

Training Programs In Eye Care



LV Prasad Eye Institute



**World Health
Organization**

Collaborating Centre for
Prevention of Blindness



LV Prasad Eye Institute

Kallam Anji Reddy Campus
LV Prasad Marg, Banjara Hills
Hyderabad 500 034, India

Vision

To create excellent and equitable eye care systems that reach all those in need.



LV Prasad Eye Institute

G M R Varalakshmi Campus
Hanumanthawaka Junction
Visakhapatnam 530 040
Andhra Pradesh, India

Mission

The mission of L V Prasad Eye Institute is to be a center of excellence in eye care services, basic and clinical research into eye diseases and vision-threatening conditions, training, product development, and rehabilitation for those with incurable visual disability; with a focus on extending equitable and efficient eye care services to underserved populations in the developing world.



LV Prasad Eye Institute

Patia
Bhubaneswar 751 024
Orissa, India

L V Prasad Eye Institute's mission to eliminate needless blindness has led to a major focus on the development of human resources. The education programs at LVPEI's tertiary centres in Hyderabad, Bhubaneswar and Visakhapatnam address all levels of teaching and training of ophthalmologists, paramedical ophthalmic assistants, outreach workers and healthcare managers.

Introduction

Blindness and visual impairment is a global health problem, affecting more than 161 million people worldwide in 2002 (World Health Organization). About 45 million Indians are visually impaired. Nearly 75 percent of this visual impairment is avoidable, i.e., it can be prevented, treated or managed with highly cost-effective interventions. Visual impairment has a significant economic impact and generates high levels of social and economic dependency.

Across the world, there is a wide disparity in the distribution and availability of human resources to address eye care needs at different levels of service delivery. In some countries and within some regions, there are fewer ophthalmologists per population unit than is considered optimum by WHO standards. In other areas, there is a virtual absence of other cadres of eye care workers—optometrists and opticians, nurses and nursing aides and technicians. Even in countries where the numbers are adequate, they are restricted mainly to urban centers, with practically no expertise or service available in rural areas. Therefore, there is a need for human resource development not only to ensure appropriate care of the most complicated cases but also to ensure effective eye care delivery to the remotest rural areas.

L V Prasad Eye Institute (LVPEI) was established in 1987 with a simple aim: to bring world-class eye care to people in India, regardless of their ability to pay. Its first campus now known as Kallam Anji Reddy campus in recognition of one of its largest donors, is located in Hyderabad. It was started as a tertiary center providing specialty eye care. LVPEI now has two more tertiary eye care centres, in Visakhapatnam in northeastern Andhra Pradesh and in Bhubaneswar, Orissa. All three campuses are equipped to handle all major subspecialties. To ensure effective eye care delivery to the remotest rural areas LVPEI has built a network of primary care centers, the Vision Centres, serving rural population clusters of 50,000, which are linked to secondary care Service Centres in the rural areas. These refer the more complex cases to the tertiary facilities. This pyramidal model of eye care delivery has been adopted by the Indian Government in planning eye care services in its current Five-Year Plan.

LVPEI and its network have, over the past two decades, seen over 6 million patients in its clinics and performed close to 560,000 eye surgeries of all types. Over 52% of these services have been totally free of cost to those less privileged. It is now recognised as the leading eye care centre for provision of comprehensive, high quality eye care services in this part of the world.

The LVPEI Eye Health Pyramid offers a model of eye care service delivery for a given geographical area, with a five-tiered system built on a foundation of community participation and linked through primary, secondary and tertiary centers to a center of excellence at the apex. All levels of the pyramid have permanent infrastructure and trained human resources to provide high quality, appropriate care to all in need—balancing equity with excellence. Equipping the system with people trained in eye care service delivery of the highest quality is the function of LVPEI's Education Centre.

