C M S A
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JOHANNESBURG OFFICE
EXAMINATIONS & CREDENTIALS

April 2022

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

PULMONOLOGY

Cert Pulmonology(SA)

SECTION A

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 with the HPCSA

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 eighteen months as a senior registrar/sub-specialist trainee in an accredited specialist department(s)/division(s)/unit(s) of paediatric pulmonology, registered and accredited by the Health Professions Council of South Africa

2.3 Submission of the prescribed learning portfolio which contains the following:
- exam entry checklist (appendix A)
- electronic excel logbook (Appendix B)
- signed declarations by the head(s) of the department(s)/division(s)/unit(s) confirming that the candidate has met all requirements to sit the examinations (Appendix C).

The portfolio (an electronic/ scanned copy) must be submitted to the Examinations Office at the CMSA at the time of applying to sit the examination and will be forwarded to the convenor of the examination for verification prior to the examination. The 6-monthly formative assessment records (Appendix D) do not need to be submitted to the CMSA or convenor.

2.4 Completion of the research component of the Cert Paed Pulmonology, which outlines the minimal requirement for completion of the research component. Copies of relevant abstracts, papers, reports, supporting letters, and / or publications should be included in the logbook. Failure to do this may cause delays and could prevent the signing off the logbook/portfolio, and hence admission to the exam

2.5.../

2.5 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**

An overall outline of the syllabus and training objectives are outlined in whilst a detailed syllabus is outlined in Section B.

4.0 **LOGBOOK and FORMAT AND CONDUCT OF THE EXAMINATION**

Details regarding the examination are outlined in Section D. Appendix B contains an electronic template (MS Excel) logbook outlining the minimum of procedures and tests performed or witnessed to enter the examinations. The progress of the candidate must be monitored. The candidate will not be allowed to sit the examination unless there is satisfactory sign-on by the relevant Department and a minimum number of procedures and required competencies outlined in Appendix A and B have been met.

SECTION B

TRAINING REQUIREMENTS IN PAEDIATRIC PULMONOLOGY

1.1 This document provides an overview of the requirements for the standard of training required for persons wishing to register as paediatric pulmonologists. A detailed syllabus is outlined in Section C.

1.2 **The clinical evaluation of paediatric pulmonology patients:**

Objective evidence should be obtained during the two-year period of pulmonology training of candidate's ability to:

- Conduct an expert and focused paediatric respiratory evaluation. This would include the influence of pulmonary disease on other organ systems and of systemic diseases upon the respiratory system
- Act sensitively and to practice high ethical standards in the handling of difficult patient problems for example in the management of children with acquired , genetic or incurable life-limiting conditions and
- Communicate effectively with and educate patients and colleagues
- Provide a high quality of medical care, including the selection and performance of appropriate tests and investigations.

1.3 **Basic science requirements:**

- Respiratory and related cardiac pathophysiology and anatomy, including embryological origins.
- Pathology of paediatric airway and lung disease.
- Principles of pulmonary function measurement techniques appropriate for children
- Respiratory pharmacology
- Infectious diseases in childhood as related to the respiratory system
- Immunology of the normal and diseased lung
- Epidemiology, research techniques and statistics

1.4 **Critical care:**

The principles of critical care as related to paediatric pulmonology - evidence will be required of adequate exposure and technical ability as mastered by the candidate and witnessed by a registered paediatric pulmonologist or paediatric critical care specialist over the two-year period of training in pulmonology (as outlined in Appendix A. The duration and type of PICU exposure is dependent in individual training centres, provided learning outcomes and objectives are met over the training period.

Recommended Critical Care management/experience, core knowledge and skills to acquire during course of training, without time period prescription:

Clinical skills/experience: trainees should aim to gain personal first-hand experience with following:

1. 20 patients: invasive ventilation for primary lung diseases including ARDS.
2. 10 patients: non-invasive ventilation for any indication including OSAS
3. 10 patients: intubation including difficult airway cases
4. 10 patients: indications and tracheostomy care

Learning outcomes and objectives for paediatric pulmonology training in ICU.

