

A No. 02

**Government of India
Ministry of Railways
(Railway Board)**

No. 2018/H-1/18/5/Training

Dated ¹⁴ .09.18

The PCMDs/CMOs,
All Indian Railways/PUs/RDSO.

Sub:-Training of Railway Para Medical Staff - Reg.

In order to increase motivation skill level of Railway Para Medical Staff, a training course has been prepared for them. A copy of course content for training is enclosed herewith. The training to Railway Para Medical Staff is to be given as per the schedule given below:

S. No.	Para Medical Staff Category with duration of days	Duration of completion of Training	Place of training
1	Safaiwala (2 days)	1 st 15 days	Health Unit Staff should be given training at Nearest Railway Hospital and Railway Hospital staff in concerned Railway Hospital
2	Hospital Attendant (2 days)	2 nd 15 days	
3	Dresser (2 days)	3 rd 15 days	
4	Pharmacy (2 days)	4 th 15 days	
5	Lab Staff (2 days)	5 th 15 days	
6	Radiographer (2 days)	6 th 15 days	
7	Physiotherapy Staff (2 days)	Next 2 days	At Central Railway Hospitals
8	Dietician (2 days)	Next 2 days	
9	Nursing Staff (2 days)	7 th 15 days	Health Unit Staff should be given training at Nearest Railway Hospital and Railway Hospital staff in concerned Railway Hospital
10	Health Inspector (2 days)	8 th 15 days	
11	Staff from the above mentioned categories who could not attend the training due to sick & other reasons.	9 th 15 days	

The training schedule of first training of the Railway Para Medical Staff should be started from 01.10.2018 and completed by 31.03.2019. After a gap of one year, the training should be repeated every year in the above six months schedule.

The details of training should be provided in MCDO item no. 17 (vi) to (viii), separate details of category wise of Paramedical Staff also be sent as annexure along with MCDO.

Encl: As above

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SAFAIWALA

DURATION 2 DAYS

CONTENTS

1. Soft skill and its honing. Consideration/courtesy towards patients
2. Training in First Aid, Safety of patient especially while shifting.
3. Attending to bed ridden patients and their daily personal needs i.e. nature's calls i.e. keeping and cleaning of bed pans, urinals, spittoons.
4. Principles and techniques involved in mopping and swabbing of floors, cleaning of toilets, urinals, wash basins, sanitary mirrors, glass panes etc.
5. Knowledge on different disinfectants used in mopping and cleaning, cleaning of bed pans, toilets and urinals. Precautions to be observed against possible hazards while using disinfectants/chemicals. Side effects of disinfectants. Its effect on environment. Personal Hygiene.
6. Collection and disposal of waste like used cotton, swabs, refuse, excreta, viscera, placenta etc and other waste products in a hygienic and scientific manner. Handling of Bio-medical waste and its segregation with specified color coded bags. Hazards of Biomedical waste
7. Educating the patients on proper use of toilets/ wash basins/urinals. Primary knowledge on hazards of smoking, use of alcohol and other drugs of addiction.
8. Role of Safaiwala at the time of Railway accidents at accident sites and disaster management. Their role in case of specified disaster - manmade and natural calamity, handling firefighting equipment, safe evacuation of patient during such calamities.
9. Cleaning of medical instruments, thermometers, collection of urine and stool samples and transportation of urine and stool samples to lab after proper labeling.
10. Importance on wearing of uniform (liveries), discipline and sound/decent habits and interpersonal skills.
11. Leave and Pass Rules, PF & Loan etc. Computer familiarity. Attending to Telephone calls, taking messages and his / her role in case of emergency.

