



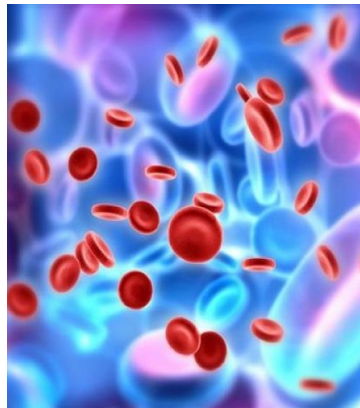
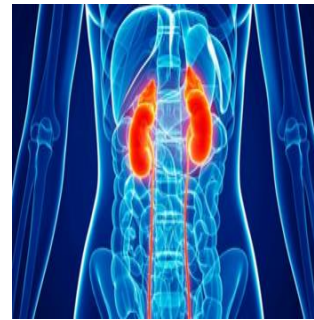
Faculty of Medicine

Dept. of Internal Medicine

## Rotation Medicine

MTR – 314

### STUDY GUIDE



**Prepared by**

**Department of Internal Medicine- Sohag University**

**Contact Information of Staff Responsible for Block**

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**Department Co-ordinators**

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**Under supervision of**

**Medical Education Centre**

**Faculty of Medicine Sohag University**

**Staff Participated from Department  
All staff member of Internal Medicine  
2022- 2023**

## **Basic Information about the Block**

### **Basic Information about the Block**

- **Program on which the course is given:**

**Bachelor of Medicine and Surgery (M.B. B.Ch.).**

- **Elements (major or minor) of the program:**

**Undergraduate**

- **Departments offering the course:**

**Internal Medicine**

**Academic. year/level:**

**3rd year, six semester**

**Date of specification approval:**

**2022 -2023**

**⊖ Title: Medicine 1**

**⊖ Code: MED - 314**

**⊖ Credit points: 10**

**⊖ Lectures: 33 hours**

**⊖ Practicals : 48 hours**

**⊖ Case based discussions : 48 hours**

**⊖ Student learning activities:**

**Portfolio : (22)**

**Formative assessment (17).**

## Block Map

Total marks	Responsible department	Days/ weeks	Points	الوحدة التعليمية Block	year
200	Internal medicine	6 weeks	10	Medicine 1 أمراض باطنة تشمل المقدمة لالمرض الباطنة امراض الدم وامراض الكلى	3 rd year

## Methods of Student Assessment

### 1. Formative:

This is used to monitor student's learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. It's given once weekly and the answers are presented and discussed immediately with you after the assessment.

**2. Summative** It is used to evaluate student's achievements at the end of an instructional unit. The grades tell whether the student achieved the learning goal or not.

The student's performance will be assessed according to the following:

Assessment task	Type of assessment	Proportion of total assessment	
		%	Marks
<b>End block exam</b>	MCQ (single correct answer)	20%	40 marks
<b>Portfolio</b>	- Attendance ( 10 marks) - Formative assessment (5 marks) - Case presentations (5 marks)	10%	20 marks
<b>Final written exam</b>	MCQ (single correct answer)	40%	80 marks
<b>OSCE final</b>	Typical OSCE stations using standardized, real or skill lab encounters	30%	60 marks
<b>Total</b>		100%	200 marks

## **NARS competencies covered by the block Clinical Rotations (Blocks)/ Competencies**

The competency areas of the NARS- Medicine competency framework are:

- 1- The graduate as a health care provider.
- 2- The graduate as a health promoter.
- 3- The graduate as a professional.
- 4- The graduate as a scholar and scientist.
- 5- The graduate as a member of the health team and a part of the health care system.
- 6- The graduate as a lifelong learner and researcher.

