



**JOHANNESBURG
ACADEMIC OFFICE**

CMSA

The Colleges of Medicine of South Africa NPC

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R E G U L A T I O N S

FOR ADMISSION TO THE HIGHER DIPLOMA IN EMERGENCY MEDICINE OF

THE COLLEGE OF EMERGENCY MEDICINE OF SOUTH AFRICA

H Dip Emerg Med(SA)

1.0 SCOPE AND OBJECTIVES

- 1.1 The purpose of the Higher Diploma in Emergency Medicine is to encourage postgraduate training in emergency medicine and to raise and maintain the standard of practice in emergency care, especially outside the larger training centres and in regional hospitals and rural family practise.
- 1.2 The Higher Diploma is intended for non-specialists and medical practitioners actively involved in the practise of emergency medicine.
- 1.3 The level of knowledge and competence will be such as to provide a sound basis for the practise of high quality emergency care but without requiring the advanced background knowledge commensurate with a Specialist Fellowship in Emergency Medicine such as the FCEM(SA).
- 1.4 The Higher Diploma will empower medical practitioners to supervise and train junior doctors in the skills and procedures required to practise safe and effective acute medical care.

2.0 ELIGIBILITY OF CANDIDATES

- 2.1 Applicants for the Higher Diploma must be registered or registrable with the Health Professions Council of South Africa (HPCSA) as a medical practitioner.
- 2.2 The candidate should hold a medical officer's post (or equivalent) in emergency medicine in an academic teaching hospital, in a satellite Department of Emergency Medicine in a non-teaching hospital, or in a CMSA-accredited Emergency Department in a non-teaching hospital. An equivalent post in a CMSA-accredited Emergency Department in a private hospital would also be acceptable.

3.0 EDUCATION AND TRAINING

- 3.1 The candidate must have successfully obtained the Diploma in Primary Emergency Care (Dip PEC(SA)) or equivalent not less than two years prior to attempting the examination for the Higher Diploma.
- 3.2 The candidate must have at least two years fulltime working experience in an Emergency Department that is accredited by the College of Emergency Medicine of South Africa.
- 3.3 The candidate must hold a current valid BLS, ATLS, ACLS and PALS/APLS Certificate, and be an accredited instructor in at least one advanced life support course.
- 3.4 The candidate must have completed training and received CMSA-approved accreditation in emergency ultrasonography as described in 4.0 below.
- 3.5 The candidate should have extensive and competent skills and experience in emergency medicine, and be recommended for the examination by the Head of the relevant Emergency Department.

4.0 TRAINING PROGRAMME

- 4.1 The curriculum for emergency ultrasonography training should comprise the following components:
 - 4.1.1 Extended focused assessment sonography in trauma (EFAST).
 - 4.1.2 Abdominal aortic aneurysm (AAA) assessment.
 - 4.1.3 Focused emergency echocardiography in resuscitation (FEER).
 - 4.1.4 Deep venous thrombosis (DVT) assessment by limited compression ultrasound (LCU)
 - 4.1.5 Central venous access with ultrasound guidance.
- 4.2 Emergency ultrasonography accreditation should comprise the following elements:
 - 4.2.1 A CMSA-approved one day course with at least 4 hours dedicated to hands-on training.
 - 4.2.2 A theoretical assessment by means of a web-based examination.
 - 4.2.3 A prescribed number (at least 25) unsupervised ultrasound examinations as well as a prescribed number (at least 25) ultrasound examinations proctored by an approved supervisor (usually a radiologist or credentialed emergency physician).
 - 4.2.4 A final competency assessment by an independent examiner approved by the CMSA.
 - 4.2.5 The contents of the curriculum may be examined in any component of the Higher Diploma.

5.0 CORE CURRICULUM

The core curriculum is outlined in Appendix 1.

6.0 ADMISSION TO THE EXAMINATION

- 6.1 Applications to the examination must be accompanied by the following supporting documentation:
 - 6.1.1 A comprehensive Portfolio of Learning, detailing time spent in emergency medicine.
 - 6.1.2 A letter of recommendation from the Head of the Emergency Department at which the candidate is employed.
 - 6.1.3 Copies of valid BLS, ATLS, ACLS and PALS/APLS Certificates.
 - 6.1.4 A CMSA-approved Certificate of Accreditation in Emergency Ultrasonography
- 6.2 The CMSA Senate, through its Examinations and Credentials Committee, will review all applications for admission to the examination, and may also review the professional and ethical standing of the candidate.
- 6.3 Under exceptional circumstances the CMSA may waive some of the requirements for entry to this examination at the discretion of the Council of the College of Emergency Medicine.

