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THE COLLEGE OF PAEDIATRICIANS OF SOUTH AFRICA

R E G U L A T I O N S

**FOR ADMISSION TO THE EXAMINATION FOR THE
POST-SPECIALISATION**

SUB-SPECIALTY CERTIFICATE

IN

PAEDIATRIC NEUROLOGY

Cert Paediatric Neurology(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 institution/programme in which he or she trained indicating satisfactory completion of all training requirements
- 2.4 submission of a satisfactorily completed portfolio
- 2.5 presentation or acceptance for presentation of an original first author research poster or paper at a local (ie PANDA meeting) 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

5.0 READING LIST

See Appendix C

APPENDIX A

1.0 SYLLABUS FOR TRAINING PROGRAMME IN PAEDIATRIC NEUROLOGY IN SOUTH AFRICA

This document details the curriculum as the standard of training required for persons wishing to register as paediatric neurologists

1.1 The overall aims of the training programme

1.1.1 The training programme aims to equip candidates to practise in the subspecialty of Paediatric Neurology. This encompasses the study, assessment and management of a wide spectrum of neurological diseases from the newborn period to adolescence. General consensus accepts that it should include expertise in cerebral palsy, childhood epileptic syndromes, strokes, disorders of the spine, hydrocephalus, neuro-cutaneous disorders, neuromuscular disorders, children with movement disorders, CNS tumours, neuro-degenerative disorders, neuro-metabolic/inborn errors of metabolism disorders, mental retardation, language and communication (autism) disorders, ADHD and learning disorders, headaches, sleep disorders, neuronal migration disorders, disorders of the cerebellum, neuro-psychiatric disorders and complimentary involvement in neurosurgical patients

1.1.2 The paediatric heritage therefore has to be superimposed on psychiatry, psychology, developmental, education, social work, the communication sciences, occupational and physical therapy and many more

1.1.3 Because of the nature of this subspecialty, professionals who work in the field have to develop some unique characteristics. They need to be intellectually eclectic, dealing with gradation rather than absolutes. Their view has to be longitudinal and developmental. They have to deal with nature versus nurture interactions and often have to bridge gaps between science and clinical practice. They have to be committed to multidisciplinary collaboration in problem solving

1.2 Specific outcomes

On completion of training the candidate must be able to manage children with special needs as pertaining to abnormalities of the neurological systems. They should have the skills to act as a resource for other professionals. They must be able to assist in training, research and the development of programmes, whether the focus is prevention, intervention or therapeutic

1.3 Training

1.3.1 Objectives:

At the end of the training the candidate must be able to pass an examination approved by the HPCSA specialist committee

1.3.2 Knowledge:

1.3.2.1 Basic sciences:

A sound knowledge and experience in the following fields are essential:

- neuro-anatomy, neuro-embryology of the brain
- neuro-physiology including a good working knowledge of the basics of EEGs and their interpretation as they pertain to children, EMGs and nerve conduction studies, evoked potential studies
- basic biochemistry (neuro-metabolic investigations)
- neuro-radiology including CT brain scans, MRI scans, Spect, and PET scans and ultra sound
- selective histopathology including muscle, nerve and neuronal histology
- selective and clinically applied neuro-genetics (recurrence risks, prenatal diagnosis, gene localisation and gene imprinting)
- pharmacology of CNS drugs (eg anti-epileptics)
- basic statistics and research design

