



Pediatric Endocrine Trainees Section (Open-Forum)

Pediatric endocrinology training in India

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Many freshly trained as well as seasoned pediatricians wish to pursue a subspecialty these days. Apart from a few who are clear about the field they want to enter; most face the dilemma of 'which specialty to choose?' Oftentimes, questions like what kind of clinical and academic opportunities it offers, what are the future prospects, and will it be challenging and rewarding, etc., plague young aspirants. Many pediatricians do not get the opportunity to work in all the different specialties during their residency training and hence may not be completely aware of the scope of a subspecialty. Let us see if we can throw some light on the pediatric endocrinology subspecialty training in India.

WHY PEDIATRIC ENDOCRINOLOGY?

As pediatricians, we all share a great passion: working for little children and contributing to their overall well-being. It gives us immense joy in interacting with them every day, in understanding how their young bodies and minds work, in preventing and treating disease and putting a smile on their and their parents' faces. When you enter a specialty training, it is even more relevant that you should have a similar passion for a particular field, which would make your clinical practice more fulfilling and intellectually rewarding on a long run. When your job is also your passion, it is a dream come true for many! This is true for any profession or career, not just medicine. Pediatric endocrinology is a complex and intellectually satisfying branch of science, that deals with children and adolescents with growth and pubertal disorders, differences in sex development, abnormalities of thyroid, parathyroid and adrenal glands, obesity and diabetes, disorders of bone mineral metabolism, and other varied hormonal issues. As the well-known saying goes, "children are NOT little adults", and they have a dynamic developmental physiology. Their condition needs to be approached in a unique way, different from adults. This is especially true for the endocrine system given that childhood and adolescent growth and pubertal maturation are predominantly hormonally mediated. Moreover, adolescents and young people have specific requirements and need to be approached in a sensitive manner, acknowledging their innocence as well as their need for developing independence, given their transitional stage of life from childhood to adulthood.

THE PERKS OF BEING A PEDIATRIC ENDOCRINOLOGIST

Biologically each individual being is unique. As a pediatric endocrinologist, you will be reminded of this fact time and again, as you come across a seemingly similar hormonal condition exhibiting an entirely different course in different children. This gives you intellectually stimulating clinical experience daily. Just as in pediatrics, we need to treat these children as a part of their family unit. As most of pediatric hormonal conditions are chronic,

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you will get a chance to develop a good rapport with the family, follow the children overtime, see them grow up healthy and accomplished. As a pediatric endocrinologist, with your expertise and nuanced approach to the multiplex hormonal problems you can make a significant contribution to the health of the children. After appropriate therapy, the joy of watching is boundless when we see an affected infant or child bouncing from an endocrine disorder to normal health, growing well, full of smiles and cheer, blooming as if from a bud to full blossom, always rendering our efforts highly fulfilling and worthwhile. You will get a sense of community by becoming a part of the dynamic pediatric endocrine groups and societies, based in India and abroad. As there are less emergencies you will be able to spend some time on academics, research, and professional and personal development activities. Being able to spend quality time with family and friends is a bonus.

THE DOWNSIDE OF BEING A PEDIATRIC ENDOCRINOLOGIST

Pediatric endocrinology practice thrives mainly on a referral system. So, one has to always go an extra mile to promote it in their local pediatric community. The initial days of practice could be tedious and the wait to build numbers could be longer than some other specialties such as neurology or neonatology. However, with time and patience rewards will come. The monetary prospects are not huge in the Indian context, though one can lead a comfortable life. Some choose to continue to practice pediatrics together with pediatric endocrinology, as it might ensure a better income.

TRAINING PATHWAYS

There are two ways to become a pediatric endocrinologist in India. The Department of Pediatrics at Post Graduate Institute for Medical Education and Research (PGIMER), Chandigarh (is the only institute in India offering a DM training in Pediatric Endocrinology since January 2019. Apart from this, post-doctoral certificate courses and 1–2-year fellowship courses in affiliation with regional medical universities are being offered at many institutions and corporate hospitals. A full list of institutions providing training courses in pediatric endocrinology is compiled in Table 1.

Indian Society of Pediatric & Adolescent Endocrinology (ISPAE) also provides 6–12 weeks of travel observership to eligible candidates every year at their chosen host center, which is especially useful for those who are already doing some pediatric endocrinology practice and wish to hone their clinical skills at their chosen institutions with specialized units and experienced mentors.

HOW TO GET IN?

