



## Singapore National Eye Centre

11 Third Hospital Avenue Singapore 168751  
Tel: (65) 6227 7255 Fax: (65) 6227 7290  
www.snec.com.sg  
Reg No 198900840W

### **SNEC ADVANCED SURGICAL TRAINING PROGRAMME - VITREORETINAL MEDICINE & SURGERY ROTATION**

The following is a training guidelines in Vitreoretinal Medicine and Surgery for advanced trainees and will be carried out with participation of members of the Vitreoretinal Service, SNEC and other affiliated units.

#### **PURPOSE AND OBJECTIVES**

- a) Ensure high quality of care for patients with Vitreoretinal diseases
- b) Establish criteria for subspecialty training that will provide for the continued all round training for the advanced trainees.
- c) To develop a formal training program with requirements that can be met by both the advanced trainee and the institution

#### **PROGRAMME OUTLINE**

- a) The duration of the attachment is 6 months in both medical retina as well and vitreous and retinal surgery. The trainee should spend at least 40% of his/her time in the subspecialty.
- b) Clinical Teaching – patient care, examination, investigation, treatment and discussion. Trainees will be closely supervised during the period of training and should not make independent decisions.
- c) The trainee should be present at all allocated VR OT sessions and observe preparation cases and assist in surgery. They should review pre-operation cases wherever possible and prepare the patient for surgery. The relevant retinal diagrams and a plan for management must be prepared with the help of the VR Fellow.
- d) Retinal Fluorescein Angiography Round  
Trainees, together with the Vitreoretinal Fellow will be expected to participate in the review of all fluorescein and indocyanine green angiograms performed in SNEC the preceding week.
- e) Retinal Round  
Trainees, together with the Vitreoretinal Fellow will be involved in the review of interesting cases of medical and surgical retina. Trainees have to assist the Coordinator in the preparation of the cases for discussion one week before the scheduled meeting.

- f) Participate in ongoing clinical research and quality assurance audit programmes of the Service.

## **SUBJECT AREAS**

### **A. Medical Retina**

#### 1. Diabetic Retinopathy

- a) Diabetic Retinopathy Service
- Evaluation and grading of diabetic retinopathy
  - Decision-making in treatment plan
  - Counseling of patients with respect to diabetic control, aims and effects of laser photocoagulation
- b) Diabetic Retinopathy Laser Service
- Perform panretinal laser photocoagulation (PRP) competently and safely
  - Perform focal laser photocoagulation
  - Observe and perform grid laser photocoagulation under supervision
  - Special circumstances
    - Vitreous hemorrhage
    - Cataract
  - Evaluate need for further laser and decision making on review period

The trainee should perform at least 20 logged cases of PRP and 5 logged cases of focal laser during the posting.

#### 2. Acquired maculopathies

- a) Age related macular degeneration
- understanding of classification and recognition of AMD
  - treatment options for various types of AMD
  - understand technique and outcomes of laser photocoagulation
  - understand principles of photodynamic therapy
- b) Polypoidal choroidal vasculopathy
- recognition of manifestations of PCV
  - treatment options
- c) Central serous chorioretinopathy
- identify risk factors in CSCR
  - treatment options in CSCR

3. Retinal vascular diseases e.g. vascular occlusions, telangiectasis, vascular tumours
- recognition, appropriate investigations and treatment options

4. Inherited retinal degenerative
  - pattern recognition, use of electrophysiology in diagnosis, use of appropriate adjunct investigations, pedigree charting and genetic counselling
5. Understanding of the indications, uses and interpretation of diagnostic techniques: posterior segment ultrasonography, FFA, ICGA, electrophysiology (ERG, EOG, PERG, VEP), psychophysical tests (visual fields, dark adaptometry), optical coherence tomography (OCT)

## **B. Vitreoretinal Surgery**

The training will include hands-on training in vitreous and retinal surgery. The trainee will make diagnostic, therapeutic and surgical decisions under supervision in the entire spectrum of Vitreoretinal disorders. Surgical training will include the following categories of cases:

1. Rhegmatogenous retinal detachment  
The trainee should assist in surgical repair of rhegmatogenous retinal detachments. The experience includes localisation of retinal tears, subretinal fluid drainage and placement of scleral buckles. A minimum of **10 cases** is recommended. They will be asked to perform specific steps during the surgery. If competent they may be given a chance to complete the surgery. Trainees should strive to achieve this and attempt at least **5 cases** during the rotation.
2. Posterior vitrectomy  
The trainee should assist in posterior vitrectomy for a variety of indications, including diabetic vitreous haemorrhage, complicated retinal detachments, PVR, IOFBs etc. A minimum of **15 cases** is recommended. They may be asked to perform specific steps during the procedure.
3. Ocular trauma and Intraocular Foreign Bodies  
The trainee will coordinate the Service's role in the management of blunt and penetrating injury. He/she will evaluate and carry out all necessary preoperative investigations and arrange the most efficacious timing for surgical intervention.

## **DOCUMENTATION AND VERIFICATION**

- a) The trainee will keep a log of all laser and surgical procedures performed during the period of training. This will be reviewed at the end of the posting.
- b) All non-clinical activities e.g. case presentations, conferences, journal club during the term should be recorded.
- c) The trainee will be assessed and a report given by the Division Head and one other supervisor.

## **PROGRAM SUPERVISORS**

Director : Dr Doric Wong  
Supervisors : Dr Ong Sze Guan  
Dr Yeo Kim Teck  
Dr Caroline Chee  
Dr Ronald Yeoh  
Dr Adrian Koh