6220871	
		Pusat Dialisis PPBPT	Wisma PBPT, PT 768 Lorong Kubang Buyung, Losong, 21000 Kuala Terengganu	09- 6252306/ 09- 6252308	09- 6252307	
		Pusat Rawatan Dialisis Puteri Zulaikha	Lot PT 1878, Perkedai KP Perdana, Taman KP Perdana, Kubang Parit, 21050 Kuala Terengganu	09- 6205472	09- 6205472	
	Kemaman	Pusat Hemodialisis Nabilah	KCP 20, Tingkat 2, Jalan Lebai Saras, 24000 Chukai, Kemaman, Terengganu	09- 8595603/ 09- 8504809	09- 8595613	
	Marang	Hemodialisis Bukit Payong	Lot 7758 (Rumah Kedai), Lorong Kubang Buyung, Losong, 21000 Marang, Kuala Terengganu	09- 619072	09- 6190792	

**Table 2.6: Contingency Plan Checklist**

<b>No</b>	<b>DIALYSIS FACILITY</b>	<b>YES</b>	<b>NO</b>
1.0	<b>Save and update the following contact numbers with addresses:</b>		
	• Dialysis staff		
	• Emergency providers		
	• Local utilities		
	• Affiliated centres/ hospital		
	• Patient Registration List & Caregivers		
	• Vendors and suppliers		
1.1	<b>Review existing important documents</b>		
	• Building information		
	• Emergency Evacuation plan		
	• Emergency Transportation Plan		
	• Notification – Communication Flow		
	• Patient – Medical History & Clinical Information		
	• Documentation of education for staff and patients'		
	• Documents in <b>Emergency Box</b>		
	• Affiliation agreements		
1.2	Ensure adequate stock supply & inventories		
1.3	Secure HD and other equipment - safe location, lock and key		
1.4	Monitor weather broadcast and follow up with local authority		
1.5	Be ready to face in any expected disasters		
	<b>DIALYSIS PATIENTS</b>	<b>YES</b>	<b>NO</b>
2.0	<b>Ask patients to save an updated list of contact numbers:</b>		
	• Dialysis facility, dialysis manager, dialysis staff		
	• Caregivers/ children / relatives		
	• Dialysis emergency hotline (if available)		
	• Hospital/Ambulance/ Police/ BOMBA		
2.1	Keep patient ID Card and copy of Medical History and Dialysis Treatment Information		
2.2	Update medication lists and ensure enough medication supply		
2.3	Equip and keep emergency supply kit at home		
2.4	Ensure supply of clean water		
2.5	Stock up food (biscuits, canned food)		
2.6	Limit fluid intake and monitor food intake in case disaster strikes		
2.7	Avoid high potassium, high salt and high-fluid food		
2.8	Ensure safety of fistula and self-cleanliness		
2.9	Contact emergency responders or hospitals should any health complications develop		
2.10	Give cooperation and follow instructions at all times		
	Communicate with authorities if Welfare/ Financial assistance needed after disaster (recovery phase)		
	<b>AFFILIATED DIALYSIS FACILITIES</b>		
3.0	Contact the Person In Charge of Affiliated Dialysis Facility		
3.1	Assess the availability of dialysis slots and support		
3.2	Provide for equipment, disposable and Staff support if required and available		
3.3	Prepare referral document to transfer patients		

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<b>DISASTER RECOVERY CONTINGENCY PLAN FOR HOSPITAL AND DIALYSIS SERVICES</b>	<b>REF: 03/ 2015</b>
<b>4.0 DISASTER RESPONSE</b>	<b>ISSUE 1</b>

