



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 CARDIOVASCULAR SYSTEM & BLOOD MODULE – II

(Duration: 6 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.	Cardio-vascular System & Blood Module	Begins: 18 th October, 2022 Ends: 2nd December, 2022	7 weeks	Dr. Sarah Azhar	5 th December, 2022 (subject to minor changes) MCQs, SEQs & OSPE

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.

DEPT. OF PATHOLOGY
LEARNING OBJECTIVES OF CVS & BLOOD 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
Hyperemia, congestion & Haemorrhage	Lecture # 1	0.75	<ul style="list-style-type: none"> • Define hyperemia and congestion. • Differentiate between congestion & hyperemia according to its pathophysiology and morphology • List the different types of congestion with examples. • Define hemorrhage. • List the cause of hemorrhage. • List types of hemorrhage on the basis of morphology & size.
Edema	Lecture # 2	0.75	<ul style="list-style-type: none"> • Define Edema, effusion, ascites, hydrothorax and anasarca. • Enumerate the pathophysiological categories of edema along its examples. • Differentiate between transudate and exudate. • Describe the mechanisms of systemic edema in heart failure, renal failure, malnutrition, hepatic failure, and nephrotic syndrome. • Identify its morphology features.
Thrombosis	lecture # 3	0.75	<ul style="list-style-type: none"> • Define thrombosis. • Describe Virchow's triad in thrombosis. • Identify the morphological of thrombi. • Differentiate between arterial and venous thrombi. • Define vegetations. • Discuss the fate of the thrombus
Embolism	Lecture # 4	2	<ul style="list-style-type: none"> • Define Embolism and Thromboembolism. • List the different types of emboli. • Discuss the pathogenesis. • List the common sites. • List the consequences.
DIC	Lecture # 5	0.75	<ul style="list-style-type: none"> • Define DIC. • List the causes of disseminated intravascular coagulation (DIC). • Explain its pathophysiology. • List the clinical manifestations. • Discuss the laboratory diagnosis of DIC
Shock	Tutorial # 1	2	<ul style="list-style-type: none"> • Define shock • Discuss the three main types of shock with their examples • Describe the pathophysiology of Septic shock.
Atherosclerosis	Lecture # 6	2	<p>Define Atherosclerosis, Arteriolosclerosis and Monckeberg Medial Calcific sclerosis.</p> <p>List the causes and risk factors of atherosclerosis.</p> <p>Describe the pathogenesis.</p> <p>List five common vessels affected by atherosclerosis.</p> <p>Identify the gross and microscopic morphological features of Atherosclerosis.</p>

			List the complications of atherosclerosis List the differences between Atherosclerosis, Arteriolosclerosis and Monckeberg Medial Calcific sclerosis.
Vasculitis	Lecture # 7	0.75	Define Vasculitis. Classify vasculitis on the basis of size of blood vessels involved. Describe the pathogenesis. List the morphological features of different types of vasculitis.
Tumours of blood vessels	Lecture # 8	0.75	Classify benign and malignant tumors of blood vessels. List the morphological features of the tumors of blood vessels.
Hypertension	Lecture # 9	0.75	Define hypertension. List the causes and risk factors. Classify Hypertension. Discuss pathophysiology. List the consequences of hypertension on different organs of the body.
IHD 1 (Angina pectoris)	Lecture # 10	0.75	Define IHD. List the different types of IHD. List the causes and risk factors of IHD. Define angina pectoris. List the three types of angina. Describe their pathogenesis.
IHD II (Myocardial infarction)	Lecture # 11	02	Define Myocardial infarction. Differentiate between transmural and sub endocardial myocardial infarction. List the diagnostic cardiac markers. Discuss the morphological changes of myocardial infarction (MI) in co-relation to the changes in levels of cardiac markers. List the complications.
Cardiac failure	Lecture # 12	0.75	Define cardiac failure. List the causes. List the types of cardiac failure. Discuss the pathogenesis of cardiac failure. Differentiate between the types of cardiac failure based on their pathophysiology, morphology and clinical features.
Congenital heart diseases Cyanotic & acyanotic heart disease.			List the various congenital anomalies of heart. Differentiate between Stenosis and Atresia. List the morphological features of Tetralogy of Fallot and coarctation of Aorta. Differentiate between cyanotic & a cyanotic heart diseases
Valvular heart diseases.	Lecture # 13	0.75	Describe the pathophysiology of Valvular Heart Disease. Discuss the clinical manifestations and diagnosis of valvular heart disease.

