Rules, Regulations, Guidelines and Curriculum for Fellowship in Paediatric Pulmonology

(Under the aegis of Indian Academy of Paediatrics National Respiratory Chapter & Indian College of Paediatrics)

Section I

Statement of Goals, Objectives, Eligibility and Organization

Goals

The goal of paediatric pulmonology fellowship program is to provide specialized training in paediatric pulmonology to produce competency in all the various fields of medical management of children with respiratory diseases, by obtaining specialized training in Institutions that have specialized paediatric pulmonology department/paediatric department over a stipulated period. These specialists will be capable of providing subsequent such care in the community. They shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy.

Objectives

After completing the Paediatric Pulmonology Fellowship course the trainee will be able to -

- Management of acute and chronic respiratory problems with special emphasis on bronchial asthma and tuberculosis
- Doing and interpreting pulmonary function tests (conventional and impulse oscillometry spirometer)
- Doing and interpreting FeNO and nasal NO
- Performing sweat chloride test
- Interpretation of chest X-ray and CT scan
- Performing flexible bronchoscopy

Eligibility and Organization

Trainee:

Any student of Indian nationality who has completed the M.D / D.N.B. course in Paediatrics from a Medical Council of India or State Medical Council recognized University in India is eligible for this fellowship program. In case of DCh candidates he will require one-year additional residency from an Institute recognized by Medical Council of India. The course tenure would be two years for IAPNRC Fellowship as recommended by Indian College of Pediatrics. Any foreign student or a non-resident Indian student who wishes to apply should be a degree holder in Paediatrics post-graduate training and would have to produce a bonafide certificate from the Head of Department of Paediatrics of his / her institution where he / she has completed the post graduate training in Paediatrics, along with photocopies of the certificate of post graduate degree from the university concerned. The undergraduate and postgraduate degrees should be recognized by the Medical council of India.

All fellowship candidates must be life members of Central IAP and should become life member of IAP

National Respiratory Chapter within a month of his joining the fellowship. Failing which his/her admission will be cancelled and will not be refunded the fees. All trainees joining the Paediatric Pulmonology fellowship program shall work as "Full Time Senior Residents" during the period of training. At the time of application, the trainee would have to produce:

1) A bonafide certificate from the Head of Department of Paediatrics of his / her institution where he/ she has completed the post graduate training in Paediatrics

2) Photocopies of the certificate of the post graduate degree from the University concerned

3) Certificate of registration with the appropriate State Medical Council or Medical council of India

4) Curriculum vitae

5) Letter of reference from two refries

Institution:

The institution that wishes to take up the Fellowship program should be able to fulfil the following criteria in all three essential areas (i) Faculty; (ii) Equipment and (iii) Patient care facilities

(i) Faculty

1. Supervision of fellows must be provided by members of the teaching staff who are skilled in medical education and research, as well as in care of patients and who are active and competent in paediatric respiratory diseases.

2. At least two fulltime or honorary staff members who have completed either fellowship in Paediatric Pulmonology with at least five years of postgraduate practice or MD / DNB in Paediatrics with at least ten years of post-graduate practice in a tertiary care advanced institution of national repute.

3. A ratio of one qualified (as above) teacher to one fellowship candidate is necessary.

4. All teachers at the Institute should be life members of Central IAP (They are required to furnish their life membership number) and life members of the IAP National Respiratory Chapter. The membership form for membership of Central IAP along with the subscription fee is to be posted to the Central IAP office, Mumbai. The membership form for membership of IAP National Respiratory Chapter along with the subscription fee is to be posted to the Hon. Secretary of the Chapter.

5. Availability of library/e-library

6. In addition, availability of consultant faculty in related disciplines will be welcomed. These related disciplines include but are not restricted to:

a. Allergy-immunology

b. Paediatric Intensivist

d. Microbiology (bacteriology, mycology, virology, parasitology)

e. Clinical pharmacology

f. Adult Pulmonology

g. Physical and Rehabilitation Medicine

h. Medical statistics

(ii) Equipment

These are the requirement of equipment to start fellowship program in Paediatric Pulmonology

- Spirometer
- Impulse oscillometry
- Flexible video bronchoscope of Pediatric size
- FeNO meter
- Facility for sweat estimation

1. The turnover of spirometry should be at least 20 tests per month and bronchoscopy should be at least 5 per month

2. The fellows should have access to Pulmonary Function testing and Bronchoscopy

3. There must be adequate variety of patients with paediatric respiratory diseases, ranging from newborn through young adulthood. This patient population must include inpatients, outpatients (ambulatory clinic), and patients with chronic diseases like bronchial asthma, cystic fibrosis, congenital lung malformation, immunodeficiency etc.

2. The following patient care facilities should be available at the institution:

a. An outpatient facility for appropriate evaluation and care of patients from the newborn period to adolescent.

b. A dedicated pediatric pulmonology clinic on a particular day

c. An inpatient facility with full paediatric-related services including facilities for treatment of chronic respiratory diseases; paediatric and neonatal intensive care units; and support services including comprehensive diagnostic and imaging facilities.