A pyramid of eye care reaching all in need

Centre of Excellence

Superspecialty care, training of trainers and specialists, public health, research and advocacy (50 million population)

Tertiary Centres

Outpatient and surgical services, training and research (5,000,000 population)

Service Centres

Comprehensive eye care services, community screening (500,000 population)

Vision Centres

Screening and awareness programs, refraction and dispensing spectacles (50,000 population)

Community Care

Monitoring eye health of the community (5000 population)

The Education Centre

One of the key aspects of LVPEI's mission is to generate human resources for eye care, so as to help fill the large gap between the demand and availability of eye care workers with the relevant skills and knowledge, complemented by an attitude of compassion and caring. Building an adequate human resource base is also key to achieving the goals of VISION 2020: The Right to Sight and to bringing affordable eye care to all people everywhere. As a World Health Organization Collaborating Centre for Prevention of Blindness, L V Prasad Eye Institute is committed to training eye care workers across all cadres in the eye care service delivery chain.

Fullfilling a Mission

LVPEI employs the most modern medical and surgical techniques in all subspecialties of eye care. An effective outpatient clinical evaluation and diagnostic system serves more than 800 patients on an average working day in Kallam Anji Reddy campus, Hyderabad. Over 100 surgical procedures, ranging from routine cataract removal to complex retinal surgery are performed every day using state-of-the-art equipment. The Ramayamma International Eye Bank, one of the most sophisticated in the region, collects and processes over 3000 corneal tissues every year for use in corneal transplant surgery at LVPEI as also for distribution to other clinics. Basic and clinical researchers interact closely on projects that are all focused on understanding the causes and possible management of eye diseases and conditions most prevalent in this region. All this is done within a streamlined administrative and managerial system.

LVPEI thus provides a unique training ground for all cadres of eye care workers, from ophthalmologists to optometrists to other para-medical and administrative cadres in the eye care service delivery chain.

Over the years, the institute has trained over 12,500 eye care professionals. These include not only ophthalmologists and optometrists but also eye care nursing staff, managers, rehabilitation professionals, biomedical technicians and community health workers. Participants in these courses come from all over India and from across the world, making for a richly interactive learning forum.



Acquiring diagnostic skills



Hands-on surgical experience



Audio-visual training facilities



Training programs at LVPEI

From its very inception, training has been a key part of LVPEI's activities. Training programs are offered at all levels of the eye care service delivery chain: post-doctoral ophthalmology fellows and practicing ophthalmologists, as well as optometrists, ophthalmic technicians, nurses, nursing assistants, bio-medical technicians and eye care administrators.

Education at LVPEI has three main objectives:

- To upgrade the skills of practising ophthalmologists
- To provide opportunities to keep abreast of developments in the field of vision science and its application
- To equip new entrants to the field with the appropriate skills and knowledge

All programs are designed around a combination of practical and theoretical approaches and are continually revised to incorporate new knowledge.

Training Protocol

The fellowship programs follow a strict training protocol that is designed to help participants develop critical clinical and diagnostic skills, gain knowledge of advanced surgical techniques and develop a humane approach to patient care—in short, to become excellent eye care practitioners.

All long-term fellows are required to undergo an initial three-month probation to learn basic eye examination, diagnostic techniques and documentation in all the subspecialties of the eye. Part of this period is spent at the LVP-Zeiss International Academy of Advanced Ophthalmic Education. The trainees' performance is evaluated at the end of this period and if a trainee is found unsuitable, his or her fellowship may be terminated.

For the rest of the duration the fellows work in rotation with faculty members in the subspecialty of their choice and in the para-clinical departments like microbiology and pathology. They also perform surgery under supervision. The short-term programs provide candidates an opportunity to observe and assist the faculty both in the clinic and operating room.

Other training programs also follow a carefully developed curriculum that is periodically reviewed and revised.

