

POST - DOCTORAL FELLOWSHIP IN PAEDIATRICS PULMONOLOGY

Syllabus

I Upper respiratory tract

a) Congenital

Upper airway
anomalies

b) Acquired

Obstructive
Sleep apnea
syndrome
infections,
allergic rhinitis

II Lower respiratory tract Pleural effusion,

a) Congenital

Ciliary
Cystic
fibrosis
,Immunological disorders,
Immunodeficiency

b) Acquired

Foreign body
aspiration,
Infections,
Tuberculosis,
GERD,
ALTE,
Asthma,
BPD
Empyema,
Bronchiolitis
ILD

PROCEDURES & SKILLS

1. **PFT:** Develop and demonstrate ability to interpret pulmonary function tests including arterial blood gas, pulse oximetry and spirometry.
2. **FOB & BAL:** Develop and demonstrate the ability to perform and interpret diagnostic flexible bronchoscopy and bronchoalveolar lavage fluid (BALF) findings, as well as understanding the indications for, risks and benefits of this procedure
3. **Thoracentesis:** 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.
4. **Chest physiotherapy:** learn application and performance of various airway clearance techniques
5. **FNAC:** Learn techniques of performing, processing and interpreting fine needle aspiration and sweat chloride estimation in children
6. **Respiratory Imaging:** Develop and demonstrate ability to interpret respiratory imaging studies including chest radiographs, fluoroscopy, upper airway radiographs, ventilation/perfusion scans, and chest CT
7. **AFB staining:** perform smear preparation, staining and reading smear of sputum and other body fluids for acid fast bacilli.
8. **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.
9. **Intubations:** Develop and demonstrate the ability to perform endoscopic intubations in infants and children using the flexible bronchoscope
10. **Lung biopsy:** Understand the indications for, current techniques for, and potential complications of lung biopsy in children
11. **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
12. **Polysomnograms:** Understand the indications for, current techniques for, and interpretation of polysomnograms (sleep studies) in children
13. 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

14. Understand the indications for, limitations of, and risks of other specialized diagnostic techniques in children, including rigid bronchoscopy, mediastinoscopy, and thoracoscopy

15. 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.