3. Infection Control Program: There must be an infection control program with written protocols for

prevention of infection and its spread, an active surveillance system, and an interventional plan for

outbreak control.

Recognition, selection and allotment of seats will be based on inspection of the institutes by an inspection team. The cost of travel and lodging of the inspectors will be the responsibility of the applying institute, irrespective of their recognition or otherwise as fellowship Institutes. The governing council of paediatric Pulmonology fellowship program reserve all the rights to decide the allotment of fellowship seat and their decision will be final.

Section II

Course Content

Since the fellow is trained with the aim of practicing as independent specialists, this course content will be mainly a guideline. They have to manage all types of cases and situations and seek and provide consultation. The emphasis shall therefore be on the practical management of the problem of the individual cases and the community within the available resources.

A. Academic topics

Mandatory

- Evaluation of respiratory symptoms and signs
- Pulmonary function testing
- Airway endoscopy
- Imaging
- Acute and chronic lung infection
- Tuberculosis
- Bronchial asthma and other wheezing disorders
- Allergic disorders
- Cystic fibrosis
- Congenital malformations
- Bronchopulmonary dysplasia and chronic lung disease of infancy
- Rare diseases
- Sleep medicine
- Rehabilitation in chronic respiratory disorders
- Inhalation therapy
- Technology-dependent children
- Epidemiology and environmental health
- Management and leadership
- Teaching
- Research
- Communication

Optional

- Rigid and interventional airway endoscopy
- Post lung transplant management
- Additional diagnostic test

(For the exhaustive list of topics that need to be covered during the training, please refer to Appendix I)

Section III

Teaching, Learning methods and Activities

Learning in fellowship program shall be essentially autonomous, self-directed and entire fellowship period shall be in service training program based on the concept of learn as you work principle. The following organized learning experiences should be provided to the students. Timetable for these programs will be drawn every six months.

1. Case presentation & case management in OPD & Indoor wards: The fellow will present cases regularly on clinical rounds to the faculty members of the department.

2. Fellow should present seminar weekly and journal bimonthly

3. Bimonthly radiology Conference should be conducted and interesting chest X-ray and CT scan of chest should be discussed.

4. Medical audit / mortality case discussions: This will be done once a month by the fellow, who is expected to analyse & discuss the cases allotted to him/her.

5. Fellows are required to attend the infection control committee meetings, research meeting and other meeting conducted by institute from time to time.

7. Preparation and presentation of a research project: Every fellow will be required to carry out research project under the supervision of his guide as identified by the institution.

8. The guide shall maintain a log book of all the activities carried out by the trainee and by the end of twelve months complete the form given in Appendix II and submit the same to the Chairperson, National Respiratory Chapter of IAP for certification.

9. The fellow shall get enough opportunities to learn following procedures and skills

- PFT: Develop and demonstrate ability to interpret pulmonary function tests including arterial blood gas, pulse oximetry and spirometry
- FOB & BAL: Develop and demonstrate the ability to perform and interpret diagnostic flexible/video bronchoscopy and bronchoalveolar lavage fluid (BALF) findings, as well as understanding the indications for, risks and benefits of this procedure
- Thoracocentesis: Understand the indications for, current techniques for, and potential complications of thoracentesis in children; develop and demonstrate the ability to interpret laboratory studies of pleural fluid
- Chest physiotherapy: learn application and performance of various airway clearance techniques
- FNAC: Learn techniques of performing, processing and interpreting fine needle aspiration and sweat chloride estimation in children
- Respiratory Imaging: Develop and demonstrate ability to interpret respiratory imaging studies including chest radiographs, fluoroscopy, upper airway radiographs, ventilation/perfusion scans, and chest CT

- AFB staining: perform smear preparation, staining and reading smear of sputum and other body fluids for acid fast bacilli
- RNTCP: learn to register newly diagnosed and other cases of tuberculosis under RNTCP in children, manage multi drug resistant TB, complications of ATT and manage.
- Intubations: Develop and demonstrate the ability to perform endoscopic intubations in infants and children using the flexible bronchoscope
- Lung biopsy: Understand the indications for current techniques for and potential complications of lung biopsy in children
- Ventilation: Understand the appropriate use, risks and benefits of more specialized therapeutic modalities such as tracheostomy, chronic mechanical ventilation (positive and negative pressure), CPAP and BiPAP
- Polysomnograms: Understand the indications for, current techniques for, and interpretation of polysomnograms (sleep studies) in children
- Develop and demonstrate the ability to diagnose and treat acute airway and lung problems which occur in the settings of neonatal and pediatric intensive care units
- Understand the indications for, limitations of, and risks of other specialized diagnostic techniques in children, including rigid bronchoscopy, mediastinoscopy, and thoracoscopy
- Understand the appropriate use, risks and benefits of commonly used therapeutic modalities such as supplemental oxygen,, bronchodilators, diuretics, systemic and inhaled corticosteroids, leukotriene inhibitors, inhaled DNAase, and antibiotics.

