



Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Basrah
Al-Zahraa College of Medicine



- Al-Zahraa College of Medicine
- Year 4

Block Summary

Endocrinology and Nephrology (E&N)

Educational aims of the block

THE WORKBOOK:

The aims of this block are that students should be able to recognize common conditions affecting the endocrine system (including diabetes) and renal system ,be able to describe their investigation, treatment, prevention and management.

Remember well the timetable and your subgroup at the start of the block. The workbook cases will be group discussion. On the other hand, tasks ought to be completed individually or group-discussed without blue printing. You should deliver the workbook at end of block with all tasks are fulfilled. Failure to accomplish this will be reflected in bad performance and may be scored as unsatisfactory and you might be denied from entrance to the final exam.

The Log Book

THE LOGBOOK:

Separately, you will be given a log book with instruction and duties to fill in. By end of the block, you ought to deliver a completely filled log book, with tasks, procedural skills, and case presentations. As in the workbook, failure to accomplish this will be reflected as bad performance and may be scored as unsatisfactory and you might be denied from entrance to the final exam.

Attendance

A weekly attendance paper should be delivered to the block secretary at the end of each week of the block except the induction week. Each day, you need to have signed (or stamped) your attendance TWO TIMES in the subgroup activity and the afternoon activity. Consequently, 10 signed attendances should be presented by each student at end of each week. Failure to accomplish this will result in prohibition from the final exam if it exceeded 10% without excuse and 15% with excuse.

Module Outline

OBJECTIVES OF THE BLOCK

- identify patients likely to have a diagnosis of diabetes on the basis of the clinical history
 - confirm diabetes on laboratory investigation
 - detect sub-clinical diabetes
 - formulate a management plan, if necessary using information sources, appraise evidence and apply conclusions, for the care of patients with diabetes
 - use effective communication skills to
- give advice about lifestyle changes to a patient who has recently been diagnosed as suffering from diabetes and offer an explanation of why various treatments are required over and above simple dietary intervention
 - explain to patients the importance of good metabolic control, blood pressure control and reduction of serum lipids in reducing morbidity and mortality
 - give advice to patients on exercise, driving and occupation
 - give patients information about self-help organizations
 - describe and be able to recognize long term complications of diabetes, including
 - macrovascular disease
 - eye disease
 - renal disease & hypertension
 - neuropathy & foot disease
 - lipid disease
 - explain the role of chiropodists, dieticians, psychologists and specialist nurses in the care of diabetes
 - identify patients likely to have a diagnosis of thyroid disease on the basis of clinical history, examination and appropriate investigations
 - identify patients likely to have a diagnosis of adrenal disease on the basis of clinical history, examination and appropriate investigations
 - identify patients likely to have a diagnosis of pituitary disease on the basis of clinical history, examination and appropriate investigations
 - Explain the principles of fluid and electrolyte balance, including
 - Causes, investigations and management of hypo- and hypernatraemia
 - Causes, investigations and management of hypo- and hyperkalaemia

- Use of intravenous fluids
 - Explain the principles of acid base balance
- Identify and manage metabolic acidosis and alkalosis
 - Identify the causes of haematuria and proteinuria, and their management
 - Identify the causes of acute kidney injury, and their management
 - Identify the causes of chronic kidney disease and their management
 - Explain to a patient the principles of renal replacement therapy
 - Be aware of principles of prevention as related to renal disease

LEARNING OUTCOMES FOR THE BLOCK

Diabetes

1-Diagnosis and general management

- Be able to explain to patients the difference between Type 1 & 2 diabetes
- Give preventative advice regarding micro-vascular, neurological and macrovascular complications
- Advise about employment, driving, exercise, weight control, smoking and family planning
- Detect known complications of diabetes and their associated risk factors
- Educate patients in the appropriate use of insulin syringes, injections pens, home blood glucose monitoring and urinalysis
- Give advice about avoidance, recognition & correction of hypoglycaemia

2-Diabetic emergencies

- Diagnose and distinguish between the types of diabetic hyperglycaemic metabolic decompensation (DKA vs HONK)
- Manage metabolic decompensation and advise about future prevention
- Diagnose & manage severe hypoglycaemia and advise about prevention
- Identify patients with hypoglycaemic unawareness

3-Management of diabetic patients during acute illness and surgery

- Manage patients with diabetes undergoing surgery

4-Diabetes in specific situations

- Advise women about the potential risks of diabetic pregnancy, including progression of complications
- Optimize glycaemic control and BP prior to and throughout pregnancy

- Diagnose and manage gestational diabetes
- understand ante-natal care in diabetic mothers
- Understand the management of diabetes in childhood and adolescence
- Understand the management of diabetes in the elderly

