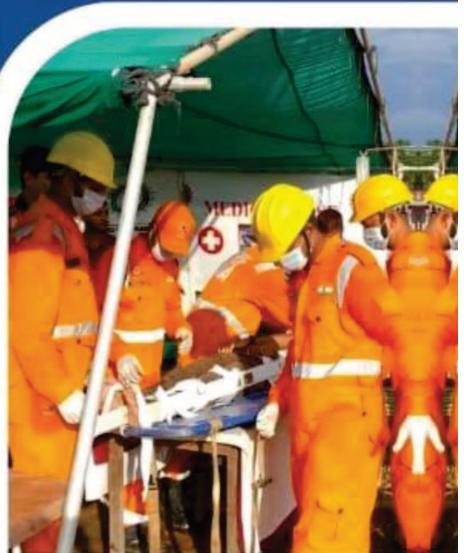




National Disaster Response Force



MFR (Medical First Responder) INSTRUCTOR'S GUIDE

Name _____



DG's FOREWORD



It is a matter of great pleasure and honour that National Disaster Response Force has prepared a detailed and thoroughly researched MFR Precis, designed specifically for the respective BFRC modules. The precis has been prepared to enhance the understanding of various lessons as per the respective syllabi. I am sure precis will go a long way in standardization of the course content and will help streamline the training across all units and the Academy of NDRF.

NDRF has been training its rescuers at all Battalion Headquarters and the NDRF Academy at Nagpur. The initial training in the field was carried out with support from the NSET-PEER which has evolved over the period. A lots of new modifications have been incorporated into the courses introduced by the NSET-PEER by the different training centres as per their convenience. Moreover, with the passage of time, various training needs evolved and necessitated modulations in the curriculum.

It was in this backdrop that a Training Need Analysis (TNA) was carried out in the force, consequent to which it was felt that the training content and the lessons needed to be homogenized so as to accomplish our goal of standardizing the training across all units and the NDRF Academy.

A lot of hard work has gone into reviewing the module lessons, content and scheduling of the time periods required for each topic. I am pleased to place on record my sincere appreciation to the Board of Officers under Sh Pankaj Kumar, Commandant, NDRFA who have helped prepare this MFR precis for the rescuers.

This Precis has been prepared from PEER Instructor's guide and updates have been taken various reliable websites, and Brady reference book. I am sure this Precis will be of immense value to NDRF Rescuers in obtaining the requisite knowledge and skills needed for an effective and efficient MFR response and fulfil the need of a standard reference material by the trainees.

(PIYUSH ANAND, IPS)
DG NDRF



IG's FOREWORD



NDRF has come a long way in disaster response and the organization needs no introduction when it comes to the management of disasters in the country. The subtle movement from its inception to a position where NDRF becoming synonymous with the disaster response in the country, has not been an easy walk.

The very process of this transformation from a core competence of combat operations into inherently humane charter of duties, necessitated complete overhaul of the earlier training which every CAPF soldier imbibes in his muscle memory. Training commenced in early 2000s with very hard work going into the preparation of the modules and the courses, designed with the help of experts, be it from within the country or abroad.

The syllabus and the content compiled in the form of precis at different training centers have been useful in conducting meaningful training till date. However, with ever evolving disaster management methodologies techniques and equipment a need was felt to revisit the entire training requirements of NDRF.

Accordingly, a Training Need Analysis (TNA) was carried out and new training regime and manual have been implemented. It was towards realization of a standardized training, that revision of the available content on various modules was undertaken.

After a lot of hard work, the NDRF has now been able to finally compile and prepare the precis on **MFR** for distribution to all units and the NDRF Academy.

I am sure this initiative will go a long way in standardizing the MFR training across NDRF. I appreciate the hard work put in by the instructors and the training team at HQ NDRF for realizing this strenuous work in a diligent manner in relatively very short time. My Best Wishes to all.

