

## **Ophthalmology Educational Goals & Objectives**

The Ophthalmology rotation will provide the resident with an opportunity to develop skills in the prevention, evaluation and management of acute and chronic conditions affecting the eye. The resident will learn to identify fundoscopic findings that precede or reflect systemic illness, such as diabetes and hypertension. The focus will be on treatment of common ophthalmologic complaints, such as itching, pain, redness, tearing, and visual changes. Residents will be exposed to conditions commonly seen in primary care, such as cataracts, conjunctivitis, glaucoma, and macular degeneration. He or she will also become competent in the office evaluation of vision and the eye. Finally, the resident will learn indications for emergent and routine referrals.

Faculty will facilitate learning in the 6 core competencies as follows:

### **Patient Care and Procedural Skills**

- I. All residents must be able to provide compassionate, culturally-sensitive care for their ophthalmology patients.
  - PGY1s should recognize the social impact of ophthalmologic conditions on patients and their families.
  - PGY2s should understand when to seek consultation, be able to formulate specific questions for referrals, and understand the differing roles of ophthalmologists, optometrists, and opticians.
  - PGY3s should be able to coordinate input from multiple consultants, for example in the perioperative setting, and manage conflicting recommendations.
  
- II. All residents will demonstrate the ability to take a focused ophthalmologic history and incorporate information from the electronic medical record.
  - PGY1s should be able to differentiate between stable and emergent symptoms and elicit risk factors for the development of chronic disease.
  - PGY2s will independently obtain the above information and identify barriers to patient compliance and care.
  - PGY3s should be able to independently obtain the above details for patients with complex medical histories and multiple comorbid conditions.
  
- III. Residents should be able to perform an appropriately-targeted physical exam.
  - PGY1s should be comfortable with performing and documenting a normal visual exam and measuring visual acuity and visual fields.
  - PGY2s should be able to characterize age-related changes and abnormal exam findings pertinent to the presenting complaint.
  - PGY3s should be able to independently perform a complete exam and understand the sensitivity and specificity of physical findings.
  
- IV. Residents will understand the indications, contraindications, complications, limitations, and interpretation of the following procedures, and become competent in their safe and effective use:

- PGY1s: fluorescein stain of the cornea, bandaging and patching, eye irrigation
- PGY2s: removal of superficial foreign body, slit lamp exam
- PGY3s: tonometry

## Medical Knowledge

- I. Residents will gain knowledge of eye anatomy, normal physiology, and the changes associated with aging and disease.
- II. PGY1s will become skilled in the timely triage of and approach to common presenting complaints, including

- Acute visual loss
- Cataracts
- Chronic visual loss
- Common disorders of the eyelid
- Dry eyes
- Elevated intraocular pressure
- Exophthalmos
- Eye injuries
- Eye pain
- Floaters
- Fundoscopic abnormalities (papilledema, hemorrhage, exudates)
- Halos
- Itchy eyes
- Ocular discharge
- Ptosis
- Red eye
- Refractive errors – myopia, hyperopia, presbyopia, and astigmatism
- Unequal pupils

PGY2s should be able to incorporate presenting information into the context of past medical history and recognize the connection with common systemic diseases, such as diabetes, hyperlipidemia, hypertension, and migraine.

PGY3s should be able to understand statistical concepts such as pretest probability, number needed to treat, etc. and their effect on diagnostic workup and treatment.

- III. PGY2s will also develop an understanding of the pathophysiology, clinical presentation, natural history, and therapy for the following conditions:
  - Blepharitis
  - Cellulitis – preseptal, orbital
  - Chalazion
  - Conjunctivitis – allergic, bacterial, viral
  - Corneal infection, trauma, or ulcer
  - Cranial nerve palsy

- Dacrocystitis
  - Diabetic retinopathy
  - En- and ectropion
  - Glaucoma
  - Hordeolum
  - Horner's syndrome
  - Iritis
  - Macular degeneration
  - Optic nerve disorders
  - Pinguecula
  - Pterygium
  - Retinal detachment
  - Retinal artery or vein occlusion
  - Tumors
    - Benign – dermoid, milia, keratoacanthoma, nevus, papilloma, xanthelasma
    - Malignant – basal cell and squamous cell carcinoma, lymphoma, malignant melanoma, retinoblastoma
  - Vitreous hemorrhage
- IV. PGY3s will gain a better understanding of the above conditions within the setting of comorbidities.
- V. Residents will understand the appropriate use of the following medications:
- Antibiotics
  - Corticosteroids
  - Glaucoma agents
  - Mydriatics
  - Topical anesthetics
- IV. Residents will
- understand indications for screening examinations in the general population and in the setting of systemic disease
  - be familiar with USPTF guidelines for screening for glaucoma and visual impairment
  - be able to counsel patients on prevention of eye injury and vision loss
- V. Residents will understand indications for ordering and interpretation of results from laboratory and imaging studies, such as fluorescein angiography, ocular ultrasound, MRI, and CT relevant to the diagnosis and treatment of the above conditions.
- VI. Residents will become familiar with indications, contraindications, limitations, and follow-up for procedures for refractive surgery, cosmetic surgery, lens and laser procedures.

