

**AFIC - Advanced Fellowship in Intensive Care**

**ONE-YEAR CURRICULUM**

**College of Critical Care Medicine**

**Critical Care Education Foundation (CCEF)**

[www.collegeofcriticalcare.com](http://www.collegeofcriticalcare.com)

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## PROGRAM OVERVIEW

The Advanced Fellowship in Intensive Care (AFIC) is an elite one-year program designed for physicians who have either completed FCCCM or possesses postgraduate qualifications (MD/DNB) with at least two years critical care experience post-qualification and have already got certification of training in critical care at the national or international level. This program delivers advanced knowledge, complex clinical reasoning, and immersive training to prepare intensivists for the most challenging ICU scenarios and leadership roles in critical care medicine and research.

### Eligibility

- **Pathway 1:** FCCCM-qualified physicians (direct entry)
- **Pathway 2:** MD/DNB in Anaesthesia, General Medicine, Pulmonary Medicine, or Emergency Medicine. In addition (for pathway 2), they should have:
  - Passed a recognised national or international intensive care qualifying examination such as **EDIC** (European Diploma in Intensive Care), **FFICM** (Fellowship of the Faculty of Intensive Care Medicine -UK), **JFICM/CICM Fellowship** (Joint Faculty/College of Intensive Care Medicine -Australia & New Zealand), **RCPSC/ACGME**-accredited critical care certification-North America, **or equivalent national critical care board/fellowship** (e.g. DM-CCM, FNB-CCM, DrNB-CCM), **or a 2 year examination of ISCCM** (subject to approval by CCEF Academic Council).
  - These candidates must attend the 4-day FCCCM orientation as well as the 4-days AFIC Orientation program.

### Program Requirements

- **Duration:** 12 months
- **Logbook:** 50 comprehensive cases (5 cases × 10 categories)
- **Research:** 1 publication (1 review article or 2 case reports)
- **Workshops:** Advanced Ventilator Management + ACLS
- **Attendance:** Attend the AFIC Orientation Program + AFIC Crash Course

Those candidates who directly appear through path-2, must acquaint themselves with all the theory and skills included in the FCCCM course through learning from Knowledge HUB with recent guidelines, studies, and evidence-based practices on their own responsibility.

## PART 1: CORE ADVANCED MODULES (Months 1-8)

### Module 1: Advanced Respiratory Critical Care (2 months)

#### 1.1 Complex Mechanical Ventilation

- High-Frequency Oscillatory Ventilation (HFOV)
- Physics and principles of HFOV
- Clinical indications in severe ARDS
- Patient selection and contraindications
- Equipment and monitoring
- Troubleshooting and complications

### **Airway Pressure Release Ventilation (APRV)**

- Principles and physiology
- Advantages and disadvantages
- Clinical applications
- Setting APRV parameters
- Weaning strategies from APRV

### **Neurally Adjusted Ventilatory Assist (NAVA)**

- Technology and mechanism
- Electrode placement and calibration
- NAVA parameter settings
- Clinical outcomes and evidence
- Limitations and troubleshooting

### **Adaptive Support Ventilation (ASV)**

- Principles of closed-loop ventilation
- Clinical application and outcomes
- Comparison with conventional ventilation
- Weaning with ASV
- Integration into ICU protocols

### **Ventilator Liberation Protocols**

- Spontaneous breathing trials (SBT)
- Weaning indices and predictors of success
- Difficult weaning scenarios
- Management of weaning failure
- Tracheostomy considerations in prolonged ventilation
- Protocols for ICU discharge planning post-extubation

## **1.2 ARDS and Acute Lung Injury - Advanced Management**

### **Berlin Definition and ARDS Phenotyping**

- Updated Berlin criteria (2012)
- Classification (mild, moderate, severe)
- Phenotyping based on radiographic and clinical findings
- Prognostic implications

