

Department of Tuberculosis & Respiratory Diseases
JN Medical College
Aligarh Muslim University, Aligarh
SYLLABUS FOR Ph.D. ADMISSION TEST (2018-2019)

Physiology of Lung

- Respiratory mechanics including physiological basis of PFT.
- Blood gas transport, Acid base balances, Arterial blood gas (ABG) analysis.
- Control of ventilation.
- Physiological basis of pulmonary surfactant system & alveolar homeostasis.
- Sleep physiology.
- Physiology of mechanical ventilation.
- Patho-physiology of all diseases pertaining to pulmonary medicine.

Symptom & Signs of Respiratory diseases & Diagnosis

- Approach to a patient with respiratory symptoms.
- Pulmonary – systemic interactions.
- Radiographic evaluation of the chest.
- Pulmonary cytopathology.
- Pulmonary function testing & scintigraphic evaluation of pulmonary diseases.
- Bronchoscopy/thoracoscopy/Mediastinoscopy & related procedures.
- Interventional radiology of thorax.
- Cardio pulmonary exercise testing.
- Peri-operative respiratory assessment.

Tuberculosis

- Epidemiology, pathogenesis, pathophysiology & symptomatology.
- Diagnostic Methods.
- Pulmonary Tuberculosis.
- Extra pulmonary Tuberculosis.
- Non-Tuberculosis Mycobacterium (NTM) and related diseases.
- Tuberculosis & other co- morbidities including HIV.
- Anti-tuberculosis drugs: first and second line.
- Management: General, Medical & Surgical management.
- Complications of tuberculosis.
- Drug resistant tuberculosis: MDR, XDR, XXDR.
- Landmarks studies for DOTS.
- RNTCP, WHO, ISTC, & other international guidelines.
- Recent advances in Diagnosis & Management of tuberculosis.

Pulmonary Disorder other than TB

Obstructive lung diseases

- COPD:- Epidemiology, etiology, pathophysiology, pathogenesis, Diagnostic criteria, differential diagnosis, Clinical course & Management, complications, GOLD guidelines
- Asthma:-Epidemiology, etiology, Types, Pathophysiology, Pathogenesis, Diagnosis, Management, GINA Guidelines, ABPA.
- Other obstructive lung diseases including upper airway obstruction, cystic fibrosis, bronchiolitis , bullous diseases of lung.
- Other smoking related diseases and smoking cessation.

Infectious diseases of lung (excluding T.B.)

- Major pathogens
- Common syndromes

- Pneumonia
- Lung abscess, empyema, aspiration & other anaerobic infection
- Bronchiectasis.
- Acute bronchitis
- Pulmonary infection in special hosts

Sleep & Sleep related Disorders

Neoplastic diseases of lung

- Solitary pulmonary nodule
- Small & Non-small cell lung cancer: Biology, pathogenesis, diagnosis, classification & Management
- Primary lung tumors other than bronchogenic carcinoma
- Paraneoplastic syndrome
- Metastatic lung Diseases