10. During the fellowship training can also be opt for;

a. Clinical and epidemiological research work through public health department

b. Basic science research in a discipline related to paediatric respiratory diseases, for a minimum of one year.

Elective training overseas

Further specialized training during the period of the fellowship shall be optional. A period of 4-12 weeks at one of the collaborating institutions overseas may be arranged with prior approvals. This will be competitive and will be based on receipt of scholarship.

Section IV

Evaluation System:

Evaluation will be Formative and Summative

Formative: Formative evaluation will be carried out over 5 activities of the Fellow

- Ward work
- Case presentation
- Seminar presentation
- Journal Club
- Internal assessment
- General assessment of attitude: Rapport and attitude

Summative

- Research project*: Evaluation of research done by the trainee
- Publications#
- Final examination

*Research Project:

The topic for research project shall be finalized and discussed in the departmental faculty meeting and allotted to the individual fellow in the 1st three months of fellowship month after admission. The purpose of research project is to train the fellow to perform an independent study keeping the principles of research methodology and epidemiology in mind. The fellow will therefore work on a prospective or retrospective project within the department or in collaboration with other departments. There will be continuous monitoring of the dissertation/research/long essay work by the guides and co-guides and by the other department staff throughout the course. The completed research should be submitted 4 weeks before the final examination.

#Publications:

At least 1 original article/review article publications are expected by the end of the fellowship period. The articles may be published in peer-reviewed indexed journals, either national or international.

Final Examination

Eligibility:

- Attendance: minimum 85%
- Satisfactory Internal assessment
- Approval of dissertation/research/long essay project submitted

Fellow will be eligible to appear for theory examination only after being certified on the basis of internal assessment.

Theory examination

- There will be 2 papers.
- Each paper will carry 100 marks.
- Distribution of questions in the 2 papers is usually as follows:

Theory Paper I: Basic sciences, Epidemiology, Congenital malformation, Sleep Medicine, Teaching, Research, Communication etc.

Theory Paper II: Case based questions

Clinical or Practical examination:

There will clinical examination based on cases ,work stations and viva voce. Examination will be on at least two cases and workstations. The “OSCE” method of examination can be a part of evaluation.

The fellow must pass in theory (both papers included) and practical (aggregate marks) independently by obtaining at least 50% marks in theory as well as in practical exam and obtain an overall percentage not less than 50% (viz 250 / 500). It is essential to obtain 50% marks in case base evaluation.

The summary of the examination is shown in Table: (Total marks obtainable = 500)

- Theory (Paper I + Paper II) 100 + 100 = 200
- Clinical Practical Examination: Total 300

Section V

Recommended books and Resource Material

Textbooks (latest editions available)

Author Name	**Name of the Books**	**Publishing Company**
Robert Wilmott et al	Kending's Disorder of respiratory tract in children	Elsevier, Philadelphia
Jurg Hammer et at	Pediatric Pulmonary Function testing	Karger, Basel, Switzerland
Michel J et al	Paediatric Pulmonology	American academy of Pediatrics
Priftis KN et al	Pediatric Bronchoscopy	Karger, Basel, Switzerland
Midulla F et al	ERS Handbook of Pediatric Respiratory Medicine	European Respiratory Society
Kabra SK et al	Essential Paediatric Pulmonology	Nobel Publisher, New Delhi

Recommended journal for Paediatric Pulmonology Fellow

- Pediatric Pulmonology
- European Respiratory Journal
- Chest
- New England Journal of Medicine
- Paediatrics
- Journal of Paediatrics
- Lancet
- Indian Paediatrics
- Indian Journal of Paediatrics

Appendix I: Detailed List of Topics for Training in the Fellowship Program

- Structure and function of the respiratory system
    - Anatomy and development of the respiratory system
    - Applied respiratory physiology
    - Immunology and defence mechanisms
    - Environmental determinants of childhood respiratory health
- Respiratory signs and symptoms
    - History and physical examination
    - Cough
    - Tachypnoea, dyspnoea, respiratory distress and chest pain
    - Snoring, hoarseness, stridor and wheezing
    - Exercise intolerance
- Pulmonary function testing and other diagnostic tests
    - Static and dynamic lung volumes
    - Respiratory mechanics
    - Reversibility, bronchial provocation testing and exercise testing
    - Blood gas assessment and oximetry
    - Exhaled nitric oxide, induced sputum and exhaled breath analysis
    - Pulmonary function testing in infants and preschool children
    - Single- and multiple-breath washout techniques
    - Forced oscillation techniques
    - Polysomnography
- Airway endoscopy
    - Flexible bronchoscopy Bronchoalveolar lavage
    - Bronchial brushing and bronchial and transbronchial biopsies
    - Rigid and interventional endoscopy
    - General anaesthesia, conscious sedation and local
- Lung imaging
    - Conventional radiography
    - Computed tomography
    - Magnetic resonance imaging
    - Ultrasonography
    - Imaging method
    - Interventional radiology
- Inhalation therapy
    - Aerosol therapy
- Acute and chronic lung infections
    - Epidemiology
    - Microbiology testing and interpretation
    - Immunisation against respiratory pathogens
    - Upper respiratory tract infections
    - Community-acquired pneumonia
    - Hospital-acquired pneumonia

