DM IN ENDOCRINOLOGY

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GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR DM IN ENDOCRINOLOGY

The goals of the DM Endocrinology programme are:

- To provide a comprehensive knowledge base to prepare the trainee to care for patients suffering from endocrine or metabolic diseases. .

- To ensure exposure to a wide variety of patients suffering from diverse endocrine problems to give the candidate experience in diagnosing and treating patients suffering from disease in all areas of endocrinology. This should include training in diagnostic procedures and methods related to endocrine diseases, including radiology, nuclear medicine, ophthalmology and pathology.

- To prepare the fellow to continue his/her education throughout his/her life by giving him/her training in critically reading the medical literature, understanding medical informatics, medical research methods, medical statistics, medical decision-making, outcomes assessment, health promotion, practice management, medico-legal issues, medical issues and medical humanities.

- To introduce fellows to principles of clinical/bench research, and prepare them to analyze literature/data, write investigative protocols and collect data in a scientific, organized manner.

Duration of DM Endocrinology Course: 3 Years

Educational Qualifications and eligibility: A candidate must possess M.D. in medicine or pediatrics from an MCI recognized University/Medical College. A candidate possessing any other post-graduate degree will not be eligible

Age Limit: 35 years, relaxable in case of SC/ST candidates by a maximum of 5 year. The upper age limit is not applicable to sponsored candidates. ***[The committee suggested that there should be an upper age limit of 50 years for the sponsored candidates - Input to be provided by MCI]***

Method of selection

Through NEET

SYLLABUS

A three years training period designed to meet the minimum requirements for training in endocrinology prior to certification, should include the following:

- Hormonal assays
- Endocrine testing

2. Diabetes mellitus
3. Neuro-endocrinology and pituitary disorders
4. Thyroid disorders
5. Reproductive disorders
6. Bone and mineral metabolism
7. Disorders of the adrenal gland
8. Metabolic disorders (lipids, carbohydrates and protein metabolism related disorders, including inborn errors)
9. Disorder of growth and sexual differentiation
10. Endocrine disorders in childhood and adolescence, including growth and maturation
11. Obesity, anorexia and nutrition
12. Endocrinology of pregnancy
13. Endocrine tumour syndromes and hormone responsive tumours
14. Endocrine emergencies
15. Endocrine alterations in critically ill patients
16. Ageing and endocrinology
17. All the candidates will be involved in the direct care

All the candidates should be involved in the direct care of the patients admitted to the endocrine services. This will include taking a complete history and performing a comprehensive examination. Additionally residents will be required to attend outpatient endocrine clinics where consultants will be available for on spot with the teachers. The OPD will rum all 6 days in a week. The subject seminars, journal club and case presentations will happen post lunch. The residents will be expected to keep a record of seminars and journal clubs presented by them, and interesting cases (which they have worked up in detail, during their tenure of 3 years and have it duly signed by the teacher.

LABORATORY RESEARCH

Residents will have a rotation in the laboratory for better understanding of the methodologies assays. They will have a detailed training in statistical methods and methodologies of research. A training if possible in SPSS should be given

. The candidate should submit at least 1 research paper and 2 case reports in indexed publications, during their training period.

- The entire course should be divided into 6 semesters, covering the following areas:

Diabetes;

Thyroid disease;

Metabolic bone disease;

Reproductive endocrinology and pediatric endocrinology;

Adrenal disorders; and

Pituitary disorders and endocrine emergencies.

The seminars in each semester should be dedicated exclusively to one area. Hence, in three years all the major topics will be covered. There should be a six- two monthly assessment to evaluate knowledge in the topics covered in the preceding semester.

All efforts must be made by departments to ensure that each resident attends at least one national conference each in endocrinology and diabetes.

TRAINING IN AFFILIATED SPECIALITIES

Endocrine Radiology:

Meetings with Department of Radiology. These meetings will be conducted to discuss imaging, including CT and MRI, of patients seen in the OPD and in-patient service.

Nuclear Medicine:

Training in nuclear medicine should be coordinated with department of Nuclear Medicine. The residents will be given training in principles of scanning of various endocrine organs and interpretation of data. Additionally, regular fortnightly conferences should be scheduled with the nuclear medicine department where faculty and the resident staff should go over interesting scans of the previous month / fortnight.

Ophthalmology:

Residents should have an optimal exposure to medical ophthalmology and retinal diseases related to endocrinology.

Pathology and Cytopathology:

It is primarily aimed at providing trainee experience in the area of endocrine-related pathology and cyto-pathology.

DISSERTATION

The candidates registered for D.M. would be required to prepare a dissertation after undertaking original investigation (clinical or experimental) work, under the supervision of a faculty member. The protocol for the dissertation should be submitted and approved within 6 months of joining the course. The progress of this work, which is an important pre- requisite for completion of D.M. course, will be reviewed at regular intervals and results published at appropriate time based on progress of the work. Satisfactory completion of such work is a pre- requisite for candidates to appear for D.M. examination.

Each candidate should have three presentations for the dissertation: protocol presentation, follow-up review, final presentation. The dissertation should be submitted not later than 6 months prior to the final examination.

EXAMINATION

The examination will be held at the end of three years of training.

There will be 3 theory papers of 3 hours each; maximum 100 marks. Each paper should consist of 10 questions, each carrying equal marks.

Paper I: Basic science relevant to the discipline of endocrinology and metabolism.

Paper II: Clinical and therapeutic aspects of endocrinology and metabolism

Paper III: Clinical and therapeutic aspects of endocrinology and metabolism

Paper IV: Recent advances in endocrinology and metabolism.

Clinical examination: The clinical acumen of the candidates is objectively evaluated by testing his ability to arrive at diagnosis and suggest method of management. This examination will be done for 2 days, even if there is a single candidate:

Day 1: A carefully selected group of patients from the entire speciality will be given as cases for this examination [1 long cases (one of the long cases must be diabetes); 4 short cases; 4 spots].

Day 2: Examination based on clinical slides, imaging, emergencies, knowledge of evaluating laboratory data and techniques and viva voce will be conducted on the second day. Internal assessment should be taken into account so that examination is not a single day performance. To meet this requirement, departments should conduct 6-monthly internal assessment of each candidate.

SUGGESTED READING

Textbooks:

8. Textbook of Clinical Chemistry (Tietz)
9. Nutritive value of Indian Foods (Gopalan, ICMR)
10. Textbook of Endocrinology (Leslie J DeGroot)
11. Pediatric Endocrinology (Hindmarsh and CGD Brook)

JOURNALS

Endocrine Journals

1. Journal of Clinical Endocrinology & Metabolism
2. European Journal of Endocrinology
3. Diabetes
4. Diabetes Care
5. Diabetologia
6. Fertility and Sterility
7. Clinical Endocrinology
8. Hormone and Metabolic Research
9. American Journal of Clinical Nutrition
10. Journal of Bone and Mineral Research
11. Endocrine and Metabolic Clinics of North America Thyroid

Non- Endocrine Journals

1. Nature
2. Science
3. The New England Journal of Medicine
4. The Lancet
5. Annals of Internal Medicine
6. British Medical Journal