1. Basic principles of ventilation, lung mechanics and pressure/volume curves, flow volume curves and work of breathing; weaning and timing of extubation.
2. Indications and different ventilation and oxygen delivery strategies e.g. CMV, HFOV, high flow, NIV e.g. bi-level and cpap.
3. Ventilation strategies for special conditions: ARDS, severe asthma, nosocomial and ventilator associated pneumonia; pulmonary cysts/cavities, restrictive lung diseases, air leaks, neuromuscular conditions.
4. Basic and up-to-date principles of:
    a. shock and sepsis in the ICU.
    b. Antibiotic stewardship and PK/PD
    c. Inotropes and fluid management
    d. Blood product transfusion
    e. Corticosteroids use in the ICU
5. Management of pulmonary emergencies in the PICU: tension pneumothorax, persistent/ multiple compartment air-leaks.
6. Cardiopulmonary interactions and pulmonary hypertension.
7. Palliation and withdrawal of supportive ICU care for respiratory conditions.

1.5 **Allergy:**

- Diagnostic techniques in allergy
- Clinical and laboratory competence for diagnosing and treating allergic disease of the upper and lower respiratory tract.

1.6 **Programmes orientated to primary health care:**

- Experience with diagnosis and treatment of community related diseases at hospital and community level will be required. This would include participation in national and regional SATS and Government programmes for diseases including:
- Childhood tuberculosis, childhood wheezing disorders including asthma, community acquired pneumonia, sleep-disordered breathing, and bronchiectasis.

1.7 **Management of rare or complex diseases:**

- Cystic fibrosis, interstitial lung diseases, pulmonary disease in neuromuscular conditions; tracheostomy and long–term ventilation care.

1.8 **Diagnostic pulmonary function techniques:**

Objective evidence will be obtained of candidate's ability to conduct and/or interpret the following techniques utilising contemporary lung function equipment:

- Spirometry /Flow volume curves
- Blood gas determinations
- Gas diffusion test.
- Bronchial provocation tests
- Polysomnography and or another sleep disordered breathing screening tests.

The candidate must also have a good understanding of the rationale for each of these tests, their clinical application within a diagnostic algorithm, and the development of reference values. The candidate must be able to conduct and interpret basic pulmonary function test appropriate for children at different ages.

1.10 **Completion and submission of Learning Portfolio**

Candidates are required to submit a learning portfolio which consists of

- Appendix A: checklist for exam entry criteria and completion of training requirements
- Appendix B: updated electronic logbook (excel format)
- Appendix C: declaration of training completion and exam readiness
- Appendix D: 6 monthly formative evaluations

1.11.../

1.11 **Interpreting imaging techniques**

- Includes all pulmonary radiological techniques, chest radiography, ultrasound, CT scan
- Isotope evaluation of pulmonary ventilation and blood flow

1.12 **Research requirements during training period.**

- Performing a research project in paediatric pulmonology is a requirement to sit the examination.
- At least one (local or international) publication (or accepted for publication) or congress presentation as first author of original research material, *or*
- A case report with literature review published or accepted for publication in an accredited peer-reviewed journal, *or*
- Registration and graduation within 6 months after training is completed with a paediatric pulmonology-related post graduate degree/qualification e.g. MPhil
- If the project will only be ready for submission in the 6 months after the examination, or the manuscript is not yet accepted for publication, a 2-3-page summary of the research findings (including results and preliminary conclusions) together with a stand-alone formal letter from the Head of Division or Department outlining that the research project has been completed but not yet published needs to be submitted. The evidence of having completed the research, or the relevant letter attesting to completion with the summary, must be included in the logbook for evaluation by the examiners.