Rheumatic Heart Disease & Infective Endocarditis	Lecture # 14	0.75	Define rheumatic fever and rheumatic heart disease. Discuss etio-pathogenesis, morphological & clinical features. Discuss the etio-pathogenesis, morphology and clinical features. Discuss the Duke's criteria of infective endocarditis.
Myocarditis & Pericarditis	Lecture # 15	0.75	Define myocarditis. List the causes of myocarditis. Discuss the morphological features of myocarditis. Define pericarditis. List the causes of pericarditis. Discuss the morphological features of pericarditis.
Cardiac tumour	Lecture # 16	0.75	Classify cardiac tumours. List the morphological features of common cardiac tumors.
Iron deficiency anemia	Lecture # 17	0.75	Recall the nutritional and metabolic aspects of iron metabolism, including dietary iron, iron absorption, body iron distribution and transport. List the common causes of iron deficiency anemia. Describe the signs and symptoms of iron deficiency anemia. Outline the investigations of a patient with iron deficiency anemia. Discuss morphology of iron deficiency anemia
Megaloblastic anemia	Lecture # 18	0.75	List the common causes of macrocytic anemia. Summarize the nutritional and metabolic aspects of vitamin B12 and folate metabolism including dietary aspects, absorption, body distribution and transport. Describe the pathophysiology of megaloblastic anemia and the effect of vitamin B12 and folate deficiency on inhibition of DNA synthesis. Compare B12 and folate deficiency with respect to underlying causes, clinical manifestations, and laboratory diagnosis. Define pernicious anemia. Describe the morphology of megaloblastic anemia.
Sickle cell anemia	Lecture # 19	0.75	Define hemoglobinopathies. Explain the pathogenesis of sickle cell disease. Recognize the signs and symptoms of the different types of sickle cell crises in a patient of sickle cell disorder. Relate the clinical consequences of Sickle cell anemia with its pathology. Describe the laboratory diagnosis of sickle cell disease
G6PD deficiency & heredity spherocytosis	Lecture # 20	0.75	Summarize the etiological agents that are responsible for causing G6PD deficiency. Discuss the mechanism involved in the development of anemia in G6PD deficiency. Explain the clinical and morphological features of G6PD deficiency anemia. Discuss etiology and pathogenesis of HS. Identify the morphological and clinical features of Hereditary Spherocytosis.

Immune hemolytic anemia	Lecture # 21	0.75	<p>Classify immune hemolytic anemias.</p> <p>Compare warm autoimmune hemolytic anemias with cold autoimmune hemolytic anemias.</p> <p>Describe the pathological mechanism that leads to autoimmune hemolytic anemia.</p> <p>List the common drugs which may induce immune hemolytic anemia.</p>
Thalassemia	Lecture # 22	0.75	<p>Define thalassemia.</p> <p>Classify thalassemia on clinical and genetics basis.</p> <p>Discuss how genetic alterations affect the normal physiology of red blood cell.</p> <p>Describe the pathophysiology and clinical consequences of Thalassemia.</p> <p>Differentiate between blood picture and clinical feature of Beta Thalassemia Minor & Major.</p>
Paroxysmal Nocturnal Hemoglobinuria & Aplastic anemia	Lecture # 23	0.75	<p>Describe the pathogenesis of PNH.</p> <p>Explain the different clinical sequelae.</p> <p>Outline the laboratory findings</p> <p>List the etiological factors of acquired and inherited aplastic anemias.</p> <p>Discuss the pathophysiological mechanisms of anemia in bone marrow failure syndrome.</p> <p>Describe the characteristic peripheral blood and bone marrow features in aplastic anemia.</p>
White blood cell disorders	Lecture # 24	0.75	<p>Classify white blood cell disorders.</p> <p>Explain the common causes of increases and decreases in the number of the different leucocytes.</p>
Infectious Mononucleosis	Lecture # 25	0.75	<p>Describe the clinical signs and symptoms and diagnosis of infectious mononucleosis (IM).</p> <p>Recognize the important morphological features of IM</p>
Acute Myeloid Leukemia	Lecture # 26	0.75	<p>Define and classify myeloid neoplasm.</p> <p>Differentiate between leukemia and leukemoid reaction.</p> <p>Explain the pathogenesis, clinical features and morphology of AML.</p> <p>Discuss WHO classification of AML with the prognostic factors of AML</p>
Chronic Myeloid Leukemia	Lecture # 27	0.75	<p>Discuss the pathophysiology of Chronic Myeloid Leukemia (CML) and the mechanism of action of BCR–ABL fusion.</p> <p>Discuss clinical features of CML.</p> <p>Discuss the natural history of CML as, chronic phase, accelerated phase and blast crisis.</p> <p>Identify the morphological features of CML on peripheral blood smear.</p>
Multiple Myeloma	Lecture # 28	0.75	<p>Define and Classify plasma cell dyscrasia.</p> <p>Explain the pathology and clinical manifestations of multiple myeloma.</p> <p>Discuss pathogenesis of multiple myeloma.</p> <p>Identify the salient morphological feature of multiple myeloma.</p>

Chronic Lymphocytic Leukemia & Acute Lymphoblastic Leukemia	Lecture # 29	0.75	<p>Discuss the pathogenesis, clinical features and morphology of CLL.</p> <p>Identify morphological features of CLL on peripheral blood smear.</p> <p>Explain the pathogenesis of ALL.</p> <p>Describe the clinical features.</p> <p>Discuss the laboratory findings of ALL</p>
Lymphoma	Lecture # 30	0.75	<p>Define lymphoma.</p> <p>Classify Hodgkin's lymphoma.</p> <p>Discuss the pathogenesis and morphology of Hodgkin's lymphoma.</p> <p>Describe the staging of lymphoma and list the criteria used for staging.</p> <p>Classy of Non-Hodgkin's lymphoma.</p> <p>Differentiate between Hodgkin's and Non-Hodgkin's Lymphoma.</p>
Myelodysplasia	Lecture # 31	0.75	<p>Define myelodysplasia and describe its etiology, pathogenesis and clinical signs and symptoms.</p> <p>Describe the morphological disturbances in the red blood cells, white blood cells and platelets of Myelodysplastic Syndrome and compare them to normal red blood cells, white blood cells and platelets respectively.</p> <p>Discuss salient morphological features of MDS</p>
Myelo-proliferative Disorders	Lecture # 32	0.75	<p>Classify Myeloproliferative disorders.</p> <p>Discuss pathogenesis, clinical features, and morphology of; Polycythemia Vera, Primary Myelofibrosis and Essential thrombasthemia</p>
Thrombotic Micro-angiopathies	Lecture # 33	0.75	<p>Define "Thrombotic Microangiopathies".</p> <p>List the conditions leading to Thrombotic Microangiopathies.</p> <p>Describe the main causes of HUS and discuss its predominance in children.</p> <p>Describe the mechanism of TTP</p>
Platelet disorders	Lecture # 34	0.75	<p>List the congenital defects of platelets.</p> <p>Explain the common causes of thrombocytopenia.</p> <p>Describe the signs and symptoms of a patient with thrombocytopenia.</p> <p>Distinguish between acute ITP and chronic ITP</p>
Coagulation disorders	Lecture # 35	0.75	<p>Classify coagulation disorders.</p> <p>Discuss the pathophysiology and clinical features of Hemophilia and Von Willebrand Factor Complex.</p> <p>Describe the significance of coagulation profile</p>

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

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Iron deficiency anemia	Practical	2	
Megaloblastic anemia	Practical	2	
Sickle cell anemia	Practical	2	
AML/CML	Practical	2	
ALL/CLL	Practical	2	

DEPT. OF PHARMACOLOGY & THERAPEUTICS

LEARNING OBJECTIVES OF CVS & BLOOD 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
DRUGS USED IN HYPERTENSION (I)	LECTURE # 1	0.75 hours	<ul style="list-style-type: none">• Define hypertension.• Classify hypertension• Explain pathophysiology of hypertension.• Classify anti-hypertensive drugs according to different grades of hypertension.• Classify anti-hypertensive drugs on the basis of their mechanism of action.
DRUGS USED IN HYPERTENSION (II)	LECTURE # 2	0.75 hours	<ul style="list-style-type: none">• Explain the mechanism of action of Propranolol (beta blockers) and Verapamil (calcium channel blocker).• List the pharmacokinetic properties of these drugs.• List indications, contraindications & adverse effects of these drugs
DRUGS USED IN HYPERTENSIVE EMERGENCY	LECTURE # 3	0.75 hours	<ul style="list-style-type: none">• Differentiate between Hypertensive Emergency & Hypertensive Urgency.• Classify drugs used in Hypertensive Emergency.• Explain the mechanism of action of Sodium Nitroprusside & Labetalol.• List the pharmacokinetic properties of Sodium Nitroprusside and Labetalol.• List indications, contraindications & adverse effects of these drugs
DRUGS USED IN TREATMENT OF ANGINA PECTORIS	LECTURE # 4	0.75 hours	<ul style="list-style-type: none">• Define angina.• Classify angina.• Explain pathophysiology of angina.• Classify anti-anginal drugs.• Explain the mechanism of action of Nitrates.• List the pharmacokinetic properties of Nitrates.• List indications, contraindications & adverse effects of Nitrates.

DRUGS USED IN HEART FAILURE I	LECTURE # 5	0.75 hours	<ul style="list-style-type: none"> Define heart failure. Classify heart failure. Explain pathophysiology of heart failure. Classify drugs used in treatment of heart failure on basis of their mechanism of action. Explain the mechanism of action of Captopril and Losartan List the pharmacokinetic properties of drugs List indications, contraindications & adverse effects of these drugs
DRUGS USED IN HEART FAILURE II	LECTURE # 6	0.75 hours	<ul style="list-style-type: none"> Recall the drugs used in treatment of heart failure on basis of their mechanism of action. Explain the mechanism of action of Digoxin List the pharmacokinetic properties of Digoxin List the common adverse effects and contraindications of Digoxin
DIURETICS I	LECTURE # 7	0.75 hours	<ul style="list-style-type: none"> Recall structure and physiologic functions of nephron. Define diuretics. Classify diuretics. Explain mechanism of action of loop diuretics. List the pharmacokinetic properties of Furosemide List clinical uses of Furosemide List common adverse effects and contraindications of Furosemide
DIURETICS II	LECTURE # 8	0.75 hours	<ul style="list-style-type: none"> Recall the classification of diuretics. Explain mechanism of action of Mannitol, Hydrochlorothiazide and Spironolactone. List the pharmacokinetic properties of these drugs List clinical uses of these drugs List common adverse effects and contraindications of these drugs.
ANTI ARRHYTHMICS(1)	LECTURE # 9	0.75 hours	<ul style="list-style-type: none"> Define arrhythmias. Classify arrhythmias. Classify anti-arrhythmic drugs on basis of mechanism of action. Explain mechanism of action of Lidocaine. List the pharmacokinetic properties of Lidocaine. List clinical uses, adverse effects and contraindications of Lidocaine. Describe the role of beta blockers in the treatment of various arrhythmias.
ANTIARRHYTHMICS 2	LECTURE # 10	0.75 hours	<ul style="list-style-type: none"> Recall the classification of anti-arrhythmic drugs on basis of mechanism of action. Explain mechanism of action of Amiodarone. List the pharmacokinetic properties of Amiodarone. List clinical uses of these drugs, adverse effects and contraindications of Amiodarone. Describe the role of Calcium channel blockers (Diltiazem, Verapamil) in the treatment of various arrhythmias.

ANTI HYPERLIPIDEMICS	LECTURE # 11	0.75 hours	<ul style="list-style-type: none"> Recall types of hyperlipidemia. Classify anti hyperlipidemics. Explain mechanism of action of Statins, Niacin and Fibrates. List the pharmacokinetic properties of these drugs. List common adverse effects and contraindications of these drugs. List common drug-drug interactions associated with the use of Simvastatin.
ANTI- COAGULANTS	LECTURE # 12	0.75 hours	<ul style="list-style-type: none"> Outline coagulation cascade. Classify anticoagulants. Explain mechanism of action of Heparin and Warfarin. List the pharmacokinetic properties of these drugs List clinical uses of these drugs List common adverse effects and contraindications of these drugs List common drug-drug interactions associated with use of Heparin and Warfarin.
THROMBOLYTICS AND ANTIPLATELETS	LECTURE # 13	0.75 hours	<ul style="list-style-type: none"> Classify anti-platelets and thrombolytics. Explain mechanism of actions of Aspirin, Clopidogrel, Alteplase and Streptokinase. List the pharmacokinetic properties of these drugs. List clinical uses of these drugs. List common adverse effects and contraindications of these drugs.
DRUGS USED IN BLEEDING DISORDERS	LECTURE # 14	0.75 hours	<ul style="list-style-type: none"> List types of bleeding disorders. Classify drugs used for bleeding disorders. Explain mechanism of action of Vitamin K and Tranexamic acid. List the pharmacokinetic properties of these drugs List common adverse effects and contraindications of these drugs
DRUGS USED IN STROKE	LECTURE # 15	0.75 hours	<ul style="list-style-type: none"> Define stroke. Explain pathophysiology of stroke. Classify stroke List the general guidelines of stroke management. List the drugs used to treat ischemic and hemorrhagic stroke Describe the role of various drugs used in the management of ischemic and hemorrhagic stroke
DRUGS FOR ANEMIA	LECTURE # 16	0.75 hours	<ul style="list-style-type: none"> Classify anemia. Classify drugs used to treat anemia. Explain the role of Ferrous sulphate in the treatment of anemia. List the pharmacokinetic properties of these drugs. List common adverse effects and contraindications of these drugs.

LEARNING OBJECTIVES FOR TUTORIALS

TOPIC	MODE OF TEACHING	TIME hours	LEARNING OBJECTIVES
HYPERTENSION	TUTORIAL # 1	2 hours	<ul style="list-style-type: none"> • Describe the role of Labetalol and Hydralazine in the management of hypertensive urgency and emergency. • Describe the pharmacodynamics and pharmacokinetics of Hydralazine. • List clinical uses of Hydralazine. • List common adverse effects of Hydralazine. • Explain the pharmacological management of the given cases • Write down the prescription of the given case.
ANGINA	TUTORIAL # 2	2 hours	<ul style="list-style-type: none"> • Describe the use of Nitrates in the management of Angina. • Explain the pharmacological management of the given case. • Describe the role of beta blockers and calcium channel blockers in the management of Angina.
CONGESTIVE HEART FAILURE	TUTORIAL # 3	2 hours	<ul style="list-style-type: none"> • Describe the role of diuretics in the management of Congestive heart failure. • List common adverse effects of Furosemide. • Explain the pharmacological management of the given case.
HYPERLIPIDEMIA	TUTORIAL # 4	2 hours	<ul style="list-style-type: none"> • Describe the role of Statins in the management of hypercholesterolemia. • List common drug-drug interactions associated with the use of Statins. • Explain the pharmacological management of the given cases. • Describe the role of Bile acid-binding resins & Cholesterol absorption inhibitors in the management of hypercholesterolemia.
STROKE	TUTORIAL # 5	2 hours	<ul style="list-style-type: none"> • Describe the role of Alteplase and Streptokinase in the management of stroke. • Explain the pharmacological management of the given case.
BLEEDING DISORDERS	TUTORIAL # 6	2 hours	<ul style="list-style-type: none"> • Describe the role of Tranexamic acid in the management of bleeding • Explain the pharmacological management of the given case. • Describe the role of Clotting Factors and Desmopressin in the treatment of bleeding.
ANEMIA	TUTORIAL # 7	2 hours	<ul style="list-style-type: none"> • Define iron deficiency anemia. • Describe the use of Supplemental iron (Ferrous sulfate) in the management of anemia • Write down the prescription of the given case of iron deficiency anemia. • Describe the role of Vitamin B12 (Cyanocobalamin) & Folic acid in the treatment of anemia.
	TUTORIAL # 8	2 hours	<ul style="list-style-type: none"> • Define Cardiopulmonary resuscitation • List the drugs used in Cardiopulmonary resuscitation • Describe the role of Procainamide, Dopamine, and Sodium Nitroprusside in CPR.