(NARENDRA SINGH BUNDELA, IPS)

(INSPECTOR GENERAL, NDRF)



DIG's FOREWORD



I am happy to acknowledge the support extended by team of instructors pooled from the multiple units, Academy and the HQ NDRF in preparing this **MFR Precis** for the NDRF personnel, I must place on record my sincere appreciation for the special efforts made by all the instructors of NDRF who have contributed through knowledge-based technical inputs to prepare the handbook.

I would also like to express my sincere gratitude to **Sh. Pranshu Srivastava, 2IC (Training), HQ NDRF** who sat through the extended sessions and helped in the review of entire content. His previous work with PEER-India project and his extensive research during the Technical Curriculum Review Group (TCRG) constituted by the ADPC-PEER came handy in modulating the contents as per NDRF's requirements. The valuable contribution and sincere efforts by entire Board members have eventually made it possible to conceptualize and prepare this precis.

The approach focuses on facilitating learning about the disasters and understanding the required knowledge & skills by the volunteers. This precis is intended to serve as an essential training material for standardizing the respective training modules of BFRC.

Finally, I am deeply indebted and would like to express my gratitude to the Shri Atul Karwal, IPS, Director General NDRF and Shri Narendra Singh Bundela, IPS, Inspector General for their guidance and valuable suggestions in finalizing this Precis for the NDRF responders.

(B.B. VAID)
DEPUTY INSPECTOR GENERAL, NDRF

BOOK/TEAM CONTRIBUTION

This book has been prepared by the dedicated efforts of well experienced and knowledgeable team members which comprising **Shri Pankaj Kumar, Commandant (Training) NDRF Academy, Shri Pranshu Srivastava, Second-In-Command, NDRF HQ, Shri Vimal Bounthiyal, Second-In-Command, NDRF Academy, Shri Rajneesh Sharma, Second-In-Command, NDRF Academy, Shri Sanjay Rawat, Assistant Commandant, 08 Bn NDRF and Insp Jograj Sharma, NDRF Academy.** The efficient team has diligently compiled vital information to equip rescuers with the skills and understanding needed in challenging situations.

The contents of this book have been taken from **INDIA PEER-MFR** Instructors' Guide framed under ADPC & USAID and this content will be utilised for the Training of MFR course only

MEDICAL FIRST RESPONDER

TABLE OF CONTENTS

Foreword	i
BOOK/TEAM CONTRIBUTION	iv
Lesson 1 Course Introduction	7
Lesson 2 Emergency Medical Systems and the Medical First Responder	21
Lesson 3 Infectious Disease and Precautions	35
Lesson 4 The Incident	47
Lesson 5 Anatomical References	69
Lesson 6 Patient Assessment	87
Lesson 7 Basic Life Support and Cardiopulmonary Resuscitation	125
Lesson 8 Oxygen Therapy	173
Lesson 9 Haemorrhage and Shock	191
Lesson 10 Soft-Tissue Injuries	205
Lesson 11 Musculoskeletal Injuries	233
Lesson 12 Injuries to the Skull, Spinal Column and Chest	259
Lesson 13 Burns and Environmental Emergencies	287
Lesson 14 Poisoning	319

TABLE OF CONTENTS

Lesson 15	Medical Emergencies, Part 1: Cardiovascular Emergencies and Abdominal Distress	339
Lesson 16	Medical Emergencies, Part 2: Respiratory Emergencies	361
Lesson 17	Medical Emergencies, Part 3: Seizures, Diabetic Emergencies and Cerebral Vascular Accidents	375
Lesson 18	Childbirth Emergencies	393
Lesson 19	Lifting and Moving Patients	425
Lesson 20	Report Writing and Preparation for the Next Call	447
Lesson 21	Triage and Multiple Casualty Incidents	457
Lesson 22	Course Review	477
Group Presentations		480
Lesson 23	Final Practical Evaluation	497
Glossary		508