1.3.2.2 Clinical training:

- A two-year attachment to a recognised paediatric neurology training unit with exposure to as wide a range of paediatric neurology cases as possible. Exposure to the following cases is essential. Cerebral palsy, childhood epileptic syndromes, strokes, disorders of the spine, hydrocephalus, neuro-cutaneous disorders, neuromuscular disorders, children with movement disorders, CNS tumours, neuro-degenerative disorders, neuro-metabolic/inborn errors of metabolism disorders, mental retardation, language and communication (autism) disorders, ADHD and learning disorders, headaches, sleep disorders, neuronal migration disorders, disorders of the cerebellum, neuro-psychiatric disorders
- Competence in neurological emergencies (coma, status epilepticus, raised intracranial pressure, myasthenic crises, metabolic disorders, trauma and non-accidental injuries)
- Neonatal neurology with an understanding of the principles of ante-natal brain development, brain injury and its investigations
- Suitable time spent in adult neurology, either on regular clinical ward rounds, case discussions and attendance at conferences
- Exposure and involvement in research projects, attendance and presentations at relevant conferences
- Suitable time spent in child and adolescent psychiatry (Attendance at clinics)
- **Principles of therapy:**
 - familiarity with physio, occupational and speech therapy
 - thorough knowledge of drugs used in paediatric neurology
 - principles underlying rehabilitation
 - principles of management of behavioural disorders (counselling and psychotherapy, drugs)
 - awareness of range of alternative therapies
 - knowledge of therapy aids (hearing and visual aids, seating mobility [aids, orthoses, communication aids])
 - awareness of neurosurgical procedures and forms of therapy
- **Clinical skills:**
 - developmental assessment
 - an understanding of the common psychometric tests
 - detailed neurological examination
 - interpret results of investigations (EEG, EMG, nerve conduction, evoked potentials, metabolic and biochemical, CT and MRI scans)
 - perform EMG, nerve conduction
 - skin biopsy
 - muscle biopsy
 - raised intracranial pressure monitoring
 - perform tests to determine brain death
 - lumbar punctures
 - subdural punctures
- **Academic:**
 - teaching skills (under/postgraduate, formal and informal skills)
 - communication skills (to parents, children, peers and colleagues)
 - demonstrate adequate knowledge of clinical research methods, biostatistics, epidemiology and ethics, essential in patient-based research projects
 - the candidate must participate in research during the training period that must lead to at least one presentation at a national Paediatric conference, but the submission of one manuscript to a peer-reviewed journal would be preferable

- **Ethical issues:**
 - The candidate must be able to:
 - implement ethical standards
 - discuss and comprehend relevant ethical issues

APPENDIX 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 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 to be signed by both candidate and trainer. These assessments should, however, be kept confidential and should not be submitted to the CMSA.

2.4 The Convenor is responsible for reviewing each portfolio.

2.5 A portfolio may be judged as being unsatisfactory if any of the required minimum number of identified activities have not been satisfactorily completed.

2.6 An unsatisfactory portfolio may result in disqualification from participation in the current examination.

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 or four 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 Ideally, no more than one examiner will be chosen from any single centre in South Africa for each examination, but this may happen due to certain circumstances.
- 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 consisting of Paper I which is a three hour paper with four questions, and Paper II which is a written OSCE
 - b) A clinical component consisting of three long cases.
- 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 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 4 long questions or scenarios (may contain sub-parts), worth 25 marks each (each examiner shall submit 2 such questions to the Convenor).
Paper II will be a written OSCE consisting of twenty short questions worth 10 marks each.
- 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 CLINICAL EXAMINATION

- 10.1 This examination will last NO LONGER THAN 3 hours (the recommended duration is 1–3 hours).
- 10.2 If the examination is longer than 1½ hours the candidate must be given a 15-minute break with refreshments.
- 10.3 This examination will consist of 3 long cases where the candidate will be given 35 minutes to examine and assess the case.
- 10.4 The examination will be structured, balanced and similar for each candidate.
- 10.5 The language of the oral/OSCE/clinical examinations will follow College recommendations.

11.0 TIMING OF CLINICAL EXAMINATION

- 11.1 Because there is a clinical component to this examination, the clinical component is usually set a week before the FC Paed(SA) clinical examination.
- 11.2 Exceptions will be by written motivation to the College.

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.

A P P E N D I X C

1.0 RECOMMENDED READING LIST

1.1 To be recommend by local unit.

A P P E N D I X D

5.0 RECOGNITION OF TRAINING FROM OVERSEAS INSTITUTIONS

- 5.1 Training that has been obtained from suitable overseas units is to be assessed by the examination committee of which suitable representation from the PANDA executive need to be part of and recognised as either partially or wholly acceptable for registration in the subspeciality of Paediatric Neurology