Department of Endocrinology

Introduction

The department started in 1987 and is currently recognized as one of the leading academic departments for Endocrinology in the country. It attracts a large number of patients from the Uttar Pradesh and surrounding states and offers diagnosis and treatment to a wide variety of endocrine disorders. The department run a sophisticated in-house laboratory service and most endocrine investigations, including bone densitometry are available. The department has a strong academic program, including a 3 year DM course. It also runs a 1 year course in pediatric endocrinology. The department faculty is strongly committed to research activities which are sustained by extra-mural and intramural research funding..

Faculty

Presently there are five faculty members:

- Prof. Eesh Bhatia is head of the department. His areas of research include type 1 diabetes, fibro-calcular pancreas diabetes, autoimmune endocrine disorders and adrenal disorders.
- Prof. Vijayalakshmi Bhatia is a pediatric endocrinologist. She is interested in disorders of bone and mineral metabolism, and specially studies on nutritional rickets.
- Prof. Sushil Gupta, in addition to clinical endocrinology, has research interest in metabolic bone disease.
- Prof. Preeti Dabadghao, is a pediatrician with clinical acumen in both adult and pediatric endocrinology. Her primary research interest is in polycystic ovarian disease.
- Prof. Subhash Yadav, in addition to clinical endocrinology, is interested in epidemiology of type 2 diabetes mellitus.

Retired faculty:

Prof M Godbole (currently in Acting Head, Department of Molecular Medicine, SGPGIMS, Lucknow)
Dr A Mithal (currently Chairman, Department of Endocrinology, Medanta Hospital, Gurgaon)

Dr R Khardori (currently faculty at Division of Endocrinology and Metabolism, Strelitz Center for Diabetes, Endocrine and Metabolic Disorders, Eastern Virginia Medical School, Norfolk, VA, USA)

Strengths of the department

1. A wide referral base (from the whole of eastern UP as well as some from adjoining Bihar, Madhya Pradesh, Nepal) with excellent department facilities and supporting departments (see below)

2. The presence of an departmental endocrinology laboratory carrying out more than 50 hormone/chemical/antibody measurements and a DEXA service (bone density measurement) provides for excellent patient care and evidence-based practice of medicine.

3. A strong component of pediatric endocrinology is available. A formal pediatric endocrinology training program (PDCC) is in place since 2001.

4. The faculty are actively involved in both laboratory and clinical research thus providing for good mentoring to students. Trainees are encouraged and given protected time to carry out laboratory based as well as clinical projects.

5. Our Institute has email and internet connection available within the hospital and hostels for the use of faculty and students, as well as online journals. The library is very well equipped, with about 10 specialty journals being subscribed to for each specialty, an addition to all important general medical and basic journals. Resident housing inside the campus is among the best in the country.

Facilities

**OPD Clinics**

<table>
<thead>
<tr>
<th>Day</th>
<th>Service</th>
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<tbody>
<tr>
<td>Monday</td>
<td>General Endocrinology (adult and pediatric)</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Diabetes</td>
</tr>
<tr>
<td>Wednesday</td>
<td>General Endocrinology (adult and pediatric)</td>
</tr>
<tr>
<td>Thursday</td>
<td>General Endocrinology (adult and pediatric)</td>
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<tr>
<td>Friday</td>
<td>Diabetes</td>
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<tr>
<td></td>
<td>Metabolic bone disorders</td>
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<tr>
<td>Saturday</td>
<td>Type 1 diabetes</td>
</tr>
<tr>
<td>Monday to Saturday</td>
<td>Pediatric diabetes (new patients)</td>
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In addition to patient consultations, endocrine testing and patient education is performed.

**Ward**

The department has a 30 bed ward where patients are admitted for glycemic control and evaluation, detailed endocrine testing and emergencies.

**Inter-departmental support services**

The Department of Endocrine Surgery provides expertise for surgical management of endocrine disorders and for treatment of severe diabetic foot problems.

Excellent facilities exist in the Department of Radio-diagnosis (spiral CECT, MRI, digital subtraction angiography, mammography, inferior petrosal sinus sampling etc).

The Department of Nuclear Medicine performs thallium-technetium subtraction scan, MIBI scan, DMSA bone scan, and PET scan with DOTANOC and FDG and provides radio-iodine ablation for thyroid cancer.

