



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

Sector-1, Kamothe, Navi Mumbai - 410209

Tel. No. 022-27432471, 022-27432994, Fax No. 022 - 27431094

E-mail : registrar@mgmuhs.com ; Website : www.mgmuhs.com

Information Brochure

Certificate Courses & Fellowship in Critical Care Medicine

OVERVIEW

Intensive care medicine or critical care medicine is a branch of medicine concerned with the diagnosis and management of life-threatening conditions requiring sophisticated organ support and invasive monitoring.

ICU is an area specialized in the care of critically ill patients where skilled personnel and sophisticated equipments are readily available. It is the most expensive, technologically advanced and resource intensive area of medical care. It is estimated that the number of ICU beds in India is 5%-8% of the total hospital beds, which is very low. There is a strong need to increase the ICU Beds to 10%-15% of total beds in all hospitals. To man these beds, currently, the departments of anaesthesia, internal medicine and pulmonology share the responsibility.

The course 'Fellowship in Critical Medicine' of MGM Institute of Health Sciences is designed to impart knowledge and skills about the critical care of the patients. Experience and knowledge gained from this course will help improve the care delivered not only in the ICU but also to critically ill patients in other areas. During the course the students will become familiar with the ICU set up, quality and safety needs in the ICU, general principles of critical care and management of specific critical illnesses.

Certificate Course and Fellowship in Critical Care Medicine

- Critical Care is an essential stream of Medicine, which is applicable to all specialties.
- It is an upcoming branch with immense importance from outcome of seriously ill patients.
- Till now it was thought to be an extension of other specialties but now it is accepted all over the world as Specialty in itself.
- The doctor practicing Critical Care has to have basic knowledge of all other specialties and comprehensive knowledge of Critical Care.
- MGM hospital is providing the opportunity to students to gain the qualification, which will be of immense help in their future endeavors.

Certificate Course:

Duration	Eligibility	Seats
2 Years	Diploma in [Anaesthesia, Chest Medicine] from recognized University or institute.	2
1 Year	MD/MS/FCPS in [Anaesthesia, Medicine, Chest Medicine, Surgery] from recognized University or institute.	2

Why a Fellowship in Critical Care Medicine from MGM Institute Of Health Sciences, Navi Mumbai

Fellowship in Critical Care Medicine is one year structured program with practical training at MGM Institute of Health Sciences. The main objective of the program is to provide the training to handle critical care units.

- To introduce the trainees to the new technology in the life support.
- To prepare the trainees to demonstrate a basic understanding of physiology, patho physiology and pharmacology as they pertain to critically ill patient.
- prepare trainees to demonstrate competencies in the safe applications of equipment, current trends, careful monitoring, judicious uses of drugs and the coordinated provision of multidisciplinary care for effective organ system support.
- 3 months contact program at MGM Hospitals in Navi Mumbai with ICU training from Experts in the field.

Fellowship:

Duration	Eligibility	Seats
1 Year	Certificate course from recognized University or institute.	2

Learning Objectives

- To learn the general principles of care of critically ill patients; ABC of critical care – **Airway, Breathing and Circulation**.
- To evaluate the critically ill patient using clinical, diagnostic and therapeutic evaluation framework.
- To gain in-depth knowledge about the physiology of acid- base balance, fluid electrolyte balance, tissue oxygenation, haemodynamics and how to maintain these in critically ill patient.
- To be able to make informed and ethical decisions about the patient admission, involvement of specialists (closed and open models), use of monitoring devices and medications, and waning of the ICU care.
- To effectively prevent and control the infections using antimicrobials depending on the spectrum of action, killing kinetics, tissue penetration and oral bioavailability.
- To manage the cases of sepsis, multiple organ dysfunction syndrome (MODS), anaphylaxis, trauma, poisoning, cardiovascular problems, seizures etc.
- To understand the ICU set up, quality and safety needs in the ICU.
- To develop the interpersonal communication and counseling skills required for ICU set up.

Information Brochure & Application Form:

The cost of application form of is Rs. 1000/- to be payable by a Demand Draft of any scheduled commercial bank drawn in favor of the “**MGM Institute of Health Sciences**” Payable at Mumbai. This amount is not refundable. Brochure and the application forms will be available online and will not be issued /sent by Post/Courier/Hand.

Downloaded Application Form complete in all respects will be accepted in person/Post/Courier at MGM Institute of Health Sciences, Sector-01, Kamothe, Navi Mumbai up to 30.01.2016, 5:00 pm during office hours.

1. Candidate should keep one photo copy of his/her Application Form (duly filled in) for future reference.
2. The Receipt will be issued at the time of acceptance of the form. The candidate is required to preserve the Receipt for all future references.
3. No Original Certificates or attested photocopies are required to be submitted along with the application form. However all original certificates should be shown at the time of submission of the application form to decide eligibility.

LIST OF DOCUMENTS TO BE SUBMITTED

- 1) Nationality Certificate / Valid Passport
- 2) SSC passing certificate
- 3) First, Second and Third MBBS, Mark Sheets (Part- I & Part - II wherever applicable)
- 4) MBBS Degree Certificate
- 5) Attempt Certificates of All MBBS examinations. (First, Second, Third [Part-I, Part-II] MBBS)
- 6) MD/MS/PG Diploma Examination Marksheet / Grade Certificate
- 7) MD/MS/PG Diploma Degree Certificate
- 8) Attempt certificate of MD/MS or it's equivalent examinations from the head of the institution.
- 9) Registration Certificate (MCI / MMC / Other State Medical Council)
- 10) Certificate from Head of Institute showing that the Medical College / Institute from which the candidate has passed Post Graduate examination is recognized by Medical Council of India and the course is recognized by MCI.

- 11) Medical Fitness Certificate
- 12) Updated Curriculum Vitae
- 13) Publication Details
- 14) Experience in Critical Care (Emergency & ICU)
- 15) Demand Draft of Application Fee.

Syllabus:

The candidates need to know theory of pathophysiology of all diseases, their treatment and its applied aspect in patient care.

Respiratory

Management of emergencies, exacerbation of diseases, ventilator management, supportive care, Trauma related issues, rehabilitation.

Cardiovascular

Management of emergencies, exacerbation of diseases, Catecholamine Support, Hemodynamic Monitoring, BLS, ACLS, Trauma Related Issues, rehabilitation

Neurology

Management of emergencies, exacerbation of diseases, Brain Preservation, Trauma related Issues, Physiotherapy, Neuromuscular Problems, Brain Death, and Care of Brain Dead Patient.

Renal

Oliguria. Acute renal failure, renal replacement therapy

Metabolic & Nutritional

Fluid electrolyte and acid-base disorders, endocrine disorders nutritional requirements, monitoring of nutrition.

Hematological

Hematological Complications of Diseases, Primary Hematological Problems, Blood Component Therapy, etc

Infections

All types of infections, Nosocomial Infections, Choosing right antibiotics, Antibiotic Policy, Nosocomial Infection, Prevention and Treatment.

Gastro-intestinal

Management of emergencies, exacerbation of diseases, Trauma related issues, End stage diseases, Transplant related issues

Obstetric

Management of emergencies, exacerbation of diseases, HELLP, Amniotic Embolism, Trauma Related Issues

Toxicology, poisoning

All types of poisoning and reactions

Pharmacology

Of all the medications used in Critical Care practice

Burns, Drowning, Trauma, electrocution etc

Communication

Legal responsibilities

Ethics, Morality and End of life care

*The list may include additional topics, which are added as and when required.

