

Endocrinology

Postgraduate Diploma and MSc Courses





Postgraduate Diploma

Delivered over 1 year, the online, part-time, Postgraduate Diploma course is specially developed for busy health professionals. Formatted in 6 modules, each 6 weeks in duration; the course is designed to be practical and clinically focused.

MSc

The MSc runs over 2 calendar years, with the first year comprising of the Postgraduate Diploma. The second year starts with an initial 10 week online module to develop skills in critical appraisal and knowledge of research methodologies. Students then complete the professional project module.

Why Study Endocrinology with us?

Taught completely online, our Endocrinology course aims to create professionals who can independently access information and use the information to improve understanding of endocrine care. It will prepare students to take a leadership role in the global context of endocrinology.

The courses are designed to be relevant to all health professionals who have exposure to people with endocrine related disorders and is particularly relevant to Specialist Registrars, Endocrine Nurses and those.

The Postgraduate Diploma and MSc courses are aimed at General Practitioners, Practice Nurses and Specialist Nurses. These roles are evolving with increasing demand amongst these specialists for a postgraduate qualification to help support their professional learning and clinical development.

Endocrinology Postgraduate Diploma

Course Modules

Our online Endocrinology Postgraduate Diploma allows you to study for just one calendar year and is a part-time, distance-learning course. The course is worth 120 credits and comprises six modules of 20 credits, each running over a period of six weeks.

Module 1 - Disorders of the Hypothalamus and Pituitary

Aim of the module:

- To understand the physiological principles of the hypothalamic pituitary axes.
- To understand the common disorders affecting the hypothalamus and pituitary.

Synopsis of module content:

- Basic physiology of the hypothalamic-anterior pituitary-end organ axes together with an understanding of the posterior pituitary.
- Study of the various anterior and posterior pituitary hormones plus hypothalamic signals.
- Hormonal signalling including intracrine, paracrine and endocrine effects together with second messenger effects.
- Non-functional pituitary tumours – presentation, diagnosis, investigation and management including medical and surgical approaches. Surveillance of pituitary tumours.
- Functional pituitary tumours – presentation, investigation and management including medical and surgical approaches.
- Hypopituitarism.
- Endocrine investigations used in the assessment of these disorders including the oral glucose tolerance test, insulin tolerance test, short synacthen test, water deprivation test and dexamethasone suppression testing.

On completion of this module, students will be able to:

1. Apply knowledge of the physiological principles involved in the hypothalamic-pituitary- end organ axis and patho-physiology to a range of endocrine disorders.
2. Critically evaluate the presentation, diagnosis and management of patients presenting with disorders of the hypothalamus and pituitary.

Module 2 - Disorders of the Thyroid

Aim of the module:

- To apply an understanding of the physiology of the thyroid and its hormones to critical awareness of the diagnosis and management of disorders of the thyroid.

Synopsis of module content:

- The physiology of the thyroid gland, basics control of hormonal secretion and the effects of thyroid hormones. Thyroid function tests and interpretation. Sick euthyroidism and non-thyroidal illness. Thyroiditis including DeQuervain's thyroiditis. Thyroid eye disease.
- Hypothyroidism – presentation, diagnosis and management. Causes of hypothyroidism.
- Principles of thyroid hormone replacement and merits of T4 and T3 replacement.

- Hyperthyroidism – presentation, diagnosis and management. Causes of thyrotoxicosis – Graves' disease, Multinodular goitre and drugs. Management of hyperthyroidism – surgery, drugs and radio-iodine. Preparation of the thyrotoxic patient for surgery.
- Use of thionamides, side effects and management of thionamides. Use of radio-iodine, outcomes and contra-indications to its use. Thyroidectomy, outcomes and potential risks of surgery. Management of the patient presenting with a thyroid nodule. Fine needle aspiration and classification of the aspirate.

On completion of this module, students will be able to:

1. Critically appraise disorders of the thyroid with reference to the underlying physiology.
2. Demonstrate critical clinical decision-making skills relating to the diagnosis and management of patients with thyroid disorders.

Module 3 - Disorders of the Adrenals

Aim of the module:

- To facilitate an improved understanding of the physiology and pathophysiology of the adrenal glands in relation to endocrine disorders of the adrenal glands.