5-Macrovascular disease

- Identify and manage risk factors for macro-angiopathy
- Identify, investigate and recognise how to make appropriate referrals for patients with macro-vascular disease
- Manage diabetic patients suffering acute myocardial infarction or stroke

6-Eye disease

- Perform and interpret visual acuity testing
- Be able to perform fundoscopy
- Identify background, pre-proliferative and proliferative retinopathy from retinal photographs
- Explain the treatments available for eye complications to patients
- Explain the implications of eye complications to driving/employment and advise patients accordingly

7-Renal disease and hypertension

- Diagnose nephropathy and distinguish between micro-albuminuria and clinical nephropathy
- Advise patients about the significance of nephropathy
- Demonstrate understanding of the role of blood pressure in progression of nephropathy
- Understand the significance of proteinuria in the increased incidence of macroangiopathy
- Manage hypertension according to current guidelines
- Manage glycaemia in patients with renal impairment

8-Neuropathy and foot disease

- Assess vascular supply and neurological status of the lower limb
- Identify patients at risk of foot problems and advise on prevention
- Manage established diabetic foot problems
- Understand management of neuropathic pain

9-Lipid disease

- Select appropriate patients to screen for dyslipidaemia
- Assess cardiovascular risk in relation to lipid profile
- Diagnose and manage patients with primary and secondary lipid disorders

Endocrinology

1-Disorders of the hypothalamus and pituitary

- Understand and interpret basal and dynamic tests of anterior pituitary function
- Diagnose and manage functioning and non-functioning pituitary tumours
- Diagnose the compressive effects of pituitary tumours
- Diagnose and manage hypopituitarism

2-Disorders of thyroid gland

- Explain to patient's disease states in terms of disorders of thyroid

Physiology and biochemistry

- Interpret thyroid function test results
- Diagnose and manage thyrotoxicosis
- Diagnose and manage simple non-toxic goitre, MNG and STNs
- Advise patients about starting antithyroid medication
- Diagnose and manage primary and secondary hypothyroidism
- Manage thyroid disorders during and after pregnancy
- Understand the Dx and management of patients with thyroid eye disease

3-Disorders of adrenal glands

- Interpret tests of adrenal function
- Understand investigation and management of Cushings' syndrome
- Investigate and manage primary and secondary adrenal failure
- Management of pheochromocytoma

4-Disorders of parathyroid glands, calcium metabolism and bone

- Diagnose and manage hypercalcaemia, including emergency presentations
- Diagnose and manage hyperparathyroidism

- Investigate and manage hypocalcaemia
- Diagnose and manage vitamin D deficiency states

5-Disorders of gonads

- Investigate and manage primary and secondary gonadal failure in men
- Understand common chromosomal disorders such as Turner's and Klinefelter's syndromes

6-Miscellaneous endocrine and metabolic disorders

- Investigate and manage patients with morbid obesity
- Investigate patients with suspected hypoglycaemia
- Investigate and manage acute and chronic hypo and hypernatraemia
- Understand multiple endocrine neoplasia (MEN 1, 2a, 2b)

LINKS TO OVERARCHING THEMES

Students will learn about the following aspects of the overarching themes:

Basic sciences:

- Glucose homeostasis
- Control of the hypothalamo-pituitary axis
- Thyroid hormone homeostasis

Pathology:

- Micro-vascular disease
- Macro-vascular disease
- Auto-immunity

Pharmacology & therapeutics

- Oral hypoglycaemics
- Insulins and their delivery devices
- Endocrine replacement

Infection

- Diabetic foot
- Thyroiditis

Imaging

- Endocrine imaging
- Vascular imaging
- Plain radiology of diabetic foot

Ethics and Law

- Diabetes and driving
- Diabetes and employment

Assessment Method Summary*

| Type (Examination, Test, Coursework, Presentation, Practical, Other) | TD's Outcomes | Duration (e.g. 1 hour, 4,000 words) | Timing |
|---|---|--|--|
| <i>Written examinations (a combination of single best answer, constructed response or extending matching questions)</i> | Doctor as Scholar/Scientist | 2x 2 hours | End of term 6. |
| <i>Objective Structured Clinical Examinations</i> | Doctor as a Scholar/Scientist Doctor as Practitioner | 12 stations | End of term 6. |
| <i>E-portfolio[†]</i> | Doctor as a Professional | | Formative during phase I, summative at end of Phase II |

**All learning outcomes described will be tested to a sufficient standard in Phase I to satisfy the requirements of an exit degree.*

Document Version Information

Document Title: Block Summary: Endocrinology and Nephrology Block (E&NB).

Source of the curriculum: College of Medicine, University of Kufa according to the integrated curriculum of Leicester University – Medical college.

Origination: Al-Zahraa College of Medicine

Date: 13/09/2023

Replacing Document: non until review

Approved:

Date: