

CHAPTER-VII

PHYSICAL MEDICINE & REHABILITATION

7.1. The services provided by the Physical Medicine & Rehabilitation Department are meant for various diseases, causing major disabilities and for disabled persons for improving quality of their life.

7.2 A Physical Medicine & Rehabilitation Department functions on the principle of multi-disciplinary approach through a dedicated team of medical, paramedical and rehabilitation professionals under the leadership of PMR Specialist. The team works for achieving the goals of medical rehabilitation, which are set after full evaluation of the case by all the team members.

The services offered by the Department should include :

- Medical Rehabilitation
- Physio-Occupational Therapy
- Rehabilitation Aids & Appliances
- Social Rehabilitation
- Pain Clinic
- Spinal Cord Injury Management
- Cerebral Palsy Unit
- Sports Medicine Unit
- Disability Certification
- Referral Services
- Community based Rehabilitation Services

7.3 A Physical Medicine & Rehabilitation Department should have following sections :

- Medical Section
- Diagnostic Section

Medical Intervention Section

Physiotherapy Section

Occupational Therapy Section

Orthotic & Prosthetic Workshop

Medico-social Section

Clinical Psychology Section

Vocational Counseling Section

Operation Theatre Wing

Ward

7.3.1 Medical Section is responsible for medical assessment, diagnosis and prescription writing for all patients. A specialist in PMR Speciality always heads it. If this department of Physical Medicine & Rehabilitation is located in a medical college; it should fulfill norms of Medical Council of India, in terms of manpower, equipment & space requirements.

7.3.2 Diagnostic Section is responsible for specialized diagnostic procedures like reaction of degeneration, nerve conduction velocity, electromyography, Uro-dynamic studies, balance disorder studies, gait analysis and kinesiology. A medical doctor, specialized in PMR, heads it. It should have adequate equipments to carry out diagnostic test and proper space for housing these equipments. A proper appointment system should be followed for these tests, as they are all non-emergent in nature.

7.3.3 Medical Intervention Section is responsible for special medical interventions both invasive and non-invasive which can be performed in outpatients without general anaesthesia. They include hydrocortisone infiltration, intra-articular injection, slow infusion of morphine in spinal cord manipulations, corrective plasters, local nerve block, phenol blocks, tenotomy, closure of pressure sore, debridement of pressure sore, skin grafting on anaesthetic limb etc.

7.3.4 Physio-therapy Section will provide physiotherapy care. This includes exercise, hot packs, wax bath, short-wave-diathermy, ultrasonic

therapy, cervical and lumbar traction, gait training, electrical stimulation and bed side physio-therapy in ward as prescribed by the PMR Specialist.

7.3.5 Occupational Therapy Section provides occupational therapy care, which consists of ADL training, exercises by various activities like medicinal ball, fret saw, hand exercises unit, sanding etc. as advised by the team.

7.3.6 Orthotic & Prosthetic Section deals with various aids and appliances. Orthotic appliances include splints, caliper, collars, braces, etc. Prosthetic appliances include artificial limbs and other external parts like breast and gloves etc. In the workshop, measurements are taken and appliances are manufactured, fitted, finalized and delivered. It also maintains a small store of materials required for fabrication.

7.3.7 Medico Social Section: This section is meant for assessment of social status of patients, or his/her family support system and inter-personal relationship. On the basis of the assessment, solutions are suggested for various problems like financial constraints, weak family support, desertion, psychosocial conflicts etc. Counselling is the commonest method practiced in medico-social section. It should work in association with NGO's and other funding agencies and should be separate from the General Social Welfare Department of the Hospital. Medico Social Workers also act as an intermediary between the patient and rest of the rehabilitation team.

7.3.8 Clinical Psychology Section: This Section is meant for assessment of intelligent quotient and developmental quotients, counseling, behavioral therapy and monitoring. Mental retardation and such other patients are most important clients for this section. It should be separate from the similar section in psychiatry department, if present.

7.3.9 Vocational Section : This section is meant for assessment of vocational capabilities of the patient, suggestions and practice of improvement of vocational potentials, arrangement for transient placement and vocational guidance and counselling including various government benefits to disabled.

7.3.10 Operation Theatre Wing : This consists of operation theatre with pre-operative and post-operative wards. It is meant for rehabilitation and corrective surgeries like skin grafting, deformity correction, tendon transfer etc. needed for effective rehabilitation of disabled persons. It must have all facilities for surgery under general anaesthesia.