Lung involvement in immunodeficiency disorders
Non-CF bronchiectasis
Pleural infection, necrotising pneumonia and lung abscess
Bacterial bronchitis with chronic wet lung

- Tuberculosis

Pulmonary TB, latent TB, and in vivo and in vitro tests
Extrapulmonary TB and TB in the immunocompromised host

- Bronchial asthma and wheezing disorders

Epidemiology and phenotypes of bronchial asthma and wheezing disorders
Genetic and environmental factors in bronchial asthma and wheezing disorders Oliv
Acute viral bronchiolitis
Preschool wheezing
Bronchial asthma
Emerging therapeutic strategies
Differential diagnosis of bronchial asthma

- Allergic disorders

Pathophysiology and epidemiology of allergic disorders
In vivo and in vitro diagnostic tests in allergic disorders
Allergic rhinitis
Atopic dermatitis
Food allergy
Allergic bronchopulmonary aspergillosis
Specific immunotherapy, prevention measures and alternative treatment

- Cystic fibrosis

Genetics, pathophysiology and epidemiology
Screening and diagnosis of CF
CF lung disease
Extrapulmonary manifestations of CF
Emerging treatment strategies in CF
Prognosis, management and indications for lung transplantation

- Congenital malformations

Airway malformations
Thoracic malformations
Vascular malformations

- Bronchopulmonary dysplasia and chronic lung disease

Aetiology, pathogenesis, prevention and evidence-based
Nutritional care
Neurodevelopmental assessment and outcomes
Long-term respiratory outcomes

- Pleural, mediastinal and chest wall diseases

Pleural effusion, chylothorax, haemothorax and mediastinitis
Pneumothorax and pneumomediastinum

- Neuromuscular disorders
- Chest wall disorder

- Sleep-related disorders
  - Physiology and pathophysiology of sleep
  - OSAS and upper respiratory airway resistance syndrome
  - Central sleep apnoea and hypoventilation syndromes
  - Impact of obesity on respiratory function
- Lung injury and respiratory failure
  - Lung injury
  - Acute and chronic respiratory failure
  - Home oxygen therapy, invasive ventilation and NIV, and home entilatory support
- Other respiratory disease
  - Primary ciliary dyskinesia
  - Gastro-oesophageal reflux-associated lung disease and aspiration syndrome
  - Foreign body aspiration
  - Bronchiolitis obliterans
  - Plastic bronchitis
  - Haemangiomas, lymphangiomas and papillomatosis
  - Interstitial lung diseases
  - Surfactant dysfunction and alveolar proteinosis
  - Pulmonary vascular disorders
  - Eosinophilic lung diseases and hypersensitivity pneumonitis
  - Pulmonary haemorrhage
  - Sickle cell disease
  - Lung and mediastinal tumours
  - Systemic disorders with lung involvement
  - Lung transplantation and management of post-lung transplant patients
- Rehabilitation in chronic respiratory diseases
  - Rehabilitation programmes and nutritional management
  - Prevention of indoor and outdoor pollution
  - Respiratory physiotherapy
  - Fitness-to-fly testing
  - Sports medicine

Appendix II:

Evaluation form for fellow on completion of fellowship (To be filled by the Institute and sent along with the application to take fellowship examination)

Full Name of Fellow_____

Date of Joining fellowship program:_____

Date of filling evaluation form:_____

Guidance for Scoring:

Poor	Below average	Average	Above average	Very good
1	2	3	4	5

Evaluation form for fellow:

Clinical Work: Score: ()

1. Punctuality

2. Regularity of attendance

3. Quality of Ward Work

4. Maintenance of case records

5. Presentation of cases during rounds

6. Investigations work-up

7. Bedside manners

8. Rapport with patients

Seminar: Score: ( )

1. Presentation

2. Completeness of preparation

3. Cogency of presentation

4. Use of audiovisual aids

5. Understanding of subject

6. Ability to answer questions

7. Time scheduling

8. Consulted all relevant literature

9. Overall performance

10. Others

Clinical Meeting: Score: ( )

1. Completeness of history

2. Whether all relevant points elicited

3. Cogency of presentation

4. Logical order

5. Mentioned all positive and negative points of importance

6. Accuracy of general physical examination

7. Whether any physical sings missed or misinterpreted

8. Whether any major signs missed or misinterpreted

9. Diagnosis: whether it follows logically from history and findings.

10. Investigations required - Complete list -

11. Relevant order

12. Interpretation of investigations

13. Overall ability to react to questioning

14. Whether answers relevant and complete

15. Ability to defend diagnosis

16. Ability to justify differential diagnosis

17. Confidence

18. Others

Research Work: Score: ( )

