

# **Educational Goals & Objectives for Ophthalmology Residents at Parkland Memorial Hospital (PMH)**

Competencies addressed:

- PC = Patient care
- MK = Medical knowledge
- Pr = Professionalism
- PBLI = Practice-based learning and improvement
- ICS = Interpersonal and communication skills
- SBP = Systems-based practice

## **PGY2 RESIDENTS**

**ROTATION: PMH I, PMH II, PMH III and PMH IV**

## **GOALS**

Residents will learn to provide general ophthalmology medical care to patients in a compassionate and professional manner. In addition, the resident will be introduced to subspecialty care (Neuro-ophthalmology, Retina, Cornea/External Disease, and Glaucoma). Residents will also perform minor surgery as well as eye removal surgery (enucleation / evisceration) during the rotation, and will participate in gross and microscopic pathologic examination.

## **OBJECTIVES**

Residents will have the ability to:

- Perform a complete eye examination, including gonioscopy and fundus examination by slit lamp and indirect ophthalmoscopy [PC, MK]
- Diagnose and treat most common eye conditions [PC, MK]
- Perform B-scan examination in eyes with opaque media with some supervision [PC, MK]
- Perform pachymetry [PC, MK]
- Intelligently discuss the differential diagnosis and treatment of most common ophthalmologic disorders [MK]
- Correctly code diagnoses and office-based procedures [Pr, SBP]

- Be familiar with and able to perform common office-based ocular procedures [PC, MK]:
  - Epilation
  - Punctal closure
  - Participation in repair of traumatized eyes
  - Participation in other extraocular procedures (first assist/perform with supervision)
- Provide medical care for adult general ophthalmology patients with compassion and professionalism while working as a part of a clinic-based health care team [PC, MK, Pr, PBLI, ICS, SBP]
- Provide medical care for patients presenting to the emergency department with eye problems [PC, MK, Pr, PBLI, ICS, SBP]
- Assist with and demonstrate the steps of trauma surgery [PC, MK]
  - Teach medical students basic ophthalmic examination technique [PBLI, ICS]
- Present oral PowerPoint presentations of Grand Rounds patients [PC, MK, PBLI, ICS]

### **PGY3 RESIDENTS**

#### **ROTATION: CLINIC CHIEF**

#### **GOALS**

The Clinic Chief will learn to perform ophthalmic consultations on patients with systemic disease and coordinate care with other services and subspecialties.

#### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Demonstrate increasing ability to function independently in clinical management of increasingly complex ophthalmologic problems [PC, MK, PBLI]
- Demonstrate ability to supervise and instruct junior residents in development of necessary skills for performing ophthalmologic examinations and decision making for diagnosis and treatment of common ophthalmologic problems [Pr, ICS]

- Communicate and interact with other services in a professional, collegial manner, and appropriately access the healthcare system to obtain necessary care for patients [PC, Pr, ICS, SBP]
- Perform consultations on patients with systemic diseases and coordinate care between services and sites [PC, MK, Pr, ICS, SBP]
- Present oral PowerPoint presentations of Grand Rounds patients and original research [PC, MK, PBLI, ICS]

## **ROTATION: RETINA**

### **GOALS**

Residents will learn the diagnosis and differential of common posterior segment diseases and become adept in retinal photocoagulation for common retinopathies.

### **OBJECTIVES**

- Have a command of the information presented in the retina, uveitis, and posterior segment tumor sections of the Basic and Clinical Science Course for the common diseases including [MK]:
  - Acquired macular diseases
  - Retinal vascular diseases
  - Common retinal degenerations
  - The retinal detachments and common syndromes
  - Infectious and non infectious posterior uveitis
  - Choroidal tumors
  - Retinal tumors
- Be able to perform screening for retinopathy of prematurity with minimal assistance [PC, MK]
- Be able to interpret fluorescein angiograms and optical coherence tomograms with minimal assistance [PC, MK]
- Be able to perform focal, grid and panretinal photocoagulation for diabetic maculopathy and for proliferative retinopathies [PC, MK, Pr, PBLI, ICS]
- Present oral PowerPoint presentations of Grand Rounds patients and original research [PC, MK, PBLI, ICS]

## **ROTATION: CORNEA / EXTERNAL DISEASE**

### **GOALS**

The resident will learn the diagnosis and treatment of common corneal and external diseases.

### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Diagnose common external disease and corneal diseases, such as keratoconus, Fuchs' dystrophy, anterior basement membrane dystrophy, herpes simplex keratitis, meibomianitis, blepharitis, and external eye infections and discuss their treatment [PC, MK]
- Recognize and begin appropriate treatment for a corneal ulcer [PC, MK]
- Recognize and begin appropriate treatment for contact lens-related external eye diseases and complications [PC, MK]
- Recognize and begin appropriate treatment for a corneal graft rejection [PC, MK]
- Recognize and begin appropriate treatment for corneal complications of cataract or other ocular surgery [PC, MK]
- Recognize the accepted indications for penetrating keratoplasty [PC, MK]
- Recognize and begin appropriate treatment for common external disease problems associated with contact lens wear [PC, MK]
- Understand the causes and treatment of astigmatism after cataract and transplant surgery [PC, MK]
- Have a basic understanding of the use and the limitations of the corneal modeling system, keratometer, and wavefront methods of topographic analysis [MK]
- Become familiar with keratorefractive surgical procedures (PRK, LASIK, C-Cap, etc.) including indications, refractive examination pre- and post-operative and follow-up particularly in regards to complications, indications for retreatment [PC, MK]
- Become familiar with penetrating keratoplasties, including indications, surgical technique and follow-up (in particular post-op astigmatism and rejection, diagnosis and treatment) [PC, MK]
- Assist in corneal and keratorefractive surgical cases [PC, MK]

- Demonstrate professional conduct with patients, faculty, peers and other staff members [Pr]
- Coordinate with, and be responsible to, the senior fellow in regard to assignments on a daily basis [Pr, ICS, SBP]
- Be able to determine which patients are good candidates for successful contact lens wear and select the appropriate initial contact lens based on patient's refractive error, ocular health, corneal topography, and lifestyle [PC, MK]
- Demonstrate basic knowledge of types contact lenses, lens materials, and corresponding solutions [MK]
- Demonstrate proficiency and accuracy in refractions [PC]
- Present oral PowerPoint presentations of Grand Rounds patients [PC, MK, PBLI, ICS]

## **ROTATION: OCULOPLASTICS**

### **GOALS**

The resident will learn the diagnosis and treatment of common oculoplastic disorders and be able to perform common lid surgeries.

### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Knowledge of the anatomy of the eyelids, lacrimal system and orbit [MK]
- Proficient in the repair of simple upper and lower eyelid defects [PC, MK]
- Should be able to discuss different ways for reconstruction of complex upper and lower eyelid defects [MK]
- Should be able to diagnose and plan management of oculoplastic and orbital emergencies [PC, MK]
- Full understanding of Graves' orbitopathy [MK]
- Diagnose and plan management of eyelid tumors [PC, MK]
- Diagnose and plan management of eyelid malpositions, including entropion, trichiasis, ectropion, facial nerve palsy and ptosis [PC, MK]
- Repair of most eyelid malpositions [PC, MK]

- Full understanding of the diagnostic techniques and treatment of lacrimal drainage system disorders [MK]
- Diagnosis and management of essential blepharospasm [PC, MK]
- Diagnosis and management of the anophthalmic socket [PC, MK]
- Be familiar with the gross anatomy and histology of the eyelids, lacrimal system, orbit, and ocular structures [MK]
- Understand the pathologic manifestations seen in the eyelids, conjunctiva, orbital tissues, lacrimal drainage system, cornea, and intraocular tissues, including inflammatory, neoplastic, developmental, traumatic, and metabolic processes [MK]
- Understand the importance of communicating clinical history and surgical plan to the pathologist to facilitate correct specimen handling and diagnosis [Pr, ICS, SBP]
- Perform gross and microscopic ophthalmic pathologic examinations, especially with regards to the orbit and ocular adnexa [PC, MK]
- Present oral PowerPoint presentations of Grand Rounds patients [PC, MK, PBLI, ICS]