Education Programs

Ophthalmology Fellowship Programs

Cornea & Anterior Segment

Glaucoma

Retina Vitreous

Ophthalmic Plastic Surgery, Orbital
Diseases and Ocular Oncology

Pediatric Ophthalmology

Comprehensive Ophthalmology

'Hands-On' Training Programs in Ophthalmology

Manual Small Incision Cataract Surgery

Phacoemulsification

Retina Laser Techniques

Training Programs in Optometry

Bachelor of Science in Optometry

Vision Technician Program

Fellowship in Optometry

Other Training Programs

Low Vision Care

Vision Rehabilitation Services

Ophthalmic Nursing Assistants

Operating Room Technicians

Eye Donation Counseling

Eye Banking Techniques

Eye Care Administrators

Community Eye Health

Biomedical Engineers

Support Staff Training Program

Program Management & Evaluation

Evaluation

A rigorous monitoring and evaluation process keeps track of the trainees' performance at various points through the program. A monthly evaluation format assesses progress in terms of clinical judgment, skills, attitude and behaviour towards patients. The respective faculty also mark their involvement in research study and overall performance and there is a bi-monthly evaluation by the Director of Education.

Training Infrastructure

LVPEI's comprehensive patient care system provides services to over 800 patients each working day, with highly trained specialists performing over 100 complex surgical procedures using state-of-the-art equipment. The infrastructure comprises fully equipped examination rooms, diagnostic and therapeutic chambers, and other ancillary support service centres. This includes the LVP-Zeiss International Academy of Advanced Ophthalmic Education, a state-of-the-art centre for diagnostic procedures using computerised imaging systems. In addition, there is top-of-the-line equipment for laser treatment, surgery and contact lens care, apart from well-equipped clinical research laboratories for microbiology, molecular genetics, pathology, virology, and serology. A surgical wet laboratory addresses both training and research needs.

The Institute library offers trainees 24-hour access to a vast collection of books, journals, videotapes, Internet and online databases such as Medline. An in-house audiovisual studio documents and produces training videos, and allows researchers to use still and video photography for scientific presentations. The operating rooms are linked to the audiovisual centre and auditorium enabling live demonstrations and discussions of cases as they are being handled. Our information services department offers graphic design and data processing services, while the bio-statistics centre provides vital research support.

Classes are held on all weekdays. Long-term fellows are required to present case studies in clinical grand rounds and articles in journal clubs, and attend topical seminars. Academic advisors guide fellows to initiate and complete a minimum of one prospective and one retrospective study. Short-term fellows are encouraged to make one grand round and one journal club presentation in the third month and expected to undertake one retrospective study.

Video-conferencing facilities set up with the support of Biocon Limited have allowed the three campuses to interact in real-time,



Morning class in Patodia Auditorium



Video-conferencing in use during morning class



Students have access to quality library resources

with lectures, symposia and discussions beamed across all three campuses simultaneously, no matter which campus they are held at. This facility now also links LVPEI with the Institute for Eye Research in Sydney, Australia.

Accommodation

All selected candidates are provided rent-free accommodation on campus. They are also eligible for subsidized food from the cafeteria.

Continuing Medical Education Programs

The institute regularly conducts Continuing Medical Education (CME) Programs at the campus in Hyderabad, Bhubaneswar and Visakhapatnam. The faculty for these programs comprises experts in the field from all over the world as well as LVPEI faculty. These CME programs are thrown open to ophthalmologists and other eye care professionals from all over the country and abroad. This is an excellent forum for eye care professionals to meet and discuss latest practices and advances in medicine.

Interested participants need to book their seats in advance. The institute releases the CME program list for the year giving dates and the contact person in charge of the program at the beginning of the year. For more details please contact education@lvpei.org. Some of the programs held every year are listed below

- Corneal transplantation
- Cataract – advances
- Retina vitreous
- Glaucoma update
- Pediatric ophthalmology
- Ocular plastics–cutting edge techniques
- Ocular oncology
- Retinopathy of prematurity
- Treatment of squint
- Ocular prosthesis
- Indian contact lens education program
- Low vision awareness program
- Good clinical practices
- Eye PEP (post graduate education program)



Regular guest lectures broaden trainees' perspectives



Trainees at the clinic

A complete list of all training programs, duration eligibility criteria and selection procedure is given in tables 1 to 4. For more information, please write to education@lvpei.org