1. Interest shown in selecting a topic

2. Appropriate review

3. Discussion with guide and other faculty

4. Quality of protocol

5. Preparation of Performa

6. Regular collection of case material

7. Depth of analysis/discussion

8. Departmental presentation of findings

9. Quality of final output

10. Others

Journal Club: Score: ( )

1. Choice of articles

2. Cogency of presentation

3. Whether he has understood the purpose of the article

4. How well did he defend the article?

5. Whether cross-references have been consulted

6. Whether other relevant publications have been consulted

7. His Overall impression of articles

8. If good - reasons:

9. If poor - reasons:

10. Audiovisual aids

11. Response to questioning

12. Overall presentation

13. Others

Log (Performance record book)

Maintenance of performance record Logbook is mandatory. Certified and assessed copy should be made available at the time of practical examination for review by examiners

Log Book should contain:

Certificate duly signed by teacher, head of department, head of institute stating

Dr_____ has worked in department from_____ to _____.

This performance record book contains the authentic record of work done and assessment for one year

LOG-BOOK

Colour photograph of candidate

Name :
Present Address : **Phone no. (R):** **Mobile no. :** **Email:**
Permanent Address : **Phone No. :** **Mobile no.:**
Date of Birth :
Date of Joining Fellowship :

If Sponsored Candidate: ***Name of sponsoring authority:***

ACADEMICS RECORD

A. Journal club:

Date	Journal	Article	Faculty sign	Score

The presentation will be evaluated on the content, clarity, quality of slides, eye contact, use of pointer, summary and critical appraisal of the article. The Presentation will be evaluated by the faculty in the evaluation sheet attached.

B. Seminar

Date	Topic	Faculty sign	Score

The Fellows are expected to make at least 10 presentations (Seminars). The presentation will be evolution by the faculty in the evaluation sheet attached in the log book.

C. Clinical case presentation

Date	Case	Faculty sign	Score

D. Case worked up in Paediatric Pulmonology Clinic

S.No.	Date	Name	Clinic No.	Diagnosis	Faculty sign

E. Paediatric Pulmonology patient managed (inpatient)

S.No.	Date	Name	CR No.	Ward/ICU /bed	Diagnosis	Procedures performed	Outcome	Signature of Faculty
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
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14								
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16								
17								
18								
19								
20								

E. Pulmonary Function Testing:

S.N.	Name of Patient	CR No	Diagnosis	Faculty

G. **Video-Bronchoscopy:**

S.N.	Name of patient	CR No	Diagnosis	Complication	Faculty sign

H. Other procedures (FeNO/Sweat testing/ICD insertion/ FNAC/Lung Biopsy etc)

S.N.	Name of patient	CR No	Procedure	Faculty sign

Participation in Research Activity:

Name of project, Duration:

Conferences / Workshop attended / Paper presentation:

Publications:

Appendix III

Technical information relating to IAP National Respiratory Chapter fellowship program

1. The IAPNRC Paediatric Pulmonology fellowship program is endorsed by the Indian College of Paediatrics (ICP) .

2. This selection of institute will be based on the credentials + location + teaching facility+ infrastructure of the institute. All applicant institutes will be physically inspected by an inspection team and the travel and lodging of these inspectors will be arranged by the applicant institute. The institutes will apply for fellowship through the institute head on institute letterhead and endorsed by the head of the paediatric pulmonology/ paediatric department / fellowship program coordinator. The application will be addressed to the Chairperson of the chapter. The institute should be registered with the local authorities and the registration number and certificate should be attached with the application.

3. All teachers at the Institute must be life members of Central IAP and life members of the IAP National Respiratory Chapter. The IAP life membership number of all teachers at the Institute must be mentioned in the application form.

4. The IAP National Respiratory chapter or the institute that conducts the fellowship program will advertise the positions as widely as possible to receive applications from all parts of the country and then choose the best candidates based on a system of interviews or examination. The advertisement can be made in the official instrument of IAP National Respiratory Chapter, institute bulletin or on institute notice board and in official instruments of IAP-the Academy today, Indian Paediatrics, and Indian Journal of Practical Paediatrics. Applications may also be invited through other reputed journals published by sister professional organizations.

5. Each institute can register candidate/candidates as fellows (as per allotment by Governing council of fellowship or IAP National Respiratory Chapter). Fellow will take the fellowship examination at the end of training. Institutes are encouraged to enrol MD / DNB candidates whenever possible. In the absence of such a candidate, a DCh qualified candidate with one year experience of JR/SR in MCI recognized institute can be selected.