7.3.11 Ward : It is a facility for admitting the patients who require surgery, special intervention, other long term rehabilitation intervention and spinal cord injury rehabilitation. There is full facility for nursing and emergency intervention as is essential in any other ward.

7.3.12 This department should be conveniently located and free of architectural barriers with sufficient space for mobility of patients in trolley and wheel chairs and waiting area for patient's attendants.

7.3.13 The department of PM & R should be equipped with all the diagnostic and therapeutic equipments required for the rehabilitation of disabled persons.

CHAPTER VIII

SUPPORTIVE SERVICES

(Ambulance, Laundry, CSSD, Dietary, Fire Prevention, Communication and Workshop)

AMBULANCE SERVICE:

- 8.1 A Chief Medical Officer/Transport Officer is to be assigned with the responsibility of ambulance services.
- 8.2 He must ensure that all vehicles are in functioning condition and are fully equipped with oxygen cylinder, mask and first aid box.
- 8.3 All drivers working in the ambulance must be trained in First Aid.
- 8.4 Eye check up and medical check up of all drivers to assess their health status must be done periodically.
- 8.5 C.M.O./ Transport Officer should be authorized to carry out recurring repair under Rs.1000/- for each vehicle.
- 8.6 Servicing of each vehicle should be carried out after every 5000Km.
- 8.7 Vehicles requiring repair for more than Rs.1000/- should be decided by Transport Committee, which gets the repair done by an authorized dealer.
- 8.8 It is the responsibility of CMO In charge Transport/Transport Officer to put up proposal for replacement of condemned vehicle.
- 8.9 CMO should be authorized to sanction Petrol, Oil & Lubricants.
- 8.10 Surprise check of vehicles should be done for petrol consumption.
- 8.11 CMO in charge Transport will detail vehicle for bonafide Government duty within the municipal limits. For journeys outside the municipal limit, permission from the appropriate authorities to be obtained.
- 8.12 Whenever vehicle is hired by patients, CMO will ensure that the drivers recover the hiring charges and credit it to the Hospital authorities.

8.13 Mock demonstration of emergency/disaster should be carried out periodically.

8.14 Officers availing conveyance allowance will not be entitled to use hospital vehicle for attending official meetings/seminars and conferences etc.

8.15 CMO will nominate a Driver/Mechanic who will bring to his notice the need for prompt repair and maintenance problem.

8.16 Duties should be assigned to drivers and cleaners for working days/holidays and in case of emergency.

8.17 Transport workshop should be maintained by adequate number of Mechanic and Supervisor. They should be able to manage small mechanical job in hospital.

8.18 Sufficient space for parking, room for drivers with attached toilet and workshop to be available.

8.19 The rate of hiring ambulances by patients who are discharged to be displayed outside casualty.

8.20 A proper logbook of each vehicle should be maintained. In addition to detail of trips made, it should have entries of change of tyres, batteries, petrol, repair etc. Transport Officer/CMO Incharge should regularly countersign this

8.21 The following documents will be maintained by the workshop :

- a) Account of Rs.5, 000/- given as Imprest money.
- b) Inventory of non-expendable stores in use in the workshop.
- c) Expendable stores register.
- d) Job cards.
- e) Purchase files.

LAUNDRY AND LINEN SERVICE:

8.22 Electro-mechanical laundry equipments like washing machine, Hydro extractor (spin & dry) and Dry tumbler should be available of different capacity depending upon the size of the Hospital and workload.

8.23 In a large hospital facility of steam from boiler to be made available for utilization in dry heating of linen and for heating the water during washing of linen.

8.24 All wards, OTs, labour room, Nursery, ICU & ICCU, emergency departments etc. should be supplied through centralized linen service.

8.25 Administrators to provide 6 sets of complete linen in each user area. 4 sets are kept in ward for emergency condition, one is utilized and one is sent to laundry.

8.26 Separate arrangements should be made for washing soiled, foul smelling and infected linen.

8.27 All soiled linen must reach the laundry after they have been soaked in 1% bleach solution for 30 minutes and rinsed with water.

8.28 Mending and condemnation of linen should be centralized or decentralized depending upon the availability of the resources.

8.29 Blankets should be washed in the laundry and properly stored in the respective functional unit.

8.30 Cotton mattresses are not in use these days and have been replaced by coir or foam mattresses. All mattresses to have polythene/rubberized material covering to avoid contamination of mattress with blood or body fluids.

8.31 Periodical bacteriological tests must be done to ensure infection free linen.

8.32 Proper counting of linen at receiving and issuing end to be there to avoid pilferage of linen.

8.33 Nursing Superintendent along with supervisor laundry must make surprise round to see that linen is always given to the patients.

