

PROSPECTUS
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Masters in Emergency Medicine (MEM)



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Preface

Ananthapuri Hospitals and Research Institute (AHRI), multispecialty tertiary hospital was launched in the year 2005 with a mission of providing “Service with Sincerity and Solicitude and Sophistication”. The hospital having thirty major Depts. including General Medicine, General Surgery, Anaesthesiology, Neurology, Neurosurgery, Cardiology, Cardiothoracic Surgery, Orthopedics, Emergency Medicine, Urology, Nephrology, Neonatology, Pediatrics, Pediatric surgery, ENT surgery, Obstetrics, and Gynecology etc which are headed by eminent Professors and Consultants. We have 150 Doctors and 700 paramedical staff. One of the key features of the hospital is that it is centrally located in the city of Thiruvananthapuram and has easy access from the International Airport, Central Railway Station and Bus stand. This hospital has the distinction of being one of the few hospitals in Kerala who have obtained the quality accreditation; NABH and ISO 9001-2008 from T.U.V Germany for fulfilling the International quality parameters. This 500 bedded multi specialty hospital is renowned for its excellent medical expertise, nursing care and quality of diagnostic services, continuously in tune with the latest technology that promotes the health care and well being of the patients.

The concept of emergency medicine is a matrix of specialties and super specialties under one umbrella. This department not only caters to medical & surgical emergencies but also functions as a marketing window of the hospital with qualities of kind and humble reception, good counseling tactics and aggressive resuscitation in the emergency room, on the road, in the ambulance and all over the hospital even in the odd hours.

Unlike other departments, this specialty has to be on toes for 24 hours. Emergency care giver can't wait for investigations and many times have to go ahead with the treatment even without coming to final diagnosis in order to save the precious lives.

To have such kind of practice, emergency physicians must have sharp and smart reflexes with adequate skills and knowledge.

Emergency room is an unpredictable place where at a given point of time, you may have a bulk of unwarranted case flow and next moment you may not be having such a busy schedule.

Even 30 patients can be managed well in the ward by a single doctor where as a single critically ill patient may require a team of doctors until stabilized and shifted. Hence the requirement of manpower in terms of doctors and paramedics is more.

Our hospital is approved & the Post Graduate course Masters in Emergency Medicine is affiliated to the Society For Emergency Medicine (SEMI), India, 2012.

The course doesn't comes under purview of Medical Council of India

Details of the Course

Purpose

The purpose of the course is to train the young and aspiring medical graduate in handling common emergency conditions and gear him/her to face day to day challenges faced in an emergency room.

Goal

To provide the fellow with:

1. Adequate knowledge in triaging the patients.
2. Identify and treat life threatening emergencies.
3. To deal with non life threatening emergency conditions and referral to appropriate speciality if needed.

4. Adequate skills to resuscitate a critically ill patient.
5. To perform common emergency and life saving procedures.
6. To participate in academic activity, emergency medicine conferences.
7. Understanding of how to deliver emergency health care in humanitarian crises and International disasters.
8. Develop administrative skills in managing the department

Eligibility

Candidate for admission to fellowship programme shall be required to possess the following qualifications:

- (a) He/she must have a qualified MBBS Degree
- (b) Obtained permanent registration certificate from any one of the State Medical Councils or Medical Council of India
- (c) Foreign Medical Graduated should have cleared their FMG screening exam before enrolling into the course and have to submit their FMG screening exam result copy to the society as mentioned in the application.

Applications forms :

Application form is available from the office or can be downloaded from our website:www.ananthapurihospitals.com

Documents to be produced along with the application:-

1. Attested copy of MBBS mark list.
2. Attested copy of MCI Registration
3. Attested copy of Certificate to prove Date of Birth
4. Conduct/Character certificate from the Head of the Institution where the candidate last studied.
5. Transfer Certificate
6. Recent passport size photographs.

Duration of the course:

1. Three years (36 Months)
2. No exemption shall be given from the period of training.
3. Leave – as per institutional policy.
4. EMCON / INTEM/PACE conference attendance will be considered as working hours.
5. The head of the department will approve the duty hours for the candidates at the end of each

month.

Selection Criteria

1. Those fulfilling the eligibility criterion, the candidate will be called for a personal interview following which the admission list will be drawn.
2. The personal interview will be conducted by the head of the department and the selected list of candidates will be recommended to SEMI with complete set of details as requested in the application form on or before 20 days prior to the commencement of the course for that year.
3. The final decision of acceptance and enrollment for the course rests with SEMI and incomplete applications will be rejected.
4. All the candidates successfully enrolled will receive an acceptance letter from SEMI and recommended to register for SEMI membership.

Course Fee

Rs 2,50,000/- per year

Exam fee at the end of 12 months – Rs 2000/- per candidate towards Basic Sciences paper & at the end of 3years for MEM Rs.2000/paper for 3 papers & Rs.2000 towards practical exams

The prescribed fee shall be paid by the candidate at the time of admission. **The fee once remitted shall not be refunded.** TC will be issued only after clearing the outstanding dues.