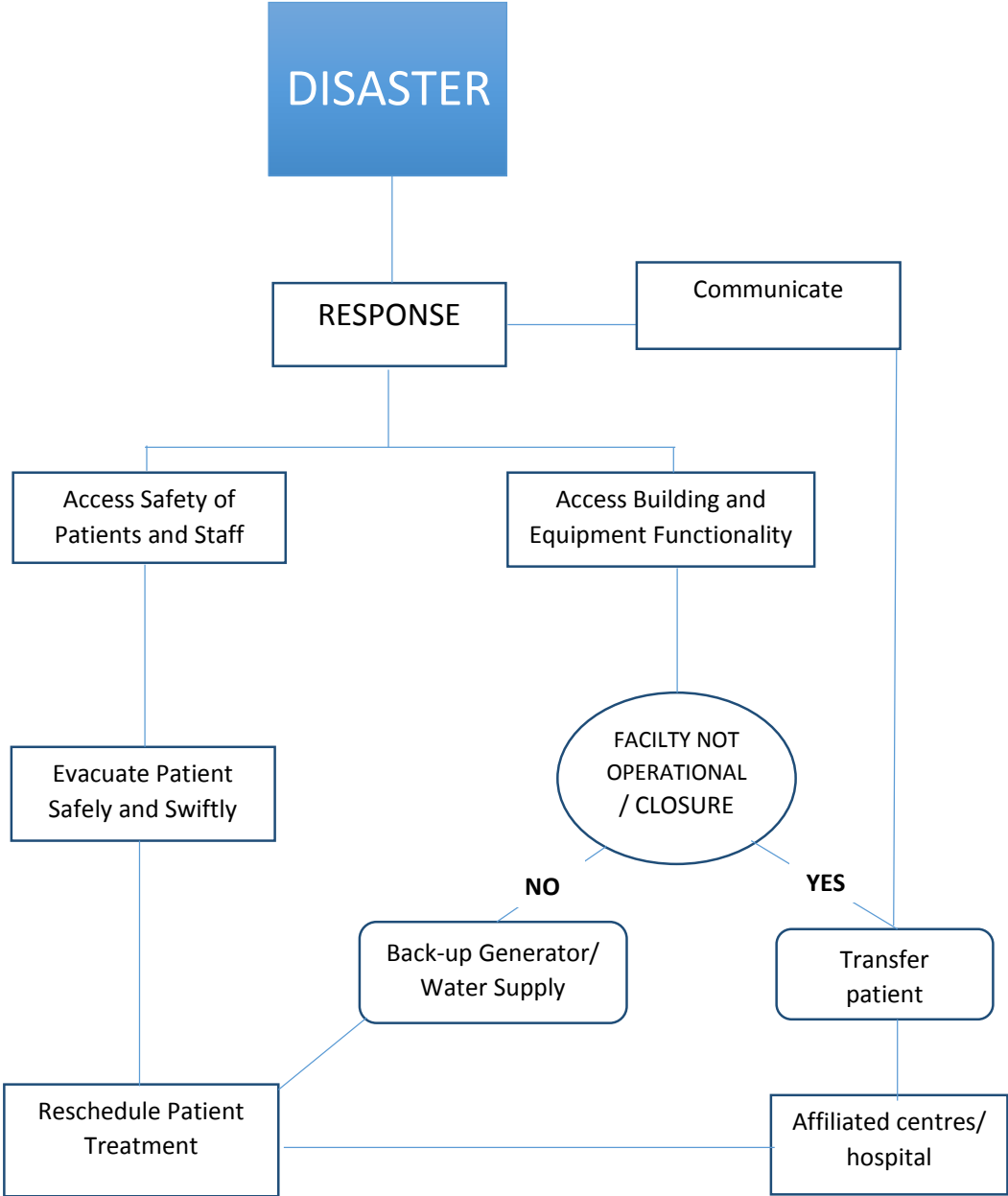
**OBJECTIVES**

1. To enable staff to respond effectively to disasters or emergency situations that affects the environment of care.

<b>No.</b>	<b>Action/ Issues</b>	<b>Responsibilities</b>
<b>1.0</b>	<b>Assess Safety of Staff and Patients</b>	Dialysis Facility Manager
1.1	Activate 'Pelan Tindakan Bencana' / Emergency Evacuation Plan based on types of emergencies/ disaster	
1.2	Give priority on: <ul style="list-style-type: none"> <li>• Patients who needs assistance</li> <li>• Pregnant staff to evacuate the building</li> </ul>	
<b>2.0</b>	<b>Ensure patients are evacuated safely and swiftly</b> <ul style="list-style-type: none"> <li>• "Clamp &amp; Cap" procedure</li> <li>• Head count to ensure all patients are accounted for</li> </ul>	Dialysis Facility Manager Nursing Sister Staff Nurse
<b>3.0</b>	<b>Assess building and equipment functionality</b>	Dialysis Facility Manager
3.1	Check supply of water and electricity	
3.2	Check any equipment affected by flood water	
<b>4.0</b>	<b>In the event that the Facility cannot function</b>	Person In Charge and Dialysis Facility Manager
4.1	Liaise with the affiliated HD facility based on affiliated agreement/arrangements <ul style="list-style-type: none"> <li>• Prepare documentation for patients to dialysis treatment at alternative facility</li> <li>• Schedule patient's dialysis treatment</li> <li>• Deploy staff to work in the affiliated facility</li> </ul>	
4.2	Back-up dialysis consumables/ HD machines/ inventories to be shared with affiliated HD Facilities	
<b>5.0</b>	<b>Receiving Hospital/ Backup HD Facilities</b>	