### **Prone Positioning Advanced Protocol**

- Physiology of prone positioning
- Selection criteria and patient assessment
- Prone positioning protocols and safety
- Monitoring during prone positioning
- Complications and management
- Duration and frequency optimization

### **Recruitment Manoeuvres and PEEP Optimization**

- Mechanisms and physiology of recruitment
- Recruitment manoeuvre techniques
- PEEP titration strategies
- EIT (Electrical Impedance Tomography) monitoring
- Driving pressure and lung protection
- Individualized PEEP selection

### **Neuromuscular Blockade in ARDS**

- Indications for use

- Agent selection and dosing
- Complications and monitoring
- Weaning from neuromuscular blockade
- Long-term outcomes

### **ECMO Indications, Contraindications, and Management**

- ECMO technology and circuits (VV-ECMO, VA-ECMO)
- Patient selection and criteria
- Cannulation techniques and sites
- Anticoagulation during ECMO
- Management of complications (hemolysis, thrombosis, infection, bleeding)
- Weaning from ECMO
- Outcomes and survival prediction
- ECMO in India: Infrastructure and feasibility

## **1.3 Advanced Airway Management**

### **Difficult Airway Algorithms and Rescue Techniques**

- Failed intubation protocols
- ASA guidelines and modifications
- Video laryngoscopy techniques and devices
- Bougie-assisted intubation
- Emergency surgical airway

### **Awake Fiberoptic Intubation**

- Indications and patient preparation
- Sedation and anesthesia techniques
- Fiber optic equipment and handling
- Step-by-step intubation procedure
- Complications and management
- Competency maintenance

### **Video Laryngoscopy Techniques**

- Different devices and their advantages/disadvantages
- GlideScope, McGrath, Pentax AWS
- Technique and handling
- Limitations and troubleshooting

### **Surgical Airway Management**

- Emergency cricothyrotomy technique
- Emergency tracheostomy
- Indications and contraindications
- Complications

## **Tracheostomy Timing, Techniques, and Complications**

- Early vs late tracheostomy
- Percutaneous vs surgical tracheostomy
- Technique considerations
- Complications (early, late, mechanical)
- Tracheostomy care protocols
- Decannulation strategies

## Module 2: Advanced Hemodynamic Management (2 months)

### 2.1 Advanced Hemodynamic Monitoring

#### **Pulmonary Artery Catheter - Advanced Interpretation**

- Swan-Ganz catheter physiology
- Waveform interpretation
- PAWP, CVP, cardiac output measurement
- Complications and management
- Current role in modern critical care

#### **Transpulmonary Thermodilution (PiCCO)**

- Technology and principles
- GEDI, SVV, PPV calculations
- Clinical applications
- Advantages and limitations
- Comparison with PAC

#### **FloTrac/Vigileo and Pulse Contour Analysis**

- Uncalibrated arterial pressure waveform analysis
- Cardiac output estimation
- Stroke volume variation (SVV) and pulse pressure variation (PPV)
- Fluid responsiveness assessment
- Calibration and validation

#### **Bioreactance and Bioimpedance Monitoring**

- NICOM monitoring (Bioreactance)
- BioZ monitoring (Bioimpedance)
- Advantages and limitations
- Clinical applications and outcomes

#### **IVC and LVOT Variations for Fluid Responsiveness**

- IVC diameter and collapsibility
- LVOT variations with ultrasound
- Prediction of fluid responsiveness
- Integration with other parameters

### 2.2 Advanced Echocardiography and Ultrasound in ICU

#### **Comprehensive Transthoracic Echocardiography (TTE)**

- Standard views and measurements
- Left ventricular function assessment
- Qualitative and quantitative analysis
- EF measurement and interpretation

#### **Transesophageal Echocardiography (TEE)**

- TEE probe handling and safety
- Multiple imaging planes
- Detailed structural assessment
- Detection of complications (dissection, tamponade, endocarditis)
- TEE-guided procedures
- Certification and competency requirements