7.0 FORMAT OF THE EXAMINATION

- 7.1 Two 3-hour written papers.
- 7.2 A clinical examination
- 7.3 An OSCE examination
- 7.4 An oral examination.
- 7.5 Candidates must achieve a minimum of 50% for the two written papers, and pass at least half of the questions in each paper, in order to be invited to the clinical component of the examination.
- 7.6 Candidates must achieve an overall minimum average 50%, and pass at least 3 of the 4 components of the examination.

5.0 ADMISSION AS A DIPLOMATE

5.1 The candidate having passed the examination and having been admitted as a recipient of the Higher Diploma in Emergency Medicine of the College of Emergency Medicine of the CMSA, will be asked to sign a declaration, as under:

I, the undersigned, do solemnly and sincerely declare

that while a member of the CMSA I will at all times do all within my power to promote the objects of the CMSA and uphold the dignity of the CMSA and its members

that I will observe the provisions of the Memorandum and Articles of Association, By-laws, Regulations and Code of Ethics of the CMSA as in force from time to time

that I will obey every lawful summons issued by order of the Senate of the said CMSA, having no reasonable excuse to the contrary

and I make this solemn declaration faithfully promising to adhere to its terms

Signed at this day of

..... 20

Signature

Witness

(who must be a Founder, Associate Founder, Fellow, Member, Diplomate or Commissioner of Oaths)

5.2 A two-thirds majority of members of the CMSA Senate present at the relevant meeting shall be necessary for the award to any candidate of a Higher Diploma

5.3 A Diplomate shall be entitled to the appropriate form of certificate under the seal of the CMSA

5.4 In the event of a candidate not being awarded the Higher Diploma (after having passed the examination) the examination fee shall be refunded in full

5.5 The first annual subscription is due one year after registration (statements are rendered annually)

A P P E N D I X A**Core Curriculum for the Higher Diploma in Emergency Medicine****1.0 EMERGENCY MEDICAL SERVICES (EMS)**

- Pre-hospital care
- Model systems/local systems
- EMS training and scope of practice
- Regionalisation/categorisation of care/trauma centres
- Disaster planning
- Triage
- Patient transfer
 - Road transfer
 - Air ambulance (including helicopter and fixed wing)

2.0 TRAUMA - RECOGNITION AND INITIAL MANAGEMENT

- Initial approach to the trauma patient
- General principles of paediatric trauma, including child abuse
- Priorities in multiple trauma
- Head and facial trauma
- Spinal trauma
- Chest trauma
 - Blunt/penetrating
 - Pneumothorax
 - Pericardial tamponade
 - Massive haemothorax
 - Open chest wound
 - Ruptured aorta
- Abdominal trauma
 - Blunt/penetrating
 - Indications for diagnostic peritoneal lavage
- Urogenital trauma, including rape and sexual assault
- Extremity trauma
- Early management of fractures and dislocations
- Explosive injuries and gunshot wounds
- Crush syndrome
- Burns
- Trauma in the pregnant patient
- Recognition and preservation of forensic evidence in clinical/medico-legal examinations (eg child or elder abuse, rape or sexual assault, gunshot or stab victims, etc)

3.0 ENVIRONMENTAL EMERGENCIES – DIAGNOSIS AND INITIAL MANAGEMENT

- Frost-bite and other localised cold-related injuries
- Hypothermia
- Heat emergencies
- Insect and arachnid bites
- Snake bites and scorpion stings
- High altitude emergencies
- Diving emergencies

4.0 SURGICAL AND RELATED SPECIALTY EMERGENCIES

4.1 Neurosurgery

- Intracranial haemorrhage (extra-dural, sub-dural, subarachnoid, intra-cerebral)

4.2 Cardiothoracic Surgery

- Indications for thoracotomy in Emergency Units

4.3 Abdominal Surgery

- Approach to the acute abdomen
- Gastro-intestinal haemorrhage
- Foreign body ingestion
- Ruptured aortic aneurysm

4.4 Urogenital Emergencies

- Testicular torsion
- Urological stone disease
- Rape and/or sexual assault related to injuries in children and adults

4.5 Emergencies related to the Musculoskeletal System

- Threatened limb
- Neurovascular extremity examination
- Strains/sprains/fractures
- Dislocations
- Soft tissue injury/infection
- Septic joint

4.6 ENT Emergencies

- Epistaxis / septal haematoma
- Foreign bodies
- Infections
- Upper airway obstruction
- Dental emergencies

4.7 Ophthalmological Emergencies

- Causes of the red eye
- Eye trauma
- Causes of visual Impairment

5.0 ETHICS AND LAWS IN EMERGENCY MEDICINE

- Ethics of resuscitation
- Patient autonomy and informed consent
- Organ donation
- Declaration of death
- Professional and vicarious liability
- Births and Deaths Registration Act 51 of 1992 (Completion of new DHA-1663 A & B – Notice of Death/Stillbirth)
- Completion of relevant forms (J88) in child or elder abuse and rape or sexual assault
- Section 27 of the Constitution (emergency medical treatment)

6.0 MEDICAL EMERGENCIES

6.1 Neurological Emergencies

- Coma
- Altered / deteriorating level of consciousness
- Headache
- Meningitis
- Seizures
- Cerebral vascular incident

6.2 Cardiovascular Emergencies

- Co-ordination and usage of cardiac and peri-arrest drugs
- Treatment of ventricular fibrillation/ventricular tachycardia
- Treatment of asystole/pulseless electrical activity/bradyarrhythmias
- Chest pain evaluation
- Recognition and treatment of tachyarrhythmias
- Recognition and treatment of hypertensive emergencies
- Myocardial infarction

6.3 Pulmonary Emergencies

- Evaluation of dyspnoea
- Acute respiratory failure
- Acute asthma and exacerbation of chronic obstructive pulmonary disease
- Pulmonary oedema
- Pulmonary embolus
- Foreign body
- Pneumothorax
- Pneumonia
- Inhalation injury

6.4 Gastrointestinal Emergencies

- Diarrhoea and dehydration
- Peptic ulcer disease
- Pancreatitis
- Acute jaundice

6.5 Endocrine and Metabolic Emergencies

- Electrolyte abnormalities
- Acid base abnormalities
- Hypo- and hyperglycaemia
- Thyroid and adrenal disorders

6.6 Urogenital Emergencies

- Sexually transmitted diseases
- Epididymitis
- Rape and sexual assault in children and adults

6.7 Infective Emergencies

- Meningococcal septicaemia
- Malaria
- Tetanus
- HIV infection and AIDS
- Rabies
- Fever of unknown origin, including haemorrhagic fevers
- Influenza

6.8 Psychosocial Emergencies

- Recognition of acute psychosis
- Suicidal and homicidal evaluation
- Recognition of behavioural disorders caused by organic illness
- Performance of mental status examination
- Recognition and referral of child and elder abuse
- Recognition and referral of rape and/or sexual assault

7.0 PAEDIATRIC EMERGENCIES

- Common neonatal problems
- The premature infant
- Sudden infant death syndrome
- Neurological emergencies in children (eg meningitis)
- ENT emergencies in children (eg croup, epiglottitis)
- Respiratory emergencies in children (eg bronchiolitis, asthma)
- Acute management of the dehydrated child
- Paediatric abdominal emergencies
- The shocked child
- Burns
- Child abuse (non-accidental injury in children, including rape and/or sexual assault)
- Dermatological emergencies in children (eg paediatric exanthems)

8.0 OBSTETRIC AND GYNAECOLOGICAL EMERGENCIES**8.1 Emergencies Related to Pregnancy**

- Ectopic pregnancy
- Miscarriage
- Antepartum haemorrhage
- Normal delivery
- Abnormal delivery
- Postpartum haemorrhage
- Trauma during pregnancy

8.2 Gynaecological Emergencies

- Vulvovaginitis
- Sexually transmitted diseases
- Gynaecological causes of the acute abdomen
- Rape and sexual assault

9.0 TOXICOLOGICAL EMERGENCIES

- Recognition of clinical syndromes:
 - Coma
 - Anti-cholinergic
 - Cholinergic
 - Narcotic
 - Sympathetic
- Initial treatment and removal of poisons:
 - Agent-specific therapy
 - Role of poison centres
 - Decontamination

