



INTEGRATED MODULAR COURSE

STUDENT'S STUDY GUIDE

MBBS YEAR III

2022-2023



BAQAI MEDICAL COLLEGE BAQAI MEDICAL UNIVERSITY

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SPIRAL II



TEMPLATE OF RESPIRATION MODULE – II

(Duration: 4 Weeks)



MODULAR COMMITTEE FOR **CARDIO VASCULAR SYSTEM & BLOOD** **MODULE**

1.	Dr. Sarah Azhar (Pathology)
2.	Dr. Nazia Jameel (Community Medicine)
3.	Dr. Faraz Saleem (Pharmacology)
4.	Dr. Rafay A. Siddiqui (Forensic Medicine)
5.	Dr. S. M. Zulfiqar H. Naqvi (Research)
6.	Dr. Azra Shaheen (Behavioral Sciences)
7.	Dr. Nikhat Ahsan (Gynae/Obs)
8.	Dr. Saqib-ur-Rehman (Medicine)
9.	Dr. Abdullah Bukhari (Surgery)
10.	Dr. Talal Taheer (Medical Education)

Module Number	Module Name	Dates	Duration	Module In charge	Assessment Date & Pattern
1.	R Module	Begins: 06 th December, 2022 Ends: 20 th January, 2023	4 weeks	Dr. Sarah Azhar	23 rd January 2023 (subject to minor changes)

ASSESSMENT TOOLS:

1. Formative assessment
 - Quiz (face to face or online)
2. Summative assessment
 - MODULAR EXAM:
 - A single modular exam will be held at the end of module which will include all the subjects taught in the module.
 - Module will be assessed by MCQ, SEQ and OSPE, Viva

DEPT. OF PATHOLOGY
LEARNING OBJECTIVES OF RESPIRATORY MODULE- II
(3rd year MBBS)

By the end of this module, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
ACUTE LUNG INJURY & ATELECTASIS	Lecture	0.75	Describe acute lung injury and identify its presentation. Define atelectasis. Categorize atelectasis on the basis of its underlying mechanism
ACUTE RESPIRATORY DISTRESS SYNDROME	Lecture	0.75	Elucidate the etiology, pathogenesis, morphology & clinical features of adult respiratory distress syndrome
COPD/ EMPHYSEMA	Lecture	0.75	Define and categorize the various types of COPD & emphysema. Comprehend Emphysema on the basis of etiology, pathogenesis, morphology and clinical features
CHRONIC BRONCHITIS	Lecture	0.75	Elucidate the etiology, pathogenesis, morphology & clinical features.
ASTHMA AND BRONCHIECTASIS	Lecture	0.75	Elucidate the etiology, pathogenesis, morphology & clinical features of asthma. Discuss the predisposing factors, pathogenesis, morphology & clinical features of bronchiectasis
LUNG ABSCESS	Lecture	0.75	Explain the etiology, pathogenesis, morphology & clinical features of lung abscess
CHRONIC INTERSTITIAL LUNG DISEASES I (RESTRICTIVE LUNG DISEASE)	Lecture	0.75	Enumerate the clinical conditions associated with restrictive lung diseases. Elucidate the pathogenesis, morphology and clinical features of idiopathic pulmonary fibrosis
CHRONIC INTERSTITIAL LUNG DISEASES II (INFILTRATIVE LUNG DISEASE)	Lecture	0.75	Discuss the pathology, morphology & clinical features of sarcoidosis and hypersensitivity pneumonitis.
COMMUNITY ACQUIRED PNEUMONIA	Lecture	0.75	Discuss the microbial agents,, morphology & clinical features of atypical pneumonia. Elucidate the etiology, pathogenesis, morphology & clinical features of acute bacterial pneumonia

CHRONIC PNEUMONIAS (TB, FUNGAL)	Lecture	0.75	Describe the etiology, pathogenesis & clinical features of tuberculosis of the lung. Enumerate the Fungi (candida, pneumocystis carinii) causing lung infections.
PULMONARY VASCULAR DISEASES	Lecture	0.75	Define pulmonary embolism, hemorrhage and infarction. Describe the pathogenesis, morphology & clinical features of pulmonary thromboembolism. Elucidate the morphology & clinical features of pulmonary infarction. Explain the clinical features of Good pasture's syndrome.
PULMONARY HYPERTENSION	Lecture	0.75	Enumerate the causes of Pulmonary hypertension Explain the pathogenesis of pulmonary hypertension
LUNG TUMORS	Lecture	0.75	Classify lung tumors Discuss the etiology, pathogenesis and clinical features of bronchogenic carcinoma
PLEURAL LESIONS	Lecture	0.75	Discuss pleural effusion, hemo-thorax, hydro-thorax, pleuritis, pneumothorax and chylo-thorax_ Elucidate etiology, pathogenesis and morphology of mesothelioma.