#### **Valvular Pathology Assessment**

- Stenotic lesions
- Regurgitant lesions
- Prosthetic valve assessment

- Endocarditis complications
- Acute mitral regurgitation in cardiogenic shock

### **Diastolic Function and Filling Pressures**

- Diastolic dysfunction grading
- Mitral inflow patterns
- Tissue Doppler imaging
- E/e' ratio for estimating PAWP
- Clinical interpretation in ICU

### **RV Function and Pulmonary Hypertension**

- RV size and contractility assessment
- TAPSE and FAC measurements
- RV strain (advanced)
- Pulmonary hypertension estimation
- Acute RV dysfunction management

### **Stress Echocardiography in ICU**

- Dobutamine stress echo
- Clinical applications in sepsis and shock
- Viability assessment

## **2.3 Complex Shock Management**

### **Mixed Shock States - Diagnosis and Management**

- Recognition of multiple shock types
- Simultaneous cardiogenic and distributive shock
- Hypovolemic component in sepsis
- Tailored management strategies

### **Vasopressor and Inotrope Combinations**

- Advanced pharmacology
- Combination strategies for different shock states
- Dobutamine, milrinone, levosimendan (where available)
- Low-dose vasopressin
- Newer agents (angiotensin II)
- Sequencing of agents

### **Cardiogenic Shock and Mechanical Circulatory Support**

- Diagnosis and risk stratification
- Medical management optimization
- Mechanical circulatory support indications
- Hemodynamic assessment in cardiogenic shock

### **Intra-Aortic Balloon Pump (IABP)**

- IABP physiology and mechanism
- Indications and patient selection
- Insertion and positioning
- Troubleshooting and complications
- Weaning from IABP
- Outcomes and evidence
- IABP availability and utilization in India

### **Ventricular Assist Devices (VAD) - Basics**

- Types of VADs (LVAD, RVAD, BiVAD)
- Indications (bridge to transplant, bridge to recovery, destination therapy)

- Mechanical complications
- Anticoagulation management
- Patient selection and contraindications
- VAD availability in India and access pathways

### **Module 3: Advanced Neurocritical Care (2 months)**

#### **3.1 Traumatic Brain Injury - Advanced Management**

- ICP Monitoring Modalities and Interpretation
- ICP pathophysiology and CPP
- Monitoring devices (intraventricular, intraparenchymal, epidural)
- Waveform analysis
- Interpretation of ICP trends
- Advantages and disadvantages of different methods
- Complications of monitoring

#### **Cerebral Perfusion Pressure Optimization**

- CPP target values
- Methods to maintain CPP
- Relationship between ICP and CBF
- Individualized CPP targeting

#### **Osmotherapy - Hypertonic Saline vs Mannitol**

- Mechanisms of action
- Dosing and timing
- Comparison of efficacy
- Rebound phenomena
- Combination therapy
- Monitoring serum osmolality

#### **Decompressive Craniectomy Indications**

- Patient selection
- Timing of intervention
- Outcomes and prognosis
- Complications
- Rehabilitation considerations

#### **Targeted Temperature Management (TTM)**

- Hypothermia protocols
- Equipment for temperature management
- Monitoring during hypothermia
- Rewarming strategies
- Complications (arrhythmias, coagulopathy, infections)
- Outcomes in TBI

#### **3.2 Stroke and Neurovascular Emergencies**

##### **Acute Ischemic Stroke - Thrombolysis and Thrombectomy**

- Time windows for intervention
- Thrombolytic agents and protocols
- Mechanical thrombectomy techniques
- Patient selection criteria
- Complications and management
- Post-intervention care

### **Haemorrhagic Stroke - Surgical Indications**

- ICH volume and location assessment
- Prognosis scoring (ICH Score)
- Medical management of ICH
- Indications for surgical evacuation
- Timing of surgery
- Hemorrhage prevention and hemostasis

### **Subarachnoid Haemorrhage - Comprehensive Management**

- SAH grading (Hunt and Hess, WFNS)
- Early aneurysm management (coiling, clipping)
- Vasospasm monitoring and prevention
- Management of complications
- Rebleeding prevention
- Rehabilitation and outcomes

