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EXAMINATIONS & CREDENTIALS

June 2020

THE COLLEGE OF PAEDIATRICIANS OF SOUTH AFRICA

SPECIAL REGULATIONS

FOR THE FS 2020 MODIFIED CLINICAL/PRACTICAL/ORAL EXAMINATION FOR THE

POST-SPECIALISATION

SUB-SPECIALTY CERTIFICATE

IN

CRITICAL CARE

Cert Critical Care(SA)

1.0 ELIGIBILITY TO TAKE THE EXAMINATION
In order to be eligible to enter for this examination, the candidate:-

1.1 must comply with the requirements for registration as a medical practitioner, as prescribed by the Medical, Dental and Supplementary Health Services Act.

1.2 must be registered as a specialist Paediatrician

2.0 ADMISSION TO THE EXAMINATION
(to be read in conjunction with the Instructions)

The following are the requirements for admission to the examination:

2.1 registration as a specialist Paediatrician

2.2 certification of having completed at least 18 months as a subspecialty trainee in an accredited subspecialty unit in a teaching hospital, registered and approved by the Health Professions Council of South Africa

2.3 submission of a written report from the head of the Department and programme in which he or she trained indicating satisfactory completion of all training requirements

2.4 submission of a satisfactorily completed logbook

2.5 presentation or acceptance for presentation of an original first author research poster or paper at a local or international congress OR submission or acceptance for publication of an original first or co-authored manuscript in a peer reviewed journal.

2.6 Training is valid for a period of three years from the date of completion in a numbered subspecialty training post. Candidates who do not successfully complete the subspecialty examination within the period must motivate with support from their HOD to the College of Paediatricians for a once off extension.

3.0 SYLLABUS AND TRAINING
See Appendix A

4.0 FORMAT AND CONDUCT OF THE EXAMINATION
See Appendix B

JOHANNESBURG
June 2020

A P P E N D I X A

1.0 SYLLABUS FOR TRAINING PROGRAMME IN CRITICAL CARE MEDICINE IN SOUTH AFRICA

(As recommended by the Critical Care Society of Southern Africa — 1998)

This document details the curricula set by the ad hoc committee of the Critical Care Society of Southern Africa — 1998 (CCSSA) as the standard of training required for persons wishing to register as critical care specialists.

1.1 What is Critical Care ?

1.1.1 An institution/hospital offering a training programme in Critical Care Medicine (CCM) must be registered with The Medical and Dental Professional Board of the Health Professions Council of South Africa.

Critical Facilities can be for children with acute medical (including cardiac), surgical (including polytrauma), thoracic/cardiac surgical, neurological, neurosurgical and neonatal conditions. These facilities may be organised either in separate units working in collaboration or general intensive care units (ICU's). All units should have designated medical and nursing directors. The medical director should be either a registered intensivist or paediatric pulmonologist with postgraduate training.

There must be full medical coverage of patient care 24 hours a day. Also there must be other medical specialists available at all times: these to include the relevant paediatric and paediatric surgical subspecialists and a neonatologist. A 24-hour laboratory and radiology service must also be available.

The training programme must have a programme director, who need not be the ICU director. Trainees must have a primary speciality (viz Anaesthesiology, Surgery, Internal Medicine, Paediatrics or their subspecialities). The programme extends over a 24-month period and which may be divided into sections of not less than 6 months in length. It is possible to complete the programme at different institutions, provided the various institutions comply with the above conditions. 6 months of this time may be spent in paediatric traumatology, paediatric cardiology, paediatric pulmonology or neonatology.