Ophthalmology Fellowship Programs

Long Term Fellowship	Course duration	Session commences	No. of candidates	Qualifications	Selection process
Cornea	24 months	January & July	Three each	MS / MD / DNB / FRCS	Written test & interview in November & May
Glaucoma	24 months	January & July	One each	MS / MD / DNB / FRCS	Written test & interview in November & May
Retina & Vitreous	24 months	January & July	Three each	MS / MD / DNB / FRCS	Written test & interview in November & May
Pediatric Ophthalmology	24 months	January & July	One each	MS / MD / DNB / FRCS	Written test & interview in November & May
Ophthalmic Plastics & Oncology	24 months	January & July	One each	MS / MD / DNB / FRCS	Written test & interview in May
*Comprehensive Ophthalmology	3 years	January & July	4 - Hyderabad 3 - Visakhapatnam 3 - Bhubaneswar	DO / DOMS	Written test & interview in May; reserved seats for candidates sponsored by NGOs

Ophthalmology Short Term Courses

Short Term Fellowship	Course duration	Session commences	No. of candidates	Qualifications	Selection process
*Cornea	3 months	January, April July & October	One each	Practice and experience in the subspecialty	Potential to develop the subspecialty service at their location. Course fee payable
Glaucoma	3 months	January, April July & October	One each	Practice and experience in the subspecialty	Potential to develop the subspecialty service at their location. Course fee payable
*Retina	3 months	January, April, July & October	One each	Practice and experience in the subspecialty	Potential to develop the subspecialty service at their location. Course fee payable
Pediatric Ophthalmology	3 months	January, April, July & October	One each	Practice and experience in the subspecialty	Potential to develop the subspecialty service at their location. Course fee payable
Ophthalmic Plastics	3 months	January, April, July & October	One each	Practice and experience in the subspecialty	Potential to develop the subspecialty service at their location. Course fee payable
*Manual Small Incision Cataract Surgery	1 month	Every month	One	Practising Ophthalmologists experienced in ECCE/IOL surgery	First-come first-served basis. Course fee payable
*Phacoemulsification	1 month	Every month	One	Ophthalmologists proficient in cataract surgery	First-come first-served basis. Course fee payable
Retina Laser	1 month	Every month	One	Practising Ophthalmologists	First-come first-served basis. Course fee payable
Ophthalmic Diagnostics	Basic Techniques 1 month Advanced Techniques 15 days	Every month September to December	Eight	Residents in Ophthalmology and practising Ophthalmologists	First-come first-served basis. Course fee payable

*These training programs are offered at Bhubaneswar and Visakhapatnam campuses as well.

Optometry Training & Fellowship Programs

	Course duration	Session commences	No. of candidates	Qualifications	Selection process
Bachelor of Science in Optometry	4 years	August	25	10+2 CBSE / State board syllabus or equivalent with physics, chemistry & mathematics / biology, proficiency in English	Admission through BITS, Pilani. Entrance examination & interview at the school. Course fee payable
Vision Technicians Course	1 year	August & February	25	10+2 CBSE / State board syllabus or equivalent	For employee-nominated candidates only
Fellowship in Optometry	13 months - 2 years	August	30	Bachelor degree in optometry or ophthalmic techniques for the one-year fellowship and a diploma in optometry or ophthalmic techniques for the two year fellowship	Entrance examination & interview