8.34 Physical maintenance of linen should be done by Sister In charge of ward and Linen Mistress in Operation Theatre, if post of Linen Mistress is available.

8.35 Blankets and mattresses must be kept under sun light for some time periodically.

8.36 Different coloured linen should be used by doctor, patient and in operation theatre, and nursery and the same should be washed separately.

8.37 There should be proper marking on the linen for identification so that same linen is returned to respective ward or OT and minimizes complaint by user department on the quality of the linen returned.

8.38 The senior most technician should be assigned supervisory responsibility.

8.39 The following documents should be maintained

- a) Catalogue of equipment and AMC of all equipment.
- b) Inventory of non-expendable item.
- c) Wash register.
- d) Muster roll.
- e) Linen receipt and issue register.

CENTRAL STERILE SUPPLY DEPARTMENT

8.40 It is divided into 2 sections in bigger hospitals :-

- a) Centralized service
- b) Operation Theatre service

8.41 Department of C.S.S. may work during day shifts or all the 24 hours depending upon the workload of the hospital.

8.42 Centralized service should take up syringe, prepacked dressing, catheters, gloves, O.T./ward instruments dressing gowns and linen for OTs.

8.43 Theatre service will deal with sharps like blades & scissor, basin, endoscopes, rubber, table mattresses etc.

8.44 Issue of items to be done on clean exchange basis on one for one principle basis.

8.45 Messengers service from CSSD to be introduced to save manpower and time. At least messenger services to be available for all OTs, Labour Rooms, Nursery, Injection Room, ICU, ICCU and Emergency Departments of the hospital.

8.46 Physical control to be exercised to minimize losses and breakages.

8.47 As per guidelines on Hospital Waste Management all soiled gloves, instruments, catheters and linen to be dipped in 1% Sodium Hypo chlorite or 1% Bleach solution before sending it to CSSD for autoclave.

8.48 All workers while handling instrument or linen must take self-precaution like wearing of cap, mask and gloves.

8.49 All equipment must be repaired and maintained functional and A.M.C. to be renewed annually.

8.50 The following registers will be maintained in the Department :—

- a) Inventory of non-expendable items.
- b) Expendable stores register.
- c) Register of losses and breakage
- d) Sterilizer instruction manual.
- e) Load record, contents of load, cycle time, temperature, date and time, and operator's name

DIETARY SERVICES:

8.51 This department should function under direct supervision of Senior Dietician/Chief Dietician. She will report to Addl.M.S/CMO in charge of Dieting Services.

8.52 Meal timings should be fixed. The following are the recommended timings :

Morning tea	6 AM - 7 AM
Breakfast	8 AM - 9 AM
Lunch	12(Noon)-2 PM
Evening tea	4 PM - 5 PM
Dinner	7 PM - 8 PM

8.53 Items like egg, bread, butter, fruit should be listed and sent to the wards and proper receipts obtained from the sisters concerned to prevent pilferage.

8.54 Strict supervision/ quality check should be done during cooking so that the required quantity and quality of food only are cooked and issued.

8.55 It is not necessary that issue of dietary articles should be exactly according to prescribed scales. Considerable economy can be practiced in medium and large sized hospitals.

8.56 Requisition for diets should reach the kitchen a day before the actual requirement. In large sized hospitals a link can be established between midnight census and actual diet requirements statistically and general diet requisitions dispensed with.

The storekeeper should receive the perishable and non-perishable dieting articles against a proper indent from an approved supplier. The quantity and quality of good received should be checked by the Dietician In charge. A quality check/receipt register should be maintained for this activity.

8.57 Store Keeper issuing dietary articles should have the time fixed for this purpose. He should also see that when any item is either not available or in short supply the dietician does alternate menu planning.

8.58 Menu planning for summer and winter should be prepared scientifically by the dietician and, all concerned informed.

8.59 Dietician and Nursing Superintendent should make surprise checks of the distribution of food, particularly on the days when special item are prepared and sent to the wards.

8.60 Tea and food should be served through well-insulated urns and trolleys.

8.61 It is advisable that arrangements are made to prepare tea, milk and snacks in the ward pantry.

8.62 Nursing staff is responsible to see that dietician's instructions for the distribution of food are properly carried out. They should ensure spotless cleanliness of trays and trolleys.

8.63 Dieticians will run orientation courses for medical staff and nursing staff on dietetics.

8.64 Hospital should freely allow dietetic interns to be trained in the dietetic department.

8.65 Subordinate staff working in the kitchen should be periodically subjected to medical examination.

8.66 List of duties of all categories of kitchen staff will be prepared by the dietician and circulated.

8.67 Therapeutic diet for uraemic patient, hypertensive and diabetic patient to be prepared as per demand from respective department.