Synopsis of module content:

- Physiology and pathophysiology of the adrenal medulla and cortex
- Hormonal secretion of the adrenal medulla and cortex
- Synthesis of the adrenal cortical hormones
- Investigation of the adrenals – short synacthen testing, dexamethasone suppression testing, urinary catecholamines, plasma renin activity and aldosterone testing.
- Sensitivity/specificity of tests
- Adrenal hypersecretion
- Adrenal dependent Cushing's disease – diagnosis and management including medical and surgical
- Conn's syndrome and primary hyperaldosteronism – diagnosis and management including medical and surgical. PRA – Aldosterone ratio
- Apparent mineralocorticoid excess and Liddle's syndrome
- Pheochromocytoma – diagnosis and management.
- Adrenal and extra-adrenal pheochromocytoma.
- Utility, sensitivity and specificity of urinary catecholamines and MIBG scintigraphy.
- Genetic conditions associated with pheochromocytoma – MEN Type 2, SDH B and D, Von Hippel Lindau and Neurofibromatosis

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Doing a course, all online is a lot more convenient for me around my clinical role so that's why I chose to study with Learna...

I really like how flexible the course was, I liked the freedom I got with the professional project and I was well supported throughout the whole 2 years!

- Lisa Jayne Edwards, Medical Education MSc graduate

- Hyposecretion
- Congenital adrenal hyperplasia – classical, non-classical, investigation, diagnosis and management
- Addison's disease – presentation, diagnostic strategies, management including adequate replacement therapies
- Acute hypoadrenalism – emergency treatment and appropriate advice to the patient
- Advising the patient relating to the titration of steroid therapy during illness
- Glucocorticoids, relative potency, mechanism of action
- Mineralocorticoids, mechanism of action and antagonists
- Safe withdrawal of steroid therapy
- The adrenal nodule
- Assessment of functionality
- Monitoring and radiological investigation
- Management including appropriate surgical referral

On completion of this module, students will be able to:

1. Demonstrate post-graduate level of knowledge of the pathophysiology of a variety of conditions affecting the adrenal glands
2. Demonstrate critical clinical decision-making skills in relation to the management of a variety of conditions affecting the adrenal glands

Module 4 - Disorders of Parathyroids, Calcium and Bone

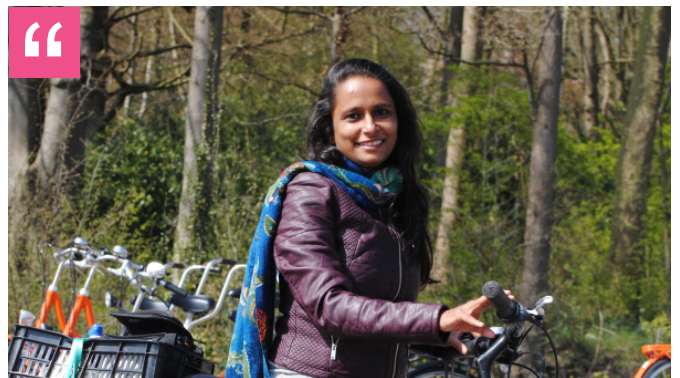
Aim of the module:

- To link the understanding of physiology and patho-physiology with the clinical management of endocrine disorders of parathyroid, calcium and bone.

Synopsis of module content:

- Hypocalcaemia, investigation and management.
- Primary hyperparathyroidism
- Secondary hyperparathyroidism
- Investigation of bone mineralisation and interpretation of dual energy absorptiometry – DEXA
- Osteoporosis
- Strontium Ranelate, SERMS, Vitamin D and Calcium, Bisphosphonates and Calcitonin

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"When I enrolled into the course I had no idea about the opportunities it would provide me with. Having my first paper published through this course helped me overcome my apprehensions of academic writing and made me more confident to pursue it further. "

- Rutu Dave

- Secondary hyperparathyroidism
- Investigation of bone mineralisation and interpretation of dual energy absorptiometry – DEXA
- Osteoporosis
- Strontium Ranelate, SERMS, Vitamin D and Calcium, Bisphosphonates and Calcitonin

On completion of this module, students will be able to:

1. To investigate disorders of calcium metabolism
2. Demonstrate knowledge and skills in the management of patients with disorders of calcium and parathyroid disorders
3. Demonstrate an ability to investigate and manage patients presenting with osteoporosis

Module 5 - Reproductive Endocrinology

Aim of the module:

- To provide an overview of the physiology and pathophysiology of reproduction with reference to the endocrine system
- To review the evidence base and apply strategies for the investigation, diagnosis and management of patients presenting with endocrine disorders of ovaries and testes
- To provide an overview of the investigation, diagnosis and management of patients failing to conceive due to endocrinopathy.

