

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0822]

AUGUST 2022

Sub. Code :1499

D.M. – PULMONARY MEDICINE

**Paper IV – RECENT ADVANCES APPLIED TO PULMONARY
MEDICINE AND CRITICAL CARE**

Q.P. Code: 161499

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Salvage therapies for refractory hypoxia in Acute Respiratory Distress Syndrome.
2. Principles of lung ultrasonography and its role in management of a dyspneic patient.

II. Write notes on: **(10 x 7 = 70)**

1. Algorithm of management of ANCA associated vasculitis.
2. Management of scleroderma related lung involvement.
3. High flow oxygen delivery devices.
4. Sputum eosinophilia.
5. Genomic classifier testing for diagnosis of IPF.
6. Management options for uncontrolled asthma.
7. Monoclonal antibody against COVID-19.
8. Roflumilast.
9. Immune check point inhibitors in lung cancer.
10. E-cigarette or vaping product use associated lung injury.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0124]

JANUARY 2024

Sub. Code :1499

D.M. – PULMONARY MEDICINE

**PAPER IV – RECENT ADVANCES APPLIED TO PULMONARY MEDICINE
AND CRITICAL CARE**

Q.P. Code: 161499

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the role of genomic profiling in the targeted therapy of non-small cell lung cancer with emphasis on the diagnostic algorithm and therapeutic targets of various drugs. Describe immunotherapy in NSCLC.
2. Write a note on the different modes of lung biopsy available for diagnosis of interstitial lung diseases. Discuss their advantages and disadvantages.

II. Write notes on:

(10 x 7 = 70)

1. Write a note on the importance of phenotyping in precision medicine with COPD as an illustrative example.
2. Write a note on the recent advances in diagnostic bronchoscopy.
3. What is antibiotic stewardship? Discuss its importance in today's era.
4. Enumerate the molecular diagnostic methods for fungal infections. Discuss their clinical utility.
5. Influenza vaccine – types, indications and recommendations.
6. Discuss the newer advances in the management of malignant pleural effusions.
7. Discuss the recently published literature on the role of non-invasive ventilation in the management of heart failure.
8. Write a note on the current status of research in stem cell therapy for respiratory diseases.
9. Write a note on the respiratory infections caused by acts of bioterrorism.
10. Discuss Electronic nicotine delivery systems and their harmful effects. Write a note on Vaping induced lung injury.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0225]

FEBRUARY 2025

Sub. Code :1499

D.M. – PULMONARY MEDICINE

**PAPER IV – RECENT ADVANCES APPLIED TO PULMONARY MEDICINE
AND CRITICAL CARE**

Q.P. Code: 161499

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the indications, contraindications, preparation, outcomes and Complications of lung transplantation. Add a note on the status of the same in India.
2. What are the changes in the definition and classification of ARDS over time? Elaborate on the various management strategies.

II. Write notes on:

(10 x 7 = 70)

1. Role of steroids in Pneumonia.
2. Biologicals in ABPA.
3. Advances in bronchoscopic management of COPD.
4. Cryo-transbronchial lung biopsy.
5. Ambulatory management of pneumothorax.
6. Bronchial Pulmonary Angioplasty.
7. Non-surgical management of early-stage lung cancer.
8. Write a note on bronchoscopic lung volume reduction.
9. Critical appraisal of antibiotic use.
10. Management of chylothorax.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[DM 0825]

AUGUST 2025

Sub. Code :1499

D.M. – PULMONARY MEDICINE

**PAPER IV – RECENT ADVANCES APPLIED TO PULMONARY MEDICINE
AND CRITICAL CARE**

Q.P. Code: 161499

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Extracorporeal Lung Support – elaborate on the indications, contraindications, modes, outcomes and complications.
2. Biologicals in asthma – indications, relevance of phenotype and outcomes.

II. Write notes on:

(10 x 7 = 70)

1. Immunotherapy in Lung cancer.
2. Pulmonary Veno occlusive disease.
3. CPET in non-cardiothoracic surgeries.
4. Role of breath biomarkers in interstitial lung disease.
5. Bronchoscopic lung volume reduction.
6. Advances in bronchoscopic approach to a lung nodule.
7. Sublingual immunotherapy.
8. Renal replacement therapy in ICU.
9. Management of massive pulmonary thromboembolism.
10. Treatment of Pneumocystis Jirovecii pneumonia including drug resistant strains.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[DM 0126]

JANUARY 2026

Sub. Code :1499

D.M. – PULMONARY MEDICINE

**PAPER IV – RECENT ADVANCES APPLIED TO PULMONARY MEDICINE
AND CRITICAL CARE**

Q.P. Code: 161499

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Risk stratification and advances in treatment of Pulmonary hypertension.
2. Clinical applications of Cardiopulmonary exercise testing.

II. Write notes on:

(10 x 7 = 70)

1. Next-generation sequencing in respiratory medicine.
2. Biological drugs in asthma.
3. Compare Non-invasive Ventilation and High frequency Nasal Canula.
4. AI – assisted radiology.
5. Robotic bronchoscopy.
6. Personalized medicine in ILD.
7. Prevention of Ventilator Associated Pneumonia.
8. REM sleep behaviour disorder.
9. COPD scoring systems.
10. Role of EBUS-guided sampling in mediastinal staging of lung cancer.
