



# Endocrine & Reproduction- III Final Year MBBS

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**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     | Tall/Short Stature              | 3                 |
| 2     | Neck Swelling and Muscle cramps | 5                 |
| 3     | Excessive Thirst & Urination    | 8                 |
| 4     | Moon Face                       | 4                 |
| 5     | Pregnancy and Breast Lump       | 20                |

# Learning Objectives

**By the end of Endocrine and Reproduction-III Module, Final year MBBS students will be able to:**

1. Discuss the clinical conditions resulting in Tall/short stature and its management.
2. Discuss the clinical conditions causing Excessive thirst and Urination and its management.
3. Discuss the clinical conditions resulting in Infertility and its management.
4. Discuss pathophysiology of Pregnancy, its Management, and complications.
5. Discuss the development of fetus, its growth, and complications.
6. Discuss the pathophysiology of Obstetrics emergencies, its Management, and complications.

# Specific Learning Objectives

Table 3: Theme Wise Learning objectives

| Theme-1: Tall / short stature            |                           |              |                    |   |
|--|---------------------------|--------------|--------------------|---|
| Subject                                  | Topic                     | Hours needed | Domain of learning | Learning Objectives   |
| Medicine                                 | Anterior pituitary gland  | 1            | Cognitive          | Discuss the diagnostic approach and management of a patient with tall stature.                              |
|  | Posterior pituitary gland | 1            | Cognitive          | Discuss the approach consideration of a patient with polydipsia   |
|  |                           |              | Cognitive          | Explain the diagnostic approach and treatment of a patient with Diabetes insipidus.                         |
| Pediatrics                               | Short stature             | 1            | Cognitive          | Discuss the diagnostic approach and management of a child with short stature.                               |
| Theme-2: Neck swelling and muscle cramps |                           |              |                    |   |
| Subject                                  | Topic                     | Hours needed | Domain of learning | Learning Objectives   |
| Medicine                                 | Thyroid gland disorders   | 1            | Cognitive          | Discuss the diagnostic approach, management, and complications of a patient with suspected hyperthyroidism. |
|  |                           | 1            | Cognitive          | Discuss the diagnostic approach, management, and complications of a patient with suspected hyperthyroidism. |
|  | Parathyroid gland         | 1            | Cognitive          | Discuss the diagnostic approach, management, and complications of a patient with tetany.                    |

|  |                   |                     |                           |  |
|--|-------------------|---------------------|---------------------------|--|
|  |                   |                     | Psychomotor               | Take history and perform physical examination of a patient with goitre.  |
|  |                   |                     | Affective                 | Counsel a patient with goitre.   |
| Surgery  | Thyroid nodule    | 1                   | Cognitive                 | Explain the diagnostic approach, management, and complications of multinodular goitre.                                 |
|  |                   |                     | Cognitive                 | Explain the diagnostic approach, and management of a patient with solitary thyroid nodule.                             |
|  |                   |                     | Psychomotor               | Perform thyroid examination  |
| Pediatrics                                     | Thyroid disorders | 1                   | Cognitive                 | Explain the neonatal screening for hypothyroidism  |
|  |                   |                     | Cognitive                 | Explain the diagnostic approach and management of a child with suspected Cretinism                                     |
|  |                   |                     | Cognitive                 | Discuss the complications of Cretinism   |
|  |                   |                     | Psychomotor               | Take history and perform physical examination of a child with hypothyroidism/cretinism.                                |
| <b>Theme-3: Excessive thirst and urination</b> |                   |                     |                           |  |
| <b>Subject</b>                                 | <b>Topic</b>      | <b>Hours needed</b> | <b>Domain of learning</b> | <b>Learning Objectives</b>   |
| Medicine                                       | Diabetes Mellitus | 1                   | Cognitive                 | Explain the diagnostic approach, screening and management of a patient with suspected Diabetes Mellitus.               |
|  |                   | 1                   | Cognitive                 | Elaborate the pharmacological and non-pharmacological management strategies in the management of type-1 and type-2 DM. |
|  |                   | 1                   | Cognitive                 | Elaborate the acute and chronic complications of DM and their management   |