Synopsis of module content:

- Basic physiological principles of the ovaries and testes
- Genetic disorders
- Polycystic ovarian Syndrome
- Investigation of male and female infertility
- Management of the endocrine aspects of male and female infertility
- Referral criteria for fertility units
- Female hypogonadism
- Male hypogonadism

On completion of this module, students will be able to:

1. Demonstrate competence in the recognition and management of the endocrine disorders of the gonads
2. Understand the principles of investigating and managing endocrine related fertility issues

Module 6 - Endocrine-Related Cancer

Aim of the module:

- To gain an in-depth understanding of the presentation, investigation, diagnosis and management of endocrine-related cancers.



Synopsis of module content:

- Thyroid cancer including follicular, medullary and anaplastic thyroid cancer
- Adrenal Cancer
- Neuroendocrine Tumours (NETs)

On completion of this module, students will be able to:

1. Critically appraise the evidence relating to the management of patients with endocrine related cancers.
2. Demonstrate competence in the diagnosis and management of patients with endocrine related cancers.
3. Develop an improved approach to the investigation and management of patients with Neuroendocrine Tumours.

Teaching Methods

Our courses are conducted entirely online through self-directed distance learning. However, you will receive guidance throughout with tutor-stimulated academic discussions, which are based on clinically-rich case scenarios. These usually occur within groups of 10-15 students, allowing you to clearly communicate with both your tutor and fellow students.

You will participate in a combination of group and individual activities, which are recorded in a reflective journal. This innovative teaching method enables you to envisage the translation of your studies into your every day work and practice.

Our dedicated Student Support Team are also available to help with any problems you may face. From navigating our online platform to advising you on deadlines, our team can assist with any questions or challenges you may have along the way.

Study skills week

Once you have secured your place on the course, you will be invited to a Study Skills week webinar. This will give you the opportunity to participate in workshops on Harvard referencing, scientific and reflective writings, and levels of evidence in preparation for your studies. It is compulsory for you to attend this Induction, as it'll provide you with a sturdy introduction to the course.

Endocrinology Postgraduate Diploma

Entry Requirements

Documents required:

- A copy of your updated CV including your address and date of birth.
- A copy of your undergraduate degree certificate.
- The name and email address of someone who is able to provide a reference, this can be a work colleague, employer or former tutor.
- A detailed personal statement explaining why you would like to undertake the course.

Health professionals working within a clinical setting, both UK and overseas, with a related Healthcare Science degree (including international qualifications) are eligible to apply for the Postgraduate Diploma in Endocrinology.

Applicants without the above academic criteria but relevant/ suitable experience can apply. Applications will be judged on the individual specifics of background and qualifications including ability to work at Postgraduate level (applicants may be asked to submit a piece of work for assessment to confirm that they are able to work comfortably at postgraduate level and demonstrate requisite clinical/professional knowledge).

Applicants should submit copies of the following with their application:

Proficiency in the English language is also essential to completing our courses. If English is NOT your first language, we ask for proof of competency during the application process. We are able to accept an IELTS overall score of 6.0 (with a minimum of 5.5 for each band) or an equivalent qualification.



Endocrinology MSc

Course Modules

Module 7 - Research Methodologies and Critical Appraisal

Aim of the module:

- To help students recognise, understand, interpret and apply methods used in healthcare research.
- Understand, interpret and apply basic statistics and epidemiological terms.
- Understand and critically appraise the various methodologies specific to endocrine research.
- Understand and critically appraise the various studies used in clinical and scientific research such as single blind studies, double blind placebo controlled studies and meta-analyses.

Synopsis of the module:

- Basic terminology used in epidemiology and research studies such as prevalence, incidence, sensitivity, specificity, false positive and false negatives.
- Interpreting graphical representation of epidemiological and statistical data such as Kaplan-Meier Curves, Forrest Plots and Meta-analyses.
- Calculations used in the assessment of research data such as relative risk, absolute risk, number needed to treat.
- Basic statistical tests and their applications including T-Tests, ANOVA, Chi-Squared Tests.
- Methodologies used in endocrine research such as insulin tolerance testing, short synacthen testing, OGTT, measures of insulin resistance and GH testing.
- Research on issues such as health outcomes and quality of life using bespoke questionnaires such as the SF-36 as well as other modes of assessment.
- Fundamentals of evidence-based practice and its application into the clinical setting.
- Establishing patient registers and the value of disease specific registers.
- Research into educational principles for both doctor and patient. Understanding what may work for the patient as well as the educator.