1.13 **Collaboration of disciplines for training of paediatric pulmonologists:**

Broadening the scope of training and experience of students in pulmonology would require collaboration with the following specialities:

- Paediatric critical care specialists including cardiologists
- Thoracic surgeons
- ENT and general paediatric surgeons
- Radiologists
- Pathologists

1.14 **Recognition of part-time training**

Part-time training in paediatric pulmonology is acceptable in a recognised training Unit that is HPCSA accredited and approved. The part-time training programme must be approved by the HPCSA prior to the commencement of training and an HPCSCA training number allocated . The duration of training must be equivalent to a total full-time training period of 2-years; for example, if the training is 50% part-time then 4 years of training is required such that all the training fulfilments are met). Application for the HPCSA approval can be made by the relevant Head of Department. Part-time trainees must keep a weekly record of the training activities attended (e.g. clinics, bronchoscopy, academic meetings, ward rounds etc.) and the duration of these activities (e.g. clinic 5 hours, procedure list 3 hours etc.); this should be signed off by the supervising consultant on a weekly or monthly basis; this is to ensure and provide evidence that the apportioned percentage of training time has indeed been fulfilled (there is no standard format or template for this record). Annually the educational supervisor should meet with the trainee to ensure that satisfactory progress is being made and remedial action should be taken as appropriate. All the other rules and regulations in order to sit the examinations must be met by part time trainees.

1.15 **Examination of candidates in paediatric pulmonology**

Ongoing evaluation of candidates will be undertaken by registered paediatric pulmonologists in units accredited by the Health Professions Council of South Africa. Such evaluation will be documented in prescribed format (Section D) and presented to the Credentials Committee of SATS and the CMSA before final examination.

SECTION C.../

SECTION C: Detailed Paediatric Pulmonology Curriculum

Evaluation of respiratory symptoms and signs (Core)

1. Physiology of cough, shortness of breath, noisy breathing including wheeze, snoring, stridor
2. Evaluation and management of isolated cough
3. Evaluation and management of dyspnoea
4. Evaluation and management of noisy breathing
5. Evaluation and management of chest pain
6. Understanding of validity of symptoms and signs

Pulmonary function testing (Core)

1. Anatomical and developmental respiratory physiology in health and disease including ventilation–perfusion and gas exchange
2. Measurement, indications, contraindications and interpretation of flow–volume curves /spirometry
3. Equipment maintenance, hygiene and infection control during test procedures
4. Definitions of measured indices
5. Appropriate use of reference values
6. Test variability and reproducibility
7. Performance and interpretation of reversibility testing
8. Performance and interpretation of bronchial provocation testing
9. Performance and interpretation of exercise testing for the diagnosis of exercise-induced bronchoconstriction
10. Blood gas assessment and oximetry interpretation
11. Performance and indication for 6-minute walking test

Pulmonary function testing (Non-Core)

1. Knowledge of infant lung functions
2. Measurement and interpretation of gas diffusion, lung volumes, respiratory system resistance and compliance, cardiopulmonary testing.
3. Quality control in paediatric lung function laboratories

Airway endoscopy (Core)

1. Anatomy, physiology and pathology of the respiratory tract of paediatric patients
2. Performance of flexible endoscopy of the airway in paediatric patients of all ages
3. Indications, procedure, and interpretation of bronchoalveolar lavage
4. Therapeutic bronchoalveolar lavage
5. Indications and contraindications of rigid bronchoscopy including foreign body removal
6. Evaluation and management of risks and complications

Airway endoscopy (Non-Core)

1. Conscious sedation and local anaesthesia for paediatric patients
2. Indications, procedure, and interpretation of bronchial brushings and biopsies
3. Indications, procedure and interpretation for performing transbronchial biopsies
4. Organisation of an endoscopic suite including equipment maintenance and hygiene
5. Knowledge of rigid bronchoscopy and the indications for rigid scopes (performance optional)
6. Research value of BAL

Imaging (Core)

