



Renal Dialysis Center Regulations

Empowerment And Health Compliance Department

Ministry Of Health And Prevention

(2018)



Acknowledgment

Ministry of health and prevention (MOHAP) is pleased to present the **Renal Dialysis Unit** which represents a milestone towards fulfilling the MOHAP strategic objectives in providing “A world class integrated health system that ensures excellence in health and healthcare for the Emirates that follow MOHAP.

This Regulation places an emphasis on facility design and services criteria with a focus on quality of services and safety of professionals based on the local and federal laws in addition to international accreditation standards.

Therefore, this document provides a base for the Ministry of health and prevention (MOHAP) to assess the Renal Dialysis Unit performance and to ensure safe and competent delivery of services. It will also assist the Renal Dialysis Unit in developing their quality management systems and in assessing their own competence to ensure compliance with MOHAP regulatory requirements.



I. Scope

This regulation applies to all Renal Dialysis Unit services subject to licensure under the Ministry of health and prevention (MOHAP) establishment law which includes semi-governmental and private Renal Dialysis Unit Facilities.

The MOHAP reserves the right to amend the **Renal Dialysis Unit Regulation** stipulated herein without prior notice; the latest version of the regulation shall be published on the MOHAP website www.moh.gov.ae.

II. Purpose:

The MOHAP is the sole responsible entity for regulating, licensing and monitoring all healthcare facilities and healthcare professionals in the emirates that follow federal authority. Through the development, establishment, and enforcement of this regulation which matches best practices for operating Renal Dialysis Unit Facilities, the MOHAP will ensure provision of the highest levels of quality and healthcare services at all times.

III. Definitions

Dialysis means the process of removing blood from an artery (as of a kidney patient), purifying it by dialysis, adding vital substances, and returning it to a vein—called also hemodialysis.

Dialysis Stations means a number of smaller units or cubicles within the Renal Dialysis Unit where individual patients receive their dialysis treatment.

Renal Dialysis Unit means a center that provides overall dialysis treatment.

Disabled People (also known as special needs) means a personal condition or situation that could make it difficult for a patient to participate fully in their health care, which include disability (physical, intellectual or sensory disability), age affected (either elderly or very young), affected by trauma or affected by medications/drugs.

Healthcare professional means healthcare personal working in healthcare facilities and required to be licensed as per the applicable laws in United Arab Emirates.

Health Care Worker (HCW) shall mean an individual employed by the health facility whether directly or by contract with another entity to provide direct or indirect patient care. This includes but is not limited, healthcare professionals, medical and nursing students, administrative staff and contract employees who either work at or come to the health facility site.



Patient means any individual who receives medical attention, care or treatment by any healthcare professional or admitted in a health facility.

Chronic Renal Failure means the slow loss of kidney function over time. The main function of the kidney is to remove wastes and excess water from the body.

Sentinel Event means an unanticipated occurrence involving death or major permanent loss of function unrelated to the nature course of the patient illness or underlying condition.

I. Acronyms

AII : Airborne Infection Isolation

ECG : Electrocardiography

HCV : Hepatitis C virus

HIV : Human immunodeficiency Virus

RDU : Renal Dialysis Unit

UPS : Uninterrupted Power Supply



CHAPTER ONE: RENAL DIALYSIS UNIT DESIGN REQUIREMENTS



1. General Design Considerations

The RDU is responsible for the medical care of the patients including the management of complications arising from dialysis and end stage renal failure.

Whether the renal dialysis services will be provided in an independent RDU, or as part of a health facility such as Hospital or Rehabilitation Center with two specialties, the following general design considerations should be considered:

- 1.1. The location and access to the RDU shall be convenient to both people using public transportation and those using vehicles.
- 1.2. Freestanding dialysis units may provide parking on the facility premises to satisfy the needs of patients and staff, such parking area shall be acceptable to the local authorities.
- 1.3. Consideration shall be given to the anticipated disabled patients as determined by the services provided in the facility.
- 1.4. Signage shall be provided to direct people unfamiliar with the facility to the entrance and facility parking areas (if provided).
- 1.5. Special consideration should be given to the choice of fireproof construction for the buildings according to the building and design codes of the each emirates municipalities and civil defense department requirement.
- 1.6. Each facility design shall ensure appropriate levels of patient acoustical and visual privacy and dignity throughout the care process, consistent with needs established in the functional program.
- 1.7. Each facility design shall ensure clear visibility of all dialysis stations from the nurse base station, other than isolation rooms. The nurse must be able to visualize both the patient and the dialysis machine and also be within hearing range of warning sounds from the machine.
- 1.8. The dialysis unit should be air-conditioned to achieve 21-22 Celsius temperatures and 55–60% humidity.
- 1.9. The design, construction, renovation, expansion, equipment, and operations of the facility are all subject to provisions of several local and federal laws environmental pollution control, this include, but not limited to, hazardous waste materials storage handling, and disposal; medical waste storage and disposal; asbestos use in building materials, etc.



- 1.10. Public corridors shall have a minimum width of 1.50 meters. Items such as provisions for drinking water, vending machines, etc., shall not restrict corridor traffic or reduce the corridor width below the required minimum.
- 1.11. The minimum door opening width for patient use shall be 0.90 meters. If the facility serves patients confined to wheelchairs, the minimum width of door openings to rooms shall be 1.10 meters.
- 1.12. Door swings should be oriented to provide patient privacy.
- 1.13. The minimum ceiling height shall be 2.7 meters.
- 1.14. Color contrast between walls, floors and doors shall be considered as it may reduce falling risk of blurred vision patients.
- 1.15. Selected flooring surfaces shall be easy to maintain, readily cleanable, and appropriately wear- resistant for the location.
- 1.16. Slip-resistant flooring products shall be considered for flooring surfaces in wet areas (e.g. ramps, shower and bath areas) and areas that include water for patient services as well as stairways.
- 1.17. Highly polished flooring, walling or finishes that create glare shall be avoided.
- 1.18. Carpet cannot be used in examination and treatment rooms, if used in patient waiting areas and corridors carpet shall be glued or stretched tight and free of loose edges or wrinkles.
- 1.19. Wall finishes shall be washable, moisture-resistant and smooth, wall finish treatments shall not create ledges or crevices that can harbor dust and dirt.
- 1.20. Joints for floor openings for pipes and ducts shall be tightly sealed.
- 1.21. There must be an emergency exit within the facility with proper signs to direct towards the emergency exit. Building and Plumbing requirements
- 1.22. Design consideration shall be given to the disposal of liquid waste from the dialyzing process to prevent odor and backflow. The product water distribution system shall not contribute chemicals such as copper, zinc and lead, or bacterial contamination to the treated water.
- 1.23. In new construction and renovation, a separate water supply and a drainage facility that does not interfere with hand-washing shall be provided.
- 1.24. Reverse osmosis permeate water is to be circulated back to the reverse osmosis storage tank complete with ultraviolet light sterilization.
- 1.25. An Uninterrupted Power Supply (UPS) for backup, the power supply of which should be able to support all functions of the dialysis machines.



2. Reception and Waiting Area

21. A reception/information counter or desk shall be located to provide visual control of the entrance to the RDU and shall be immediately apparent from that entrance; the information counter should provide access to patient files and records.
22. Male and female waiting area for patients may be provided or be shared with other adjacent departments in case the dialysis unit is not independent. Escorts will be under staff control.
23. Waiting area may be provided with provision of drinking water.
24. Facilities for alcohol-based hand rub/ sanitizer dispensers should be available in all patient areas.
25. The waiting area must accommodate the functional requirement of the facility with allocating at least two seats per each dialysis station (2:1).
26. Where pediatric service provided in the facility, a separate controlled area for pediatric patients shall be designated.
27. Wheelchairs shall be accommodated within the waiting area.
28. Toilet(s) for public use shall be conveniently accessible from the waiting area without passing through patient care or staff work areas. A hand-washing station shall be provided in the toilet room. Dedicated toilets should be provided for disabled individuals as per the standards and guidelines.

