

# **Metabolic Problems & Endocrinology**

#### The Role of the GP and emerging issues in primary care

- Diagnose and manage common metabolic and endocrine disorders such as diabetes mellitus & thyroid disorders
- Recognise rarer and potentially life-threatening disorders such as Addison's disease
- Understand and address the social, psychological and environmental factors
- Understand the term 'pre-diabetes' and understand the growing significance of non-alcoholic fatty liver disease
- Appreciate the increased use of surgery in the treatment of obesity and diabetes

#### **Knowledge and Skills Self-Assessment Guide**

### **Symptoms and Signs**

- Changes in reproductive and sexual function e.g. menstrual irregularities, loss of libido, body hair changes and erectile dysfunction
- Collapse and coma
- Gastrointestinal symptoms e.g. nausea, vomiting, diarrhoea, constipation
- Headache and visual problems
- High blood pressure
- Joint pains and muscle problems
- Mood changes

- Polydipsia and polyuria
- Pruritus and skin changes
- Fatigue, weight loss/gain

#### **Common and Important Conditions**

- Adrenal diseases eg: Addison's disease, Cushing's syndrome and disease
- latrogenic metabolic issues (e.g. hypokalaemia with diuretics)
- Diabetes mellitus type 1, type 2, and rarer types such as MODY (maturity onset diabetes of the young) and LADA (latent autoimmune diabetes in adults), pre-diabetes, impaired fasting glucose, impaired glucose tolerance, insulin resistance, gestational diabetes
- Disorders of calcium metabolism
- Disorders of sex hormones (e.g. hirsutism, virilism, gynaecomastia, impotence, androgen deficiency, androgen insensitivity syndrome)
- Endocrine manifestations of non-endocrine diseases (e.g. bronchogenic carcinoma with inappropriate ADH secretion)
- Haemochromatosis: primary and secondary, and other disorders of iron metabolism
- Hyperlipidaemias: familial and acquired
- Hyperprolactinaemia and its causes (e.g. drug-induced, chronic renal failure, bronchogenic carcinoma, hypothyroidism, pituitary)
- Hyperuricaemia: primary and secondary (including haematological and drug-induced causes) and its associations
- Hypothalamic causes of hormonal disturbances (e.g. hyperprolactinaemia, drug-induced)
- Inherited metabolic diseases (e.g. phenylketonuria, glycogen storage diseases, porphyrias)
- Metabolic emergencies
- Pituitary diseases including acromegaly, primary and secondary hypopituitarism, diabetes insipidus
- Thyroid diseases

#### **Examinations and Procedures**

• Specific examinations (e.g. assessment of neuropathy in diabetes, examination of a neck lump, visual field testing)

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#### Investigations

- Common primary care tests to investigate and monitor metabolic/endocrine disease (e.g. fasting blood glucose, HbA1c, urinalysis, urine albumin:creatinine ratio, 'near patient testing' (point of care testing), lipid profile, thyroid function tests, and uric acid)
- Other laboratory investigations such as renal, liver, pancreatic, adrenal, pituitary, hypothalamic, ovarian and testicular function, antibody tests (e.g. GAD, thyroid antibodies)
- Screening of asymptomatic individuals to diagnose metabolic conditions (e.g. diabetes and pre-diabetes).

## How this might be tested in MRCGP

#### **AKT**

- DVLA regulations for diabetes
- Symptoms of acute Addisonian crisis
- Pituitary hormone test interpretation

#### Clinical Skills Assessment (CSA)

- Airline pilot with type 2 diabetes is on maximum oral hypoglycaemic drugs and has an increasing HbA1c which is now 68 mmol/mol
- Obeseyoungwomanisfailingtoloseweightonavarietyofdifferentdiets. Herrecentblood results (provided) suggest PCOS
- Middle aged man attends to discuss a recent scan, arranged after blood tests showed mildly abnormal LFTs. The scan shows fatty infiltration of the liver.

## Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about a woman requesting levothyroxine to lose weight despite normal thyroid function
- Log entry about observing a patient being taught how to start insulin

Clinical Examination and Procedural Skills (CEPS) on examining a diabetic patient with neuropathy.					

# How to learn this topic

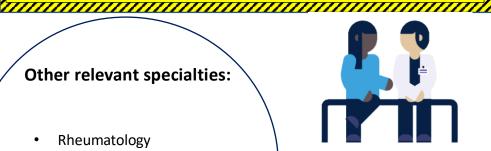
This section describes examples of opportunities for learning. We recognise that Covid-19 restrictions have significantly affected their accessibility

# Other relevant specialties:

- Rheumatology
- Chemical Pathology
- **Paediatrics**
- Cardiology
- Mental Health
- Dietetics

## Community/MDT

- Community diabetes clinic
- Palliative Care
- Community pharmacists best practice in prescribing; Medicines use reviews
- Clinical nurse specialist
- Management of Long tern conditions in nursing homes and residential care
- Health promotion in schools and community groups



#### **Acute**

- A+E assessing and manging the acutely ill patients.
- Seeing & managing metabolic and endocrine diseases in hospital/ urgent care
- Following the patient journey e.g. via ward rounds, MDT meetings, discharge planning
- Observing investigative procedures
- Responding to out of hours emergencies



## **Core Themes**

- Communication and Consultation Risk-benefit conversations (e.g. screening, testing, prevention); appropriate communication of the status of a deteriorating patient; health literacy; diagnostic overshadowing
- **Prescribing** cost-effective and evidence-based management
- **Co-morbidity** interaction with other disease processes; complications
- **Teamworking** learning from health professionals and patients who have lived experience and specialist training
- Ethical and medico-legal confidentiality/disclosure data protection, consent, immunisation, autonomy ag patient 'activation; primary and secondary prevent

## **Primary Care**

- Day to day practice
- OOH
- Community specialist clinics
- Chronic disease management clinics
- **Group consultations**
- **Expert patients**

#### Tips

- Audit
- Significant Event **Analysis**
- Clinical governance
- Risk Assessment
- Dr as teacher
- Leadership
- **BNF** 
  - **NICE** guidelines