## **Practice-Based Learning and Improvement**

- I. Residents should be able to access current clinical practice guidelines and apply evidence-based strategies to patient care.
- II. PGY2s should develop skills in evaluating studies in published literature, through Journal Club and independent study.
- III. All residents should learn to function as part of a team, including the primary care physician, ophthalmologist, nurse, and clinic staff, to optimize patient care, and PGY3s should take a leadership role.
- IV. All residents should respond with positive changes to feedback from members of the health care team.

## **Interpersonal and Communication Skills**

- I. PGY1s must demonstrate organized and articulate electronic and verbal communication skills that build rapport with patients and families, convey information to other health care professionals, and provide timely documentation in the chart.
- II. PGY2s must also develop interpersonal skills to educate and counsel patients, and where appropriate, promote behavioral change.
- III. PGY3s should demonstrate leadership skills to build consensus and coordinate a multidisciplinary approach to patient care.

## **Professionalism**

- I. All residents must demonstrate strong commitment to carrying out professional responsibilities as reflected in their conduct, ethical behavior, attire, interactions with colleagues and community, and devotion to patient care.
- II. All residents should be able to educate patients and their families in a manner respectful of gender, age, culture, race, religion, disabilities, national origin, socioeconomic status, and sexual orientation on choices regarding their care.
- III. PGY2s should be able to use time efficiently in the clinic to see patients and chart information.
- IV. PGY3s should be able to provide constructive criticism and feedback to more junior members of the team.

## **Systems-Based Practice**

- I. PGY1s must have a basic understanding that their diagnostic and treatment decisions involve cost and risk and affect quality of care.
- II. PGY2s must be able to discuss alternative care strategies, taking into account the social, economic, and psychological factors that affect patient health and use of resources.
- III. PGY2s should understand the impact of insurance status on patient access to care and be aware of the availability of case workers, counseling services, and other community resources to maximize care.

- IV. PGY3s must demonstrate an awareness of and responsiveness to established quality measures, risk management strategies, and cost of care within our system.

### Teaching Methods

- I. Supervised patient care in the clinic
- Residents will initially be directly observed with patients, to facilitate the acquisition of excellent history taking, physical exam, and procedural skills.
  - As residents become more proficient, they will interact more independently with patients and present cases to faculty.
    - For PGY1s, initial emphasis will be on diagnosis and basic management.
    - For PGY2s/ PGY3s, focus will be on medical decision-making, and residents will work with supervising physicians to finalize a care plan.
- II. Conferences
- Specialty-specific didactics
- III. Independent study
- Journal and textbook reading
    - *Annals of Internal Medicine* - In the Clinic series
    - *MKSAP*- General Medicine section on eye diseases
  - Additional reading as recommended by Attending physician
  - Online educational resources
    - The Stanford 25 <http://stanfordmedicine25.stanford.edu/>
    - American Family Physician Eye and Vision Disorders article collection <http://www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=66>
    - National Eye Institute <http://www.nei.nih.gov/>
    - American Academy of Ophthalmology <https://www.aao.org/>
    - EyeNet Magazine <https://www.aao.org/EyeNet>
    - Up To Date
    - Clinical Key

### Evaluation

- I. Case and procedure logs as appropriate
- II. Mini-CEX on the ophthalmologic exam
- III. Attending written evaluation of resident at the end of the month, based on observations and chart review.

### Rotation Structure

- I. Residents should contact the attending physician the day prior to confirm start time and location. Residents should notify the attending physician promptly if they cannot be in clinic at their assigned time.
- II. Residents should be in clinic during their scheduled times.
- Residents will be involved in discussion of patient presentation, generation of a differential diagnosis, development of a treatment plan, and plan for patient

follow up. In addition, residents will be involved in in-office surgical procedures as is appropriate.

- Case-based learning is most effective. Nightly reading/study should be based on patients seen during the day.
  - When seeing outpatient consults referred from another provider, the resident should understand the question asked and provide a concise answer.
- III. Residents may be asked to do focused literature searches or presentations during the course of the rotation.
- IV. Call and weekend responsibilities TBD by the attending physician.
- Hours worked must be consistent with ACGME requirements and are subject to approval by the Program Director.
- V. Residents have specialty-specific didactics and should be excused in a timely fashion to attend.