For DM Pediatric Endocrinology there is a standard entrance examination conducted by PGIMER, the details of which can be accessed from their official website or by writing to their pediatric endocrinology department. For fellowships, each individual institute or university selects the candidates based on an entrance test and a physical interview. You need to approach these institutes individually.

HOW TO CHOOSE THE TRAINING CENTER?

Try to make some enquiries before starting your application. Talk to the people who have trained at these centers previously. The center should have a decent *clinical workload*. However, remember that, in a niche specialty, it is not the volume of patients you see which matters, but the number of patients you see with the right approach. Find out if a systematic *way of clinical approach* is a routine practice or not. How good is the clinical teaching in the institution? Are the students trained to identify the subtle and varied presentations of different conditions? Is there a dedicated *academic and teaching schedule*? Does the institute conduct periodic and regular case discussions, seminars, journal clubs, and inter-departmental meetings? What are the prospects of *clinical research*, which is another important area of professional development that separates a specialist from a generalist? Will you be provided a chance to work on any clinical research projects? Are there reasonable facilities for biochemical, radiological and genetic work-up? Do they have a *'laboratory posting'* to understand various biochemical assays and imaging investigations? Does the center practice a *multi-disciplinary approach* collaborating with other specialties and paramedical staff, especially for conditions such as disorders of sex development (DSD) where one needs to liaise with pediatric surgeon, radiologist, child psychiatrist, and family counselors; and pediatric diabetes where a team of diabetes educator, dietician, and psychologist is often needed? Finally, do not forget to find out about the *stipend and facilities for accommodation*. Is there a link up for training in related pediatric disciplines such as critical care, neonatology and pediatric surgery?

TRAINING OPTIONS OUTSIDE INDIA

Many places abroad (USA, UK, Australia, New Zealand, Singapore, etc.) offer training opportunities for aspirants from developing countries like India. For a short duration (3–6 months) Fellowship in Pediatric Endocrinology, the European Society of Pediatric Endocrinology Fellowship is a good option to consider. Similarly, for pediatric diabetes, Allan-Drash Clinical Fellowship by the International Society of Pediatric and Adolescent Diabetes is a good opportunity.

Table 1: List of institutions offering training courses in pediatric endocrinology in India.

Institution	Lead Faculty	Contact Email id	Vacancy/ Session	Name & Duration of Fellowship/ Course	Affiliation with University
Government Institutions					
Department of Pediatrics, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Dr Devi Dayal	dayal.devi@pgimer.edu.in	1	DM Pediatric Endocrinology – 3 years	PGIMER, Chandigarh
Department of Pediatrics, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Dr Devi Dayal	dayal.devi@pgimer.edu.in	2	PGI Fellowship in Pediatric Diabetes – 1 year	PGIMER, Chandigarh
Department of Endocrinology, Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI), Lucknow	Dr Vijayalakshmi Bhatia	vbhatia@sgpgi.ac.in	1	Post-Doctoral Certificate Course – 1 year	SGPGI, Lucknow
Department of Pediatrics, All India Institute of Medical Sciences (AIIMS), New Delhi	Dr Vandana Jain	drvandanajain@gmail.com drvandanajain@aiims.edu	1	Specialty Senior Residency in Pediatric Endocrinology – 1–1.5 years	AIIMS, New Delhi
Department of Endocrinology and Metabolism, All India Institute of Medical Sciences (AIIMS), Rishikesh	Dr Kriti Joshi	kriti.joshi@gmail.com kriti.endo@aiimsrishikesh.edu.in	1–2	Post-Doctoral Certificate Course – 1 year	AIIMS, Rishikesh
Department of Pediatrics, All India Institute of Medical Sciences (AIIMS) Jodhpur	Dr Varuna Vyas	drvaruna.vyas@gmail.com, vyasv@aiimsjodhpur.edu.in	1	Post-Doctoral Fellowship – 1 Year	AIIMS, Jodhpur
Department of Pediatric Endocrinology, Indira Gandhi Institute of Child Health, Bengaluru	Dr P Raghupathy	drp.raghupathy@gmail.com	4	Fellowship – 18 months	Rajiv Gandhi University of Health Sciences
Private Institutions					
Manipal Hospital, Bengaluru	Dr Shaila Bhattacharyya	shailashamanur@gmail.com	1	Fellowship – 18 months	Manipal University of Higher Education (MAHE)
Department of Pediatrics, Aster CMI Hospital, Bengaluru	Dr Kavitha Bhat	neerkaje.kavitha@asterhospital.com	1	Fellowship – 18 months	Rajiv Gandhi University of Health Sciences
Department of Pediatrics, Bai Jerbai Wadia Hospital for Children & Institute of Child Health, Mumbai	Dr Sudha Rao	c_sudha@hotmail.com	1	Fellowship – 2 years	Maharashtra University of Health Sciences (MUHS)
Division of Pediatric Endocrinology SRCC Children's Hospital, Mumbai	Dr Abhishek Kulkarni	cpedmumbai@gmail.com	1	Post-Doctoral Fellowship – 2 years	SRCC Children's Hospital & Narayana Health Institute
Department of Pediatrics, Bharati Vidyapeeth, Pune	Dr Rahul Jahagirdar	rjahagirdar@gmail.com	1	Fellowship – 1 year	Bharati Vidyapeeth Deemed University, Pune