## **ROTATION: NEURO-OPHTHALMOLOGY**

### **GOALS**

The resident will learn the diagnosis and treatment of common neuro-ophthalmologic disorders.

### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Ability to conduct a complete neuro-ophthalmic examination, to include a directed history, screening neurologic examination, complete neuro-ophthalmic assessment, and interpretation of Goldmann and automated threshold visual fields [PC, MK]
- Acquire a thorough knowledge of the anatomy and physiology of the visual sensory and motor system [MK]
- Obtain a working knowledge of computerized tomography and magnetic resonance imaging as it relates to neuro-ophthalmology, to include basic interpretation of the brain, orbits and parasellar region, as well as the relative merits of CT over MR in various clinical settings [MK]

- Proficient at localizing lesions in the visual and ocular motor pathways, and diagnose and manage the workup and treatment of common neuro-ophthalmic disorders such as visual loss, optic neuropathies, optic atrophy, cranial nerve palsies, temporal arteritis, myasthenia gravis, diplopia, etc. [PC, MK]
- Develop a working knowledge of the approach to optic nerve sheath fenestration surgical procedures including the indications, surgical steps, post-surgical care, and possible complications. [MK]
- Present oral PowerPoint presentations of Grand Rounds patients and original research [PC, MK, PBLI, ICS]
- Collaborate with neuroradiology colleagues in ordering and interpreting neuroimaging [PC, Pr, ICS, SBP]

## **ROTATION: COMPREHENSIVE OPHTHALMOLOGY**

### **GOALS**

The resident will learn about the diagnosis and treatment of adult strabismus as well as the fitting of contact lenses to correct refractive errors. The resident will also participate in providing general ophthalmologic care and will function as a resource and example to the first year residents in the Parkland Ophthalmology Clinic.

### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Perform accurate refractions and keratometry readings [PC]
- Determine the correct contact lens for patient based on refractive error and lifestyle [PC, MK, ICS]
- Basic knowledge of contact lens materials and contact lens solutions [MK]
- Understand the use of topographic mapping and keratometric readings in contact lens fitting [MK]
- Evaluate contact lens complications and determine an appropriate management plan [PC, MK]
- Understand contact lens fluorescein patterns, soft contact lens fit and rotation, and be able to suggest fit adjustments when needed [PC, MK]
- Understand the use of optical aids to assist patients with low vision to function in their daily activities [PC, MK, Pr]
- Provide medical care for general ophthalmology patients with compassion and professionalism while working as a part of a clinic-based health care team [PC,

- MK, Pr, PBLI, ICS, SBP]
- Present oral PowerPoint presentations of Grand Rounds patients [PC, MK, BLI, ICS]

## **PGY4 RESIDENTS**

### **ROTATION: SURGERY & SURGERY CHIEF**

#### **GOALS**

The residents will be able to perform complex intraocular, oculoplastic, and laser procedures as well as be able to diagnose and repair ocular trauma. The resident will be able to provide preoperative and postoperative care on his/her surgical patients. As surgery chief, the resident will be responsible for coordinating the surgical schedule and helping to administrate a busy inpatient and outpatient ophthalmology service. The resident will gain experience in a traditional inpatient as well as ambulatory surgery center setting.

#### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Diagnosis and management of cataract [PC, MK]
- Surgical management of cataract, including lens aspiration, lensectomy, extracapsular cataract extraction and phacoemulsification [PC, MK]
- Management of intraoperative complications, including posterior capsular rents, vitreous loss and expulsive hemorrhage [PC, MK]
- Pre- and post-op management of cataract surgery, including post-op astigmatism, inflammation, and infection [PC, MK]
- Diagnosis and management of ocular trauma, including corneal and scleral lacerations/ruptures, lid and brow lacerations, orbital trauma and lacrimal drainage system trauma, including surgical management of canalicular lacerations [PC, MK]
- Diagnosis and management of intraocular and orbital foreign bodies [PC, MK]
- Diagnosis and management of optic nerve trauma [PC, MK, ICS]

- Ability to perform Nd:YAG posterior capsulotomy [PC]
- Ability to perform retinal laser photocoagulation, including cases with hazy media [PC]
- Diagnose and surgically manage adult strabismus [PC, MK, ICS]
- Demonstrate ability to oversee the administrative functions of the resident ophthalmology service [Pr, ICS, SBP]
- Develop a therapeutic and ethically sound relationship with patients [PC, Pr, ICS]
- Demonstrate a commitment to ethical principles regarding provision of care [PC, Pr]
- Provide information to patients to obtain informed consent [PC, Pr, ICS]
- Demonstrate proper coding for reimbursement [Pr, SBP]

## **ROTATION: SURGICAL RETINA**

### **GOALS**

The resident will learn the diagnosis and management of common retinal disorders and will be able to assist in complex vitreoretinal surgery.

### **OBJECTIVES**

At the end of the rotation, residents are expected to be:

- Familiar with the diagnosis and management of common retinal disorders, including [PC, MK]:
  - Acquired macular diseases
  - Retinal vascular diseases
  - Common retinal degenerations
  - Retinal detachments and common syndromes
  - Infectious and non infectious posterior uveitis
  - Choroidal tumors
  - Retinal tumors

- Familiar with pre- and postoperative management of retinal surgery, including [PC, MK, Pr, PBLI, ICS]:
  - Retinal tears
  - Retinal detachment
  - Macular hole/cyst/pucker
  - Proliferative diabetic retinopathy
  - Ocular trauma involving the posterior segment
  - Intraocular foreign body
  - Endophthalmitis
- Assist with and demonstrate the steps of vitreoretinal surgery and retinal detachment repair [PC, MK, PBLI]
- Able to perform [PC]:
  - A detailed fundus examination using indirect ophthalmoscopy, contact lens, and scleral indentation
  - Photocoagulation, using slit lamp delivery system and laser indirect ophthalmoscope, on peripheral retinal disorders
  - simple scleral buckle procedure with assistance
- Familiar with important clinical trials for retinal disorders [MK, PBLI]

## **ROTATION: GLAUCOMA**

### **GOALS**

The resident will learn the diagnosis and treatment (medical and surgical) of glaucoma. The resident will be able to perform both laser and filtering surgeries.

### **OBJECTIVES**

By the end of this rotation, the resident will display the following proficiencies:

- Glaucoma laser treatment, including argon and YAG laser peripheral iridectomies and trabeculoplasties [PC, MK]
- Trabeculectomy [PC, MK]
- Glaucoma triple procedure [PC, MK]
- Glaucoma shunt surgery [PC, MK]

- Medical treatment of glaucoma [PC, MK]
- Diagnosis and management of different types of glaucoma [PC, MK]
- Full understanding of the pharmacology of the medications used in glaucoma treatment [MK]
- Full understanding of the physiology of the intraocular pressure and of aqueous humor dynamics [MK]
- Full understanding of visual field defects in the glaucoma patient [MK]
- Gonioscopy [PC]
- Develop a therapeutic and ethically sound relationship with the glaucoma patient and understand barriers to effective treatment of glaucoma, both in the health care system and for the individual [PC, Pr, ICS, SBP]
- Demonstrate a commitment to ethical principles regarding provision of care [PC, Pr]
- Provide information to patients to obtain informed consent [PC, Pr, ICS]