There is close coordination with the Department of Neurosurgery for transphenoidal surgery of pituitary tumors, and with Ophthalmology for treatment and follow up of patients with Graves' ophthalmopathy and diabetic retinopathy.

The Department of Nephrology and Department of Urology offer excellent care of patients with diabetic nephropathy, including renal transplant.

The Department of Genetics provides inputs for the study of chromosomal anomalies, inborn errors of metabolism and mutation screening.

**Public health services**
The department has an active Diabetes Patient Education Program with a full time diabetes nurse/educator and a diabetes support group which meets every 3 months. In coordination with Genetics department, a newborn screening program for congenital hypothyroidism and congenital adrenal hyperplasia is running, under the National Health Mission, catering to all births in 7 government hospitals in and around Lucknow.

**Laboratory**

- Immunoassay (RIA, IRMA, ELISA, chemiluminescence) facilities for free and total thyroxine, triiodothyronine, sensitive TSH, TPO, TRAb, growth hormone, prolactin, gonadotropins, ACTH, cortisol, 17-OH progesterone, estradiol, testosterone, progesterone, urinary iodine and fluoride, intact PTH, intraoperative PTH, plasma renin activity, aldosterone, insulin, C peptide, IGF 1, vitamin B12, urinary metanephrine and non metanephrine.
- Assays for 25-hydroxy D3, 1,25-dihydroxy D3, osteocalcin, and P1NP are available for evaluation of patients with metabolic bone disorders.
- HbA1c and urinary microalbumin
- Hologic dual energy x-ray bone densitometer for estimation of bone density, body fat distribution and instant vertebral assessment (IVA).
- Dynamic tests for hormone secretion, including inferior petrosal sinus sampling for ACTH and selective venous sampling for other hormones
- Autonomic system testing by cardiac autonomic system tests as well as peripheral vascular testing by ankle brachial index and Doppler.

*Newborn Screening Project at Departments of Genetics and Endocrinology, SGPGIMS, Lucknow*

The department runs a successful neonatal screening program for neonatal hypothyroidism and more recently for congenital adrenal hyperplasia due to 21 hydroxylase deficiency.

**Academic activities**

*DM Program*
The department's DM program (3 year tenure) started in 1991. Four students are now admitted every year, in July. The all-India entrance examination in usually held in June, the advertisement for which is on the Institute website by April. The entrance examination tests knowledge of adult and pediatric endocrinology to the extent that it is taught in internal medicine and pediatric residencies. General principles of medicine and pediatrics are also tested. The minimum eligibility criteria are postgraduate degree in Medicine or Pediatrics.

The teaching program involves journal clubs, seminars, case presentations, mortality and morbidity meetings and research project discussions. There are regular monthly clinical meetings with the departments of pathology, radiodiagnosis and nuclear medicine. DM students are encouraged to undertake one laboratory-based project and one clinical-based project each. A regular monthly telemedicine conference with Amrita Institute endocrinology department has been a feature since 2005.

**PDCC (Post-Doctoral Certificate Course in Pediatric Endocrinology)**

This 1-year course in Pediatric Endocrinology was started for the first time in the country in July 2001. Till date – students have successfully completed the course and are employed in academic institutes or corporate hospitals in the pediatric endocrinology. Only candidates who have completed MD/DNB in Pediatrics are eligible to apply for the course. Admission is through an all-India entrance test (of MD Pediatrics level) conducted by the Institute along with its DM/MCh entrance tests in the first week of June. The advertisement appears in all important national English newspapers in April and on the Institute website. There is one seat per year each July. Applicants desirous of further information may contact Dr. Vijayalakshmi Bhatia (vbhatia@sgpgi.ac.in) or Dr. Preeti Dabadghao (preetid@sgpgi.ac.in).

**PhD Program**

The PhD program started in 1991. Eligibility criteria for entrance are medical graduation (MBBS) or postgraduate degree in biological sciences. The department has an active and well-equipped molecular endocrinology laboratory. The department has close research coordination with other departments at the Institute. Research subjects studied in the department include metabolic bone disorders and endemic fluorosis, diabetes mellitus (Type 1 diabetes as well as unique variants in India), calcium metabolism, iodine deficiency, brain development and apoptosis.
Selected publications from the department (in last 6 years)