3. Consultation or Examination Rooms

Room space requirements shall depend on the services provided, but at least shall meet the following:

31. Consultation or examination room(s) shall have a minimum floor area of 12 square meters.
32. Room arrangement shall permit a minimum clearance of 0.90 meters on both sides and at one end of the examination table, bed, or chair.
33. A counter or shelf space for writing and documentation shall be provided.
34. A hand-washing station with a hands-free regulator (tap) and liquid or foam soap dispensers shall be provided in all examination room(s). Sinks shall be designed with deep basins, made of porcelain, stainless steel, or solid surface materials.
35. Hand sanitation dispensers shall be provided in addition to hand-washing stations.
36. Provisions for hand drying shall be available at all hand-washing stations.
37. The area below the hand washing station shall be free of clutter at all times.



4. Treatment Room

41. Rooms for minor treatments or procedure shall have a minimum floor area of 12 square meters. The minimum room dimension shall be 3 meters.
42. Room arrangement shall permit a minimum clearance of 0.90 meters at each side and at the foot of the bed.
43. The treatment rooms shall be equipped with:
 - 4.3.1. Hand sanitation dispensers shall be provided in addition to hand-washing stations.
 - 4.3.2. Documentation space or counter for writing.
 - 4.3.3. A lockable refrigerator for medication use (the temperature of which is monitored twice a day and recorded).

5. The Dialysis treatment area/room

5.1. Layout

- 5.1.1. This area shall be separate from administrative and waiting areas.
- 5.1.2. The dialysis area specifications and requirements shall include:
 - 5.1.2.1. Enough space to accommodate the number of provided dialysis stations.
 - 5.1.2.2. The dialysis station shall be easily accessible in times of emergency and with adequate space for resuscitation to be carried out.
 - 5.1.2.3. The layout shall ensure visual and acoustical privacy for all patients.
 - 5.1.2.4. Hands free hand washing facility must be provided and easily accessible from all dialysis stations. In addition, a hand washing station shall be located at the entry to the hemodialysis treatment area for use by patient, their escort and visitors.
 - 5.1.2.5. Alcohol-based hand rub/ sanitizer dispensers should be available in all dialysis stations.
 - 5.1.2.6. Floor covering in the dialysis area/room shall be monolithic and joint free
- 5.1.3. The space occupied by each dialysis station shall be at least 7.5 sq. meters large enough to accommodate the dialysis chair and 8.5 sq. meters for bed. A minimum clearance of 1.2m shall be provided between beds/ dialysis chairs.
- 5.1.4. A clearance space shall be at least 1.2meters between beds and /or lounge chairs.
- 5.1.5. Head end of each bed should have stable electrical supply with at least three outlet of 5/15 amps, oxygen and vacuum outlet, treated water inlet, and drainage.



- 5.1.6. Electric sockets must be provided and close to every dialysis station. The wires from the socket should be in such a way that they do not pose a threat or come in the way of the patient or staff during the whole dialysis process.
- 5.1.7. A dialysis station may be designed to have comfortable couches or chairs specially designed for dialysis purposes, however, it is recommended to have at least two (2) beds for elderly patients.
- 5.1.8. Every dialysis station must have a waste disposal bin.
 - 5.1.8.1. Waste disposal must be done after every 2 patients and must be taken outside to the soiled work room for disposal.
- 5.1.9. Patient toilet room shall be provided.

52 Nursing Station

Nurse station(s) shall be located and designed to provide visual observation of all patients in all the dialysis stations of the dialysis treatment area. The nursing station should also be within the range of hearing warning sounds from the machines for prompt corrective action.

53 Equipment to be provided in the dialysis area/room

- 5.3.1. Every dialysis station must have outlets for oxygen and vacuum (suction).
- 5.3.2. Airway equipment: appropriate sized oral airways, endo-tracheal tubes, laryngoscopes, normal masks and laryngeal masks
- 5.3.3. Defibrillator
- 5.3.4. Double tourniquets if the practice performs Bier blocks
- 5.3.5. Pulse oximeter
- 5.3.6. Electrocardiographic (ECG) monitor
- 5.3.7. Temperature monitoring system for procedures lasting more than 30 minutes
- 5.3.8. Blood pressure apparatus with different size cuffs
- 5.3.9. Emergency crash cart
- 5.3.10. A refrigerator for pharmaceuticals and double-locked storage for controlled substances shall be provided.