1.1.2 **The CCM programme includes:**

a) Theoretical knowledge
b) Technical and procedural skills
c) Application of knowledge and skills in daily practice
d) Organisational and financial aspects of intensive care
e) Quality assurance
f) Ethical implications
g) Exposure to clinical research
h) A written and oral examination set by a recognised examining authority (eg CMSA)

1.1.3 **The methods for achieving the goals of the programme are:**

a) Exposure to fulltime experience in the ICU with significant responsibility for patient management under close supervision by the training staff
b) Systemic rounds at least once a day
c) Systematic assessment of priorities of diagnostic and therapeutic procedures with co-ordination into an integrated patient management strategy
d) Active participation in clinico-pathologic conferences, patient presentations (grand rounds), journal clubs, etc
e) Theoretical courses provided by the institution
g) Active participation in local, national and international seminars, postgraduate courses, symposia and congresses
h) Participation in clinical research
i) Teaching work (courses for paramedics, nurses, physiotherapists, etc)

1.1.4…/

1.1.4 **At the end of the training period, trainees should have achieved the following objectives:**

a) Comprehensive theoretical knowledge of the field of paediatric intensive care
b) Adequate clinical experience of a wide variety of clinical problems and diseases commonly encountered in the paediatric ICU
c) Ability to apply the most appropriate diagnostic procedures and treatment modalities in paediatric critical care patients
d) Mastery of the medical-technical procedures commonly applied in the paediatric ICU
e) Ability to implement ethical standards
f) Ability to bear full responsibility for critically ill patients
g) Have passed an examination approved by the HSC specialists committee

1.2 **Programme content**

1.2.1 **Procedural skills:**

The programme provides training in practical, attitudinal and procedural skills. These include application of indications and contraindications, recognition of pitfalls, and management of complications of diagnostic and therapeutic procedures as well as interpretation of data obtained from clinical examination, monitoring and laboratory investigations and determination of the actions to be considered or taken on the basis of this interpretation. The programme provides expert supervision to ensure that adequate experience is obtained in the procedure skills listed below:

General/attitudinal

a) Identification and management of life-threatening or other emergency situations
b) Identification of essential elements and assignment of priorities in diagnostic procedures and treatment in complex clinical situations
c) Application of pathophysiological concepts in individual patient problems
d) Assessment of the pros and cons of diagnostic and therapeutic options. Responsibility for comprehensive patient care
e) Search for ways of improving daily patient care
f) Awareness of and ability to cope with the psychological and social effects of life-threatening illness on patients and their relatives
g) Compassion for and humane approach to the critically ill and their relatives
h) Ability to work in a multidisciplinary team. Awareness of costs (and cost benefit ratios) of ICU procedures

1.2.2 **Respiratory problems; their recognition, assessment and management:**

a) Airway management

Mandatory

- Maintenance of open airway
- Intubation (oral, nasotracheal) and maintenance of this airway (This includes detailed skills in selection of endotracheal tubes and prevention of airway damage).

This also includes the use of appropriate anaesthesia for the intubation.

Advisable

- Cricothyrotomy/transtracheal catheterisation

Optional

- Tracheostomy

b) Ventilation

Mandatory

- Oxygen therapy
- Ventilation by bag and mask
- Use of mask (face and nasal) ventilation (with PEEP) eg CPAP, NIPPV
- Mechanical ventilation: all aspects including weaning and complications
- High frequency ventilation

Advisable

- Negative pressure ventilation

c) Pulmonary aspects

- Management of pneumothorax (needle, chest tube insertion, drainage systems)
- Interpretation of arterial (and mixed venous) blood gases and assessment of pulmonary gas exchange (A-a gradients, shunt fraction, VD/VT, etc)
- Basic interpretation of a bedside chest x-ray

- Performance of bedside pulmonary function tests and assessment of pulmonary mechanics
- Chest physiotherapy, incentive spirometry
- Bronchoalveolar lavage techniques

Advisable
- Flexible bronchoscopy in the ICU

1.2.3 **Cardiovascular:**

a) Recognition, assessment and management of acute circulatory problems and advanced cardiopulmonary resuscitation

Mandatory
- Management of at least common congenital cardiac anomalies. This will include emergency management and post-operative care
- Management of acute myocarditis and cardiomyopathy
- Acute pulmonary hypertensive crises
- Assessment and treatment of ECG abnormalities and rhythm disturbances
- Arterial puncture and blood sampling
- Insertion of monitory lines, both arterial and venous. Cardioversion (electrical and medical)
- Transcutaneous pacing
- Transvenous pacing