5.1	Obtain latest relevant data on the number of patients to be received, medical sheets (clinical history & hepatitis status) and whereabouts of the patients.	Person In Charge
5.2	Prepare adequate facilities/ space and necessary equipment based on the number of transferred patients; <ul style="list-style-type: none"> <li>• Functioning HD machines</li> <li>• Adequate consumables</li> <li>• Sufficient medications</li> <li>• Manpower- staff</li> <li>• Rapid kit for viral screening</li> </ul>	Dialysis Facility Manager Nephrologist
5.3	Haemodialysis treatments may have to be rationed e.g. reducing the duration/hours per session or reducing frequency. This will need to be adjusted in accordance to current situation of any disaster.	Nephrologist
5.4	Produce daily reports to State Health Department or National MOH CPRC as may be required.	
<b>6.0</b>	<b>Communication</b>	
6.1	The Dialysis Facility Manager shall notify the Head of Department/Nephrologist and Person In-Charge on the situation from time to time	Dialysis Facility Manager
6.2	<b>Inform patients and caregivers on the facility status</b> e.g. via whatsapp group, functioning communications.	
6.3	Produce daily reports on the number of patients, dialysis treatment, staff, inventories, maintenance and workloads during the disaster and submit to the CPRC as required	
6.4	Notify insurance company, if relevant. Document and photograph damage before any clean-up start any for insurance purpose.	
<b>7.0</b>	<b>Staff Support Program</b>	
7.1	The hospital/dialysis facility recognizes its responsibility to provide meals, accommodation, rest periods, and psychological support to staff during emergency situations.	Person In Charge and Dialysis Facility Manager
7.2	This responsibility may also be extended to their families if their homes are also affected by the disaster.	

FIGURE 4: FLOWCHART OF DISASTER RESPONSE



FOLLOW OFFICIAL WORKSHEET

**Figure 5:  
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 CLINIC 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: \_\_\_\_\_ kgs

Dialyzer Name: \_\_\_\_\_ Dialysate:  Normal Calcium  Low Calcium

Blood Flow Rate: \_\_\_\_\_ ml/min Heparin Dose: \_\_\_\_\_ units

Vascular Access : \_\_\_\_\_

Erythropoietin: Type : \_\_\_\_\_ Dosage : \_\_\_\_\_

<b>DISASTER RECOVERY CONTINGENCY PLAN FOR HOSPITAL AND DIALYSIS SERVICES</b>	<b>REF: 03/ 2015</b>
<b>5.0 RECOVERY</b>	<b>ISSUE 1</b>

### OBJECTIVES

1. Plan processes for re-establishing operations after the disaster
2. To return to normal operations as soon as possible

<b>No.</b>	<b>Action/ Issues</b>	<b>Responsibilities</b>
<b>1.0</b>	<b>Maintain care of the patients</b>	
1.1	Continue with arrangement to dialyse patients at the affiliated HD centres. Keep accurate record and daily report.	Person In Charge
1.2	Ensure the transportation plan for patient is working effectively.	Dialysis Facility Manager
1.3	Provide staff assistance to affiliated HD centre.	
1.4	Assess patients if they need Welfare assistance for disaster relief fund.	
<b>2.0</b>	<b>Post Disaster Damage Assessment of HD Facility</b>	
2.1	Assess structural damage of facility after clearance order is received from authorities.	Person In Charge
2.2	Do not enter a building until it has been declared safe.	Dialysis Facility Manager
2.3	Hire a certified contractor to repair and fix the damage facility.	
2.4	Documented all damage and its contents.	
2.5	Estimate time and resources that shall be required to undertake complete repair/ replacement/retrofitting before a facility can be re-opened.	
<b>3.0</b>	<b>Post Disaster Damage Assessment of Equipment and Inventories</b>	Person In

3.1	Assess the status of the dialysis machine, RO water treatment and other medical devices.	Charge  Dialysis Facility Manager
3.2	Evaluate damage stock, disposables and medication items.	
3.3	Repair and replace equipment that was damaged	
3.4	Disinfect water treatment and test run for prior use	
<b>4.0</b>	<b>Re-open HD facility</b>	Person In Charge  Dialysis Facility Manager
4.1	Validate the functionality of the facility.	
4.2	Building permit signed off by certified inspector (e.g. JKR), only if required	
4.3	Staff and patients are notified of opening date and treatment schedule.	
<b>5.0</b>	<b>Review Post Disaster Recovery</b>	Person In Charge  Dialysis Facility Manager
5.1	Determine the essential criteria and processes to deactivate the disaster response and recovery activities from the hospital/ dialysis facility's normal operations.	
5.2	Debrief staff immediately after the disaster response phase to enable them to cope and recovery from any post -traumatic stress disorder.	
5.3	Prepare and submit a post-response report to the Chief of the Hospital/ dialysis facility and other pertinent stakeholders (CPRC).	
5.4	Appropriately recognize the services provided by staff, volunteers and donors during disaster response and recovery.	
5.5	Systematically and comprehensively document lessons learnt, structural modification of the hospital/ dialysis facility contingency plan and risk profiles as required.	

<b>6.0</b>	<b>Recovery for patients and family</b>	
6.1	Brief patients on the status of the HD facilities	Person In Charge
6.2	Review clinical status of patients and manage complications if any.	Dialysis Facility Manager
6.3	Investigate and document the effects on patients and family.	Staff Nurse
6.4	Consider referral to various organisations (e.g. welfare) for aid and financial help as may be required.	

**FIGURE 6: FLOWCHART OF DISASTER RECOVERY**