Other Training Programs for Eye Care Professionals

	Course duration	Session commences	No. of candidates	Qualifications	Selection process
Community Eye Health	1 year (Master's) 6 months (Diploma)	January	15 - 20	Qualified ophthalmologists with aptitude for clinical work in communities, MBBS doctors with relevant experience in community eye care	Preference will be given to sponsored candidates. Course fee payable
Low Vision Care	3 months	January, April, July, October	Two each	Ophthalmologist - MS/MD/DNB Optometrist - bachelor/diploma in optometry	First-come first-served basis
Vision Rehabilitation Services	1 year	August	Two	Master's degree/bachelor's degree/ Diploma in special education or rehabilitation services/relevant work experience	Preference will be given to sponsored candidates.
Eye Bank Technician	3 months	January, April, July, October	Three each	10+2 CBSC/ State board syllabus with biological sciences. Working in eye banks and hospitals will be an added qualification	First-come first-served basis
Eye Donation Counselor	1 month	Every month	One	SSC/HSC/CBSE/ICSE, 18 years of age	Eye Bank sponsored
Ophthalmic Nursing Assistants	2 years	July	Ten	Age 18 to 25 years (open to women only)/ 10 th standard with 50% aggregate marks. Also those who have completed ancillary nurse/midwifery course to health worker program/ vocational training program or diploma in general nursing	Entrance examination & interview. Course fee payable
Operating Room Technician	2 years	July	Four	Age 18 to 25 years /10 th standard with 50% aggregate marks	Entrance examination & interview. Course fee payable
Postgraduate Diploma in Hospital Management	1 year	August	15-20	Graduates with good academic record, proficiency in English, one regional language and knowledge of computers	Written test and interview
Bio-medical Engineer	3 months	April & October	Four each	Advanced Course: BE/B Tech/ diploma in biomedical, instrumentation Basic Course: ITI (2 years course) in electronics or those working in a hospital biomedical department	On the basis of an interview. Course fee payable
Certificate Course: Program Management & Evaluation	2 weeks	December	15-20	Graduates working in eye care govt. NGOs or private sector for at least three years in a supervisory or higher position	First-come first-served basis
Support Staff	6 months	February & August	25	10+2 with good communication skills, 18 to 25 years of age	Interview

Living in Hyderabad

Language: Hyderabad is a cosmopolitan city and while Telugu is the language of the state, English, Hindi and Urdu are understood and spoken by a majority of the people. Knowing these languages is a distinct advantage in conversing and dealing with the local population. Assistance can be arranged for students to acquire a working knowledge of these languages.

Climate: Hyderabad enjoys three main seasons: summer, monsoon and winter. Summers are very warm, starting from March and running through June; whereas winters are pleasant, starting from November till February. Light clothing for summer and a sweater or jacket for winter is recommended.



A view of the city from Golconda fort



Charminar in the old city

Food: Hyderabad is world renowned for its rich and exquisite cuisine. The local food is quite spicy, but continental, Chinese and other kinds of food are available in most restaurants. Fruits are available round the year and are reasonably priced; these include bananas, apples, grapes, oranges, mangoes, and melons, which are cheap during the season.

Health: Health and medical insurance is not compulsory in India. Eye examination will be provided free of cost to students at LVPEI. General practitioners, super-specialty hospitals and nursing homes offer quality care, if needed. Medications and drugs are easily available.

Recreation: Cinema theatres, parks and local places of interest offer entertainment and recreation to students. Many picnic spots exist around Hyderabad, and most of them can be visited within a day.

Banks and valuables: Several nationalised banks close to the Institute provide for bank transfer of money and safekeeping of valuables with a locker facility. The average time period for making a bank transfer to USA or Europe is 7-10 days. Most banks have Automated Teller Machines (ATMs) and credit and debit cards can be used to withdraw money.

Shopping: The twin cities of Hyderabad and Secunderabad are famous for their pearl bazaars, jewellery, glass bangles, handicrafts and textiles. Most shops accept national and international credit cards.



Software park in high-tech city

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Support

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University Grants Commission, India
Fred Hollows Foundation, Australia
State Bank of India, India
Advanced Medical Optics, USA
Centre for Scientific & Industrial Research, India
Indian Council of Medical Research, India
Lady Tata Memorial Trust, India
Sir Ratan Tata Trust, India

Collaborators

International Center for Eyecare Education, Australia
International Association for Contact Lens Educators, Australia
Vision CRC, Australia
University of New South Wales, Australia

Support for CME Programs 2010 - 2011

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