### **Vasospasm Monitoring and Prevention**

- Transcranial Doppler monitoring
- Clinical vasospasm detection
- Nimodipine protocols
- Triple-H therapy (hypertension, hypervolemia, hemodilution)
- Endovascular interventions for vasospasm

### **Blood Pressure Management in Neurocritical Care**

- Target BP in different stroke types
- Antihypertensive strategies
- Vasopressors use when needed
- Individualized BP targets
- Monitoring techniques

## **3.3 Neuromonitoring and Imaging**

### **Continuous EEG Monitoring**

- Indications in critical care
- Seizure detection and non-convulsive status epilepticus
- EEG patterns in critical illness
- Artifact recognition
- EEG-guided treatment

### **Brain Tissue Oxygenation (PbtO<sub>2</sub>)**

- Probe placement and safety
- PbtO<sub>2</sub> interpretation
- Relationship with ICP and CPP
- Tissue oxygenation targets
- Clinical outcomes

### **Transcranial Doppler Ultrasound**

- Basic principles and technique
- CBF velocity interpretation
- Detection of vasospasm
- Emboli detection
- Autoregulation assessment
- Limitations and operator dependence

### **Near-Infrared Spectroscopy (NIRS)**

- Technology and principles
- Cerebral regional oxygen saturation (rSO<sub>2</sub>)
- Clinical applications
- Interpretation and limitations
- Research applications

### **Advanced Neuroimaging Interpretation**

- CT imaging (findings, timing, prognostication)
- MRI applications in critical care
- Advanced imaging techniques
- Imaging-based prognostication
- Timing of imaging in acute neurological illness

## **Module 4: Advanced Renal and Metabolic Critical Care (2 months)**

### **4.1 Renal Replacement Therapy - Advanced Concepts**

#### **CRRT vs Intermittent HD - Selection Criteria**

- Hemodynamic considerations
- Fluid balance requirements
- Solute clearance needs
- Patient stability
- Specific indications for each modality
- **Practical considerations in Indian healthcare settings**

#### **CRRT Prescription and Optimization**

- CRRT modalities (CVVH, CVVHD, CVVHDF)
- Blood flow rate and ultrafiltration rate
- Dialysate composition
- Dose calculation and targets
- Monitoring and adjustment
- Achieving adequate clearance in resource-limited settings

#### **Anticoagulation Strategies in RRT**

- Unfractionated heparin
- Low-molecular-weight heparin
- Citrate anticoagulation
- No-anticoagulation protocols
- Comparison and selection
- Monitoring (PTT, activated clotting time)

#### **High-Volume Hemofiltration in Sepsis**

- Rationale for high-volume therapy
- Evidence and outcomes
- Prescriptions and implementation
- Cost considerations
- Availability in India

#### **Plasmapheresis and Therapeutic Apheresis**

- Indications in critical care
- Techniques and equipment
- Specific disorders requiring plasmapheresis

- Monitoring and complications
- Practical implementation and cost factors in India

## **4.2 Complex Acid-Base and Electrolyte Disorders**

### **Stewart Approach to Acid-Base Balance**

- Principles of Stewart approach
- Ion difference (SID) concept
- Weak acids and PCO<sub>2</sub>
- Advantages over Henderson-Hasselbalch
- Clinical application in complex cases

### **Mixed Acid-Base Disorders - Systematic Approach**

- Identifying primary and secondary disorders
- Henderson-Hasselbalch equations
- Expected compensatory responses
- Using acid-base nomogram
- Complex case management

### **Severe Hyponatremia and Hyponatremia Management**

- Pathophysiology
- Osmolarity calculations
- Acute vs chronic hyponatremia
- Treatment strategies
- Complications of rapid correction
- Specific conditions (SIADH, cerebral salt wasting, DI)

