



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A Deemed to be University Declared under Section 3 of UGC Act, 1956)

Comprising Sri DevarajUrs Medical College

[Constituent Unit of Sri DevarajUrs Educational Trust for Backward Classes (Regd.)]

TAMAKA, KOLAR-563103, KARNATAKA, INDIA

Ph: 08152-243009,+91 9448395232Fax: +918152 -243008 E-mail: registrar@sduu.ac.in/office@sduu.ac.in. Website: www.sduu.ac.in

(With effect from 2021-22 batch)

Curriculum for Indian Diploma in Critical Care Medicine


Dean Faculty Of Medicine
Sri Devaraj Urs Academy of Higher
Education & Research, Tamaka, Kolar.

Approved as per AC-38-2021,(Resolution No-XXXVIII-13/21 Dated-02/06/2021

Indian Diploma In Critical Care Medicine (IDCCM)

Under the Department of Anaesthesiology, SDUMC, Tamaka, Kolar

GUIDELINES FOR IDCCM COURSE

PREAMBLE

Critical Care Medicine (CCM) is an evolving specialty overlapping multiple primary specialties. Recognizing the increasing need to consolidate the field and to promote awareness, continuing education and research in this field, the Indian Society of Critical Care Medicine (ISCCM) was formed on 9th October 1993.

AIMS AND OBJECTIVES

- ✓ The aim of this training program is to enhance the skills of care providers who are working in the field of Critical Care Medicine so that patient care can be standardized and good quality care can be provided to patients.
- ✓ To promote academic and scientific activity in the field of Critical Care medicine(CCM)
- ✓ To encourage Research in the field of critical care medicine.
- ✓ To organise continuing medical education and training programmes, meetings and conferences in CCM.
- ✓ To establish guidelines for the running and staffing of ICUs.
- ✓ To publish scientific papers, journals and text books aimed at upgrading knowledge and skill.

DURATION

Duration of the Indian Diploma in Critical Care Medicine (IDCCM) is one year for MD/MS/DNB candidates and 2 years for DA/DTCD/CTCCM or equivalent candidates. Duration of the Indian Diploma in Critical Care Medicine (IDCCM) is one year for FCPS Medicine candidates (w.e.f January 2020 registrations).

ELIGIBILITY

- ✓ Diploma in Anaesthesia/Diploma in Chest diseases.
- ✓ MD Anaesthesia/ Medicine/Chest
- ✓ DNB Anaesthesia/Medicine/Chest/ MD/DNB Emergency Medicine
- ✓ CTCCM
- ✓ MRCEM-If approved by the Medical Council of India
- ✓ FCPS Medicine
- ✓ The base qualifications must be from a MCI recognized university.
- ✓ In case of any doubt/controversy regarding the eligibility, the course coordinator should be consulted. Decisions by the ISCCM executive committee in this regard will be final & binding.

TRAINING & EXAM GAP FOR CANDIDATES:

Candidates should complete the course tenure of training within a maximum period of 3 years and will be allowed to appear for the examination up to 3 years after completion of the course. Candidates are allowed a maximum of 3 attempts (w.e.f January 2020 registrations).

SELECTION

- ✓ Candidates need to apply directly to the recognized institute of their choice. Selection will be done by the **ISCCM** recognized teacher of the respective institute based on candidate's eligibility which should be confirmed by the individual teachers & institutes.
- ✓ The selection process may vary institute to institute, it is at the sole discretion of Teacher and institution. **ISCCM** is not involved in selection process directly or indirectly.
- ✓ Candidates will be paid a salary/stipend as per the rules of the institute where they are appointed.

REGISTRATION

- ✓ After selection trainee must register himself/herself with ISCCM by filling online trainee registration Form
- ✓ Once selected, it is mandatory for the trainee to become ISCCM Life member.
- ✓ All trainee who are registered for the period leading to the exams have to fill Exam form before the prescribed deadline.
- ✓ All other trainee who have completed course requirements earlier and plan to appear or re-appear for the exam **MUST** notify ISCCM prior to the prescribed deadline.

SYLLABUS/ COMPETENCIES

- ✓ The candidate must have gained experience in the diagnosis and treatment of patients with serious medical and surgical disease including coronary artery disease and neurosurgical disease.
- ✓ During the training the candidate must gain knowledge in two aspects - The knowledge about pathophysiology, diagnosis and treatment of a series of disease processes and skills of specific procedures and interventions that the candidate must be able to perform.
- ✓ **Theoretical Knowledge** : The candidate must understand the pathophysiology, construct a differential diagnosis and apply the appropriate prophylactic and therapeutic interventions in the following disorders. This list is not comprehensive.