Curriculum for Masters in Emergency Medicine (MEM)

Introduction

GENERAL GOALS OF THE RESIDENCY TEACHING CUM TRAINING PROGRAM IN MASTERS IN EMERGENCY MEDICINE.

The main goal of the training program is to produce Emergency physicians with the necessary knowledge, skill and attitude to diagnose and manage in an effective manner, a wide range of clinical problems in Emergency medicine as seen in the community or in secondary/tertiary care setting. Special emphasis is placed on the relatively common emergencies and treatable disorders. Possession of clinical skills, required for making a diagnosis is given utmost importance.

As a result of training in Emergency Medicine, the Emergency physician should become competent in life saving emergency interventions, the use of the various diagnostic tests, and interprets their results intelligently & promptly.

In addition, trained Emergency physician should possess knowledge and skills of the entire medical and surgical specialty and appropriately deliver to save the critically ill patient within the golden hour.

It is considered compulsory for the post graduate residents from this specialty to be familiar with the fundamentals of research methodology.

In order to be considered a competent internist, a resident in Emergency medicine must possess humanistic qualities, attitudes and behavior necessary for the development of appropriate patient-doctor relationship.

SPECIFIC AIMS AND OBJECTIVES OF THE RESIDENT TRAINING PROGRAM IN EMERGENCY MEDICINE

As a result of the training under this program, at the end of 3 years of postgraduate training, a resident must acquire the following knowledge, skills and competencies:

1. A thorough knowledge of pathological abnormalities, clinical manifestations, and principles of management of a large variety of medical and surgical emergencies of pediatrics, adults and geriatrics, affecting any organ system.
2. Skill and competence to choose and interpret correctly the results of the various routine investigations necessary for proper management of the patient. While ordering these investigations, a resident must be able to understand the sensitivity, specificity and the predictive value of the proposed investigation, as well as its cost-effectiveness in the management of the patient.
3. Skill and competence in emergency interventions like endotracheal intubation, needle cricothyroidotomy, tracheostomy, needle thorococentesis, Intercostal drain placement, pericardiocentesis, defibrillation, so on and so forth.

4. Skills and competence to perform commonly used diagnostic procedures, namely, lumbar puncture, bone marrow aspiration/biopsy, liver/nerve/ muscle/ skin/ kidney/ pleural biopsy, fine needle aspiration cytology of palpable lumps, pleural/pericardial/abdominal/joint fluid aspiration.
5. Skill and competence to choose and interpret correctly the results of specialized investigations including radiologic, ultrasonographic, biochemical, hemodynamic, Electro cardio graphic, electrophysiological, pulmonary functional, hematological, immunological, nuclear isotope scanning and arterial blood gas analysis results.
6. Skill and competence to provide consultation to other medical and surgical specialties and sub-specialties, whenever needed.
7. Skill and competence to function effectively in varied clinical settings, namely emergency/critical care, ambulatory care, out-patient clinic, in-patient wards.
8. Skill and competence to take sound decisions regarding hospitalization, or timely referral to other consultants of various medical sub specialties recognizing his limitations in knowledge and skills in these areas.
9. Proficiency in selecting correct drug combinations for different clinical problems with thorough knowledge of their pharmacological effects, side-effects, interactions with the other drugs, alteration of their metabolism in different clinical situations, including that in the elderly.
10. Skill and competence to advise on the preventive, restorative and rehabilitative aspects including those in the elderly, so as to be able to counsel the patient correctly after recovery from an acute or chronic illness.
14. Skill and competence to understand research methodology in Emergency medicine and to undertake a critical appraisal of the literature published in various emergency medical journals and be able to apply the same in the setting in which the resident is working.
15. Skill and competence to work cohesively in Resuscitation team along with paramedical personnel and maintain discipline and healthy interaction with the colleagues.
16. Skill and competence to communicate clearly and consciously, and teach other junior residents, medical students, nurses and other paramedical staff, the theory as well as the practical clinical skills required for the practice of Emergency medicine.

Objectives:

The objectives of the committee were:

- 1) Study the curriculum being followed by various institutions for PG course in M.D Emergency Medicine in India, USA, UK & Australia.
- 2) Standardize and recommend a course curriculum for PG course in M.D Emergency Medicine.
- 3) Develop a document enlisting guidelines for teaching post-graduate course in M.D Emergency Medicine.
- 4) Formulate recommendations for the regulatory authorities for implementation of the developed module to the institutions conducting/likely to conduct PG course in M.D Emergency Medicine.

Curriculum

Total duration of training program

3 Years

YEAR I

Introduction and preliminary posting in the Emergency Room	4 months
Posting in Anaesthesiology	2 months
General Medicine / Medical Intensive Care Unit	2 months
Surgical Intensive Care Unit	1 month
General Surgery/ surgical Intensive Care Unit	1 month
Radiology (Emergency oriented)	1 month.
Orthopaedics/ surgical Intensive Care Unit	1 month
Primary examination in Basic Medical Sciences	

Desired skills to be achieved after 1st year

- a. History taking
- b. Planning initial management of sick patient in ER
- c. Simple airway maneuvers
- d. Bag mask ventilation
- e. LMA and multilumen esophageal airway insertion
- f. Oropharangeal and nasopharyngeal airway
- g. Apply nasal prongs
- h. Administer nebulizer
- i. Arterial puncture
- j. Inline immobilization
- k. Application of cervical collar
- l. Oxygen therapy
- m. Cardiopulmonary resuscitation
- n. Basics of ECG
- o. Rhythm recognition
- p. Defibrillation and cardio version
- q. Peripheral IV access

- r. NG tube insertion
- s. Urinary Catheter insertion
- t. Decompression of pneumothorax
- u. Examination of Ear, Nose and Throat
- v. Splinting
- w. Debridement
- x. Wound care
- y. Suturing
- z. P/V and P/R examination
- aa. Lumbar puncture
- bb. Basics of radiology

2.1 Desired Clinical and Surgical procedures which should be demonstrated to MD candidates or the Candidates be imparted competencies.

Medical skills

- Advanced Airway management
- Ventilator support
- Non invasive ventilation
- Central Vascular access
- CVP monitoring
- Trans cutaneous pacemaker
- Trans venous pacing
- PCI
- Invasive hemodynamic monitoring
- Temporary pacemaker insertion and maintenance
- Pain relief
- Nasojejunal tube placement
- Bronchoscopy
- Abdominal paracentesis
- Hemodialysis
- CRRT

Surgical Skills

- Percutaneous tracheostomy
- Cricothyroidotomy
- Surgical tracheostomy
- Burr hole
- ICP measurement
- Venous Cut down
- Thoracocentesis
- ICD tube placement
- External fixation of Pelvis
- Fasciatomy
- Escharotomy
- Embolization bleeding vessels
- Retrograde urethrogram
- IVU

YEAR II

1. Emergency Room & Prehospital care	8 months
2. Cardiac ICU	1 month
3. Paediatrics / PICU	3 months

Hands on training in Trauma management and assessment

1. ICD
2. Needle thorococentesis
3. Cricothyroidectomy
4. Needle cricothyroidotomy
5. Suprapubic catheterization
6. Interosseous nailing
7. Central Venous access
8. Spine immobilization
9. Splinting
10. POP casting
11. Compartment pressure measurement
12. Invasive pressure monitoring
13. Suturing technique
14. ABG sampling
15. Anterior and posterior nasal packing
16. Foreign body removal
17. Suprapubic catheterization
18. Reducing dislocated joints
19. Debridement
20. Endotracheal insertion
21. Foleys insertion (Difficult)
22. Umbilical vein catheterization

23. Emergency ultrasonography
24. Nail bed hematoma removal
25. Reducing paraphymosis
26. External fixator for pelvis #
27. Reading trauma & Surgical related CT
28. Reading trauma & Surgical related MRI
29. Reading trauma & Surgical related X-rays
30. Auto transfusion technique
31. Incision & Drainage
32. Nerve blocks
33. Abdominal compartment pressure monitoring

Desired clinical and surgical procedures which should be demonstrated after 2nd year candidates or the candidates be imparted competencies.

Medical

1. CT Angiography of lung
2. CT Angiography of brain
3. Angioplasty
4. Stenting
5. IABP
6. permanent pacemaker placement
7. EEG
8. EMG
9. Emergency delivery
10. Bronchoscopy
11. Epidural anesthesia
12. Intravenous Urogram
13. MARS

Surgical

14. CT guided Biopsies
15. Renal biopsy
16. Endoscopy

17. Banding of esophageal varices
18. I & D
19. Laparotomy
20. Craniotomy
21. Coiling of aneurysm
22. LSCS
23. CABG
24. PEG
25. ERCP
26. Open reduction and internal fixation of fractures
27. Lithotripsy

YEAR III

Emergency Room & Prehospital care	9 months
Nephrology	1 month
Neurology & Neurosurgery	1 month
Gynaecology and Obstetrics / Labour ward	15 days
ENT & Ophthalmology	15 days

Desired skills to be achieved for MD 3rd year candidates

Medical

1. EEG
2. Nerve conduction study
3. EMG
4. Ventilatory management
5. Haemodialysis
6. Echocardiography
7. Slit lamp examination
8. Temporary pacemaker insertion
9. Bronchoscopy
10. Pericardiocentesis

Surgical

1. Burr hole
2. External fixators
3. Fasciotomy
4. Escharectomy
5. Sengstaken tube Insertion
6. DPL
7. External wire Fixation of Mandible
8. Venous Cutdown
9. PCT
10. Cricothyroidotomy
11. Tracheostomy
12. Emergency delivery
13. Banding

14. Detorsion of torsion of testis
15. Paraphimosis reduction

Desired clinical and surgical procedures which should be demonstrated to 3rd year candidates or the candidates be imparted competencies.

Surgical:

1. Decompression Craniotomy
2. Maxillofacial Surgeries
3. Open Thoracotomy
4. CABG
5. Vascular repair
6. IVC filter insertion
7. IM nailing
8. K wire fixation
9. Transplant surgeries

Medical:

1. Coronary angioplasty and stenting
2. Catheter related embolisation
3. Intra arterial thrombolysis

The Prospectus is subject to modification/addition/deletion as may be deemed necessary.