**Upon completion of this course students should be able to:**

NARS	Rotation	ILO Type
1.1. Take and record a structured, patient centered history.	Medicine II	S
1.2. Adopt an empathic and holistic approach to the patients and their problems.		S
1.3. Assess the mental state of the patient.		S
1.4. Perform appropriately timed full physical examination		S

of patients appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.		
1.5. Prioritize issues to be addressed in a patient encounter.		K&S
1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.		K&P
1.7. Recognize and respond to the complexity, uncertainty and ambiguity inherent in medical practice.		G&S
1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.		K
1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).		G&S
1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.		K&S
1.11. Perform diagnostic and intervention procedures <sup>2</sup> in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.		S
1.12. Adopt strategies and apply measures that promote patient safety.		S
1.13. Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate, using Evidence Based Medicine in management decisions.		K&S

1.14. Respect patients' rights and involve them and /or their families in management decisions.		S&G
1.15. Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.		K&S
1.16. Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.		K&S
1.17. Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.		K&S
2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.		G&S
2.9 Adopt suitable measures for infection control.		K&S
3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.		G
3.2. Adhere to the professional standards and laws governing the practice, and abide by the national code of ethics issued by the Egyptian Medical Syndicate.		G&S
3.3. Respect the different cultural beliefs and values in the community they serve.		S
3.4. Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural, ethnic backgrounds, or their disabilities.		S&G

3.5. Ensure confidentiality and privacy of patients' information.		G
3.7. Recognize and manage conflicts of interest.		G
3.8. Refer patients to appropriate health facility at the appropriate stage.		K&G&S
3.9. Identify and report any unprofessional and unethical behaviors or physical or mental conditions related to himself, colleagues or any other person that might jeopardize patients' safety.		G
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).		K
4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.		K
4.7 Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.		K
5.1 Recognize the important role played by other health care professions in patients' management.		S&G
5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.		S&G

5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.		S&G
5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.		S&G
5.5 Communicate effectively using a written health record, electronic medical record, or other digital technology.		S&G
5.6 Evaluate his/her work and that of others using constructive feedback.		G
5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.		S&G
5.9 Use health informatics to improve the quality of patient care.		G
5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.		G
5.12 Demonstrate accountability to patients, society, and the profession.		G
6.1 Regularly reflect on and assess his/her performance using various performance indicators and information sources.		G
6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice		G
6.3 Identify opportunities and use various resources for learning.		G

6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.		K-G
6.5 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.		K-G
6.6 Effectively manage learning time and resources and set priorities.		G
6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.		G

## **Block Aims**

### **Overall Aims**

1. This block aims to provide students with fundamental knowledge and clinical skills that enable him/her to detect, manage and/or refer common and important Endocrinal; GIT; Hepatobiliary; Nutritional and Rheumatological diseases.
2. By the end of the blocks, the students will be able to take informative history, perform appropriately timed physical examination of patients appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive , do some clinical procedures and interpret important investigations related to Endocrinal; GIT; Hepatobiliary; Nutritional and Rheumatological diseases.
3. By the end of the blocks, the students will be able counsel patients and their families about common Endocrinal; GIT; Hepatobiliary; Nutritional and Rheumatological diseases

## Intended Learning Outcomes of the Block

### **K- Knowledge and understanding Upon completion of the course students should be able to:**

K1- Apply definition, etiology, pathogenesis, clinical features, complications, principles of prevention and management in common Endocrinal; GIT; Hepatobiliary; Nutritional and Rheumatological diseases problems.

K2- Interpret differential diagnosis of Endocrinal; GIT; Hepatobiliary; Nutritional and Rheumatological diseases clinical problems presenting to doctors in primary health care setting, hospital and community, with emphasis on early manifestations of serious diseases (e.g., malignancy) and emergencies.

K3- Correlate the risk factors, outcomes and treatment options of common clinical problems related to the field of Endocrinal; Gastrointestinal; Hepatobiliary; Nutritional and Rheumatological diseases

K4- Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.

K5- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

K6- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with common Endocrinal; GIT; Hepatobiliary; Nutritional and; Rheumatological diseases illness both acute and chronic.

### **S- Clinical skills By the end of the course, students should be able to:**

S1- Obtain and record informative history.

S2-Examine the patients systematically appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.

S3- Design and /or present a structured, patient centered history and an appropriately timed full physical examination of patients.