Respiratory System

- ✓ Management of Airways (including respiratory arrest, upper airways obstruction, smoke or burns airways damage)
- ✓ Acute Respiratory Distress Syndrome
- ✓ Hypercapnic Respiratory Failure
- ✓ Severe Asthma
- ✓ Chest Trauma
- ✓ Respiratory Muscle Disorders
- ✓ Thoracic Surgery.

Cardiovascular

- ✓ Haemodynamic instability and Shock
- ✓ Acute Myocardial Infarction and Unstable Angina
- ✓ Heart Failure
- ✓ Common Arrhythmias and Conduction Disturbance
- ✓ Specific Cardiac Disorders (cardiomyopathies, valvular heart disease, atrial or ventricular septal defects, myocarditis)
- ✓ Cardiac Tamponade
- ✓ Pulmonary Embolism
- ✓ Aortic Dissection
- ✓ Hypertensive Crisis
- ✓ Cardio pulmonary resuscitation (CPR) Training in Basic Life Support (BLS), and Advance Life Support (ALS)

Neurology

- ✓ Head Trauma
- ✓ Intracranial Hypertension
- ✓ Cerebrovascular Accidents
- ✓ Cerebral Vasospasm
- ✓ Meningo-Encephalitis
- ✓ Acute Neuromuscular Disease (including myasthenia & Guillain Barre syndrome)
- ✓ Post Anoxic Brain Damage
- ✓ Acute Confusional states

- ✓ Spinal Cord injury
- ✓ Neurosurgery
- ✓ Brain Death

Renal

- ✓ Oliguria
- ✓ Acute & Acute on Chronic Renal Failure
- ✓ Renal Replacement Therapy

Metabolic & Nutritional

- ✓ Fluid Electrolyte and Acid-Base Disorders
- ✓ Endocrine Disorders (including Diabetes)
- ✓ Nutritional requirements & Monitoring of Nutrition

Haematological

- ✓ Disseminated Intravascular Coagulation and other coagulation disorders
- ✓ Anaemia
- ✓ Blood Component Therapy
- ✓ Immune Disorders.

Infections

- ✓ Severe infection due to aerobic and anaerobic bacteria, viruses, fungal and parasites
- ✓ Nosocomial infection
- ✓ Infection in the Immunocompromised

- ✓ Tropical Diseases
- ✓ Antimicrobial Therapy
- ✓ Immunotherapy
- ✓ Infection control in ICU.

Gastro-intestinal

- ✓ Inflammatory Bowel Diseases
- ✓ Pancreatitis
- ✓ Acute and Chronic Liver Failure
- ✓ prevention and treatment of acute G.I. Bleeding (including variceal bleeding)
- ✓ Peritonitis
- ✓ Mesenteric Infarction
- ✓ Perforated viscus
- ✓ Bowel Obstruction
- ✓ Abdominal Trauma & Abdominal Surgery

Obstetric

- Toxemia (including HELLP syndrome)
- Amniotic Fluid Embolism
- Eclampsia and Haemorrhage.

Environmental Hazards

- ✓ Burns
- ✓ Hypo-and Hyperthermia
- ✓ Near-Drowning
- ✓ Electrocution, Radiations & Chemical Injuries
- ✓ Animal Bites.

Toxicology, poisoning

- ✓ Acute Intoxications
- ✓ Drug Overdose
- ✓ Serious Adverse Reactions,
- ✓ Anaphylaxis

General

- ✓ Pharmacology, Pharmacokinetics and Drug Interactions
- ✓ Analgesia, Sedation and Muscle Relaxants
- ✓ Inflammation and Anti-Inflammatory agents
- ✓ Poly Trauma
- ✓ Transport of the Critically ill
- ✓ Multisystems Disorders (including Multi-Organ Dysfunction syndrome MODS and the Systemic Inflammatory Response Syndrome - SIRS)
- ✓ Management of the Organ Donor

INTERVENTIONS AND PROCEDURES

Respiratory

- ✓ Maintenance of Open Airway
- ✓ Suctioning of the Airway
- ✓ Endotracheal Intubation (oral and nasal)
- ✓ Insertion of Supraglottic Airway Devices
- ✓ Emergency Cricothyrotomy
- ✓ Percutaneous Tracheostomy
- ✓ Setting and turning of the Ventilator with different Modes of Ventilation
- ✓ Titration of Oxygen Therapy

- ✓ Use of Ambubag
- ✓ Techniques of Weaning from Mechanical Ventilation
- ✓ Placement of a Chest Drain
- ✓ Fiberoptic Bronchoscopy
- ✓ Interpretation of Arterial and Mixed Venous Blood gases

Cardiovascular

- ✓ Placement of a Central Venous Catheter (by different routes)
- ✓ Cardiac Output Monitoring
- ✓ Arterial Catheter (by different routes)
- ✓ Measurement and Interpretation of the Hemodynamic variables (including the derived variables),
- ✓ Implementation of Cardiovascular Support

Neurologic

- ✓ Basic interpretation of Brain CT/MRI scan
- ✓ Intracranial Pressure Monitoring

Nutrition

- ✓ Metabolic and Nutritional Implementation of intravenous fluid therapy
- ✓ Enteral and Parental nutrition.

