

Multisystem-II Final Year MBBS

Table of Contents

Khyber Medical University (KMU) Vision:	3
Khyber Medical University (KMU) Mission:	3
nstitute of Health Professions Education & Research (IHPER) Mission:	3
emes	4
arning Objectives	5
ecific Learning Objectives	6

Khyber Medical University (KMU) Vision:

Khyber Medical University will be the global leader in health sciences academics and research for efficient and compassionate health care.

Khyber Medical University (KMU) Mission:

Khyber Medical University aims to promote professional competence through learning and innovation for providing comprehensive quality health care to the nation.

Institute of Health Professions Education & Research (IHPER) Mission:

To produce leaders, innovators and researchers in health professions education who can apply global knowledge to resolve local issues.

Themes

Table 1: Thematic Distribution

S. No	Themes	Duration in Hours
1	Weight loss/gain	9
2	Poisoning	7
3	Cold & Heat	3
4	The Abnormal Baby	7
5	Rash & Joint Pains	13

Learning Objectives

By the end of Multisystem-II Module, Final year MBBS students will be able to:

- 1. Explain the etiology, risk factors, complications, and management of obesity
- 2. Explain the classification, etiology, risk factors, and management of PCM
- 3. Explain the risk factors, clinical features, investigations, and treatment of common water-soluble and fatsoluble vitamins
- 4. Explain the concepts of nutritional support both in the hospital and community settings
- 5. Explain the risk factors, clinical features, complications, and management of Anorexia nervosa and Bulimia nervosa
- 6. Discuss the management of common household poisoning including natural gas and snake bites
- 7. Explain the management of heat and cold-related disorders
- 8. Discuss the high-altitude sickness, decompression sickness, drowning, and electrocution.
- 9. Discuss chromosomal abnormalities, their clinical features, and the concepts of genetic counselling
- 10. Discuss the management of different autoimmune disorders and vasculitides in children and adults and their complications.

Specific Learning Objectives

Table 2: Theme Wise Learning objectives

	Theme-1: Weight loss/gain								
Subject	Topic	Hours	S. No	Domain of learning	Learning objectives				
Medicine	Obesity	2	1	Cognitive	Classify the types of obesity.				
			2	Cognitive	Discuss the etiology of obesity.				
			3	Cognitive	Explain the methods of measuring obesity.				
			4	Cognitive	Discuss the musculoskeletal, endocrine, cardiovascular, and psychological complications of obesity.				
			5	Cognitive	Classify the drugs used in the management of obesity and their complications and adverse effects.				
Surgery	Bariatric surgery	1	6	Cognitive	Discuss the forms of surgical management of obesity				
	Vitamins deficiencies	1	7	Cognitive	Explain the etiology, clinical features, investigations, and treatment of Beri Beri.				
	Thiamine deficiency		8	Cognitive	Explain the etiology, clinical features, investigations, and treatment of Pyridoxine deficiency.				
	 Pyridoxine deficiency B12 deficiency and pernicious anemia 		9	Cognitive	Explain the etiology, clinical features, investigations, and treatment of B12 deficiency / pernicious anemia.				
	Vitamin A, D, E, K deficiency	1	10	Cognitive	Explain the etiology, clinical features, investigations, treatment, and prevention of Vitamin A deficiency				

			11	Cognitive	Explain the etiology, clinical features, investigations, and treatment of vitamin D deficiency
			12	Cognitive	Explain the etiology, clinical features, investigations, and treatment of vitamin E deficiency
			13	Cognitive	Explain the etiology, clinical features, and management of vitamin K deficiency
Surgery	Nutritional support/Enteral and	2	14	Cognitive	Define malnutrition and explain the methods of nutritional support.
	parenteral nutrition		15	Cognitive	Explain the indications, contraindications, and complications of oral, enteral, and parenteral nutritional support
			16	Cognitive	Discuss the modes of clinical and laboratory monitoring of nutritional support
			17	Cognitive	Describe the routes of access of parenteral nutrition
			18	Psychomotor	Perform insertion of Nasogastric tube
			19	Psychomotor	Observe the insertion and care of PEG tube
			20	Psychomotor	Keep an intake and output record of an admitted patient on parenteral nutrition
			21	Affective	Counsel a patient before NG tube and PEG tube insertion
Pediatrics	Protein calorie malnutrition	1	22	Cognitive	Discuss the causes of malnutrition in developing countries - Describe the different forms of protein-energy malnutrition - Describe the symptoms of severe protein-energy malnutrition in children - Outline the treatment needed to treat a malnourished child - Define the criteria that classifies protein-energy malnutrition

					Discuss the causes of malnutrition in developing countries - Describe the different forms of protein-energy malnutrition - Describe the symptoms of severe protein-energy malnutrition in children - Outline the treatment needed to treat a malnourished child - Define the criteria that classifies protein-energy malnutrition Explain the different causes, forms, classification, clinical features, and management of PMC
Psychiatry	Anorexia nervosa and Bulimia nervosa	1	23	Cognitive	Discuss the etiology, precipitating factors, clinical features, and management of Anorexia nervosa
			24	Cognitive	Discuss the etiology, precipitating factors, clinical features, and management of Bulimia nervosa.
			Then	ne-2: Poisor	ning
Subject	Topic	Hours	S. No	Domain of learning	Learning objectives
Medicine	Approach to a patient with poisoning	1	25	Cognitive	Explain the management approach to a patient with poisoning in emergency setup
	Management of a comatose patient with poisoning	1	26	Cognitive	Discuss the management approach to a patient who presents in a comatose state in emergency
	Diagnosis of a patient with poisoning	1	27	Cognitive	Diagnose a patient with poisoning
	Common antidotes and general		28	Cognitive	Discuss the antidotes for common poisons and their management