S4- Show how to use peripheral venous cannula, urethral catheter, ryles tube insertion and syngestaken tube insertion.

S5- Apply measures that promote patient safety.

S6. Apply suitable measures for infection control when dealing with the patients and instruments.

S7- Conduct patient-focused care while working with health care professionals.

### **G- Generic and transferable skills**

G1- Perform practice-based improvement activities using portfolio.

G2- Practice effectively using a written health record, electronic medical record, or other digital technology

G3- Display effective communication with patients, their families and community through proper verbal and written means, respecting their beliefs and level of education.

G4- Display respect, compassion, and integrity; a responsiveness to the needs of patients and society.

G5- Display a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent.

G6- Work effectively with others as a member of team work by acting in small group.

G7- Display adequate cooperation with his/her colleagues

G8- Arrange the efforts required to accomplish the tasks in specified time.

G9- Verify the use of sources of biomedical information to remain current with advances in knowledge and practice.

G10- Share in the work efficiently in responsible manner keeping the Instruments and Equipment of the Department intact and clean.

G11-Adhere to the basic ethical and medicolegal principles that should be applied in practice.

G12- Describe his/her work and that of others using constructive feedback.

G13-Present regular reflection on and assess his/her performance using various performance indicators and information sources.

G14- Initiate a personal learning plan to enhance professional practice

G15- Identify opportunities and use various resources for learning.

G16- Integrate in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.

G17- Organize learning time and resources and set priorities

G18- Display accountability to patients, society, and the profession.

## **Learning Methods**

1- Lectures for knowledge outcomes.

2- Practical (Bedside/skill lab) sessions to gain clinical skills

3- Group discussions ( Case – based)

# Block Contents

## Lecture Topics and Their Intended Learning Outcomes

### Choose one source for each topic

No.	Lectures Titles And specified reference	Contact Hours
1	<b>Introduction and hypothalamus (diabetes insipidus and SIADH)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
2	<b>Growth hormone (acromegaly, gigantism and short stature)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
3	<b>Pan-hypopituitarism</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
4	<b>Hyperthyroidism</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
5	<b>Hypothyroidism</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
6	<b>Disorders of parathyroid glands (Hyperparathyroidism and Hypoparathyroidism)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
7	<b>Diseases of the adrenal gland (Cushing, Addison and clinical use of corticosteroids)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1

8	<b>Diseases of the adrenal gland (hyperaldosteronism and pheochromocytoma)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
9	<b>Basics of Nephrology</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition Amboss	1
10	<b>Glomerular Diseases (Nephrotic syndrome)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition Amboss	1
11	<b>Glomerular Diseases (primary and secondary glomerulonephritis)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
12	<b>Acute Kidney injury</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
13	<b>Chronic kidney diseases</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
14	<b>Management of CKD and Renal Replacement therapies</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
15	<b>Tubulointerstitial diseases</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
16	<b>Fluid and electrolyte disorders</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
17	<b>Renal cystic diseases</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
18	<b>Infectious kidney diseases</b>	1

	Kumar & Clark's Clinical Medicine, 10th edition Davidson's Principles and Practice of Medicine 23rd edition	
19	<b>Anemia (Iron deficiency anemia and megaloblastic anemia)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
20	<b>Aplastic anemia</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
21	<b>Hemolytic Anemia</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
22	<b>Myeloproliferative disorders</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
23	<b>Lymphadenopathy and splenomegaly (Hodgkin and non Hodgkin lymphoma)</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
24	<b>Blood Transfusion</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
25	<b>Acute leukemia</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
26	<b>Chronic leukemia</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	1
27	<b>Bleeding Tendency</b> Kumar & Clark's Clinical Medicine, 10 <sup>th</sup> edition Davidson's Principles and Practice of Medicine 23 <sup>rd</sup> edition	2
	<b>Total</b>	<b>33</b>

## Medicine I (cases scenario)

No	Title of cases and reference
1	<b>Case 1: Acromegaly</b> Internal Medicine Correlations and Clinical Scenarios for USMLE Step 3, 1st Edition
2	<b>Case 2: Hyperthyroidism</b> First Aid for USMLE Step2 CS (Clinical Skills)
3	<b>Case 3: Hypothyroidism</b> First Aid for USMLE Step2 CS (Clinical Skills)
4	<b>Case 4: Cushing syndrome</b> Internal Medicine Correlations and Clinical Scenarios for USMLE Step 3, 1st Edition
5	<b>Case 6. glomerulonephritis</b> (case3 nephrology chapter 336- 341) Internal Medicine correlation & clinical scenarios
6	<b>Case 6. nephrotic syndrome</b> (case 4 nephrology chapter 342-347) Internal Medicine correlation & clinical scenarios
7	<b>Case 7. AKI</b> (case1&2 in nephrology chapter 324-336) Internal Medicine correlation & clinical scenarios
8	<b>Case 8. End stage renal failure &amp;dialysis</b> (case 5nephrology chapter 348- 352) Internal Medicine correlation & clinical scenarios
9	<b>Case 9. iron deficiency anemia</b> Internal Medicine correlation & clinical scenarios case 1 (99-105)
10	<b>Case10.vitamin B12 deficiency anemia</b> Internal Medicine correlation & clinical scenarios case 3 (109-115)
11	<b>Case11. Aplastic anemia</b> USMLE Kaplan step 3 hematology cases case 5 ( 350-355)
12	<b>Case12. Hemolytic anemia</b> Internal Medicine correlateion &

	clinical scenarios case5 (122-127)
<b>13</b>	<b>Case13. Chronic myelogenous leukemia</b> USMLE Kaplan step 3 oncology cases case 9( 437-442)
<b>14</b>	<b>Case14. immune thrombocytopenic purpra</b> Internal Medicine correlation & clinical scenarios case 9 (143-147)

**Skills and tasks should be learned either in practical or  
group discussion**

No.	Bedside/skill lab sessions and Titles
1	Take history and general Examination (revise)
2	General examination revising checklist of Blood pressure measurement and pulse
3	General examination revising checklist including Body temperature measurement
4	Take history and examine endocrine case
5	Take history and examine Renal Case
6	Take history and examine hematology case

## Blueprint of the block

No.	Lectures Titles And specified reference	Total Marks	Final written exam	End of the block
1	(Introduction and hypothalamus)	4	1	3
2	(Growth hormone; long and short statures)	4	1	3
3	(Panhypopituitarism)	3	1	2
4	Hyperthyroidism	5	1	4
5	Hypothyroidism	4	1	3
6	Disorders of parathyroid glands (Hyperparathyroidism and Hypoparathyroidism)	4	1	3
7	Diseases of the adrenal gland (Cushing, Addison and clinical use of corticosteroids)	5	1	4
8	Diseases of the adrenal gland (hyperaldosteronism and pheochromocytoma)	4	1	3
9	Basics of Nephrology	4	1	3
10	Glomerular Diseases (Nephrotic syndrome)	4	1	3
12	Glomerular Diseases (primary and secondary glomerulonephritis)	6	2	4
13	Acute Kidney injury	6	1	5
14	Chronic kidney diseases	3	3	--

15	Management of CKD and Renal Replacement therapies	4	4	--
16	Tubulointersitial diseases	4	4	--
17	Fluid and electrolyte disorders	4	4	--
18	Renal cystic diseases	4	4	--
19	Infectious kidney diseases	4	4	--
20	Anemia (Iron deficiency anemia and megaloblastic anemia)	6	6	--
21	Aplastic anemia	4	4	--
22	Hemolytic Anemia	6	6	--
23	Myeloproliferative disorders	4	4	--
24	Lymphadenopathy and splenomegaly (Hodgkin and non Hodgkin lymphoma)	6	6	--
25	Blood Transfusion	4	4	--
26	Acute leukemia	4	4	--
27	Chronic leukemia	4	4	--
28	Bleeding Tendency	6	6	--
	<b>Total</b>	<b>120</b>	<b>80</b>	<b>40</b>

## Blueprint of the OSCE exam

	List of skills	No of stations	Marks of OSCE
<b>1</b>	History taking and examination of acromegaly	<b>1</b>	<b>3</b>
<b>2</b>	History taking and examination of thyroid case (hyperthyroidism)	<b>1</b>	<b>4</b>
<b>3</b>	History taking and examination of thyroid case (hypothyroidism)	<b>1</b>	<b>3</b>
<b>4</b>	Reading thyroid function test and interpret the findings	<b>1</b>	<b>3</b>
<b>5</b>	Examine thyroid and eyes in thyroid disorders	<b>1</b>	<b>3</b>
<b>6</b>	History taking and examination of Cushing	<b>1</b>	<b>3</b>
<b>7</b>	Focused history of common renal symptoms	<b>1</b>	<b>4</b>
<b>8</b>	Focused Local renal examination	<b>1</b>	<b>3</b>
<b>9</b>	History taking and examination of glomerulonephritis	<b>1</b>	<b>3</b>
<b>10</b>	History taking and examination of nephrotic syndrome	<b>1</b>	<b>4</b>
<b>11</b>	History taking and examination of CKD	<b>1</b>	<b>3</b>

12	Focused history of common hematology symptoms	1	4
13	History taking and examination of iron deficiency anemia	1	3
14	History taking and examination of megaloblastic anemia	1	3
15	History taking and examination of hemolytic anemia	1	4
16	History taking and examination of aplastic anemia	1	3
17	History taking and examination of CML	1	3
18	History taking and examination of ITP	1	4

## Lecture Outlines

### Lecture (1, 2 and 3) Diseases of the hypothalamus and pituitary glands

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### Specific learning Objectives:

By the end of the lectures the student will be able to:

- Discuss diagnostic approach to a case of acromegaly.
- Identify clinical presentation and treatment of hypopituitarism.
- Identify causes and diagnosis of diabetes insipidus.
- Identify diagnosis and management of SIADH.

Contents:

- Anatomy and hormones of pituitary gland.
- Acromegaly: clinical manifestation, diagnosis and treatment.
- Hypopituitarism: causes, clinical manifestations and treatment.
- Diabetes insipidus: causes of nephrogenic and central DI, clinical manifestations, diagnosis and treatment.
- SIADH: causes diagnosis and treatment.

## **Lecture (4) Hyperthyroidism**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

- Define and mention different causes of hyperthyroidism.
- Identify clinical manifestations and management of hyperthyroidism.
- Discuss diagnostic approach to a case of hyperthyroidism.
- Discuss eye manifestations and management of Graves' disease.

Contents:

- Definition and causes of Graves' disease hyperthyroidism.
- Clinical manifestations, diagnosis and treatment of hyperthyroidism.
- Graves' disease.

## **Lecture (5) Hypothyroidism**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

- Define and mention different causes of hypothyroidism.
- Identify clinical manifestations, diagnosis and management of hypothyroidism.
- Identify management of subclinical hypothyroidism.

Contents:

- Definition and causes of hypothyroidism.

- Clinical manifestations, diagnosis and treatment of hypothyroidism.
- Subclinical hypothyroidism.

## **Lecture (6) Disorders of parathyroid gland**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

- Identify causes of hyperparathyroidism
- Discuss clinical manifestations, diagnosis and management of hyperparathyroidism
- Identify causes of hypoparathyroidism
- Discuss clinical manifestations, diagnosis and management of hypoparathyroidism

Contents:

- Definition and causes of hyperparathyroidism.
- Clinical manifestations, diagnosis and treatment of hyperparathyroidism.
- Definition and causes of hypoparathyroidism.

## **Lecture (7 and 8) Diseases of the adrenal gland**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

- Identify causes and clinical manifestations of Cushing syndrome.
- Discuss clinical approach to a case of Cushing syndrome.

Identify causes, clinical manifestations and management of hyperaldosteronism.

- Discuss clinical approach to a case of Addison disease.
- identify causes, clinical manifestations and management of pheochromocytoma.

Contents:

- Anatomy and physiology of the adrenal gland.
- Cushing syndrome: Etiology, clinical manifestations, diagnostic approach and treatment.
- Hyperaldosteronism: causes, clinical manifestations, diagnosis and management.
- Causes of adrenal insufficiency.

- Addison disease: Etiology, clinical manifestations, diagnostic approach and treatment.
- Pheochromocytoma.

## **Lectures (9) Basics of Nephrology**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

1- Identify anatomical parts of nephrology , their physiology and their basic symptoms and signs about basics

2- Describe, clinical presentations,types, differential diagnosis investigation regarding renal diseases

It includes:

1-overview of the urinary system.

2-kidneys and its physiology

3-diagnostic evaluation of the kidneys & Urinary tract.

4- different symptomatology and signs.

Contents:

1-Definition

2-Epidemiology

3-Etiology and subtypes

4-Signs&symptoms

5- different investigations

6-Treatment

## **Lectures (10 and 11) Glomerular Diseases**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

1- Define glomerular diseases

2- Describe definition, terminology, overview, Nephrotic vs Nephritic , their clinical features, diagnosis, differential diagnosis and treatment of different glomerular diseases.

Contents:

- 1-Summary
- 2-Definition
- 3-Terminology of glomerular diseases
- 4-Pathophysiology
- 5-Overview glomerular diseases
- 6-Nephrotic vs. nephritic syndrome
- 7-Definition of both Nephrotic & nephritic syndromes
- 8-Overview of both Nephrotic & nephritic syndrome
- 9-Pathophysiology
- 10-Clinical features
- 11.Diagnostics
- 12-Differential diagnosis
- 13-treatment.

## **Lectures (12) Acute Kidney injury**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1- Define AKI
- 2- Describe Etiology, pathophysiology, clinical features, subtypes, diagnostics and treatments.

Contents:

- 1-Summary
- 2-Etiology
- 3-Pathophysiology
- 4-Clinical features
- 5-Subtypes and variants

6-Diagnostics

7-Treatment

### **Lectures (13) CKD**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1- Define end stage renal disease
- 2- Describe, risk factors,types, clinical presentations, investigation and management of end stage renal disease

Contents:

- 1-Definition
- 2-classification
- 3-prognosis
- 4-clinical approach
- 4-managment
- 5-Treatment of complications

### **Lecture (14) Renal Replacement therapies**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 9- Identify different types of renal replacement therapies and when to use dialysis and when to transplant.
- 10- Describe indications, contraindications and mechanisms of each type of RRT.

Contents

- 1-Different modalities of dialysis with its indications, contraindications and complications.
- 2-contraindications of transplantations
- 3-types of grafts

4-immunosuppression

5-complications

6-prognosis

7-When a patient present with a complication what to do.

## **Lectures (15) Tubulointersitial diseases**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

1- Apply definition and enumerate types of tubulointersitial diseases

2- Describe epidemiology, risk factors, clinical presentations, types, investigation and management of tubulointersitial diseases

Contents:

1-Definition

2-types

3- features

4-Etiology and types

5-pathophysiology and subtypes

6-Clinical symptoms

7-managment

8-prognosis

## **Lectures (16) Fluid and electrolyte disorders**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

1- List the most common electrolyte abnormalities associated with renal diseases

2- Describe epidemiology, risk factors, clinical presentations, investigation and management of fluid and electrolyte abnormality

Contents:

- 1-Definition
- 2-Epidemiology
- 3-Etiology
- 4-Clinical symptoms
- 5-Investigations
- 6-Treatment and prevention

### **Lectures (17) Renal cystic diseases**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1- Define cystic renal diseases
- 2- Describe epidemiology, definition, classification, pathology, etiology, clinical presentations, investigation and management of renal cystic diseases.