### **Hyperkalemia Emergencies and Cardiac Arrest**

- Recognition (ECG changes)
- Acute management
- Calcium gluconate, insulin-dextrose, beta-agonists
- Sodium polystyrene sulfonate
- Dialysis indications
- Prevention in high-risk patients

### **Tumour Lysis Syndrome and Oncologic Emergencies**

- TLS pathophysiology
- Risk stratification
- Prevention strategies
- Acute management
- Dialysis requirements
- Rasburicase vs allopurinol

## **4.3 Endocrine Emergencies**

### **Thyroid Storm and Myxoedema Coma**

- Thyroid storm pathophysiology and diagnosis
- Management (PTU, iodine, beta-blockers, plasmapheresis)
- Myxoedema coma diagnosis
- T<sub>3</sub> and T<sub>4</sub> replacement
- Complications and mortality

### **Adrenal Crisis and Relative Adrenal Insufficiency**

- Diagnosis (cosyntropin test)
- Acute steroid replacement
- Doses and tapering

- Recognition of RAI in sepsis and critical illness
- Steroid controversy in critical care

### **Diabetic Ketoacidosis and Hyperosmolar States**

- Diagnosis and severity assessment
- Insulin and fluid management
- Electrolyte correction
- Rate of glucose reduction
- HHS management
- Complications

### **Pheochromocytoma Crisis**

- Recognition and diagnosis
- Immediate management
- Alpha and beta blockade
- Surgical considerations
- Anesthetic management

### **SIADH vs Cerebral Salt Wasting**

- Differentiation of two conditions
- Urine osmolarity and sodium
- Treatment differences
- Clinical outcomes
- Specific conditions causing each

## **PART 2: SPECIALIZED MODULES (Months 9-11)**

### **Module 5: Transplant Critical Care (1 month)**

#### **Solid Organ Transplant Immunosuppression**

- Calcineurin inhibitors, mTOR inhibitors, antimetabolites
- Induction immunosuppression
- Maintenance regimens
- Complications and monitoring

#### **Post-Transplant Infections - Prophylaxis and Management**

- Timeline of infections (hyperacute, acute, chronic)
- CMV, HSV, fungal infections
- Prophylaxis protocols
- Treatment strategies
- Prevention of opportunistic infections

#### **Acute Rejection - Diagnosis and Treatment**

- Clinical presentation
- Diagnostic modalities
- Immunosuppression intensification
- Plasmapheresis and IVIG for antibody-mediated rejection

#### **Kidney, Liver, Lung, Heart, and Stem Cell Transplant Critical Care**

- Organ-specific complications
- Post-operative management
- Rejection and infection management
- Critical care considerations

## Module 6: Obstetric Critical Care (1 month)

### Severe Preeclampsia and Eclampsia

- Pathophysiology
- Diagnosis and severity assessment
- Magnesium sulfate therapy
- Antihypertensive management
- ICU management of eclamptic seizures
- Delivery planning

### HELLP Syndrome and Postpartum Hemorrhage

- HELLP diagnosis and differential diagnosis
- Massive transfusion protocols
- DIC management
- Surgical intervention

### Peripartum Cardiomyopathy and Other Cardiac Complications

- Risk factors and diagnosis
- Echocardiographic findings
- Management strategies
- Mechanical circulatory support

### Maternal Sepsis and Mechanical Ventilation in Pregnancy

- Common sources and early recognition
- Sepsis bundles in pregnancy
- Antibiotic selection in pregnancy
- Organ support in septic pregnant patients

## Module 7: Medical Statistics and Its Application to ICU Settings (1 month)

### Descriptive Statistics, Diagnostic Test Performance, and Study Design

- Types of data and distributions
- Sensitivity, specificity, predictive values
- ROC curves and likelihood ratios
- Study design and critical appraisal

### Inferential Statistics and Survival Analysis

- Hypothesis testing
- Parametric vs non-parametric tests
- Kaplan-Meier curves
- Correlation and regression analysis
- Propensity score matching