	management of poisoning				
	Selected poisoningAcetaminophen	1	29	Cognitive	Discuss the management of a patient with paracetamol poisoning
	Amphetamines and cocaine	3	30	Cognitive	Discuss the management of a patient with Amphetamine, cocaine and Ice poisoning
	BenzodiazepineInsecticides and		31	Cognitive	Discuss the management of a patient with benzodiazepine poisoning
	anticholinergics • Carbon		32	Cognitive	Discuss the management of a patient with insecticide and anticholinergic poisoning
	monoxide • Ethanol and		33	Cognitive	Discuss the management of a patient with ethanol and methanol poisoning
	Methanol • Snake bites		34	Cognitive	Discuss the management of a patient with Carbon monoxide (Natural gas) poisoning
			35	Cognitive	Discuss the management of a patient with snake venom poisoning
			36	Psychomotor	Perform gastric lavage
			37	Affective	Counsel a patient/family with poisoning
			Theme	-3: Cold and	heat
Subject	Topic	Hours	S. No	Domain of learning	Learning objectives
Medicine	Heat-related disorders	1	38	Cognitive	Classify heat-related disorders
	Hyperthermia		39	Cognitive	Explain the etiology, pathogenesis, clinical features and management of Hyperthermia and heat stroke
			40	Cognitive	Differentiate between hyperthermia and hyperpyrexia
	Hypothermia	1	41	Cognitive	Explain the risk factors, complications, and management of hypothermia.
	Drowning		42	Cognitive	Explain the management of a patient with drowning

	Electrical injuries		43	Cognitive	Discuss the management of a patient with electrocution
	High altitude sickness	1	44	Cognitive	Discuss the clinical features, management, and prevention of high-altitude sickness.
	Decompression sickness	-	45	Cognitive	Discuss the management of a patient with decompression sickness.
		Т	heme-4:	The abnorr	nal baby
Subject	Topic	Hours	S. No	Domain of learning	Learning objectives
Pediatrics	Porphyria	1	46	Cognitive	Classify porphyria.
			47	Cognitive	Explain the etiology, pathogenesis, clinical features and treatment of different types of porphyria
	Down syndrome	1	48	Cognitive	Explain the risk factor, chromosomal aberrations, clinical features and complications of Down Syndrome
	Collagen disorders	1	49	Cognitive	Classify collagen disorders and their clinical features
	Glycogen storage diseases		50	Cognitive	Classify glycogen storage disease and their clinical features
	Mucopolysacharidosi s	1	51	Cognitive	Describe the clinical features and complications of mucopolysaccharidosis
	Galactosemia and Phenylketonuria	-	52	Cognitive	Describe the clinical features, investigations and complications of Galactosemia and Phenylketonuria
Medicine	Chromosomal disorders	1	53	Cognitive	Classify chromosomal disorders and give examples
	Single gene defects		54	Cognitive	Classify single gene disorders and give examples
	Sex linked disorders	1	55	Cognitive	Classify sex linked disorders and give examples
	Polygenic inheritance		56	Cognitive	Classify polygenic inheritance disorders and give examples
	Marfan syndrome	1	57	Cognitive	Explain the clinical features and complications of Marfan syndrome

Gynaecology	Genetic counselling and perinatal	1	58	Cognitive	Explain the modes and indications of perinatal diagnosis						
	diagnosis		59	Cognitive	Discuss the concept of genetic counseling						
			60	Affective	Observe premarital counseling of a family for						
					thalassemia.						
	Theme-5: Rash and joint pains										
Subject	Topic	Hours	S. No	Domain of learning	Learning objectives						
Medicine	Evaluation of an	1	61	Cognitive	Discuss the diagnostic approach to a patient who						
	adult with				presents with suspected autoimmune disorder						
	suspected		62	Cognitive	Explain the different serological and immunological						
	autoimmune				investigations used in the diagnosis of autoimmune						
	disorder				disorders						
			63	Cognitive	Classify and explain the mechanism of action of						
					different pharmacotherapies in the management of						
					autoimmune disorders						
	SLE	2	64	Cognitive	Explain the clinical features, investigations,						
					management, prognosis and complications of SLE						
			65	Cognitive	Discuss the diagnostic criteria for the diagnosis of SLE						
			66	Cognitive	Explain the differences between SLE and drug induced lupus						
	Antiphospholipid	1	67	Cognitive	Explain the clinical features, investigations,						
	syndrome				management, prognosis and complications of						
					Antiphospholipid syndrome						
	Scleroderma	1	68	Cognitive	Explain the clinical features, investigations,						
					management, prognosis, and complications of						
					Scleroderma/Systemic sclerosis						

	Polymyositis and dermatomyositis	1	69	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of polymyositis and dermatomyositis
	Sjogren Syndrome		70	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Sjogren Syndrome
	Giant cell arteritis and polymyalgia Rehumatica	1	71	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Giant cell arteritis and polymyalgia Rehumatica
	Polyarteritis nodosa	1	72	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Polyarteritis nodosa
	Wegener granulomatosis		73	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of Wegener granulomatosis
	Vascilitides	1	74	Cognitive	Classify vascilitides, their clinical features, diagnostic approach, and management
			75	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of Henoch-Schönlein purpura
			76	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of BehÇet syndrome
Pediatrics	Kawasaki disease	2	77	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Kawasaki syndrome
			78	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of SLE in children

Nephrology	Renal involvement in different autoimmune	2	79	Cognitive	Classify different pathological entities involving the kidneys in SLE, Rheumatoid arthritis and other autoimmune disorders
	disorders		80	Cognitive	Explain the renal complications and their management in SLE and Rheumatoid arthritis.