On completion of this module, students will be able to:

1. Interpret research and critically appraise research methods used in endocrinology.
2. Display a critical understanding of the clinical implications of research and its impact upon healthcare delivery and service development.
3. Implement evidence-based medicine in clinical practice.

Module 8 - Professional Project

Aim of the module:

- Develop an ability to critically appraise areas of healthcare practice and delivery.
- Critically appraise specific areas of clinical, research, clinical governance and organisational practice.
- Display skills in independent research and study.
- Display skills relevant to independent production of scientific publications.

Synopsis of the module:

The professional project must be endocrinology-related and relevant to the person's practice.

This project may comprise:

- Literature review and appraisal of the evidence.
- Audit of practice including organisational or clinical.
- Review and implementation of evidence-based practice.
- Qualitative or quantitative research (formal research involving human subjects is not anticipated).
- Case-based and quality of service review with critical appraisal.
- Case report, review of literature and organisational assessment.

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On completion of this module, students will be able to:

1. Produce an extensive piece of literature which may be suitable for peer-reviewed publication.
2. Demonstrate an ability to critically evaluate research in clinical practice and implement improvements.
3. Critically evaluate practice and suggest improvements or change.
4. Incorporate knowledge of the research process in developing services appropriately.

Teaching Methods

Module 7 - Research Methodologies and Critical Appraisal

MSc teaching methods for this module are similar to the Postgraduate Diploma course modules, however it is run over 12 weeks.

Module 8 - Professional Project

To produce the professional project, students continue to use the online course; however much of the work is self-directed. Students are expected in the first 8 weeks to interact with their tutor on a weekly basis. Students select a specific project and submit a project summary/ proposal (approximately 1,500 words).

Once the proposal has been approved, the professional project (10,500 words) itself is then completed through online guidance and supervision offered by the tutor. The student and tutor will interact regularly (weekly) on the dedicated students/ tutor discussion area or through any other means of communication deemed appropriate by both parties (telephone/ SKYPE/ email). Note of any verbal communication with the tutor is recorded in the student's journal by the student.

Entry Requirements

Entry to the one year Endocrinology MSc will require successful completion of the Endocrinology Postgraduate Diploma (120 credits). This can be from Diploma MSc, the University of South Wales or another UK university (having completed similar modules). We can discuss this with you during your application.

Individuals who have not completed the postgraduate diploma can apply for the Endocrinology MSc as a two year course consisting of eight modules (180 credits) with the first 120 credits deriving from the postgraduate diploma.

Entry requirements for the two-year course are as for the postgraduate diploma.

Applicants should be working in a clinical setting, either in the UK or overseas, and have a science degree in a relevant subject.

You will also need to submit copies of the following with your application:

- Qualification certificates
- A maximum of two professional and/or academic references
- IELTS score of 6.0 with a minimum of 5.5 for each band (or an equivalent qualification)

Graduates of this course will receive a Master of Science award from the University of South Wales, Diploma MSc's collaborative partner. The Endocrinology MSc course provides a progression route for the Postgraduate Diploma course in Endocrinology.



What do our students think?

Since 2010, over 1000 students have progressed their medical career by enrolling in one of our qualifications. We ourselves have learned a lot during this time and continually seek to improve the student learning experience. Here is what some of our previous students have said:

"I found the online learning very interesting. It enabled me to save money and time."

Dr Imad Eddin Rahamtalla, Doctor

"I strongly recommend Diploma MSc to all those busy physicians who are working in remote areas and wish to upgrade their knowledge."

Dr Junaid Zaffar, Diabetologist

"The learning was fun and enjoyable. The course was awesome and it increased my confidence."

Dr Sankar Nath Jha, Assistant Professor





"I found learning with Diploma MSc interesting, it helped to update my academic knowledge."

Dr Prasanth Kinattupurayil, Doctor

"I love that it was flexible and that I could log in at my convenience. I found this course to be very in-depth, informative, challenging and stimulating."

Kerri-Ann Best PGDip, RD



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