1. Anatomy of the respiratory tract including the extrathoracic airways as visualised using imaging techniques
2. Indication, interpretation and basic principles of conventional radiography, computed tomography, magnetic resonance imaging, ultrasonography and isotope imaging methods
3. Comparative radiation burden of the different procedures

Imaging (Non-Core)

1. Indications for interventional radiology (biopsy, drainages)
2. Knowledge of advance imaging including FDG scans

Acute and.../

Acute and chronic lung infection (Core)

1. Epidemiology, microbiology, infectivity and pharmacology of antimicrobial and antiviral drugs
2. Diagnosis and management of community and hospital acquired respiratory tract infections and their complications
3. Ventilator associated pneumonia
4. Viral bacterial interaction in community acquired pneumonia
5. Diagnosis and management of respiratory infections in high-risk situations
6. Bronchiectasis, diagnosis, definition, classification, pathophysiology, management
7. Immunisations for respiratory pathogens
8. Indications, performance and interpretation of induced sputum test
9. Lung involvement in immunodeficiency disorders including solid and BM transplant recipients

HIV/AIDS Related Lung Disease (Core)

1. Infective lung conditions – acute and chronic
2. Non-infective lung conditions

Tuberculosis (TB) (Core)

1. Epidemiology, microbiology, infectivity and pharmacology
2. *In vivo* and *in vitro* diagnostic tests including their accuracy and interpretation
3. Diagnosis and management of primary and post-primary pulmonary TB
4. Diagnosis and management of extrapulmonary TB
5. Diagnosis and management of drug-resistant tuberculosis

Pleural Lung Diseases (Core)

1. Diagnosis and management of pleural infections.
2. Diagnosis and management of different types of pleural effusions

Bronchial asthma and other wheezing disorders (Core)

1. Different phenotypes and their different pathologies and long-term outcomes (including underlying pathophysiology and basic epidemiology)
2. Environmental factors relevant to asthma and other wheezing disorders
3. Diagnosis and management of bronchiolitis and its complications and long-term sequelae
4. Relevant abnormalities in lung function including airway responsiveness
5. Understanding difficulties in diagnosis and differential diagnosis
6. Evidence-based management of asthma at different ages including age-related pharmacology
7. Emerging therapeutic strategies
8. Knowledge of monoclonal antibody treatment

Allergic disorders (Core)

1. Understanding pathophysiology: immune response, control of IgE regulation and the mechanisms of allergic inflammation; basic genetics; basic epidemiology.
2. *In vivo* testing for IgE-mediated sensitivity (procedure and interpretation of skin prick testing, challenge testing; meaning and validity of test results)
3. *In vitro* methods for determination of specific IgE, inflammation markers (principle and interpretation; meaning and validity of test results)
4. Diagnosis and management of allergic rhinitis
5. Diagnosis and management of bronchopulmonary aspergillosis

Allergic disorders (Non-Core)

1. Additional tests in allergology (patch tests, allergen bronchial provocation tests)
2. Diagnosis and management of anaphylaxis
3. Specific immunotherapy

Cystic fibrosis.../

Cystic fibrosis (CF) (Core)

1. Genetics, pathophysiology and epidemiology
2. Screening and diagnosis
3. Prognosis
4. Diagnosis and management of CF lung disease
5. Diagnosis and management of extrapulmonary manifestations of CF
6. Evidence-based management
7. Cross-infection and hygiene
8. Understanding of microbiology relevant to CF
9. Knowledge of emerging treatment strategies
10. Management of end-stage lung disease and indications for lung transplantation

Congenital malformations (Core)

1. Developmental anatomy relevant to the respiratory system and knowledge of antenatal diagnosis of congenital malformations
2. Diagnosis and management of congenital malformations affecting the respiratory system
3. Knowledge of surgical options for treating congenital malformations
4. Follow-up and outcomes of congenital malformations

Bronchopulmonary dysplasia and chronic lung disease of infancy (Core)

1. Developmental anatomy and pathophysiology
2. Aetiology, pathogenesis and prevention
3. Evidence-based management
4. Perinatal preventive measures
5. Nutritional care
6. Long-term outcomes

Pathophysiology, genetics, aetiology, diagnosis and management of primary ciliary dyskinesia (Core)

Diagnosis and management of gastro-oesophageal reflux-associated lung disease (Core)

Diagnosis and management of bronchiolitis obliterans (Core)

Pathophysiology, genetics, aetiology, diagnosis and management of Childhood interstitial lung diseases (ChILD) (Core)

1. Classification and spectrum ILD in children
2. Clinical presentation of ChILD
3. Approach to the diagnosis of ChILD presenting in and out of the neonatal period
4. Treatment of ChILD

Diagnosis and management of pulmonary haemorrhage (Core)

Diagnosis and management of respiratory manifestations of systemic disorders with lung involvement including connective tissue disease/rheumatological diseases, sickle cell disease etc(Core)

Pathophysiology, genetics, aetiology, diagnosis and management of pulmonary vascular disorders including pulmonary arterial hypertension (Core)

Diagnosis and management of respiratory manifestations of oncological disorders with lung involvement (Core)

Sleep medicine (Core)

1. Physiology and pathophysiology of sleep relevant for paediatric respiratory medicine
2. Diagnosis of and screening for obstructive sleep apnoea and upper airway resistance syndrome and hypoventilation
3. Polysomnography
4. Management of sleep-related respiratory problems
5. Impact of obesity on respiratory function

Rehabilitation in.../

Rehabilitation in chronic respiratory disorders (Non-Core)

1. Setting up and coordinating a multidisciplinary team (including physiotherapy, strength and endurance training, psychosocial support, nutrition)
2. Evaluation of rehabilitation programmes
3. Knowledge of health education including smoking prevention and cessation, and healthy eating
4. Nutritional management
5. Psychological support for children and families
6. Principles of physiotherapy–techniques, indications and limitations
7. Assessment of fitness to fly
8. Knowledge of end of life treatment

Inhalation therapy(Core)

1. Basic science of aerosol production and delivery
2. Indications for inhalation therapy
3. Understanding available techniques and their advantages and limitations
4. Delivery of drugs in children with artificial airways

Technology-dependent children (Core)

1. Pathophysiology of chronic respiratory failure
2. Home oxygen therapy including control investigations and weaning strategies
3. Invasive and non-invasive home ventilatory support including control investigations and weaning strategies
4. Tracheostomy management including control investigations and weaning strategies
5. Basic technical understanding of equipment
6. Airway clearance techniques (physiotherapy, intermittent positive breathing

Epidemiology and environmental health (Core)

1. Basic understanding of epidemiological principles including point and period prevalence *versus* incidence in respiratory diseases such as HIV lung disease, bronchial asthma, bronchopulmonary dysplasia, tuberculosis , bronchiectasis/COPD
2. Impact of indoor and outdoor air pollution on respiratory health
3. The burden of paediatric respiratory diseases on healthcare resources

Research (Core)

1. Understanding and application of the principles of planning, designing, conducting, analysing and publishing research projects
2. Scientific literature appraisal
3. Understanding and application of the ethical principles of paediatric research
4. Significant personal contribution to a scientific project and authorship in a peer-reviewed article

Communication (Non-Core)

1. Understanding anxieties and social problems of children and their parents, both related and unrelated to respiratory disease
2. Ability to discuss diagnosis, treatments and prognoses with children
3. Ability to encourage and respect the views of children and their families in decision-making
4. Understanding needs of adolescents with chronic lung disease and ability to ease their transition to adult care
5. Leadership and collaboration in a multi-disciplinary team, respect and appreciation of the contributions of all members
6. Management of complaints in a helpful and non-confrontational way
7. Ability to know when to seek the advice of colleagues
8. Ability to support and make time for appraising trainees and other healthcare workers
9. Understanding of medical ethics, for both clinical practice and research
10. Ability to discuss end-of-life decisions with families and young people

Rigid and interventional airway endoscopy (Non-Core)

1. Performance of rigid bronchoscopy including foreign body removal
1. Performance of interventional bronchoscopy

Paediatric Critical.../

Paediatric Critical Care (Core)

1. Managing critically ill child with severe lung disease
2. Ventilation strategies in various forms of lung disease
3. Lung Protective strategies
4. Non-invasive ventilation strategies e.g. high flow oxygen, CPAP etc
5. Bronchoscopy in ventilated patients

SECTION D

Examination entry criteria and conduct of the examination

1.0 LEARNING PORTFOLIO

A portfolio is a mandatory requirement for entry to the examination and consists of:

1.1. Appendix A: checklist for exam entry criteria and completion of training requirements
1.2. Appendix B: updated electronic logbook (excel format)
1.3. Appendix C: declaration of training completion and exam readiness
1.4. Appendix D: 6-monthly formative evaluations

The six-monthly formative assessment between the supervisors(s)/ divisional head must be signed by both candidate and trainer(s). These assessments are intended to track progress of training and do not need to be submitted to the CMSA.

The portfolio will be reviewed and signed by the Head of Department/trainees, who together with the portfolio will supply a signed declaration letter to the CMSA certifying that the portfolio has been satisfactorily completed and requirements to enter the exam are met (Appendix A).

2.0 EXAMINATION CONVENORS

A list of potential convenors will be provided by the College of Paediatricians (hereafter referred to as the "College"). The College will select convenors for each examination. 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 examination.

3.0 CONVENOR RESPONSIBILITIES

The convenor will:

- Recommend an examiner's panel consisting of THREE members from the approved list of examiners supplied by the College.
- Be sensitive to the following issues in selecting examiners:

i Rotation of examiners (representation from different centres)
ii Exposure of junior sub-specialists (new examiners)
iii Representation from different centres including private sector in South Africa; must have representation from three different centres, except in exceptional circumstances
iv The CMSA's transformation goals.

- Forward the recommended examiners 'panel to the College for approval
- Recommend a moderator for the examination to the College.
- Forward a copy of the draft written paper to the College for review by the moderator.
- 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.

4. EXAMINER.../

4.0 EXAMINER SELECTION

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

- 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.
- The examination panel will consist of three examiners, a convenor and a moderator. The convenor may act as an examiner.
- Any request to alter the examiner numbers for an individual examination must be motivated in writing to the College.
- The written and oral/OSCE examinations will be conducted by the same set of examiners.
- An examiner will not necessarily be excluded if he/she is the trainer/supervisor of the candidate. Ideally, no more than one examiner will be chosen from any single centre in South Africa for each examination.
- The CMSA Academic Office will be responsible for notifying examiners about their selection for an individual examination.

5.0 MODERATORS

- To adhere to CMSA standards and for quality assurance, a process of 'moderation' of each examination is necessary.
- A moderator shall be appointed by the College for the Certificate examination. This individual will ideally be a senior member of the sub-specialty.
- 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.
- The moderator will not actively participate in marking candidates in the written or oral exam.
- The moderator will complete a report and return this to the College and the CMSA at the end of each examination.

6.0 STRUCTURE OF THE EXAMINATION

6.1 The Certificate examination has two components:

a) A written component

b) An oral/OSCE/OSPE/clinical component.

6.2 Each of the two components contributes 50% to the overall mark; A sub-minimum pass mark of 50% is required for each of the two (written and oral) components of the examination to pass the overall exam. Failure of the oral exam will disqualify a pass in the written exam.

7.0 EXAMINATION CENTRE

- Ideally the centre/region hosting the FC Paed (SA) Part II examination will be the host centre for each Certificate examination.
- The Convenor of the examination will preferably, but not necessarily, originates from that centre/region.
- 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.