Contents:

- 1-Definition
- 2-Epidemiology
- 3-classification
- 3-Etiology
- 4-Clinical symptoms
- 5-pathology
- 6-diagnostics
- 7-Treatment
- 8-differential diagnosis
- 9-complications.
- 10-prognosis

## **Lectures (18) Infectious kidney diseases**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to :

- 1- Apply definition and enumerate types of infectious kidney diseases
- 2- Describe, definitions, clinical presentations, diagnostics ,treatment and complications of infectious kidney diseases.

Contents:

- 1-Definition
- 2-epidemiology
- 2-classification
- 3-Etiology
- 4-Clinical symptoms
- 5-diagnostics
- 6-Treatment
- 7-differential diagnosis
- 8-complications

## **Lectures (19) Anemia**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Define anemia and list its different types
2. Describe types, clinical presentations, investigations and management of anemia

Contents:

1. Definition
2. symptoms & signs
3. types
4. Etiology

5. Clinical symptoms
6. Investigations
7. Treatment
8. Approach to anemias

## **Lectures (20) Aplastic Anemia**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Define aplastic anemia
2. Describe types, definition, clinical features, diagnosis, differential diagnosis and treatment of aplastic anemia

Contents:

1. types
2. clinical presentation
3. diagnosis
4. treatment
5. Differential diagnoses

## **Lectures (21) Hemolytic Anemia**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

3. Define hemolytic anemia
4. Describe types, definition, clinical features, diagnosis, differential diagnosis and treatment of hemolytic anemia

Contents:

1. types
2. clinical presentation

3. diagnosis
4. treatment
5. Differential diagnoses

## **Lectures (22) Myeloproliferative disorders**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Define Myeloproliferative disorders
2. Describe Etiology, clinical features, types, diagnostics and treatments.

Contents:

1. Definition
2. types
3. Presentations
4. Investigations
5. Diagnostics
6. Treatment

## **Lectures (23) Lymphadenopathy and splenomegaly**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Define and list types of Lymphadenopathy
2. Describe types, symptoms, signs, clinical presentations, investigation and

management of lymphadenopathy

Contents:

1. types
2. Definition
3. Etiology and types

4. Clinical symptoms
5. Investigations
6. Treatment

## **Lectures (24) Blood Transfusion**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Define blood transfusion
2. Describe types, indications and complications of blood transfusion.

Contents:

1. types
2. complications
3. transfusion reactions
4. indications

## **Lectures (25) Acute leukemia**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Identify what is meant by leukemia, Differential diagnosis
2. Describe, classifications, clinical presentations, types, differential diagnosis investigation and treatment & complications

Contents:

1. Incidence
2. Classifications
3. Symptoms & signs
4. Investigations
5. Treatment
6. Prognosis

## 7. Complications

### **Lectures (26) chronic leukemia**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### **Specific learning Objectives:**

By the end of the lecture the student will be able to:

1. Identify what is meant by leukemia, Differential diagnosis
2. Describe stages, clinical presentations, differential diagnosis investigation and treatment & complications.

Contents:

1. Definition
2. stages
3. differential diagnosis
4. Clinical symptoms
5. Investigations
6. Treatment
7. Complications

### **Lectures (27) Bleeding Tendency**

Kumar & Clark's clinical medicine. 10th edition

Davidson's principles and practice of medicine 23th edition

#### **Specific learning Objectives:**

By the end of the lecture the student will be able to

1. Define Bleeding Tendency
2. Describe definition, terminology, overview, clinical features, diagnosis, differential diagnosis and treatment of different glomerular diseases.