DEPT. OF PHARMACOLOGY & THERAPEUTICS

LEARNING OBJECTIVES OF RESPIRATORY - II (3rd year MBBS)

By the end of this module, the students of 3rd year MBBS will be able to:

Topic	Mode of teaching	Time Hours	Learning objectives	Facilitators
DRUGS USED TO TREAT COPD	LECTURE # 1	0.75 hours	<ul style="list-style-type: none">• Define COPD.• Outline the pathophysiology of COPD.• Classify drugs used to treat COPD with examples.• Explain the pharmacological role of bronchodilators and corticosteroids in the treatment of COPD.• Explain the mechanism of action of these drugs.• List pharmacokinetic properties of these drugs.• List common adverse effects and contraindications of these drugs.• List the drugs used to treat Acute exacerbation of COPD	Prof. Dr. Asif Ahmed/ Dr. Sehrish
DRUGS USED TO TREAT ASTHMA	LECTURE # 2	0.75 hours	<ul style="list-style-type: none">• Define Asthma• Outline pathophysiology of Asthma.• Classify the drugs used to treat Asthma with examples.• Explain the mechanism of action of Albuterol, Salmeterol, Methylxanthines, Fluticasone and Montelukast.	Prof.Dr.Nadeem / Dr. Farhan

			<ul style="list-style-type: none"> List the pharmacokinetic properties of these drugs. List common adverse effects and contraindications of these drugs. 	
DRUGS USED TO TREAT COR-PULMONALE	LECTURE # 3	0.75 hours	<ul style="list-style-type: none"> Define Cor-Pulmonale Outline the pathophysiology of Cor-Pulmonale. List the drugs used in the management of Cor-Pulmonale. Explain the role of Diuretics and ACE-inhibitors in the management of Cor-Pulmonale. 	Dr.Faraz/ Dr.Humaira Arif
ANTI-TUSSIVES	LECTURE # 4	0.75 hours	<ul style="list-style-type: none"> Outline the pathophysiology of cough Define anti-tussives. Classify anti-tussives Compare the mode of action of Cough Suppressants, Expectorants, Mucolytic agents List the common adverse effects and contraindications of these drugs. 	Dr.Faraz/Dr.Sehrish
TREATMENT OF DIFFERENT RESPIRATORY DISEASES	LECTURE # 5	0.75 hours	<ul style="list-style-type: none"> Define Infiltrative/ Interstitial Lung Disease, Community-Acquired Pneumonia and Lung Abscess. Explain the Pathophysiology of Infiltrative/ Interstitial Lung Disease, Community-Acquired Pneumonia and Lung Abscess. Discuss the Pharmacological treatment of Infiltrative/ Interstitial Lung Disease, 	Prof. Dr. Nadeem/ Dr. Hina Amjad

			Community-Acquired Pneumonia and Lung Abscess.	
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LEARNING OBJECTIVES FOR TUTORIALS

Topic	Mode of teaching	Time (Hours)	Learning objectives	Facilitator
ASTHMA (ER management + Prescription writing)	TUTORIAL # 1	2 hours	<ul style="list-style-type: none"> Discuss the pharmacological management of acute exacerbation of asthma. Discuss the pharmacological management of allergic asthma. Write down the prescription of the given case of allergic asthma. 	Dr. Sehrish Mahmood / Dr. Hina Amjad
COPD (ER management)	TUTORIAL # 2	2 hours	<ul style="list-style-type: none"> Discuss the pharmacological management of the given case of COPD. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case of COPD. 	Dr. Hina Masood/ Dr. Sehrish Mahmood

LEARNING OBJECTIVES FOR PRACTICALS

TOPIC	MODE OF TEACHING	TIME hours	LEARNING OBJECTIVES	FACILITATOR
Overview of different inhalational techniques	PRACTICAL# 1	2 hours	<ul style="list-style-type: none"> Identify different inhalers and nebulizers. Explain the basic working principles of inhalers and nebulizers. Explain the role of these devices in the management of different respiratory diseases. 	Dr. Farhan/ Dr. Hina Masood

			<ul style="list-style-type: none"> • Demonstrate the accurate use of these devices. 	
Preparation and dispensing of aqueous inhalation solution	PRACTICAL# 2	2 hours	<ul style="list-style-type: none"> • Demonstrate the steps of preparation and dispensing of an aqueous inhalation solution • Draw the label for dispensing of an aqueous inhalation solution • List the clinical uses of an aqueous inhalation solution 	Dr. Sumreen Mujahid/ Dr. Hina Masood
Herbal remedies to treat lung diseases	PRACTICAL# 3	2 hours	<ul style="list-style-type: none"> • Define Phytotherapy. • Discuss importance of Phytotherapy. • List the names of various herbs used in the treatment of common respiratory diseases. • Explain the mechanism of action of various herbs used to treat common respiratory diseases. • List the adverse effects of various herbs used in the treatment of common respiratory diseases. • List the active constituents of common medicinal herbs used in the treatment of common respiratory diseases. • List the marketed herbal formulations used in the treatment of common respiratory diseases. 	Dr. Sumreen Mujahid/ Dr. Hina Masood