|                        |   |   |             |   |
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|                        |   | 1 | Cognitive   | Discuss the diagnostic approach, management, and complications of hyperglycaemic syndromes in Diabetic patients.  |
|                        |   |   | Cognitive   | Explain the diagnosis, management and complications of a diabetic patient presenting with hypoglycaemias.   |
|                        |   |   | Psychomotor | Take history and perform physical examination of a patient with Type 2 DM.  |
|                        |   |   | Affective   | Counsel a newly diagnosed patient with DM.  |
| <b>Family medicine</b> | Diabetes mellitus-general practice management |   | Cognitive   | Explain the management strategies of a diabetic patient in general practice including the psychosocial impact of disease on patient and their families. |
|                        |   |   |             | Describe the strategies for prevention of diabetes mellitus and its complications.  |
|                        |   |   |             | Identify the red flags in a diabetic patient and appropriately refer to speciality care when required.  |
| <b>Surgery</b>         | Diabetic foot ulcers                          | 1 | Cognitive   | Discuss the classification, investigations, management, and complications of diabetic foot ulcers   |
|                        |   |   | Psychomotor | Examine and stage a diabetic foot ulcer   |
| <b>Nephrology</b>      | Diabetic nephropathy                          | 1 | Cognitive   | Explain the pathogenesis, clinical features, complications, short and long-term management of Diabetic Nephropathy                                      |
| <b>Pediatrics</b>      | Type-1 DM                                     | 1 | Cognitive   | Explain the diagnostic approach, screening, and management of a Child with suspected Type-1 Diabetes Mellitus   |
|                        |   |   | Psychomotor | Take history and perform physical examination of a patient with Type 2 DM   |
|                        |   |   | Affective   | Counsel a newly diagnosed patient and parents with type 1 DM  |



### Theme-3: Moon face and obesity

| Subject  | Topic              | Hours needed | Domain of learning | Learning Objectives  |
|----------|--------------------|--------------|--------------------|--|
| Medicine | Cushing`s syndrome | 1            | Cognitive          | Discuss the diagnosis, management, and complications of a patient with suspected Cushing`s syndrome.                             |
|          |                    | 1            | Cognitive          | Explain the Dexamethasone suppression test in terms of its indications and interpretation.                                       |
|          |                    |              | Cognitive          | Explain the protocol of steroids withdrawal in a patient with steroids abuse.  |
|          |                    |              | Psychomotor        | Take history and perform physical examination of a patient with Cushing`s syndrome.  |
|          | Addison`s disease  | 1            | Cognitive          | Discuss the diagnosis, management, and complications of a patient with suspected Addison`s disease (both primary and secondary). |
|          |                    |              | Cognitive          | Explain the concept of steroids replacement in terms of its indications and precautions.   |
|          | Obesity            | 1            | Cognitive          | Discuss the etiology, complications, medical and surgical approaches to the management of obesity.                               |
|          |                    |              | Psychomotor        | Take history and perform physical examination of a patient with morbid obesity.  |
|          |                    |              | Affective          | Counsel a morbidly obese patient regarding the complications and lifestyle management.   |

### Theme-5: Pregnancy and breast feeding

| Subject                    | Topic  | Hours needed | Domain of learning | Learning Objectives   |
|----------------------------|--|--------------|--------------------|---|
| Gynaecology and Obstetrics | Obstetrics history and examination             |              | Psychomotor        | Take an obstetric history and perform abdominal, pelvic, and obstetric examination of a pregnant lady.                  |
|                            |  |              | Psychomotor        | Measure and interpret blood pressure in a pregnant lady   |
|                            |  |              | Psychomotor        | Examine the breast of a full-term pregnant female   |
|                            |  |              | Psychomotor        | Perform urine examination via dipstick technique for pregnancy, glucose, urine, and bacteria                            |
|                            | Antenatal care                                 | 1            | Cognitive          | Define and explain the aims of antenatal care   |
|                            |  |              | Cognitive          | Discuss the components of antenatal care  |
|                            |  |              | Cognitive          | Explain different types of screening tests during antenatal care  |
|                            |  | 1            | Cognitive          | Discuss the maternal and neonatal complications associated with increased BMI in pregnancy                              |
|                            |  |              | Cognitive          | Identify high risk women of developing pre-eclampsia, preterm birth, fetal growth restriction, and vitamin D deficiency |
|                            |  |              | Psychomotor        | Perform and record proper antenatal check-ups   |
|                            | Assessment of fetal wellbeing                  | 1            | Cognitive          | Explain the methods of assessment of fetal wellbeing  |
|                            |  |              | Cognitive          | Explain the types and diagnosis of fetal abnormalities  |
|                            | Prenatal diagnosis                             | 1            | Cognitive          | Explain the reasons, classification, and methods of prenatal diagnosis  |
|                            | Antenatal maternal and obstetric complications | 1            | Cognitive          | Discuss musculoskeletal, gastroenterological, and haematological problems associated with pregnancy.                    |
|                            |  |              | Cognitive          | Discuss the risk factors and management of venous thromboembolism in pregnancy.   |
|                            |  | 1            | Cognitive          | Explain the causes, complications, and management of polyhydromnias and oligohydromnias.                                |