CPR			<ul style="list-style-type: none"> • Explain pharmacokinetics and pharmacodynamics of these drugs. • Explain the pharmacological management of the given case.
RHEUMATIC HEART DISEASE	TUTORIAL # 9	2 hours	<ul style="list-style-type: none"> • Define Rheumatic heart disease • List various drugs used to treat Rheumatic heart disease. • Describe the role of Penicillin G in the treatment of Rheumatic heart disease • Explain the pharmacological management of the given case.

DEPT. OF FORENSIC MEDICINE
LEARNING OBJECTIVES OF CVS & BLOOD 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
Cranio-cerebral Injuries 1	Lecture#1	0.75	Classify Brain Injury with mention of Mechanism of its production Define Head Injury as per National Advisory Neurological Diseases & Stroke Council. Classify Cranio-Cerebral Injury (Scalp, Skull & Brain).
Cranio-cerebral Injuries 2	Lecture#2	0.75	Explain Cerebral Concussion, Contusions & Lacerations. Describe Coup & Contre-Coup Injury. Enlist Bone Fragmentation / Skull Fractures.
Cranio-cerebral Injuries 3	Lecture#3	0.75	Express Diffuse Axonal Injury (DAI), Diffuse Neuronal Injury (DNI), Diffuse Vascular Injury (DVI). Discuss Intracranial Hemorrhages/Hematomas, & Brain Swelling (Cerebral Edema).

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

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Organophosphorous Poisons	Practical#1	2	List the Uses of all the above Organophosphorous Poisons. Describe the Mechanism of Action of all these. List the Treatment options for Acute Poisoning as well as Chronic Poisoning of all. Diagnose the Chronic Signs & Symptoms of all. Diagnose the Acute Signs & Symptoms of all these Poisonings

DEPT. OF COMMUNITY MEDICINE
LEARNING OBJECTIVES OF CVS & BLOOD 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
Iron Deficiency anemia	Lecture # 1	0.75	Enlist the causes of iron deficiency anemia. Describe the preventive measure of iron deficiency anemia.
Ischemic heart disease	Lecture # 2	0.75	Discuss the modifiable and non-modifiable risk factors of ischemic heart disease. Describe the preventive measures for ischemic heart disease.

DEPT. OF RESEARCH & EVIDENCE BASED
MEDICINE

LEARNING OBJECTIVES OF CVS & BLOOD 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
Techniques of Effective Literature Search	Lecture # 1	0.75	
Retrieval of full text papers	Lecture # 2	0.75	

DEPT. OF MEDICINE
LEARNING OBJECTIVES OF CVS & BLOOD 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
DVT and Atherosclerosis – I	Lecture # 1	0.75	Discuss the causes of DVT & Atherosclerosis. Discuss the management & Treatment of DVT and Atherosclerosis.
Atherosclerosis – II Management of Primary and Secondary Hypertension	Lecture # 2	0.75	Discuss the types of hypertension. Discuss the types & management of hypertension. Define Pack year of smoking. Calculate the pack year of smoking. State the different modes of interventions which can help in such a condition.
Management of Angina & MI	Lecture # 3	0.75	Discuss the causes of IHD. Discuss the management of Angina & MI. Associate the rationale for prescribing Nitro-glycerine, Aspirin and Streptokinase to this patient.

DEPT. OF GYNAECOLOGY & OBSTETRICS

LEARNING OBJECTIVES OF CVS & BLOOD 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
Evaluation of pregnancy for congenital heart defects	Lecture # 1	0.75	1.Classify Congenital heart defects. 2.Discuss the risk factors for congenital heart defects. 3.Explain the importance of its evaluation during pregnancy.
Anemia in pregnancy	Lecture # 2	0.75	1.Define Anemia in pregnancy. 2.Classify anemia in pregnancy. 3.Discuss causes of Anemia in pregnancy. 3.Describe the clinical features of anemia in pregnancy according to severity.

PEARLS

LEARNING OBJECTIVES OF CVS & BLOOD 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
Conflict management & negotiation skills	Lecture	0.75	Discuss the issues of conflict & management. Discuss negotiation skills.
Ethical issues related to CVS	Lecture	2	Discuss the ethical dilemma of autonomy of patient and beneficence in cardiovascular problems.