Advisable
- Pericardiocentesis
- Echo-Doppler cardiovascular techniques including knowledge of transoesophageal echocardiography (interpretation of results)
- Application and regulation of intra-aortic assist devices
- Use of pulmonary arterial catheters and the measurement of indices made possible by these devices

Optional
- Use of ventricular assist devices

1.2.4 **Neurological/Psychiatric:**

Mandatory
- Assessment of coma depth
- Assessment of brain death
- Lumbar puncture
- Intracranial pressure monitoring
- Head injuries
- Basic interpretation of brain CT scan
- Monitoring of neuromuscular blockade

Optional
- EEG monitoring
- Interpretation of brain and brain stem evoked potentials
- Measurement of jugular venous oxygen saturation
- Measurement of cerebral Doppler velocities and cerebral blood flow

1.2.5…/

1.2.5 **Metabolic:**

a) **Recognition, assessment and treatment of (common) acute metabolic and endocrine crises (diabetic keto-acidosis, metabolic coma, overdose etc)**

Mandatory

- Monitoring and assessment of nutritional support
- Implementation of fluid therapy
- Interpretation of acid-base abnormalities
- Implementation of enteral and parenteral nutrition
- Management of hypothermia and hyperthermia
- Management of acute poisoning with particular attention to:
  - acute iron poisoning
  - paraffin poisoning
  - organophosphate poisoning
  - tricyclic poisoning
- use of gastric lavage, induced emesis, gut irrigation and use of activated charcoal would be mandatory in this context
- Management of acute decompensations of congenital metabolic abnormalities (this would include the use of various modes of dialysis and haemofiltration)
- Phototherapy and Exchange transfusion

1.2.6 **Gastrointestinal:**

a) ***Recognition, assessment, treatment of gastrointestinal crises (gastrointestinal bleeding acute pancreatitis, acute abdomen etc)***

Mandatory

- Insertion of nasogastric tube
- Placement of a nasojejunal tube
- Implementation of stress ulcer prophylaxis
- Management of acute hepatic failure
- Management of patients with abdominal compartment syndromes
- Management of necrotizing enterocolitis

1.2.7 **Haematological:**

Mandatory

- Interpretation of a coagulation profile
- Implementation and control of anticoagulant and fibrinolytic treatment
- Utilisation of blood component therapy and artificial colloids
- Management of massive transfusion

Optional

- Autotransfusion
- Plasma exchange
- Management of haemodilution

1.2.8 **Infection:**

a) ***Recognition, assessment and treatment of (suspected) infection***

Mandatory

- Sampling for cultures (blood and other sites) and interpretation of laboratory reports
- Use of aseptic techniques and prevention of nosocomial infection
- Management of wounds and drains

1.2.9 **Renal:**

a) ***Recognition, assessment and basic management of acute renal failure***

Mandatory

- Establishment of a fluid and electrolyte balance
- Insertion of haemo- and peritoneal dialysis catheters
- Management of continuous renal replacement techniques (CAVH, CAVHD, CVVH, CVVHDF, peritoneal dialysis)

Optional

- Haemoperfusion

1.2.10 **Trauma:**

a) ***Assessment and treatment of the (poly) trauma patient***

Mandatory

- Recognition and management of spinal cord injury
- Advanced Paediatric Life Support
- Management of the burn patient

Optional

- Temporary immobilisation of fractures

1.2.11 **Monitoring and Life Support Devices:**

Mandatory

- Utilisation, zeroing, calibration of transducers
- Use of amplifiers and recorders
- Assessment of reliability of measured data
- Operation of ventilators
- Trouble-shooting equipment

1.2.12 **Pharmacology:**

Mandatory

- Implementation and control of adequate sedation and analgesia
- Knowledge of most used drugs (also in renal, hepatic failure)
- The use of muscle relaxants
- A basic knowledge of pharmacokinetics in children of various age-groups