The students are expected to have competency in

I. PATIENT CARE

1. Obtaining a comprehensive medical history
2. Performing a comprehensive physical examination
3. Assessing the patient's medical condition
4. Making appropriate use of diagnostic studies and tests
5. Integrating information to develop a differential diagnosis
6. Implementing a treatment plan

II. Practical Skills

1. Airway management
2. Application of BLS, ACLS and ATLS protocols
3. Insertion and management of invasive lines
4. Cardio version
5. Defibrillation
6. Percutaneous cricothyroidotomy/tracheostomy
7. Percutaneous thoracotomy tube insertion
8. Urinary Catheterization
9. Ryle's tube insertion
10. SB tube insertion

III. PRACTICE-BASED LEARNING AND IMPROVEMENT

1. Use of Evidence based medicine
2. Be able to read Journal articles.
3. Apply scientific evidence to decision making.

IV. INTERPERSONAL AND COMMUNICATION SKILLS

1. Be able to interact effectively and professionally with patients, families, physicians, nurses, and other members of the health-care team.
2. Practice compassionate end-of-life care
3. Provide effective consultation to other physicians and health care professionals
4. Be able to maintain comprehensive, timely, and legible medical records.
5. Effectively conduct patient interviews, obtain consents for treatment or procedures performed, clearly communicate therapeutic plans, share bad news, and explain treatment expectations.
6. Learn techniques to decrease patient and patient family anxiety.
7. Learn effective communication techniques during periods of stress in order to decrease patient and family anxiety.
8. Be able to effectively communicate concerns with members of the healthcare team.
9. Demonstrate effective communication about medical literature and relevant publications applicable to common ICU problems.
10. Learn strategies and techniques for teaching other trainees, including medical students, the principles of critical care medicine.

V. PROFESSIONALISM

1. Be able to work effectively within a multidisciplinary critical care team.
2. Demonstrate respect, compassion, integrity, and kindness in relationships with patients, families, and colleagues.
3. Demonstrate sensitivity and responsiveness to gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disabilities
4. Understand concepts of patient confidentiality and informed consent.
5. Develop the ability to formulate constructive feedback in response to problems encountered in the workplace.
6. Demonstrate behavior and demeanor that adheres to ethical principles, respect, compassion and integrity.
7. Demonstrate sensitivity to patients' gender, beliefs, needs, and disabilities.
8. Demonstrate commitment to duties
9. Learn communication techniques with patients and families of different cultural backgrounds.
10. Understand the legal and ethical issues involved in patient consent.
11. Demonstrate a commitment to advocating patient care that is appropriate for their individual needs.
12. Adhere to institutional and departmental standards and policies.
13. Demonstrate ability to appropriately take on, share and delegate patient care responsibilities.
14. Demonstrate a commitment to ongoing professional development.
15. Learn how to discuss and record cases with complications and/or poor outcomes.
16. Be able to effectively balance one's own personal affairs with clinical and educational duties as outlined in this document.

VI. SYSTEMS-BASED PRACTICE

1. Monitor and Understand Data collection
2. Monitor Quality Indicators
3. Participate in Infection Control Practices
4. Understand and use the indications for ICU admission.
5. Understand and use the criteria for ICU discharge.
6. Understand concepts related to transfer of patients from outside institutions.
7. Be able to discuss concepts of cost-efficiency in the ICU.
8. Be able to discuss limitations of ICU care and concepts of futility.
9. Be able to discuss practice cost effective health care and resource allocation without compromising the quality of patient care or patient safety.
10. Learn how to manage consultations and referrals to other services.

Rotation:

ICU:	12 months
PICU:	2 months
CCU:	2 months
CVTS:	2 months
ED:	4 months
OT:	2 months

In-training assessment of candidates

1. Candidates will be monitored on timely basis during their posting
2. Each posting will be considered complete after assessment
3. Log book is mandatory

Requirements prior to exam

Completion Certificate
Completed Log Book
Completion of Thesis and one publication for Fellowship.
Attending one National Conference in Critical Care.

Written exam

The written exam:
Paper I =MCQs: 100 questions: 2 hrs. 100 marks
Paper II = Subjective: 10 questions: 2 hrs. 100 marks

Practical exam

200 marks: 160 + 40 for Internal Assessment

OSCE tables: 8 tables three will be on Communication, Conflict resolving, Conveying bad news.

Certificate and Fellowship will be issued by the University.



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