|                                |                                     |             |   |   |
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|                                |                                     |             | Cognitive   | Discuss the etiology, complications and management of fetal malpresentations.   |
|                                |                                     | 1           | Cognitive   | Explain the approach and management of a pregnant lady with antepartum bleeding.  |
|                                |                                     |             | Cognitive   | Discuss the etiology, prevalence, management, and prevention of Rh isoimmunization.   |
|                                | Preterm labor<br>□ PROM<br>□ PPROM  | 1           | Cognitive   | Discuss the etiology, complications, and management of preterm labor.   |
| Family medicine/<br>Obstetrics | Hypertensive disorders in pregnancy | 1           | Cognitive   | Classify hypertension in pregnancy and disorders of hypertension in pregnancy.  |
|                                |                                     |             | Cognitive   | Discuss the diagnostic approach, management, complications and prevention of Pre-eclampsia and Eclampsia                    |
| Family medicine/<br>Obstetrics | Diabetes mellitus and pregnancy     | 1           | Cognitive   | Explain the management of a pregnant lady with gestational DM and overt DM  |
| Obstetrics                     | Perinatal infections                | 1           | Cognitive   | Classify prenatal infections.   |
|                                |                                     |             | Cognitive   | Explain the screening and preventive strategies of common perinatal infections.   |
|                                | Labour                              | 1           | Cognitive   | Explain the management of normal labour at different stages   |
|                                |                                     |             | Cognitive   | Explain the management of abnormal labour at different stages   |
|                                |                                     |             | Cognitive   | Discuss the indications and complications of analgesia and anaesthesia in labour.   |
|                                |                                     |             | Cognitive   | Discuss the management of labour at special circumstances like uterine scar, fetal malposition's, and multiple pregnancies, |
|                                |                                     |             | Cognitive   | Explain the types, indications, and complications of operative deliveries.  |
|                                |                                     |             | Cognitive   | Discuss the indications and complications of Caesarian section  |
|                                |                                     | Psychomotor | Observe normal labour and assisted deliveries.                |   |
| Management of labor in special | 1                                   | Cognitive   | Discuss the management of labor at special circumstances like |   |

|                   |   |   |             |   |
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|                   | circumstances                                     |   |             | uterine scar, fetal malpositions, fetal death, multiple pregnancies, and post-date pregnancies  |
|                   |   |   | Cognitive   | Explain the types, indications, and complications of operative deliveries.  |
|                   |   |   | Cognitive   | Discuss the indications and complications of Caesarian section.   |
|                   |   |   | Psychomotor | Observe normal labor and assisted deliveries.   |
|                   | Obstetric emergencies                             | 1 | Cognitive   | Classify obstetric emergencies.   |
|                   |   |   | Cognitive   | Discuss the management of sepsis in pregnancy   |
|                   |   |   | Cognitive   | Explain the management and complications of placental diseases in a pregnant woman.   |
|                   |   |   | Psychomotor | Observe a normal delivery   |
|                   | Postpartum bleeding                               | 1 | Cognitive   | Discuss the etiology, diagnostic and management approach to a patient with postpartum haemorrhage.  |
|                   | Puerperium  |   | Cognitive   | Classify puerperal disorders and their management   |
| <b>Psychiatry</b> | Psychiatric disorders in pregnancy and puerperium | 1 | Cognitive   | Classify different psychiatric disorders in pregnancy and puerperium.   |
|                   |   |   | Cognitive   | Discuss the management of puerperal psychosis and depression  |
|                   |   |   | Affective   | Counsel a patient and her family with postpartum psychosis/depression.  |
| <b>Pediatrics</b> | The neonate                                       | 1 | Cognitive   | Discuss the types and management of common problems of preterm and term babies  |
|                   |   |   | Cognitive   | Discuss the principles of neonatal care   |
|                   |   |   | Psychomotor | Observe the care of a neonate in nursery  |
|                   |   |   | Psychomotor | Take history and perform physical examination of a neonate  |
| <b>Surgery</b>    | Breast diseases                                   | 1 | Cognitive   | Discuss approach to a patient with breast lump emphasizing on diagnostic work-up of different breast pathologies (complexity of benign and malignant breast diseases) including imaging and procedures. |

|  |  |   |                    |  |
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|  |  | 1 | Cognitive          | Discuss the diagnostic approach and management of a patient with nipple discharge.                               |
|  |  |   | Psychomotor Skills | <i>Perform a Clinical breast examination by all techniques including “radial wagon wheel” and “spoke” method</i> |
|  |  |   | Affective domain   | Counsel a patient with breast cancer about the diagnosis, management, and screening of her family members.       |