1.2.13 **Ethical:**

Mandatory

- Exposure to ethical aspects of intensive care
- Ability to appreciate and implement patients and families expressed wishes/will
- Implementation of ethical guidelines of the hospital
- Ability to consider and discuss (dis)continuation or restriction of treatment (also with relatives)
- Implementation of DNR and treatment limitation
- Integration of the family's wishes into the treatment plan

1.2.14 **Organisational:**

Mandatory

- Structure of daily patient care
- Structured patient file with strategies for diagnostic procedures and management of individual patients
- Quality management (use of scoring systems, outcome measures etc)
- Adequate and timely reports to the primary care/referring physician
- Allocation of human, spatial and technical resources
- Implementation of cost containment
- Management and risk estimation of transport of critically ill paediatric patients (radiology department transfer, etc)
- Co-ordination of activities of the intensive care team(nurses,residents,physiotherapists etc)
- Use of data management systems

1.2.15 **Other Exposure**

- Cardiac catheterisation laboratory
- Pulmonary function laboratory
- Respiratory therapy
- Haemodialysis unit
- Burn unit
- Neonatal intensive care unit
- Ambulance systems
- Transplant intensive care
- Nutritional support team
- Infectious disease unit
- Medical emergency services
- Research activity related to intensive care in animal laboratory

1.3 **Theoretical knowledge**

The programme provides ample opportunities to increase or acquire theoretical knowledge in the field of critical care medicine. Clearly structured theoretical courses are part of the training programme. These include (when applicable) physiology, pathophysiology, pathology, symptomatology, complications, diagnosis and differential diagnosis, prophylaxis and, in addition to theoretical knowledge of the practise of intensive care medicine, therapy of the following kinds and for the following disorders.

1.3.1 **General:**

Mandatory

- Multi-organ system failure
- Systemic inflammatory response syndrome (SIRS)
- Multisystem disorders
- Transport of the critically ill
- Evaluation and integration of obtained data and subsequent medical decisions
- Basic understanding of chest and plain abdominal x-ray, Ultrasonography, echocardiography, CT Scan, MR Imaging, Radionuclide techniques

1.3.2 **Respiratory:**

Congenital abnormalities of the respiratory system including:

- upper and lower airways
- mediastinal abnormalities
- lung parenchymal abnormalities (including abnormalities of lung growth and development such as hypoplasia, dysplasia etc)
- chest wall abnormalities including diaphragmatic defects and associated lung problems

Perinatal respiratory problems including:

- surfactant system and hyaline membrane disease
- persistent pulmonary hypertension
- meconium aspiration syndrome
- pneumonia from perinatally acquired pathogens

Inherited conditions including:

- cystic fibrosis (with particular reference to the ICU related aspects and not general aspects)

Acquired conditions including:

- infections

  bacterial
  - tuberculosis
  - acute bacterial infections

  viral

  fungal

  other including pneumocystis carinii pneumonia

  parenchymal disease

airway disease

- upper airway obstruction
- laryngeal and subglottic problems
- tracheal and bronchial problems
- small airways disease
  - asthma
  - bronchiolitis

Trauma

Inhalational injuries

- smoke inhalation
- paraffin inhalation

Near drowning

1.3.3…/

1.3.3 **Cardiovascular:**

Mandatory

- Haemodynamic instability and shock
- Circulatory (patho-) physiology (determinants of myocardial performance, perfusion oxygen transport, microcirculation, endothelial cell function etc)
- Cardiac arrhythmia (diagnosis and treatment)
- Physiology of growth and development
- Management of congenital heart disease, including postoperative care
- Manipulation of Ductus arteriosus
- Management of pulmonary hypertension
- Acute left heart failure and cardiogenic pulmonary oedema
- Hypertensive crises
- Acute pericardial disease and cardiac tamponade
- Acute valvular disorders
- Myocarditis, cardiomyopathy, endocarditis
- Infusion therapy (crystalloids, colloids)
- Fluid challenge
- Vasoactive and inotropic drug therapy
- Thrombolytic therapy
- Haemodynamic effects of mechanical ventilation
- Extracorporeal circulation
- Postoperative care after cardiovascular and thoracic surgery
- Haemodynamic monitoring
- Takaysus arteritis

Optional

- Peripheral vascular disorders
- Intra-aortic balloon pump, right and left heart assist devices,
- Acute myocardial infarction (and complications) and unstable angina
- Complications of angioplasty

1.3.4 **Neurological/psychiatric:**

Mandatory

- Physiology of growth and development
- Congenital anomalies of CNS
- Intracranial haemorrhage
- Hydrocephalus
- Acute decompensations of neuromuscular diseases
- Metabolic encephalopathy including Reye's Syndrome
- The group of "channelopathies" should be covered at least briefly
- Cerebral perfusion, metabolism and monitoring
- Coma:
  - metabolic,
  - traumatic,
  - anoxic,
  - ischaemic,
  - infectious,
  - drug overdose,
  - mass lesion
- Post anoxic brain damage (near drowning, anaesthetic, post arrest)
- Head injury
- Status epilepticus
- Meningitis and encephalitis
  - tuberculous
  - viral
  - bacterial
- Cardiovascular effects of acute intracranial processes,
- Cerebral vasospasm

- Acute neuromuscular disorders (eg Guillain-Barr syndrome, myasthenia gravis, tetanus)
- Acute myopathies related to ICU and the drugs used in intensive care (particularly the neuromuscular blocking agents)
- Spinal cord injury
- Brain death evaluation and certification
- Persistent vegetative states
- Postoperative neurosurgical care
- Principles' of rehabilitation
- Psychiatry of intensive care medicine
- Peripheral neuropathies

Optional
- Malignant hyperthermia,
- Malignant neuroleptica syndrome
- Psychiatric emergencies, including suicide attempts, delirium, depression, acute confusional states

1.3.5 **Renal (including electrolytes, acid-base balance:**

Mandatory
- Physiology of growth and development
- Renal regulation of fluid, acid-base and electrolyte balance
- Electrolyte disturbances (eg Hypernatraemia, hyponatraemia, Osmolar gap, hyperkalaemia)
- Derangements in fluid balance and osmolality
- Acid-base disorders, anion gap
- Oliguria, polyuria and acute renal failure
- Principles of renal replacement therapy: haemodialysis, peritoneal dialysis, ultrafiltration, CAVH, CVVH, CAVHD, CVVHDF
- Pharmacokinetics in renal failure
- Intensive care management of congenital renal problems
- Perioperative management of renal transplant patients
- Haemolytic-uraemic syndrome

1.3.6 **Infection:**

Mandatory
- Infection control, prevention of infection, aseptic techniques
- Severe infections (aerobic, mycoplasma, virus, parasitic, fungi)
- Sepsis, mediator systems, granulocyte endothelial interaction
- Hospital-acquired and opportunistic infections in the critically ill
- Infections in the immunocompromised patient (including AIDS)
- Toxic shock syndrome
- Antimicrobial therapy
- Immunotherapy, immunomodulation
- Infections risks for PICU health care workers

1.3.7 **Haematological:**

Mandatory
- Acute defects in haemostasis: thrombocytopaenia, DIC (role of mediators, endothelium)
- Acute coagulation disorders
- Congenital abnormalities of coagulation
- Anticoagulation, fibrinolytic therapy
- Acute haemolytic disorders
- Acute and chronic anaemia
- Acute haemolysis in the neonate, hyperbilirubinaemia
- Dyshaemoglobinaemias
- Acute disorders of immunocompromised patients, including congenital immunodeficiency syndromes

- Principles of blood component…/

- Principles of blood component therapy: platelet transfusions, packed red cells, fresh frozen plasma, specific coagulation factor concentrates, albumin, stroma-free haemoglobulin, cryoprecipitate, artificial colloids
- Acute syndromes associated with neoplastic disease and acute neoplastic therapy
- Acute disorders of immunosuppressed patients
- Sickle cell crises