DEPT. OF FORENSIC MEDICINE
LEARNING OBJECTIVES OF RESPIRATORY MODULE - II
(3rd year MBBS)

By the end of Respiratory module , the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Deaths from Asphyxia 1	Lecture#1	0.75	Define Asphyxia with the mention of its Types. Demonstrate Anatomy of the Neck & Effects of Pressure on the Neck. Classify Asphyxial Deaths.
Deaths from Asphyxia 2	Lecture#2	0.75	Demonstrate Levels of Obstruction to Types of Mechanical Asphyxia. Describe Physiology, Biochemistry & Pathology of Fatal Asphyxia.
Deaths from Asphyxia 3	Lecture#3	0.75	Discuss the Etiology and Pathophysiology of Asphyxia. List Suffocation & its Types. Detail Asphyxial Stigmata / Traditionally accepted Signs of Asphyxia on the basis of their Pathogenesis.
Deaths from Asphyxia 4	Lecture#4	0.75	Discuss ML aspects of Smothering, Gagging, Choking, Traumatic Asphyxia, Burking, etc. Detail Mechanism of Death by Compression of the Neck. Discuss ML aspects of Poisonous Asphyxiant Gases like CO, CO ₂ , H ₂ S, Methane, etc.
Deaths from Asphyxia 5	Lecture#5	0.75	Describe Types, Cause of Death, Autopsy findings & the Circumstances of Hanging. Differentiate between Hanging & Strangulation Cases. Express Types, Cause of Death, Autopsy findings & the Circumstances of Strangulation.

Deaths from Asphyxia 6	Lecture#6	0.75	<p>Detail Mugging, Garroting, Bansdola, Palmar Strangulation, etc.</p> <p>Describe Autopsy Procedure in case of Death from Asphyxia</p> <p>Express Types, Mechanism & Cause of Death, Pathophysiology & Diagnosis of Death in Drowning</p>
Deaths from Asphyxia 7	Lecture#7	0.75	<p>Differentiate between Antemortem & Postmortem Drowning, Fresh- Water & Salt – Water Drowning.</p> <p>Discuss the Diatoms & their Medico - legal significance.</p> <p>Describe Sexual Asphyxia / Autoerotic Asphyxia.</p>

DEPT. OF COMMUNITY MEDICINE
LEARNING OBJECTIVES OF RESPIRATORY MODULE - II
(3rd year MBBS)

By the end of this module, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Prevention of asthma	Lecture	0.75	<p>Define asthma</p> <p>Discuss risk factors of asthma</p> <p>Discuss prevention of asthma</p>
Air pollution	Lecture	0.75	<p>Discuss the role of Air on human health.</p> <p>Discuss the causes of air pollution.</p> <p>Explain the preventive strategies regarding air pollution.</p>

**DEPT. OF RESEARCH & EVIDENCE BASED
MEDICINE & PEARLS**

**LEARNING OBJECTIVES OF RESPIRATORY MODULE - II
(3rd year MBBS)**

By the end of this module, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Reflection on learning	Lecture # 1	0.75	Develop reflective practices

DEPT. OF MEDICINE

**LEARNING OBJECTIVES OF RESPIRATORY MODULE - II
(3rd year MBBS)**

By the end of this module, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Asthma	Lecture	0.75	Discuss symptoms during acute episodes of asthma Summarize signs of an episode of asthma Identify the importance of spirometry and Peak expiratory flow meter in the diagnosis and management of asthma Discuss medication use in the treatment of asthma Summarize steps for the management of acute asthma attack Discuss step ladder therapy in the management of stable asthma
Pneumonia	Lecture	0.75	Describe Community acquired Pneumonia and Hospital acquired Pneumonia 2- Exemplify aspiration Pneumonia 3- Discuss clinical symptoms of Pneumonia 4- Report clinical signs of pneumonia 5- Recognize tests used in the diagnosis of pneumonia 6- Identify severity of pneumonia by a simple CURB-65 score 7- Discuss steps for the management of pneumonia 8- Recognize at risk population group can benefit from pneumococcal vaccination

DEPT. OF SURGERY
LEARNING OBJECTIVES OF RESPIRATORY MODULE - II
(3rd year MBBS)

By the end of this module, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Disorders of pleura	Lecture	0.75	physiology of pleural fluid Pneumothorax Indications for surgical intervention in pneumothorax Inserting and managing chest drain pleural effusion, infection and empyema Surgical management of effusion and infections Empyema debridement and decortication
Primary lung cancer	Lecture	0.75	Clinical features TNM classification Investigations. Chest xray, CT, PET, Sputum cytology Bronchoscopy, Endobronchial ultrasound, CT biopsy, Mediastinoscopy Choice of lung resection
Thoracic injury			Investigations Management Immediately life threatening Potentially life threatening