



**JOHANNESBURG  
ACADEMIC OFFICE**

# CMSA

The Colleges of Medicine of South Africa NPC  
Nonprofit Company (Reg. No. 1955/00003/08)  
Nonprofit Organisation (Reg No 009-874 NPO)  
27 Rhodes Ave, PARKTOWN WEST 2193  
Private Bag X23, BRAAMFONTEIN 2017  
Tel: +27 11 726-7037/8/9  
Fax: +27 11 726-4036

General: [admin@cmsa-jhb.co.za](mailto:admin@cmsa-jhb.co.za)  
Academic Registrar: [alv@cmsa-jhb.co.za](mailto:alv@cmsa-jhb.co.za)  
Website: [www.collegemedsa.ac.za](http://www.collegemedsa.ac.za)

**February 2016**

**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**

**CLINICAL HAEMATOLOGY**

**Cert Clin Haematology(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 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

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## APPENDIX A

### 1.0 SYLLABUS AND TRAINING

This document details the curricula set by the ad hoc committee of the South African Society for Haematology (SASH) as the standard of training required for persons wishing to register as clinical haematologists. The curricula are based on the recommendations of the International Society of Haematology.

#### 1.1 What is a clinical haematologist ?

The Medical and Dental Professional Board of the Health Professions Council of South Africa created the new subspecialty of clinical haematology in response to SASH's request to unify the laboratory and clinical aspects of haematology. A paediatrician or physician can enter the subspecialty by training in mainly laboratory haematology for two years and passing the appropriate examinations. A haematological pathologist can enter the subspecialty of clinical haematology after training in paediatric or adult haematology for two years and passing the appropriate examinations. The sequence of the training is not relevant.

##### 1.1.1 Clinical haematologists with the primary speciality of paediatrics

- Such a person should restrict his/her practice to children. They will be involved mainly with the treatment of children with haematological disorders and can also perform laboratory investigations on their patients within the scope of their training.

#### 1.2 Syllabus to be covered in the laboratory component (minimum one year)

##### 1.2.1 Laboratory investigations

- Collection of blood samples, their transport and storage
- Morphology of blood cells and marrow aspirates and biopsies, including cytochemistry and immunological techniques
- Tests for iron status
- Haemoglobin electrophoresis with measurement of fetal haemoglobin, haemoglobin A<sub>2</sub> and detection of abnormal bands
- Blood cell counting and sizing
- Erythrocyte sedimentation rates and plasma viscosity
- Erythrocyte osmotic fragility, auto haemolysis and detection of paroxysmal nocturnal haemoglobinuria (PNH)
- Erythrocyte enzyme determinations
- Haemostasis: bleeding time, platelet function
- Coagulation factor studies: prothrombin time, partial thromboplastin time, individual factor assays, inhibitor assays, tests for thrombophilia
- Control of anticoagulant and thrombolytic therapy
- Use of radionuclides for blood volume, red cell mass, erythrokinetics, vitamin B<sub>12</sub>, folate and ferritin measurements
- Identification of blood group antigens and antibodies
- Compatibility testing for blood transfusion
- Investigation of transfusion reactions
- Autoimmune antibody testing or erythrocytes
- Paraprotein investigations
- Basic flow cytometry (immunophenotyping)
- Basic molecular biology (as applied to haematology)
- Procedures performed in an emergency laboratory
- Laboratory management: resource allocation, budget control, audit and quality assurance, establishment of normal ranges and data management by computers
- Laboratory safety

### 1.3 Syllabus for the clinical component (one year)

#### 1.3.1 Spectrum of haematological diseases

- Deficiency anaemias
- Disorders of haemoglobin structure
- Haemolytic anaemias
- Aplastic anaemia
- Haematological malignancies: leukaemias and lymphomas (all aspects of management, including bone marrow transplantation)
- Congenital and acquired bleeding disorders
- Thromboembolic disorders and anticoagulation
- Transfusion medicine
- Haematological problems associated with perinatal care; intensive care; renal medicine, organ transplantation, orthopaedic and vascular surgery. Liaison with a wide variety of departments is encouraged

#### 1.3.2 Knowledge and practice of clinical haematology

It is expected that completion of the curriculum will result in demonstrable competence at consultant level in the following areas. Paediatricians will concentrate on paediatric conditions and patients, while physicians will concentrate on adult conditions and patients.

##### 1.3.2.1 Clinical contact with the patient

This will require the trainee to be able to take a history and perform a clinical examination of a patient with a haematological disorder

##### 1.3.2.2 Diagnostic evaluation

This will require that the trainee will be able to clinically evaluate the spectrum of haematological disorders mentioned under 1.3.1. He/she must be able to order the appropriate diagnostic investigations for any given haematological disorder

##### 1.3.2.3 Therapeutic decision making

This will firstly require the correct interpretation of the history, clinical signs, and diagnostic investigations. Secondly it will involve therapeutic decision making in the light of the patient's situation

##### 1.3.2.4 Knowledge of haematological diseases

This will require a thorough knowledge of all aspects, including epidemiology, aetiology, pathogenesis, pathology, clinical features and management of all conditions mentioned in Appendix A

##### 1.3.2.5 Understand the pharmacology of drugs used in haematological diseases

This will require knowledge of drugs used to treat deficiency anaemias, immunosuppressive drugs, cytostatic drugs, biological products used in haematological diseases, antithrombin drugs and drugs used to treat haemorrhagic diatheses

##### 1.3.2.6 Knowledge of the use of blood products in haematological disorders

This will require knowledge of transfusion medicine and the rational use of blood products and components in the whole spectrum of haematological conditions. It will also require the ability to advise other disciplines on the rational use of blood products

##### 1.3.2.7 Haematological emergencies

Special emphasis needs to be placed on haematological emergencies like autoimmune haemolytic anaemia, leucostasis, haemophilia and other haemorrhagic diatheses

##### 1.3.2.8 Appreciate the role of patient education and staff management in haematological conditions

This will require knowledge of patient education in haematological conditions and the concept of team approach to patient management

##### 1.3.2.9 Liaison with other disciplines

This will require knowledge of the applications of other medical specialities in the management of haematological conditions. Examples of these include surgery, radiation oncology, intensive care and infectious disease services

**1.3.3 Special skills****1.3.3.1 Bone marrow aspiration and biopsy**

The trainee will be required to be competent at aspirating bone marrow and performing bone marrow trephine biopsies

**1.3.3.2 Safe handling of cytotoxic drugs**

The trainee will be required to be competent at safely preparing and administering cytotoxic drugs

**1.3.3.3 Apheresis**

The trainee will be required to be able to manage the various forms of apheresis (in children)

**1.3.3.4 Bone marrow and peripheral stem cell transplantation**

These procedures are not available at all centres. The trainee must have had a year's experience in these techniques before performing them independently. This is in line with the guidelines of the European Bone Marrow Transplantation Society. The candidate is expected to have an adequate knowledge of this procedure as it is examinable.

**1.3.3.5 Counselling and communication skills**

The trainee should maintain good ethical standards with an empathetic approach to patients and their families. The trainee should be able to counsel patients, their families and staff

**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/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 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 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 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 written component
  - 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 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 consist of 10-12 short questions, worth 10 marks each (each examiner 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 CLINICAL / ORAL / OSCE EXAMINATIONS**

- 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 5 ‘stations’ and/or 3–5 ‘clinical scenarios. (Ideally, this examination should contain at least 5 ‘stations’ and/or 3–5 ‘clinical scenarios).
- 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 ORAL/OSCE/CLINICAL EXAMINATIONS**

- 11.1 The examination will be held in the same week as the FC Paed(SA) Part II 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.