Optional
- Plasmapheresis

1.3.8 **Gastrointestinal:**

Mandatory
- Congenital anomalies of GIT with acute presentations
  - oesophageal and intestinal atresias
  - Hirschsprung's disease
- Acute gastroenteritis, severe dehydration
- Chronic gut failure
- Chronic intractable diarrhoea
- Necrotising enterocolitis
- Ingestion of corrosives
- Upper and lower gastrointestinal bleeding (including Stress ulcer prophylaxis)
- Acute pancreatitis
- Acute peritonitis, perforated viscus, abdominal sepsis
- Bowel obstruction, acute vascular of the intestines (including mesenteric infarction)
- Toxic megacolon, pseudomembranous colitis
- Perforated oesophagus
- Acute inflammatory bowel disease
- Preservation of intestinal blood flow
- Abdominal trauma
- Post-abdominal surgery care
- Acute, fulminant and chronic hepatic failure
- Pharmacokinetics in hepatic failure
- Management of patient following hepatic transplantation

1.3.9 **Urogenital:**

Mandatory
- Congenital abnormalities of the urogenital tract affecting ICU management
- Obstructive uropathy, acute urine retention
- Urinary tract bleeding
- Urinary tract infection

1.3.10 **Metabolic and endocrinology:**

Mandatory
- Enteral/parental feeding, nutritional requirements
- Thyroid hyper and hypo secretion adrenal function
- Inborn errors of metabolism (aminoacids, urea-cycle anomalies, organic acidaemias etc
- Hypoglycaemia
- Diabetes mellitus (keto-acidotic and nonketotic hyperosmolar coma, hypoglycaemia
- Disorders of antidiuretic hormone metabolism
- Phaeochromocytoma
- Disorders of calcium, phosphorus and magnesium balance

1.3.11 **Drug overdose and intoxication:**

Mandatory
- Acute intoxication (general specific)
- Antidotes (general specific)
- Addiction and withdrawal

1.3.12…/

1.3.12 **Immunology and transplantation:**

Mandatory

- Congenital and acquired immunodeficiency states
- Principles of transplantation (organ donation, procurement, organ preservation, transportation, allocation, implantation, national organisation of transplantation activities)
- Donor management
- Immunosuppression rejection
- Pathophysiology of the transplant patient
- Different organ transplantation: postoperative care

1.3.13 **Trauma, burns and environmental insults:**

Mandatory

- ICU approach to the management of multisystem trauma
- CNS injury (brain, spinal cord)
- Skeletal trauma, including spine
- Chest trauma (blunt, penetrating, cardiac)
- Abdominal trauma (blunt, penetrating)
- Crash injury
- Burns
- Hypo- and hyperthermia, heat stroke
- Near drowning, asphyxia
- Electrocution, radiation, chemical injuries
- Animal bites, insect stings
- Snake envenomation
- Anaphylaxis
- Decompression syndromes
- Child abuse

1.3.14 **Sedation, analgesia, pharmacology:**

Mandatory

- Sedation
- Monitoring of sedation
- Analgesia (general, loco-regional)
- Monitoring of analgesia
- Pharmacology, pharmacokinetics and interactions of drugs commonly used in ICU

1.3.15 **Monitoring:**

Mandatory

- Principles of electrocardiographic monitoring, transcutaneous measurements
- Invasive haemodynamic monitoring Noninvasive haemodynamic monitoring
- Respiratory monitory: airway pressure, intrathoracic pressure, tidal volume, dead space-to-tidal volume ratio, compliance, resistance, pulse oximetry capnography
- Pneumotachography
- Brain monitoring: intracranial pressure, cerebral blood flow, cerebral metabolic rate, transjugular venous saturation, EEG, evoked potentials

Metabolic monitoring:

- oxygen consumption,
- carbon dioxide production,
- respiratory quotient

1.3.16 **Organisational/Administrative:**

Mandatory

- Organisation of intensive care: design of units, organisational structure, personnel, staffing, supply, isolation, stat-laboratory, on call systems
- Selection and evaluation of equipment
- Prognostic indices, severity and therapeutic intervention scores
- Admission and discharge procedures
- Training of physicians…/

- Training of physicians and nurses in intensive care
- Medical record keeping in intensive care (problem-orientated, system-oriented)
- Priorities in the care of the critically ill or injured patient
- Budgeting, cost benefit and cost containment principles
- Quality management
- Principles of triage and resource allocation
- Medico-legal aspects
- Application of computers in intensive care medicine