MFR



Medical First Responder

- **Three weeks course**
- **Delivery through interactive lectures and demonstration practice sessions by experienced instructors**
- **Targets emergency and disaster first response groups.**
- **Trains individuals with the knowledge and skills to assess, treat and transport sick or injured patients as a result of an emergency or disaster.**

Acronym

Emergency medical Systems and the Medical First Responder

EMS - Emergency Medical Systems

MFR - Medical First Responder

EMT: Emergency Medical Technician

LOC: Level of Care

ICS - Incident Command System

BFRC-Basic First Responder Course

Infectious Disease and Precautions

PPE - Personal Protective Equipment

ISO - Isolation Procedures

BIS- Body Substance Isolation

STD-Sexually Transmitted Disease

TB- Tuberculosis

HIV- Human Immune Deficiency Virus

AIDS-Acquired Immune Deficiency Virus

Anatomical References

AR - Anatomical References

PNS-Peripheral Nervous System

ANS-Autonomic Nervous System

CNS-Central Nervous System

Patient Assessment

PA - Patient Assessment

SAMPLE - (Signs & Symptoms, Allergies, Medications, Pertinent history ,Last oral intake, Events.)

PMS-Pulse, Motor Function, Sensation

AVPU-Alert, Verbal, Painful, Unresponsive

TRI – Triage

FOC - Focused Assessment

LOC- Level Of Consciousness

RPSPBP-Respiration, Pulse, Skin, Pupil, Blood Pressure

ROTS-Rigidity, Open Injury, Tenderness

ABC-Airway, Breathing, Circulation

CAB-Circulation .Airway , Breathing

BPDOC-Bleeding, Pain, Deformity, Open Injury, Crepitus Sound

PPM-Pulse Minute

Basic Life Support and Cardiopulmonary Resuscitation

BLS - Basic Life Support

CPR - Cardiopulmonary Resuscitation

AED - Automated External Defibrillator

FBAO-Foreign Body Airway Obstruction

ACLS-Advance Care Life Support

Oxygen Therapy

OT - Oxygen Therapy

CAN - Cannula

NBR-Non Re-breather Mask

BVM-Bag Valve Mask

CO2-Carbon Dioxide

CO-Carbon Monoxide

PSI-Pressure Per Square Inch

Hemorrhage and Shock

HS - Hemorrhage and Shock

WBC-White Blood Cell (Corpuscles)

RBC-Red Blood Corpuscles

Soft-Tissue Injuries

STI - Soft-Tissue Injuries

CUT – Cuts

LAC – Lacerations

PUN – Punctures

AVU – Avulsions

BITE - Bites and Stings

RICE-Rest, Ice, Compression, Elevation

Skull, Spinal Column, and Chest

CBR - Cerebrospinal Fluid Leaks

CSF- Cerebrospinal Fluid

Burns and Environmental Emergencies

TBSA- Total Body Surface Area

BSA- Body Surface Area

Poisoning

AVM- Anti Venom Serum

Medical Emergencies, Part 1: Cardiovascular Emergencies and Abdominal Distress

CHF - Congestive Heart Failure

Medical Emergencies, Part 2: Respiratory Emergencies

COPD - Chronic Obstructive Pulmonary Disease

EMPH – Emphysema

PNM – Pneumonia

ALI - Acute Lung Injury

TB – Tuberculosis

Medical Emergencies, Part 3: Seizures, Diabetic Emergencies, and Cerebral Vascular Accidents

CVA - Cerebral Vascular Accidents

HYPO – Hypoglycemia

HYPER – Hyperglycemia

Childbirth Emergencies CE - Childbirth Emergencies

APGAR- Appearance, Pulse , Grimace, Activity, Respiratory

Report Writing

PHT-Pre Hospital Treatment

TU-Transport Unit

Triage And Multiple Casualty Incidents

START- Simple Triage and Rapid Treatment.

MCI-Multiple Casualty Incident.

ICS- Incident Command System