



Vitreoretinal Diseases

VITREO-RETINAL SURGERY

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

new therapies and genetic findings.

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

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.

Core Activities:

- Surgical Experience: Perform and assist in surgeries for various conditions:
- Rhegmatogenous retinal detachment (RD): 20 cases (10 primary surgeon)
- Tractional RD and exudative RD: 10 cases (5 primary surgeon)
- Macular hole and epiretinal membrane (ERM): 15 cases (7 primary surgeon)
- Scleral buckle: 5 cases (3 primary surgeon)
- Surgical Planning: Participate in preoperative discussions and planning for all surgical cases.

7. Surgical Retina

Outcomes: Trainees will be able to perform and manage complex retinal detachment surgeries. They will also be proficient in surgery for macular pathologies.

8. 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.