1.3.17 **Ethical:**

Mandatory

- Hospital ethical guidelines related to intensive care
- Initiation and discontinuation of intensive care life-sustaining treatment
- Care of the dying patient
- DNR (do not resuscitate) concept
- Role of relatives in decision making
- Rights of patients; the right to refuse treatment
- Living wills, advance directions
- Ethical problems related to clinical research
- Psychosocial aspects

1.3.18 **Patient care experience:**

The trainee must gain adequate personal experience in the management of ICU patients with:

- Life-threatening medical and surgical illness in children
- Polytrauma
- Neurological disease
- Postoperative care

In these patient categories the trainee must be exposed to the following problems:

- Respiratory insufficiency and failure
- Haemodynamic instability
- Acute neurological insults including elevated intracranial pressure
- Acute renal failure acute life-threatening metabolic and endocrine derangements
- Coagulation disorders
- Life-threatening infection, sepsis
- Nutritional inadequacy
- Drug overdose and poisoning

Optional

- Operating theatre (anaesthesiology procedures)
- Emergency room

A P P E N D I X B

1.0 FORMAT AND CONDUCT OF THE EXAMINATION

1.1 **Evaluation of Competence**

1.1.1 Evaluation of overall competence of the trainee will be based on:

a) an appraisal by the Head of Unit/Division/Department of the institution where training was undertaken

b) an examination under the auspices of the Colleges of Medicine of South Africa (CMSA).

2.0 PORTFOLIO

2.1 A portfolio/logbook is a mandatory requirement for entry to the examination.

2.2 The portfolio for the sub-specialty is attached (Appendix C).

2.3 The portfolio includes six-monthly formative assessments (as a minimum) made by the supervisor/divisional head, which is be signed by both candidate and trainer. These assessments should, however, be kept confidential and should not be submitted to the CMSA.

2.4 Each candidate will be expected to submit their portfolio/logbook to the CMSA by 15 January or 15 June of each year (for the relevant March or August examination).

2.5 Portfolios are viewed by the HOD and satisfactory performance must be indicated in their letter to the CMSA

3.0 EXAMINATION CONVENORS

3.1 A list of potential convenors will be provided by the College of Paediatricians (hereafter referred to as the "College").

3.2 The College will select convenors for each examination.

3.3 In the case of a convenor from each examining centre not being represented on the convenors' list, the College Council may at its discretion appoint a convenor from another centre for a particular examination.

4.0 CONVENOR RESPONSIBILITIES

The Convenor will:

4.1 Recommend an examiner's panel from the approved list of examiners supplied by the College.

4.2 Be sensitive to the following issues in selecting examiners:

4.2.1 Rotation of examiners (representation from different centres)

4.2.2 Exposure of junior sub-specialists (new examiners)

4.2.3 Representation from different centres in South Africa (must have representation from three different centres, except in exceptional circumstances)

4.2.4 The CMSA's transformation goals.

4.3 Forward the recommended examiners'panel to the College for approval

4.4 Recommend a moderator for the examination to the College.

4.5 Forward a copy of the draft written paper to the College for review by the moderator.

4.6 Submit a written report to the College Council after each examination outlining the conduct of the examination, marks achieved, success rates, problems identified and recommendations for future examinations. This report will also be sent to the Head of each training centre and the CMSA Examinations office.

5.0 EXAMINER SELECTION

5.1 Examiners will be appointed by the College following recommendation by the convenor.

5.2 A Certificate examiner must be registered with the Health Professional Council of South Africa (HPCSA) as a sub-specialist, and should be at least two years post his or her certification examination or registration as a sub-specialist.

5.3 Use of a non-specialist examiner or one from an allied subspecialty must be motivated for in writing to the College.

5.4 The examination panel will consist of three examiners, including the convenor. This number of examiners is considered fair to the needs of the candidate and the CMSA.