Haematologic

- ✓ Correction of Haemostatic and Coagulation Disorders
- ✓ Interpretation of a Coagulation Profile
- ✓ Implementation of Thrombolysis.

Renal

- ✓ Bladder catheterization
- ✓ Renal Replacement Techniques

Gastro-intestinal

- ✓ Placement of Gastric tube
- ✓ Esophageal and Gastric Tamponade Balloon

Communication Skills

- ✓ Tackling angry/agitated relative
- ✓ Counselling of relatives of Critically ill patient
- ✓ Breaking Bad news
- ✓ Counselling for Organ Donation

Radiology

- ✓ Interpretation of Chest Xray
- ✓ Interpretation of CT scan and MRI
- ✓ Interpretation of Sonography

Extracorporeal Therapy

- ✓ ECMO – Extra Corporeal Membrane Oxygenation
- ✓ RRT – Renal Replacement Therapy

ACADEMICS

- ✓ General Measurement of severity of illness and outcome assessment
- ✓ Exposure to Clinical Research
- ✓ Ethical and Legal aspects of Critical Care.
- ✓ Participation in regional and national CME's, seminars and Conference in Critical Care and affiliation with such critical care organizations is desirable.

EXAMINATION

Eligibility for appearing in Exam of IDCCM

- ✓ The candidate must have gained experience in the Diagnosis and Treatment of patients with serious medical and surgical disease including Coronary Artery Disease(CAD) and Neurosurgical Disease.

In-training assessment of candidates

- ✓ Candidates are assessed at monthly intervals by the teacher for progress towards appropriate goals
- ✓ The log book will be maintained by IDCCM candidates under the supervision of their teachers that will track the attainment of specified competencies in Critical Care.

Mandatory requirements to be completed prior to Exam

- ✓ The IDCCM Trainee should submit a completion certificate after completion of the 1 year or 2 years training.
- ✓ The Comprehensive Critical Care Course(4C course) is mandatory for the IDCCM trainee. They should submit the 4C course certificate along with their exam form (4 C course may be done anytime within 2 years before filling the examination form) w.e.f. January 2019 Exam.
- ✓ ACLS & Airway workshop are mandatory for all exam going candidates from January 2019.(airway workshop is not mandatory for those who have a degree or diploma in Anaesthesiology w.e.f April 2019).The workshop should be done anytime within 2 years before filling the examination form. The workshop certificate should be submitted along with the exam form.
- ✓ Hemodynamic monitoring & mechanical ventilation, review courses etc. are recommended workshops for IDCCM trainees.

- ✓ Effective from 1st December 2020 attendance during the STEP programme for all students of IDCCM would be mandatory All students would need to have a minimum of 60% attendance for an academic year in order to be considered eligible to give the exams

Written Exam

- ✓ The written exam for the IDCCM will be held every year in March and in August (Centre may vary)
- ✓ It consists of multiple choice questions.

Practical Exam

The oral exam is conducted by a panel of Six examiners over one day and includes

- ✓ Two typical ICU cases scenarios (each case scenario by two examiners) on which questions will be asked by the examiners.
- ✓ Table viva on ACLS proficiency and airway skills (Passing in ACLS & Airway is mandatory)
- ✓ Table viva on interpretation of ECG's, lab reports, X'rays, CT scan's.
- ✓ Table viva on setting up of a ventilator, setting up of hemodynamic monitoring like central line/arterial line/cardiac output monitoring skills and bedside monitoring of a critically ill patient.
- ✓ Table viva on commonly used drugs.

Examination Pattern

- ✓ There will be two heads in practical exams
 - Head 1:** Two clinical cases of 40 marks each (Total 80 Marks)
 - Head 2:** Six workstations of 20 marks each (total 120 marks)

- ✓ NOTE: Pass mark is 50% in each head. Passing in each of these Heads individually is Compulsory. Cutoff is 40 marks for Head 1 (cases) and 60 marks for Head 2 (tables).

- ✓ In Head 2, it is mandatory to pass separately in ACLS & AIRWAY Stations to be declared Pass in Practicals. (Even if the total marks in Head 2 is 50% or more, but the candidate has failed in either ACLS or AIRWAY workstations, he/she will be considered as having failed in whole Practical exam)

Log Book

- ✓ Part I should be filled online print copy of the same should be presented during the practical exam.
- ✓ Part II should be uploaded online along with exam form in the trainee's profile log book section. Printed copy of the same should be presented during the practical exam.