COURSE CONTENTS

HOSPITAL ATTENDENT

DURATION 2 days

CONTENTS

1. Introduction to Indian Railway Health Care System.
2. Courtesy and manners towards and smart turnouts.
3. Soft skill and interpersonal relations. Importance of discipline and good interaction with others.
4. Maintaining professional relationship with superiors and bedside manners.
5. Training in First Aid, Safety of patient especially while shifting. Valid Basic Life Support Certification.
6. Making beds and changing of clothes of patients. Dusting and cleaning the wards/furniture and equipments.
7. Answering of telephone calls & conveying of messages.
8. How to receive a patient in emergency. Registration of patients
9. Transport of patients in wheel chair or stretcher / Ambulance / Shifting of patient from ambulance to stretcher safely
10. Cause of infection and Prevention – Bacteria, Virus, etc. and basic details about same such as:
 - a. Spread of infection and preventive measures.
 - b. Precautions in handling of patients in Isolation ward.
 - c. Importance of personal and food hygiene and environmental sanitation.
 - d. Removal and disposal of waste.
11. Handling of costly and sophisticated equipments and Care of common ward equipments and materials.
12. Assistance for pre-operative preparation. Post-operative care and transport of patients.
13. Working in operation theatre and carrying of biopsy specimens. Handling of patients inside operation theatre.
14. Sterilization/auto calving of common surgical instruments and materials and care of equipments used

DRESSERS

DURATION 2 DAYS

CONTENTS

1. Introduction to Indian Railway Health Care System.
2. Soft Skill Courtesy and manners towards and smart turnouts. Importance of discipline and good interaction with others Maintaining professional relationship with superiors and bedside manner
3. Training in First Aid, Safety of patient especially while shifting. Valid Basic Life Support Certification Basic Life Support
4. Sepsis & Asepsis-different varieties of wounds and their dressing. Different dressing medicaments. dressing material & equipments
5. Sterilization of instruments-basic principles and handling of stretcher.
6. Pre – operation preparation of patients , positioning of patients for different operations & Post – operation, dressing. removal of stitches etc.
7. Different types of drains, catheters and their management. Splints, plaster & their application.
8. Handling of Bio-medical waste and their safe disposal. Hazard of same and various legislation regarding Biomedical waste
9. Through knowledge of sterilization & Autoclaving of different varieties of equipments. Good knowledge of surgical equipments
10. Knowledge of working of Cautery machine and suction machine.
11. Handling and positioning of O.T. Tables for different operations Image-intensifier. Knowledge & use of Anaesthesia trolley and gas cylinders.
12. Proper shifting of patients after operation & management of postoperative Emergencies.
13. Their role in case of specified disaster - manmade and natural calamity, handling firefighting equipment, safe evacuation of patient during such calamities.
14. Knowledge about ARME. Handling instruments in ARME. First-Aid to the injured, Care of patients in the accident sites
15. Leave and Pass Rules, PF & Loan etc. Computer familiarity. Attending to Telephone calls, taking messages and his / her role in case of emergency.

PHARMACIST

DURATION 2DAYS

CONTENTS

1. **General Pharmacology.**
 - 1.1 Introduction of Subject.
 - 1.2 Source, Nature and Nomenclature of drugs.
 - 1.3 Routes of drug Administration.
 - 1.4 Absorption and Bio-availability of a drug.
 - 1.5 Mechanism of Action of drug.
 - 1.6 Drug interaction, Adverse Reactions and Prevention of Adverse reactions
2. **Physiology of C.N.S. and drugs action on C.N.S.**
 - 2.1 Anatomy of C.N.S.
 - 2.2 Drug-Abuse-Addiction.
 - 2.3 Drug Action on C.N.S.
3. **Drug-Therapy in some chronic and significant diseases and emergencies.**
 - 3.1 Diabetes.
 - 3.2 Myocardial infarction & Hypertension.
 - 3.3 Leprosy and Tuberculosis.
 - 3.4 Medical and Surgical emergencies.
 - 3.5 Cancer.
4. **Anti-biotics.**
 - 4.1 Role of anti-biotic.
 - 4.2 Mechanism of action of various Anti-biotic.
 - 4.3 Newer Anti-biotic.
 - 4.4 Hazardous and precautions.