(Contd...)

Table 1: (Continued).

Institution	Lead Faculty	Contact Email id	Vacancy/ Session	Name & Duration of Fellowship/ Course	Affiliation with University
Department of Growth & Pediatric Endocrinology, Jehangir Hospital and Hirabai Cowasji Jehangir Medical Research Institute (HCJMRI), Pune	Dr Vaman Khadilkar	vamankhadilkar@gmail.com	1	Fellowship – 2 years	Savitribai Phule Pune University
Division of Pediatric Endocrinology (Department of Pediatrics), Sir Ganga Ram Hospital, Delhi	Dr Archana Dayal Arya	adayal35@hotmail.com	1	Fellowship – 2 years	Ganga Ram Institute of Medical Education and Research (GRIPMER)
Indraprastha Apollo Hospital, Delhi	Dr IPS Kochar	inderpal_kochar@yahoo.com	1	Fellowship – 2 years	Apollo Hospitals Education and Research Foundation (AHERF)
Department of Pediatric Endocrinology Regency Hospital, Kanpur	Dr Anurag Bajpai	dr_anuragbajpai@yahoo.com	2	Fellowship – 2 years	Regency Center for Diabetes, Endocrinology & Research

Formal training in the USA is a much longer process and is an option if you are planning to settle down abroad. This typically requires the candidate to complete USMLE followed by a 3-year pediatric residency in the USA, and then another 3 years of fellowship. Training is similarly long in the UK. After MRCPCH and basic pediatric training, at level 3 one undergoes CCT training in pediatric endocrinology. In Australia, after pediatrics training one can apply for specialty training by approaching individual institutes as overseas specialist, for short-term training (FRACP, maximum of 2 years).

HOW TO MAKE THE BEST OF YOUR TRAINING PERIOD?

It is very important to make the most of your training as you are in a protected environment under the umbrella of your institution. Give your best effort and approach each patient in a meticulous and systematic way. Strengthen your basics. Embrace research which will help in better understanding of the concepts and try to practice evidence-based medicine wherever possible. Inculcate compassion and practice expressing it where needed, while you deal with children with complex and chronic conditions such as diabetes and DSD, and their families. Develop healthy friendship with colleagues and a good mentor-mentee relationship with your teachers. Collaborate and compare notes with fellows from other

institutions across the country, paving a way for your future clinical practice and healthy long-term professional relationships.

WHAT DOES THE FUTURE HOLD, IN TERMS OF CLINICAL PRACTICE?

You may opt to have either a private or an institutional practice. Private practice can be demanding and challenging, especially as you try to establish yourself during the initial phase but can be equally rewarding with each patient you treat and make name for yourself. If you want to work only as a dedicated pediatric endocrinologist, the only way is private practice, having your own set-up, or joining a corporate hospital. However, many choose to continue with the general pediatric practice, either to improve their income or because it continues to interest them and gives them joy. This is mostly feasible if you work in an academic/teaching institute. But, if you chose to have your own private practice, continuing to practice general pediatrics might not bring you enough pediatric endocrinology referrals! Working in a teaching institute is also a better option if teaching and research are a major interest for you. As you end up serving all socio-economic classes of people at these institutes, it might give you a better sense of satisfaction in terms of providing service to the needy.

HOW ISPAE IS WORKING FOR IT?

ISPAE is trying to bring uniformity amongst the various fellowship programs that are being conducted in India. For this purpose, a committee has been formed which has now initiated comprehensive formulations for conducting a creditable course incorporating good clinical practice, scaling academic and research frontiers, while simultaneously extending possible help by outreach to all childhood beneficiaries in need including the underprivileged sections of the community.

Hopefully, this gives you some understanding of the nature of the specialty, training opportunities and how to go about them, and its future prospects. If you are someone who has decided to enter this path knowing its pros and cons, then welcome to an exciting, fulfilling, and intellectually enriching experience!

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

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