6. Ideally candidates should be enrolled on January 1/July 1 of a given year. However, for several considerations, the last date for enrolment may be extended to February 15/August 15 of that year. No new appointments must be made after these dates.

7. Institutes will inform the chapter about change of fellowship coordinator's name, if and when that happens. Institutes will also inform the chapter about any change in teaching faculty.

8. Each candidate must submit a fellowship fee of Rs. 5,000/- in the form of a Demand Draft payable in the city where the chapter account is based (Jaipur at present), in the name of "Indian Academy of Paediatrics, National Respiratory Chapter". The DD should have the name, and cell number of the candidate, and the name of Institute of attachment written on the back.

9. The institution will pay reasonable stipend to the fellow. Accommodation may be provided if available.

10. The institute will submit a fellowship information form (appended with this document) which should contain information about the institute and candidates along with details of the DDs and copies of qualification certificates of the candidates. Candidate will not submit this information to the chapter individually. All communications regarding the technicalities of the fellowship program and fellowship examination will be done by the fellowship coordinator and not by individual candidates.

11. The receipts for the DDs will be posted to the institute / fellowship coordinator and not to individual candidates.

12. No refund will be made if a candidate chooses to abandon the program at any time after enrolment.

13. Any dispute between the institute and candidate will be resolved between themselves. If it is not resolved the chapter may mediate.

14. The exam fee as decided by the chapter from time to time will be paid through a DD in the name of the chapter by each candidate, through the institute, with a covering note (sample appended with this document) after the exam date is announced, to reach the chapter address one month in advance of the examination date.

15. The names of candidates who pay the exam fee in time, will be intimated to the exam coordinator in the order of receipt of DDs and roll numbers for exam will be allotted in a likewise order.

16. If examination fee is not received a month in advance of the examination date, the respective candidate will not be allowed to take the fellowship exam. If a candidate withdraws from taking the exam after paying the exam fee, the fee will not be refunded.

17. The research project has to be submitted as 3 hard copies along with CD containing dissertation/research work in Word document format and the clinical photographs if any with appropriate labelling, in jpeg 300 dpi formats. The last date for submission of research project thesis is 4 weeks before the fellowship exam date.

18. Each institute will be communicated the venue and date of the fellowship exam at least two months before the exam, and the details of the theory and practical examinations, roll numbers, and the specific dates allotted to individual candidates for practical exam will be communicated at least one month before the dates of examinations.

19. The roll number allotted to each candidate is non-negotiable. Individual requests from candidates or institutes for change of roll number or date of practical examination will not be entertained.

20. It is essential to obtain 50% marks in theory (100/200), overall 50% marks in practical (150/300), 50% marks in clinical case presentations and aggregate 50% marks (250/500) to clear the exam.

21. Examination result will be communicated to the institutes on email immediately as it becomes available. Marks card (with details of marks) and the certificate will be posted to the institutes within 6 weeks of declaration of result.

22. Candidates that fail to clear the exam may take another exam when the next exam is conducted after re-apply to the chapter with a DD for exam fee.

23. A failed candidate who may seek re-evaluation of his / her theory paper marks, may request the chapter for the same, with endorsement from the institute head, and submit a DD for Rs. 2000/- for re-evaluation of both theory papers, and Rs. 1000/- for re-evaluation of one theory paper. The theory papers will be re-evaluated (re-read and remarked) by an independent examiner (other than the panel of original examiners). Marks will be communicated to the candidate within two weeks from the date of request.

Appendix IV

Pattern of Examination

1. The IAP National Respiratory Chapter office bearers have the discretionary powers to decide the venue of fellowship examination based upon the number of candidates to be examined, availability of infrastructure and examiners, and the willingness of Institute to conduct the examination as per the guidelines of the chapter.

2. A team of examiners will be invited to conduct the exam by the chapter.

3. The theory papers will be set by two sets of examiners independently. The questions will be communicated to the chairperson / fellowship program in-charge of the chapter or an independent authority figure with no interest in the exam, and both sets of theory papers (I and II) will be brought to the examination hall in sealed envelopes. One of the envelopes will be opened for each of theory papers I and II.

4. Each theory paper will be of 100 marks.

Theory papers: (200 marks) (100 X 2)

a) Paper-1: Theory paper I will cover topics like Basic sciences, Epidemiology, Congenital malformation, Sleep Medicine, Teaching, Research, Communication etc.

b) Paper-2: Case-based questions: The purpose of this paper will be to test the candidate's ability to evaluate the case correctly and make correct clinical use of knowledge to make appropriate decisions.

7. Practical examination will consist of clinical cases, work stations and viva voce. Examination will be on two or more cases and workstations. The "OSCE" method of clinical evaluation can be a part of examination.

8. The dissertation/research will be evaluated on the following aspects

a) Clinical relevance in India, study size and statistical significance: 15 marks

b) Type of study ; prospective/ retrospective, comparative, controlled, randomized, blinded etc: 10 marks

c) Presentation; use of flowcharts, clinical photographs, clarity of results: 10 marks

d) Discussion, comparison with similar other studies, ability to analyze the strengths, limitations and scope of the clinical study: 15 marks

Appendix V

Sample of request letter for enrolment of Institutes for IAP National Respiratory Chapter fellowship Program.