5.5 Any request to alter the examiner numbers for an individual examination must be motivated in writing to the College.

5.6 The written and oral/OSCE examinations will be conducted by the same set of examiners.

5.7 An examiner will not necessarily be excluded if he/she is the trainer/supervisor of the candidate.

5.8../

5.8 Ideally, no more than one examiner will be chosen from any single centre in South Africa for each examination.

5.9 The selection of Certificate examiners will be independent of the FC Paed(SA) Part II examiner selection process.

5.10 Whenever possible the same examiner should not be involved in a Certificate examination and a FC Paed(SA) Part II examination simultaneously.

5.11 The CMSA Academic Office will be responsible for notifying examiners about their selection for an individual examination.

6.0 MODERATORS

6.1 In order to adhere to CMSA standards and for quality assurance, a process of 'moderation' of each examination is considered necessary.

6.2 A moderator shall be appointed by the College for the Certificate examination. This individual will ideally be a senior member of the sub-specialty.

6.3 Prior to the conduct of the written examination, the moderator will check that the examination questions and marking memorandum reflect a fair spread of the curriculum (reliability), match the curriculum (validity), and that the mark allocation of the questions is fair and appropriate.

6.4 The moderator will complete a report and return this to the College and the CMSA at the end of each examination. The College will formally review the report.

7.0 STRUCTURE OF THE EXAMINATION

7.1 The Certificate examination has two components:
a) A written component of which a paper OSCE is part.
b) A oral/OSCE/OSPE/clinical component.

7.2 Each of the two components contributes 50% to the overall mark

7.3 The pass mark for the overall exam is 50%.

7.4 A sub-minimum pass mark of 50% is expected for each of the two (written and the oral/OSCE/clinical) components of the examination.

7.5 There is no sub-minima for individual papers, questions or sub-sections of the OSCE/oral/clinical examination.

8.0 EXAMINATION CENTRE

8.1 Ideally the centre/region hosting the FC Paed(SA) Part II examination will be the host centre for each Certificate examination.

8.2 The Convenor of the examination will preferably, but not necessarily, originate from that centre/region.

8.3 Exceptions may be granted where there is no suitable Convenor based at that centre/region or the sole candidate in an examination is from the host centre.

9.0 WRITTEN EXAMINATION

9.1 Certificate examinations will comprise of two three-hour written papers.
Paper I will consist of long questions or scenarios (may contain sub-parts) or short questions (each examiner shall submit 2 such questions to the Convenor).
Paper II will consist of **a paper based OSCE of at least 10 questions (each e**xaminer to submit 5 such questions to the Convenor).

9.2 A marking memorandum – a basic outline to the expected answer - will be provided, by each examiner at the time of question acceptance, including an indication of the allocation of marks for each section/part answer.

9.3 The language of written papers will follow College recommendations.

10.0 FORMAT OF THE MODIFIED CLINICAL/PRACTICAL/ORAL EXAMINATION

10.1 There will be a Structured Oral Examination (SOE) conducted as follows:
The examination will comprise of:
4 stations of 20 minutes duration each

- The examination material may include case histories and test results, still images, photos and diagrams, radiology imaging.
- The examination material may be presented as a PowerPoint presentation
- The examination will be conducted remotely using Zoom-based IT link(s) with examiner(s).

11.0…/

11.0 MARKING OF THE EXAMINATION:

11.1 A Score of 50% or more will be deemed an overall pass score for each component of the examination.

11.2 A memorandum with mark allocation per question will be used for each component of the examination.

11.3 The marks for the Structured Oral Examination will be combined to obtain an average score

11.4 The final mark

Written paper	50%
Structured Oral Examination	50%

12.0 RESPONSIBILITY OF THE COLLEGE IN THE EXAMINATION PROCESS

12.1 Selection of Convenors, examiners, and moderators.

12.2 Monitoring of the conduct of each Certificate examination.

12.3 Reviewing all aspects of each examination on completion.

12.4 Tracking performance and success rates in individual examinations.

13.0 APPEALS PROCESS

13.1 The CMSA has an appeals process that will be followed.

JOHANNESBURG
June 2020