6. Isolation rooms

61. To ensure patients and healthcare professionals as well as other personnel safety; there should be separate areas/room(s) for dialyzing patients with conditions that require isolation. This area should have independent water supply and drainage facilities.
62. Isolation rooms must be in accordance with international guidelines and must be categorized as follows:
 - 6.2.1. Airborne Infection Isolation (AII) Room
 - 6.2.2. Blood borne Infection Isolation Room(s): Facilities that dialyze patients with known blood-borne pathogens shall have at least two separate rooms to use for those patients as follows:
 - 6.2.2.1. For HBV patients room shall be color coded with Blue Color
 - 6.2.2.2. For HCV patients room shall be color coded with Yellow Color

7. Storage room

71. The storage area should have easy access.
72. The storage area should be temperature controlled.
73. There should be adequate shelving for storage of dialysis fluids, membranes and catheters.
74. All material should be clearly marked with expiration dates.
75. Storage of medicines should be in accordance with current guidelines, including storage and dispensing of controlled medication.

8. Support areas for Dialysis Patient care

81. Administrative activities

Each dialysis unit shall make provisions to support administrative activities, filing and clerical work as appropriate. Administrative areas provided may include the following:

- 8.1.1. Clerical space or rooms for typing and clerical work.
- 8.1.2. Multiuse rooms for meetings, and health education.

82. Medication station/ medication preparation area- There shall be a medication dispensing station or a medication preparation area for the dialysis unit with hand wash station (sink). Provisions shall be made for the controlled storage, preparation, distribution, and refrigeration of medications.
83. Medicine Storage Area- An enclosed area close to the medication station or medication preparation area.



84. Health records filing cabinets and storage shall be provided for the safe and secure storage of patient's health records with provisions for easy retrieval. Provisions shall be made for proper securing of the health records.
85. Nourishment area- A nourishment station for the dialysis service is provided.
86. Clean Supply room- This room is used for preparing patient care items, it shall contain the following:
 - 8.6.1. Work counter
 - 8.6.2. Hand-washing station
 - 8.6.3. Storage facilities for clean and sterile supplies. This room is used only for storage and holding as part of a system for distribution of clean and sterile materials.
87. Soiled workroom -A soiled workroom shall be provided with in close proximity to the dialysis unit and shall contain the following:
 - 8.7.1. A flushing-rim sink
 - 8.7.2. A hand-washing station
 - 8.7.3. A work counter
 - 8.7.4. Storage cabinets
 - 8.7.5. Waste receptacles
 - 8.7.6. A soiled linen receptacle
88. Equipment and supply storage

The RDU shall make provisions for the following requirements:

 - 8.8.1. General storage area for supplies and equipment.
 - 8.8.2. Special storage for staff personal belongings with lockable drawers or cabinets.
 - 8.8.3. Storage areas for non-clinical records, documents, and office supplies.
89. Clean linen storage. If blankets or other linens are used, a clean linen storage area shall be provided. Location of the clean linen storage area within the clean workroom, a separate closet, or an approved distribution system shall be permitted. If a closed cart system is used, storage in an alcove shall be permitted. It must be out of the path of normal traffic and under staff control.
- 8.10. Wheel chair storage place- a designated area shall be provided out of the direct line of traffic for at least one facility-owned wheelchair. A designated area shall be provided for parking at least one patient wheelchair in a non-public area out of the direct line of traffic without interfering with egress paths.



- 8.11. Water treatment equipment shall be located in a dedicated secure area with space to access to all components of the equipment.
 - 8.11.1. This area shall include a drain.
 - 8.11.2. This area shall be part of an overall secure room.
- 8.12. Equipment repair room. When an equipment repair and breakdown room is provided, it shall be equipped with the following:
 - 8.12.1. Hand-washing station
 - 8.12.2. Treated water outlet for equipment maintenance and drain or clinical service sink for equipment connection and testing
 - 8.12.3. Work counter
 - 8.12.4. Storage cabinet

9. Water Quality:

- Planning considerations for the design and installation shall be considered and monitored.
- Tests of the quality of the water must be carried out regularly, and recorded to ensure that standards are met.
- Regular sterilization of the plant equipment and pipes shall be applied
- Each water point has to be tested along with a chemical analysis.