- 8.2 Expiry Date.
- 8.3 Storage of Sera & Vaccines and some special drugs.
- 8.4 Drug Controller Rules and legalizations on Drug storage and dispensing
- 9.0 Their role in case of specified disaster - manmade and natural calamity. handling firefighting equipment, safe evacuation of patient during such calamities.
- 10 Leave and Pass Rules. PF & Loan, etc. Computer familiarity for making indents and handling HIMIS

LAB STAFF

DURATION 2 DAYS

CONTENTS

- 1. General Laboratory Technique and apparatus.**
 - 1.1 Principles and Medical ethics in the Laboratory work.
 - 1.2 Infection, disinfection and Methods of sterilization..
 - 1.3 Principles, precautions and maintenance of various apparatuses.
 - 1.4 Manipulation of Microscope.
 - 1.5 Preparation of stains and proper staining methods.
- 2. Management of Laboratory.**
 - 2.1 Proper collection, reception and recording of specimens.
 - 2.2 Storage of culture media, dangerous compounds and gases.
 - 2.3 Laboratory Planning.
 - 2.4 Cataloging, indexing and maintenance of laboratory records.
- 3. Fundamentals & Specific tasks in conducting investigating in various important disciplines.**
 - 3.1 Haematology – Blood examination.
 - 3.2 Coagulations Testing-Blood serology-Blood chemistry.
 - 3.3 Urine, Faces, Sputum, Cavity fluids, Cerebro-spinal fluid.
 - 3.4 Examination of sores and skin.
 - 3.5 Gastric Fluid, seminal fluid.
- 4. General Microbiology and Parasitology.**
 - 4.1 Collection of materials and handling of specimens-staining methods.
 - 4.2 Culture media.
 - 4.3 General and supplementary knowledge about microbes.
 - 4.4 Methods of diagnosis of Principal protozoan parasites, Homatodes, costodes and Trematodes.
- 5.0 Automation**
 - 5.1 New sophisticated electronic Analyzers used in Hematological and Bio-

PHYSIOTHERAPISTS

DURATION 2 DAYS

CONTENTS

1. Principles of Physiotherapy
2. Modern concepts of physiotherapy.
3. Evaluation & assessment of motor functions.
4. Various kinds of tractions to various organs working system of traction equipment in relation to : Anatomy & Physiology.
5. Self Health exercises.
6. Splints, prosthetics.
7. Ultra-sonic therapy, Hydrotherapy.
8. Active and passive exercises.
9. Reception of patients – Documentation & reporting.
10. Workshop on Physiotherapeutic practices.
11. Care of the paralytics, paraplegics & Hemiplegics (with minimum help they can attend to their personal needs)
12. Planning, procurement and maintenance of equipment including prosthetic aids & implants.
13. Their role in case of specified disaster - manmade and natural calamity, handling firefighting equipment, safe evacuation of patient during such calamities. Training in Basic Life Support.
14. Leave and Pass Rules, PF & Loan etc. Computer familiarity for making indents and handling HIMS

NURSING STAFF

Duration : 2 Days

CONTENTS

1. Principles of Cardiac resuscitation including external massage/mouth to mouth Breathing. They should have valid Basic or Advance Life Support care certification
2. General Principles of Nursing care. Principles of Multi Para Monitors, Ventilators and other Medical apparatus and their maintenance. Familiarization with the various monitors both single and multi channel. The principles of pressure recording and their basic interpretations.
3. Composition of various I.V. infusions. Role of Nurses in "Fluid and Electrolyte therapy." Use of Antibiotics
4. Blood Gas and their interpretation.
5. Common drugs used and their doses.
6. Respiratory function tests and their interpretation.
7. Internal and External pacing.
8. Basic bed side procedures, Gastric Lavage. Bowl wash and enema.
9. Intake output charts and its importance.
10. Oxygen therapy. Respiratory care. Care of tracheotomy. Care of coma patients, Managing Anaphylactic shock, Acute poisoning cases.
11. Care of new born and mother
12. Labeling and dispatch of samples.
13. Basic dietary principles
14. Extra training for department where posted for honing of skills .
15. Operation theatre training.
16. Handling Medical, Surgical, Pediatric, Orthopedic, Ophthalmology, ENT , ICU, OT, Post operative , Labor room, Burn unit, Dialysis etc
17. Managing day care centre.
18. Disseminating epidemiological information.
19. Staffing pattern – Critical mass concept, identifying knowledge, skills and Attitudinal needs of staff assigned. Defining functions and essential tasks, emphasizing the objective and goals of training programme and their relevance to work performance.

