

Qualifications : MBBS, MS/MD/DNB/DO/DOMS

Fellowship details : 12 months

Intake of candidate : January / July

An ophthalmology curriculum for a 1-year vitreoretinal surgery training program structured around an **outcome-based model**, ensuring trainees acquire the knowledge, skills, and professional behaviours necessary for independent practice. The curriculum focuses on both medical and surgical retina, with a strong emphasis on clinical decision-making and hands-on experience.

1. Vitreo-retinal surgery

Outcomes: Trainees will be able to perform and assist in a variety of vitreoretinal surgeries. They will understand the principles of vitrectomy, surgical instrumentation, and preoperative patient selection.

Core Activities:

- **Surgical Training:** Assist in at least 100 vitrectomy cases and perform at least 50 cases under supervision.
- **Operating Room Rotation:** Gain proficiency in setting up the operating microscope and vitrectomy machine.
- **Simulated Surgery:** Practice on virtual reality simulators to hone skills in membrane peeling and fluid-air exchange.

2. Retinal Imaging

Outcomes: Trainees will be able to interpret and apply various retinal imaging modalities to diagnose and manage retinal diseases.

Core Activities:

- **Hands-on Training:** Perform and interpret a minimum of 200 **Optical Coherence Tomography (OCT)** scans, 50 **Fluorescein Angiography (FFA)** studies, and 50 **B-scan ultrasonography** examinations.
- **Case Discussions:** Present and discuss imaging findings in weekly conferences, correlating images with clinical findings.

3. Retinal Degenerations and Dystrophies

Outcomes: Trainees will be able to diagnose and manage common and rare retinal degenerations and dystrophies.

Core Activities:

- **Clinic Rotation:** Evaluate and follow patients with age-related **macular degeneration (AMD)**, **retinitis pigmentosa**, and **Stargardt disease**.
- **Genetic Counseling:** Learn to counsel patients and families about the hereditary nature of these diseases.
- **Journal Club:** Critically appraise recent research on new therapies and genetic findings.

4. Retinal Vascular Diseases

Outcomes: Trainees will be able to diagnose, classify, and manage the full spectrum of retinal vascular diseases.

Core Activities:

- **Emergency Clinic:** Manage patients presenting with acute **retinal artery occlusion** and **retinal vein occlusion**.
- **Laser and Anti-VEGF Therapy:** Administer and document at least 50 anti-VEGF injections and perform 30 laser treatments for **diabetic retinopathy**.
- **Multidisciplinary Care:** Collaborate with endocrinologists and cardiologists in managing patients with **ocular ischemic syndrome**.

5. Inflammatory Diseases

Outcomes: Trainees will be able to diagnose and manage inflammatory conditions affecting the retina and uvea.

Core Activities:

- **Uveitis Clinic:** Evaluate patients with **intermediate uveitis**, **sarcoidosis**, and **Vogt-Koyanagi-Harada (VKH) disease**.
- **Immunology Conference:** Present interesting cases to rheumatologists and immunologists to understand systemic associations of diseases like **sympathetic ophthalmitis**.

6. Infections

Outcomes: Trainees will be able to diagnose and initiate appropriate treatment for ocular infections.

Core Activities:

- **Microbiology Lab:** Learn to collect and process vitreous and aqueous humor samples for culture.
- **In-patient Consultation:** Manage patients with **endophthalmitis**, working closely with the infectious disease team.
- **Case Studies:** Review and present cases of **toxoplasmosis**, **HIV retinopathy**, and **Eales disease**.

7. Retinal Tumors and Malignancy

Outcomes: Trainees will be able to identify, refer, and assist in the management of ocular tumors.

Core Activities:

- **Oncology Clinic:** Rotate through a dedicated ocular oncology clinic to learn about the diagnosis and management of **retinoblastoma**, **choroidal melanoma**, and other tumors.
- **Multidisciplinary Tumor Board:** Present cases and participate in discussions with oncologists and radiation specialists.
- **Observation:** Observe plaque radiotherapy and enucleation procedures.