8.68 Dietetic counselling to be conducted by Dietetic Department for obese hypertensive, diabetic patients, heart patients, low birth weight babies and antenatal patients. Time and days of week and the person responsible for counselling services should be displayed in the counselling hall and circulated to all the staff members of the hospital.

8.69 Research and training on nutrition to be conducted by Dietetics Department.

8.70 Proper hygiene and cleanliness to be maintained in kitchen. Grains and raw-food to be stored in a manner that it is out of reach of rodents.

8.71 Senior Dietician/Chief Dietician will ensure regular supply of cooking gas cylinders and proper maintenance of cold storage for perishable items.

8.72 Proper financial management to be done by Store Officer, if posted.

8.73 The following documents will be maintained in this Department: —

- a) Inventory of non-expendable stores in use in the Section.
- b) Inventory of expendable stores issued to the Section.
- c) Diet requisitions file.
- d) Diet consolidation sheets.
- e) Supply order file.
- f) Stock ledgers of raw dietary articles.
- g) Store requisition files, and
- h) Register of surpluses and losses.

8.74 All information required for costing of dietary service will be recorded in these documents.

FIRE PREVENTION

8.75 The fire protection programme should be indispensable part of general safety programme of each and every hospital.

8.76 Maintenance of building and its safety against fire rests with the Engineering personnel working under the C.P.W.D.

8.77 Hospital administrator has also the moral responsibility for safety of patient, hospital workers and community people.

8.78 Each hospital should have a safety committee comprising of Engineers (Civil & Electrical) and Heads of Departments from high-risk areas like Operation Theatre, laboratory, store and administration.

8.79 Each functional unit should have stairs on both sides of the wards besides lifts. All the fire exit stairways should be free between different stories of the building and no dumping of condemned stores item to be stored on the stairs.

8.80 High fire risk areas like operation theatre, laboratories, hospital stores, medical records and plant areas like laundry, CSSD and kitchen should have automatic fire alarm and fire extinguisher facilities. Facilities to be made available such as smoke detection alarm, heat activated alarm, automatic water sprinkler and chemical extinguisher, if feasible.

8.81 Multi-storied complex in a hospital should have on all sides wide-open areas for entrance of fire brigade vehicles.

8.82 Medium and big sized hospitals should have fire hydrant facility with functioning electrical pump. Location of fire hydrant should be easily identifiable with arrow marks on the road and also to be shown on guide map of the hospital.

8.83 Fire extinguisher should be inspected and checked frequently by the engineering department.

8.84 Each hospital should have a sound practical evacuation plan.

8.85 Illuminated signboards for exit ways should be there in all the working areas of the hospital.

8.86 Arrangement for generator to operate emergency fire lifts and illumination of fire exit and other, emergency light facility should be there.

8.87 Training of all level of staff in fire fighting should be mandatory. Staff must know how to operate fire extinguishers.

8.88 Mock drill of fire fighting to be carried out periodically.

8.89 Although all public areas have been declared as 'NO SMOKING ZONE AREA' but special preventive measures to be taken for hospitals.

COMMUNICATION

8.90 Communication is an important tool in enhancement of quality care of acutely ill patients, accidents victims and mass disastrous conditions, which are on increase especially in metropolitan city.

8.91 All telephones EPABX, Intercoms and auto-telephones should be functional in all the areas of the hospital.

8.92 Technical staff must repair the telephone instantaneously, if fault is local.

8.93 If repair of telephone is required to be done by MTNL/DOT, its repair to be prioritized over others.

8.94 Surprise check of the telephones to be done by Supervisor telephones.

8.95 Hospital telephones should not be used for private calls and instructions should be issued, to all the employees.

8.96 Telephone facility and STD facility to be given at the residence as per Government order.

8.97 With advancement of tele-communication hospital should have better facility of communication like pager, cellular phone, Fax, E-Mail and Internet wherever permissible.

WORKSHOP

8.98 A workshop should be there in a medium or large sized hospital under the charge of 'Foreman.'

8.99 Workshop should have facility for mechanical, electrical, air-conditioning, painting, carpentry, welding and blacksmith work. Technical personnel shall supervise these services.

8.100 All routine minor repairs should be done in workshop.

8.101 The following documents should be kept by the workshop :

- a) Inventory of non-expendable stores.
- b) Expendable Stores Register.
- c) Job Cards.
- d) Purchase file.