HEALTH INSPECTORS

DURATION 2 days

CONTENTS

1. Method of indenting, maintenance including consumables stores, care of money valued books.
2. Introduction to Railways and functions of various Departments:
 - a) Water borne diseases and management.
 - b) Water sources and purification.
 - c) Chlorination devices. Estimation of chlorine demand & Determination of residual chlorine (practical training)
 - d) Drinking water quality standards. Water quality monitoring and surveillance. role of medical and engineering department.
 - e) Method of collection and dispatch of water samples for bacteriological and Chemical analysis (practical training).
 - f) Environmental sanitation, proper collection and disposal of excreta/sullage/refuge.
 - g) Sewage treatment – techniques and principles.
 - h) Temporary sanitary arrangements for fairs and festivals with special reference to surveillance and prevention of communicable diseases and fly control.
 - i) Disinfection.
 - j) Conducting colony committee meetings and noting the progress made.
 - k) Pest & Rodent' control/Eradication measures.
 - l) Planning for new assets, yardsticks of staff certification of sanitary facilities.
 - m) Knowledge and use of Modern Mechanized Equipment like Vacuum Machine, Cleaners clean sweep, Fogging Machines, Mechanical sweepers etc. (Practical Training)
 - n) Prevention & control of communicable diseases.
 - o) Prevention, control and treatment of Malaria with special reference to anti-larvae & mosquito measures.
 - p) Various National Health Programmes & Celebration of World Health Day.
 - q) Immunization schedules & cold chain.
 - r) Performance of Railways on F.W. Methods – role of His – Rules.
 - s) Blood Smear collection and Inoculation. (Practical Training)
 - t) Well versed with Biomedical waste management regulations and handling of same, use of safety barriers by staff during work its importance
 - u) Imparting health education on community health – health promotion.
 - v) Liaison with local Public Health Staff.

DIETICIAN

Duration 2 Days

CONTENTS

1. General Principles of Nutrition and managing patient with different needs.
2. Managing Kitchen, maintaining hygiene and delivery of proper food to patient as per their requirement.
3. Counseling patients about proper diet
4. Knowledge of various rules regarding purchase , stock management, indent and record keeping.
5. Leave and Pass Rules, PF & Loan etc. Computer familiarity for making indents and handling HIMS

RADIOGRAPHER

DURATION 2 days

CONTENTS

1. Principles of Radiology, various types of x-ray machines and their maintenance.
2. Asepsis in Radiology & Imaging
3. Principles of developing x-Rays.
4. Various radio opaque materials- Their advantages and disadvantages.
5. Principles of imaging.
6. Maintenance of Ultra sonogram machines
7. Preparation of patients for X-Ray like I.V.P., Ba. Myelogram & Angiograms
8. Ultrasonography in Obstetrics
9. Principles of CT. Scan.
10. Principles of M.R.I. Scan.
11. Principles of Radio-active Isotope and their use.
12. Principles of mammography.
13. Basic bed side procedures.
14. Bowl wash and enema
15. Management of Anaphylactic shock
16. Radiation hazard and Safety
17. First Aid and Basic Life Support training
18. AERB rules and regulation
19. Knowledge of various rules regarding purchase, stock management, indent and record keeping.
20. Leave and Pass Rules, PF & Loan etc. Computer familiarity for making indents and handling HMS