The letter must be typed on the letterhead of the Institute

Date: _____

To,

The Chairperson / In-charge Fellowship Program,

IAP National Respiratory Chapter

Address: _____,

_____.

Dear Sir / Madam,

We would like to apply for recognition of our Institute as a centre for fellowship in Paediatric Pulmonology by IAP National Respiratory Chapter. We fulfil the criteria for recognition laid down by the chapter, detailed in the attached sheet on eligibility criteria. Our institute is registered with the local health authority, the registration number being _____. The relevant certificate is attached.

We have the following fulltime /honorary teaching staff associated with our institute. Their qualifications and work experience are mentioned below:

1) _____

2) _____

3) _____

The relevant certificates are attached.

We request you to please consider our center for conduct of IAP National Respiratory Chapter fellowship.

We welcome an inspection of our institute. We will arrange for the travel and boarding of inspectors arranged by the chapter. We understand that our center may not necessarily be selected for the program.

We have read and understood the guidelines for the fellowship program.

Thank you. Truly,

_____ _____

Institute head / Dean / Fellowship program coordinator

Appendix VI

Eligibility criteria for enrolment as Institute for conduct of IAP Paediatric Pulmonology fellowship program

The institution which wishes to take up the Fellowship program should fulfil the following criteria:

(i) Faculty

1. Supervision of fellows must be provided by members of the teaching staff who are skilled in medical education and research, as well as in care of patients and who are active and competent in paediatric respiratory diseases.

2. At least two fulltime or honorary staff members who have completed either fellowship in Paediatric Pulmonology with at least five years of postgraduate practice or MD / DNB in Paediatrics with at least ten years of post-graduate practice in a tertiary care advanced institution of national repute

3. A ratio of one qualified (as above) teacher to one fellowship candidate is necessary

4. All teachers at the Institute should be life members of Central IAP (They are required to furnish their life membership number) and life members of the IAP National Respiratory Chapter. Membership forms can be requested from the chapter. The membership form for membership of Central IAP along with the subscription fee is to be posted to the Central IAP office,Mumbai. The membership form for membership of IAP National Respiratory Chapter along with the subscription fee is to be posted to the Hon. Secretary of the Chapter.

5. In addition, availability of consultant faculty in related disciplines will be welcomed.

(ii) Equipment:

These are the requirement of equipment to start fellowship program in Paediatric Pulmonology

- Spirometer (mandatory)
- Impulse oscillometry (optional)
- Flexible video bronchoscope of Pediatric size (mandatory)
- FeNO meter (optional)
- Facility for sweat estimation (mandatory)

1. The turnover of spirometry should be at least 50 tests per month and bronchoscopy should be at least 10 per month

2. The fellows should have access to Pulmonary Function testing and Bronchoscopy

3. There must be adequate variety of patients with paediatric respiratory diseases, ranging from new-born through young adulthood. This patient population must include inpatients, outpatients (ambulatory clinic), and patients with chronic diseases like bronchial asthma, cystic fibrosis, congenital lung malformation, immunodeficiency etc.

iii. Patient care facilities:

a. An outpatient facility for appropriate evaluation and care of patients from the newborn period to adolescent.

b. A dedicated paediatric pulmonology clinic on a particular day

c. An inpatient facility with full paediatric-related services including facilities for treatment of chronic respiratory diseases; paediatric and neonatal intensive care units; and support services including comprehensive diagnostic and imaging facilities.

iv. Infection Control Program:

There must be an infection control program with written protocols for prevention of infection and its spread, an active surveillance system, and an interventional plan for outbreak control.

v. The institute should be registered with the local health authorities.

Appendix VII

Eligibility form and the application form for enrolment of Institute to conduct IAP National Respiratory Chapter Fellowship program

Date: _____

Name of the Institute: _____

Address: _____

_____

Contact numbers: _____

E mail id: _____Web address: _____

Fellowship Coordinator's name: _____

Contact numbers: _____

Email id: _____

Fellowship program inspection fee - payment details:

1) Amount: /- ; DD number: _____ Bank: _____

Date: _____

Appendix VIII

Submission of information of selected fellow candidate for the IAP National Respiratory Chapter Fellowship program (Fill in neat hand)

Form 1

(Details of EACH candidate to be filled separately)

Date: _____

Name of the Institute: _____

Address: _____

_____

Contact numbers: _____

E mail id: _____Web address: _____

Fellowship Coordinator's name: _____

Contact numbers: _____

Email id: _____

Candidate names:

1) _____

2) _____

Fellowship program fee - payment details:

1) Amount: 5,000/-; DD number: _____ Bank: _____

Date: _____

2) Amount: 5,000/-; DD number: _____ Bank: _____

Date: _____

Form 2

Colour passport photo

Candidate 1

Name of candidate: Dr. _____

Date of Birth: _____ Age: _____ years Sex: M / F

Mailing address: _____

_____

Contact numbers: _____

Email id: _____

Qualifications: _____

Qualification details: (Please attach copies of Marks sheet, Degree passing certificates, and Medical Council registration certificates)

	Year of passing	Marks obtained	% mark	Institute university	Certificate attached (Y/N)
MBBS					
MD					
DNB					
Others					

MCI Registration No_____

Post MD/DNB experience

Organization	Designation	Duration	Certificate attached (Y/N)

(Candidate's Signature)

Form 2

Colour passport photo

Candidate 2

Name of candidate: Dr. _____

Date of Birth: _____ Age: _____ years Sex: M / F

Mailing address: _____

_____

Contact numbers: _____

Email id: _____

Qualifications: _____

Qualification details: (Please attach copies of Marks sheet, Degree passing certificates, and Medical Council registration certificates)

	Year of passing	Marks obtained	% mark	Institute university	Certificate attached (Y/N)
MBBS					
MD					
DNB					
Others					

MCI Registration No_____

Post MD/DNB experience

Organization	Designation	Duration	Certificate attached (Y/N)

(Candidate's Signature)

List of Certificates and other documents attached (Both Candidates together)

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

(Institute Head's Signature & Seal) (Fellowship Coordinator Signature & Sea)l

Appendix IX

Application to take the IAPNRC Paediatric Pulmonology Fellowship Examination

Date: _____

To,
The Chairperson,
IAP National Respiratory Chapter

Dear Sir / Madam,

The below mentioned fellowship candidates training at our Institute, would like to take the IAP Pulmonology Fellowship Exam Scheduled on _____ at _____.

The details of the candidates and their exam fee payment are given below;

1) Candidate's name - _____

Qualification - _____ Date of Appointment - _____

IAPNRC Membership No: _____

(Please attach a copy of the appointment letter from Institute)

Completed 85% of the prescribed period of training: Yes / No

Performance / Conduct / Internal assessment ¡V Satisfactory / Unsatisfactory

Clinical study completed; Yes / No

Exam fee amount INR Rs. 5000/- (Five thousand only) DD/Transaction id no: _____

Bank _____Date of DD/Transaction: _____

2) Candidate's name - _____

Qualification - _____ Date of Appointment - _____

IAPNRC Membership No: _____

(Please attach a copy of the appointment letter from Institute)

Exam fee amount - Rs. 5000/- (Five thousand only) DD no: _____

Bank _____ Date of DD: _____

Completed 85% of the prescribed period of training: Yes / No

Performance / Conduct / Internal assessment; Satisfactory / Unsatisfactory

Clinical study completed; Yes / No _____

Signature of Institute Head Sign & Seal Fellowship Coordinator Sign & Se

Appendix X

Application for Re-evaluation of Theory paper(s) (Use separate forms for each candidate)

Date: _____

To,

The Chairperson

_____,

Dear Sir / Madam,

Our Fellowship Candidate named _____ took the IAP Paediatric

Pulmonology Fellowship Exam on _____ held at _____, and obtained the following marks

Theory - _____ / 200

Practical - _____ / 300

Overall - _____ / 500

He / She were not declared PASSED based on the above marks.

We would like his theory paper(s) I / II / I and II to be re-evaluated by the IAP National Respiratory Chapter.

Kindly arrange for the same.

We are submitting a DD of Rs 1000 / 2000 for evaluation of one / both theory papers. Kindly inform us of the result as soon as it is available.

Truly,

_____ _____

Sign & Seal of Institute Head Signature Sign & Sea of Fellowship Coordinator

Appendix XI

Application for Life Membership of Central IAP

INDIAN ACADEMY OF PEDIATRICS

Kailas Darshan, Kennedy Bridge (Nana Chowk), Mumbai-400007

IAP MEMBERSHIP FORM

Name of the Applicant:_____

(Surname) (First Name) (Middle Name)

Date of Birth: _____. Sex: M / F

Communication Address:

_____

_____

_____

Telephones (ISD CODE) (city code)_____.

Residence: _____Office: _____.

FAX:_ _____ Mobile:_____.

Email ID: _____

Degrees Registration No & registering Authority (MCI or State Medical Council):

Medical / Paediatric Qualification

Name of the University

Qualifying Year

Name & Membership No & Signature of the Proposer:_____.

Name & Membership No & Signature of the Seconder: _____

Place: _____

Date: (Signature of the Applicant)

The Membership Fee should be paid by a crossed bank draft drawn in favor of “INDIAN ACADEMY OF PEDIATRICS¨ payable at Mumbai.

Appendix XII

APPLICATION FORM FOR LIFE MEMBERSHIP

IAP – National Respiratory Chapter

(Kindly insert IAP National Respiratory Chapter Membership form here)