### Clinical Trial Interpretation and Quality Improvement Statistics

- Phase trials (I, II, III, IV)
- Non-inferiority and equivalence trials
- NNT and NNH
- Scoring systems and mortality prediction

## Module 8: Microbiology Report Interpretation and Antibiotic Selection (2 weeks)

### Basic Microbiology of Bacteria, Fungi and Viruses

- Bacterial classification and morphology
- Common ICU pathogens

- Fungal infections in critical care
- Viral infections in critical care

### **Syndromic Approach to Empirical Antibiotic Selection**

- Community-acquired pneumonia
- Nosocomial infections
- Intra-abdominal infections
- Urinary tract infections
- CNS infections
- Context-dependent selection in India

### **Interpretation of Antibiogram**

- Intrinsic resistance mechanisms
  - ESBL, carbapenemase-producing organisms
  - MRSA, VRE, and MDR organisms
  - EUCAST / CLSI interpretive criteria
  - India-specific resistance patterns
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## **PART 3: RESEARCH & LEADERSHIP**

### **Research Skills Development**

- Research methodology and design
- Literature review and critical appraisal
- Medical statistics - advanced concepts
- Medical writing and manuscript preparation
- Publication ethics and plagiarism
- Peer review process

### **Leadership and Administration**

- ICU quality improvement initiatives
- Protocol development and implementation
- Team building and conflict resolution
- Resource allocation and triage
- Disaster preparedness and mass casualty management
- Medico-legal aspects of ICU practice

### **Teaching and Education**

- Adult learning principles
  - Bedside teaching techniques
  - Simulation-based education
  - Assessment and feedback methods
  - Presentation skills and public speaking
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## **PART 4: EMERGING TOPICS IN CRITICAL CARE**

### **Module 9: Post-ICU Syndrome (PICS) & ICU Rehabilitation**

#### **Definition and Epidemiology**

- PICS definition and incidence
- Risk factors and impact on Indian population
- Long-term outcomes and mortality

### **Physical, Cognitive, and Psychological Rehabilitation**

- ICU-acquired weakness assessment and prevention
- Early mobilization protocols (ABCDEF bundle)
- Respiratory rehabilitation and weaning strategies
- Nutrition in rehabilitation
- Cognitive rehabilitation strategies
- Post-ICU depression, anxiety, and PTSD
- Return to work/school programs

### **Follow-up Protocols and Prevention**

- Post-ICU follow-up structure (3, 6, 12-month assessments)
- Multi-disciplinary follow-up clinics
- Outcome assessment tools
- Delirium prevention in ICU
- Sleep optimization and psychological support

## **Module 10: Frailty Assessment in Critical Care Medicine**

### **Frailty Scoring Systems**

- Clinical Frailty Scale (CFS)
- Rockwood Frailty Index
- CRASH Score and SOFA modifications
- Other assessment tools

### **Frailty Assessment in Critical Care**

- Bedside frailty assessment methods
- Sarcopenia and muscle assessment
- Nutritional status evaluation
- Resource allocation implications
- ICU admission in frail patients
- Intensity of care decisions

### **Prognosis and Discharge Planning**

- Outcome prediction in frail patients
- Functional recovery assessment
- Rehabilitation potential
- Long-term outcomes
- Advance care planning

## **Module 11: AI & Predictive Analytics in Intensive Care**

### **Machine Learning Basics and Decision Support Systems**

- Supervised vs unsupervised learning
- Neural networks and deep learning
- Big data in ICU
- Clinical decision support systems (CDSS)
- Diagnostic support (image recognition, ECG analysis)

### **Predictive Models in Critical Care**

- Sepsis prediction and early warning systems
- Ventilator weaning predictions
- Mortality prediction models
- Organ failure prediction

- Length of stay and resource prediction

### **Data Quality, Bias, and Ethical Considerations**

- Data quality issues and missing data handling
- Bias in medical AI
- Generalizability and external validation
- Explainability and interpretability
- Regulatory and ethical frameworks
- AI in Indian critical care context