8.0 WRITTEN EXAMINATION

Certificate examinations will comprise of two three-hour written papers.

i. Paper I will consist of 10 short questions or scenarios (may contain sub-parts), worth 10 marks each (each examiner shall submit 3-5 such questions to the Convenor).

ii. Paper II will consist of 10-12 short OSCE style questions covering core interpretation skills and topics, worth 10 marks each (each examiner to submit 3-5 such questions to the Convenor).

i) A marking memorandum/ 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.

ii) The language of written papers will be English and follow College recommendations.

9.0…/

9.0 CLINICAL / ORAL / OSCE EXAMINATIONS

- The oral exam will be conducted either in person or online depending on circumstances
- This examination will last NO LONGER THAN 90 min per candidate.
- This examination will consist of SIX clinical scenarios: THREE long cases (20 min each) and THREE short cases 10 min each) by each examiner. The convenor will select, review and co-ordinate cases before the examination to ensure fairness and even distribution of exam content.
- The examination will be structured, balanced and similar for each candidate. The examiners must present clinical cases scenarios and information in clear formats with content relevant to paediatric pulmonology practice.
- The language of the oral/OSCE/clinical examinations will follow College recommendations.
- The examiners panel and moderator must review the exam cases prior to the examination starting to ensure fairness, content quality and develop consensus anchor statements for minimum requirements to pass the case. Appropriate and key areas on interpretation will be identified for each case.
- Mark allocation of clinical cases :
  - i) Long case: 20 marks (three cases)
  - ii) Short case: 10 marks (three cases)
  - iii) Candidates must achieve minimum 45/90 (50%) in total to pass.
  - iv) In the event of a dispute or disagreement between examiners about a candidate's marks or pass/fail status, the majority opinion or mark (i.e., two examiners) will prevail with approval of the moderator.
  - v) The examiners will identify and vote for the strongest candidate in the exam who is eligible for the prize.

10.0 TIMING OF ORAL/OSCE/CLINICAL EXAMINATIONS

The examination will be held in the same week as the FC Paed(SA) Part II clinical examination.
Exceptions will be by written motivation to the College.

11.0 RESPONSIBILITY OF THE COLLEGE IN THE EXAMINATION PROCESS

- Selection of Convenors, examiners, and moderators.
- Monitoring of the conduct of each Certificate examination.
- Reviewing all aspects of each examination on completion.
- Tracking performance and success rates in individual examinations.

12.0 APPEALS PROCESS

The CMSA has an appeals process that will be followed.

13.0.../

13.0 THE BLUEPRINT FOR THE EXAM IS AS FOLLOWS:

TOPIC	Proportion, %
Respiratory pathophysiology and basic science topics	5
Congenital airway and lung abnormalities	5
Neonatal Lung Disease and CLD	5
Acute respiratory tract infections including pneumonia, bronchiolitis and pleural infections	10
Tuberculosis	10
Bronchiectasis and other obstructive lung diseases	10
Cystic fibrosis	2.5
Lung disease in HIV and other immunodeficiency states	5
Asthma, allergology and other wheezing disorders	10
Special investigations including imaging and pulmonary function tests	10
Critical care, acute lung injury, ventilation, respiratory failure , ARDS	5
Respiratory disease in neuromuscular conditions	5
Sleep disordered breathing	5
Physiotherapy and Pharmacology	2.5
ChILD	5
Rare or orphan conditions including pulmonary involvement with systemic/genetic disorders, thoracic tunours and pulmonary vascular diseases.	5

* The suggested question breakdown is a guideline and and will vary according to 3 year cycles. Thus in some years there may be more or less than the number of questions suggested for each disease topic.

JOHANNESBURG
April 2022

APPENDIX E (ORAL EXAM MARKINGB SHEET)

Examiner Name: _____

	Long case (20 marks)	**Short case (10 marks)**
Description(example)		
Areas and level of competency/knowledge expected to achieve borderline pass		

Candidate number	Long case	Comments	Short case	Comments	Total