Contents:

1. types
2. causes
3. etiologies

4. Clinical features
5. Diagnostics
6. Differential diagnoses
7. Treatment.
8. approach to bleeding tendency

### **Outlines of topics for self directed learning and case based discussions**

#### **Case (1) Acromegaly**

First Aid for USMLE Step 2 CS (Clinical Skills), Case-21, P:323-330

##### **Specific learning Objectives:**

**By the end of case discussion, the student will be able to:**

1. Integrate the results of history, physical examination and laboratory findings into a meaningful diagnostic formulation.
2. Select the appropriate investigations.
3. Construct appropriate management regarding a case with acromegaly

#### **Case (2) Hyperthyroidism**

First Aid for USMLE Step 2 CS (Clinical Skills), Case-29, P:397-406

##### **Specific learning Objectives:**

**By the end of case discussion, the student will be able to:**

1. Integrate the results of history, physical examination and laboratory findings into a meaningful diagnostic formulation.
2. Select the appropriate investigations.
3. Construct appropriate management regarding a case with hyperthyroidism

#### **Case (3) Hypothyroidism**

First Aid for USMLE Step 2 CS (Clinical Skills), Case-33, P:436-444

##### **Specific learning Objectives:**

**By the end of case discussion, the student will be able to:**

1. Integrate the results of history, physical examination and laboratory findings into a meaningful diagnostic formulation.
2. Select the appropriate investigations.
3. Construct appropriate management regarding a case with hypothyroidism

#### **Case (4) Cushing syndrome**

Internal Medicine Correlations and Clinical Scenarios for USMLE Step 3, 1st Edition

Chapter 3 P: 196-203

#### **Specific learning Objectives:**

**By the end of case discussion, the student will be able to:**

1. Integrate the results of history, physical examination and laboratory findings into a meaningful diagnostic formulation.
2. Select the appropriate investigations.
3. Construct appropriate management regarding a case with hypercortisolism

#### **Case (5) Glomerulonephritis**

**Case (5) nephrology chapter 336-341)**

**Internal Medicine correlation & clinical scenarios**

#### **Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with glomerulonephritis.

#### **Case (6) Nephrotic syndrome**

**Case (5) nephrology chapter 342-347) Internal Medicine correlation & clinical scenarios**

#### **Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

2- Select the appropriate investigations.

3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with Nephrotic syndrome

### **Case (7) AKI**

**(case1&2 in nephrology chapter 324-336) Internal Medicine correlation & clinical scenarios**

#### **Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

2- Select the appropriate investigations.

3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with AKI.

### **Case (8) End stage renal failure &dialysis**

**(case 5nephrology chapter 348- 352) Internal Medicine correlation & clinical scenarios**

#### **Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

2- Select the appropriate investigations.

3-appropriate management algorithm (both diagnostic and therapeutic) for patients with End stage renal failure &dialysis.

### **Case (9) iron deficiency anemia**

**Internal Medicine correlation & clinical scenarios case 1 (99-105)**

**Medicine 1 (MED-314) Study Guide 45**

#### **Specific learning Objectives:**

**By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3-appropriate management algorithm (both diagnostic and therapeutic) for patients with iron deficiency anemia

### **Case (10) vitamin B12 deficiency**

#### **Internal Medicine correlation & clinical scenarios case 3 (109-115)**

##### **Specific learning Objectives:**

##### **By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3-Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with vitamin B12 deficiency.

### **Case (11) Autoimmune hemolysis**

#### **Internal Medicine correlateion & clinical scenarios case5 (122-127)**

##### **Specific learning Objectives:**

##### **By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with Autoimmune hemolysis.

### **Case (12) Aplastic anemia**

#### **USMLE Kaplan step 3 hematology cases case 5 ( 350-355)**

##### **Specific learning Objectives:**

##### **By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3- appropriate management algorithm (both diagnostic and therapeutic) for patients with Aplastic anemia.

### **Case (13) Immune thrombocytopenic purpura**

#### **Internal Medicine correlation & clinical scenarios case 9 (143-147)**

##### **Specific learning Objectives:**

##### **By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3-Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with immune thrombocytopenic purpura

### **Case (14) Chronic myelogenous leukemia**

#### **USMLE Kaplan step 3 oncology cases case 9( 437-442)**

##### **Specific learning Objectives:**

##### **By the end of the lecture the student will be able to :**

- 1- Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.
- 2- Select the appropriate investigations.
- 3- Construct appropriate management algorithm (both diagnostic and therapeutic) for patients with chronic myelogenous leukemia