## **Module 12: Psychological Impact on ICU Staff & Team Wellness**

### **Burnout and Moral Injury Recognition**

- Burnout definition and screening
- Moral distress vs moral injury
- Manifestations in ICU
- Common triggers in critical care

### **Team Resilience Building and Mental Health Support**

- Individual and team-based resilience strategies
- Organizational resilience
- Resilience training programs
- Available mental health resources
- Addressing barriers to access

### **Staff Wellbeing Programs and Work-Life Balance**

- Comprehensive wellness programs
- ICU-specific interventions
- Scheduling and workload management
- Boundary setting and personal development
- Work environment improvements
- Special considerations in Indian context

## **PART 5: ASSESSMENT & CERTIFICATION (Month 12)**

### **Logbook Requirements**

Trainees must complete and submit a digital logbook containing 50 fully worked-up cases (5 cases in each of 10 categories):

1. Clinical Cases (Complex): 5
2. ABGs (Complex): 5
3. Biochemistry (Complex): 5
4. ECG: 5
5. X-rays: 5
6. CT scans/MRIs: 5
7. Ventilator, IABP, ETCO2 Graphs: 5
8. Hemodynamic Interpretation: 5
9. ECHO & USG: 5
10. Medical Statistics: 5
11. Microbiology reports, culture sensitivity and antibiograms interpretation: 5

## Exit Examination Components

### Theory Examinations

- Two papers with MCQs single best answer (80%) and True & False format (K Type) (20%)
- Comprehensive coverage of all advanced topics

### E-Cases (3 stations)

- Complex clinical scenarios with multi-organ involvement
- Mix of viva + clinical examination conducted in an across-the-table manner
- Advanced diagnostic reasoning and management

### Communication Station (1)

- Complex family communication scenarios
- End-of-life discussions
- Conflict resolution

### OSCEs (12 Active Stations)

Each station: 12 minutes (2 minutes reading + 10 minutes writing)

1. ABGs (Complex): 4 questions
2. Biochemistry (Complex): 4 questions
3. ECG: 4 questions
4. X-rays: 4 questions
5. CT scans/MRIs: 4 questions
6. Mechanical Ventilation: 4 questions
7. ICU Graphs: 4 questions
8. Hemodynamic: 4 questions
9. USG: 4 questions
10. ECHO: 4 questions
11. Medical Statistics: 4 questions
12. Microbiology and antibiotic selection: 4 questions

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## PROGRAM COMPLETION

Upon successful completion of all requirements and passing the exit examination, candidates are awarded the Advanced Fellowship in Intensive Care (AFIC) by the College of Critical Care Medicine. AFIC fellows are recognized as expert intensivists capable of managing complex critical care scenarios and leading ICU teams.

### Career Pathways

- ICU Director/Head positions
- Academic faculty appointments
- Subspecialty fellowship training abroad
- Research and clinical trial leadership
- Healthcare administration and policy roles
- Telemedicine and remote ICU leadership
- Disaster management and mass casualty response

- Critical care education and training faculty
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## CONCLUSION

The revised AFIC curriculum provides **comprehensive advanced training** in critical care medicine, preparing fellows for leadership roles, complex clinical management, and the evolving landscape of critical care.

AFIC graduates will be expert intensivists capable of:

- Managing the most complex critical care scenarios
- Advanced procedural expertise and hemodynamic management
- Neurocritical care and specialty critical care
- Leading ICU teams and quality improvement initiatives
- Research and academic leadership
- Understanding and applying modern concepts:
  - Post-ICU rehabilitation and recovery
  - Frailty assessment and resource allocation
  - AI-assisted decision-making
  - Team wellness and resilience
  - Advanced infection management

This advanced training complements the strong FCCCM foundation, creating a comprehensive two-tiered system for critical care education in India.

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### For more information:

College of Critical Care Medicine

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