10.0 CLINICAL AND PRACTICAL SKILLS**10.1 Cardiopulmonary resuscitation**

- Adult
- Child and infant
- Neonatal

10.2 ECG monitor / defibrillator usage

- Defibrillator operation and usage (manual and automated)
- Pacing
- Synchronised cardioversion
- Arrhythmia recognition and management

10.3 Airway control

- Bag-valve-mask ventilation
- Endotracheal intubation and rescue devices and techniques
- Cricothyroidotomy
- Confirmatory devices
- Ventilator principles
- Rapid sequence intubation

10.4 Vascular access techniques and control of haemorrhage

- Arterial line insertion
- Central line insertion
- Intraosseus line insertion

10.5 Laceration repair

- Suture material, needles, instruments
- Types of wounds
- Wound preparation
- Tetanus prophylaxis
- Local anaesthesia and blocks

10.6 Immobilisation techniques

- Spinal immobilisation
- Limb immobilisation and splinting

10.7 Radiology interpretation

- X-ray review – including fracture identification
- CT scan review
- Emergency ultrasound proficiency

10.8 Decontamination procedures

- Gastric lavage
- Dialysis

10.9 Superficial abscess

- Incision and drainage

10.10 Nasal packing

- Anterior bleed
- Posterior bleed

10.11 Pericardiocentesis

- Sonar-guided
- ECG-guided

10.12 **Thoracostomy**

- Needle
- Tube drainage

10.13 **Obstetric emergencies**

- Normal delivery
- Abnormal delivery

10.14 **Major incident management**

- Pre-hospital
- In-hospital

10.15 **Anaesthesia and sedation**

- Procedural sedation and analgesia
- Nerve block anaesthesia

10.16 **Fracture and dislocation reduction**

A P P E N D I X B**Recommended Reading for the Higher Diploma in Emergency Medicine****1.0 Reference Textbooks**

- Rosen P (Ed). *Emergency Medicine: Concepts and Clinical Practice* (Mosby)
- Tintinalli JE (Ed). *Emergency Medicine: A Comprehensive Study Guide* (McGraw-Hill)
- Cameron P et al (Ed). *Textbook of Adult Emergency Medicine* (Churchill Livingstone)
- Nicol A et al (Ed). *Handbook of Trauma for Southern Africa* (Oxford University Press)
- Roppolo LP et al (Ed). *Emergency Medicine: Critical Concepts for Clinical Practice* (Mosby)
- Roberts JR et al (Ed). *Clinical Procedures in Emergency Medicine* (WB Saunders Co)
- Bernstein AD et al (Ed). *Intensive Care Manual* (Butterworth-Heinemann)

The candidate is advised to read recent relevant texts on emergency care, and the above serve merely as a sample of available literature. The most recent edition should be referred to.

2.0 Peer-Reviewed Journals relating to Emergency Medicine

- Emergency Medicine Clinics of North America
- Emergency Medicine Journal (UK or SA Edition)
- Emergency Medicine Australasia
- Journal of Emergency Medicine (USA)
- Annals of Emergency Medicine (USA)
- Resuscitation (Elsevier)

In addition, the following Journals regularly contain articles relevant to emergency care, and should be used as a resource for the most recent knowledge in the medical literature:

- New England Journal of Medicine
- British Medical Journal
- Journal of Trauma
- Circulation
- Lancet
- JAMA

A P P E N D I X C

Guidelines for Examiners and Convenors

1.0 GUIDELINES FOR EXAMINERS:

- 1.1 When setting the examination, examiners should guard against placing undue emphasis on aspects which are esoteric, uncommon or of minimal clinical significance.
- 1.2 Examination questions should be appropriate to the theory and practise of emergency medicine.
- 1.3 Examiners should be reasonable when setting written questions about new drugs or techniques, particularly if they are not significantly related to clinical practise.
- 1.4 Ambiguity must be avoided, and the average candidate should have a clear understanding of what is required in the answer.
- 1.5 After each examination, the examiners should meet and discuss the examination and any problems arising from any aspect of the examination.

2.0 GUIDELINES FOR CONVENORS

- 2.1 The overall convenor should ensure that:
 - 2.1.1 There is no unnecessary duplication between different examiners or different parts of the examination
 - 2.1.2 Questions are fair and not ambiguous, and that abbreviations are avoided
 - 2.1.3 Questions cover an overall spread of the subject
 - 2.1.4 The standard of the examination be maintained equally between the individual examiners