

UCSF

OPHTHALMOLOGY
RESIDENCY

GOALS & OBJECTIVES



UCSF OPHTHALMOLOGY RESIDENCY
GOALS & OBJECTIVES

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CORNEA SERVICE

GOALS AND OBJECTIVES

David G. Hwang, MD

CORNEA ROTATION STRUCTURE

In the current curriculum, rotations through the UC Cornea Service and Proctor Foundation occur in each of the three years. This exposure progressively increases during the residency, culminating in a dedicated cornea rotation in the third year.

First-year residents have a brief, introductory exposure to medical and surgical cornea in two half-day sessions over ten weeks. Second-year residents gain additional exposure to these areas during several half-day sessions that occur during half of a ten-week block. Third-year residents receive clinical instruction at an advanced level during a dedicated, ten-week rotation in cornea.

Clinical training cornea also occurs during general ophthalmology experiences during each of the three residency years.

Learning objectives in cornea are progressively scaled to reflect the amount of general ophthalmology and subspecialty cornea training that each resident will have completed by the end of each residency year. The objectives are cumulative, meaning that new competencies and knowledge are to be added to those previously attained.

REQUIRED READING

Cornea and External Disease, Basic Science and Clinical Science series, American Academy of Ophthalmology

Refractive Surgery, Basic Science and Clinical Science series, American Academy of Ophthalmology

GENERAL RESIDENT RESPONSIBILITIES

Year 1

- Demonstrate excellent attendance at cornea-related conferences, lectures, Grand Rounds, and microsurgery workshops
- Actively participate in all assigned cornea-related rotations
- Read the *Cornea and External Disease* text, BCSC series, American Academy of Ophthalmology

Year 2

- All of the above, plus:

- Read the *Refractive Surgery* text, BCSC series, American Academy of Ophthalmology

Year 3

- All of the above, plus:
- Complete a case presentation in cornea or refractive surgery at UCSF Grand Rounds
- Re-read both *Cornea and External Disease* and *Refractive Surgery* texts

LEARNING OBJECTIVES IN CORNEA, BY YEAR, AND BY COMPETENCIES

FIRST YEAR

At the *completion* of the first year of residency, residents will be expected to have satisfactorily fulfilled each of the following competencies:

PATIENT CARE AND MEDICAL KNOWLEDGE

[Diagnostic and Therapeutic Skills]

- Elicit a relevant, directed ophthalmic history appropriate for the patient's presenting condition or chief complaint
- Perform an accurate subjective refraction in patients with clear media and be able to use lensometry or retinoscopy to arrive at a starting point for subjective refinement
- Competently perform a slit lamp examination and be able to
 - appropriately use each of the various modes of slit lamp illumination
 - direct
 - indirect
 - sclerotic scatter
 - retroillumination
 - specular
 - to delineate and identify different types of corneal pathology
- accurately measure lesion size with the slit lamp micrometer and estimate lesion depth
- identify the appropriate indications for use of vital dyes (e.g., fluorescein, Rose Bengal) to highlight corneal pathology and recognize common staining patterns and their diagnostic significance
- Know how to perform and interpret basic ancillary testing relevant to cornea and external disease including
 - Seidel testing
 - Schirmer testing
 - Ultrasonic pachymetry
 - Corneal sensation testing
 - Manual keratometry
- Demonstrate competency in basic surgical skills including
 - Understanding of the parts of the operating microscope and their use

- Ability to set up the operating microscope and maintain appropriate levels of zoom, focus, illumination, and centration for the substantial majority of a case
- Familiarity with nomenclature and appropriate use of hand instruments commonly used in anterior segment surgery
- Competency in the handling of 10-0 nylon suture, including tying, trimming, and burying of knots
- Creation of limbal stab incisions
- Creation and interrupted suture closure of beveled corneoscleral incisions
- Corneal suture removal
- Pterygium excision

[Knowledge, Synthesis, Formulation, and Application]

- For basic pathologic corneal and external disease processes such as
 - conjunctival papillae and follicles
 - punctate keratopathy, epithelial erosion, and epithelial defect
 - stromal scarring, edema, inflammation, and infiltration
 - Descemet's folds, guttatabe able to
 - correctly identify the process
 - describe the level, location, size, and morphologic features of the lesion
 - develop a pertinent differential diagnosis
 - accurately document the finding, both verbally and by drawing
- For classic and mildly atypical presentations of the common corneal and external disease conditions such as
 - meibomitis and blepharitis
 - bacterial and viral conjunctivitis
 - keratoconjunctivitis sicca
 - medication-induced ocular surface toxicity
 - bacterial and herpetic keratitis
 - pterygiumdemonstrate the ability to
 - correctly arrive at the most likely diagnosis and be able to synthesize a differential diagnosis
 - identify any relevant work-up that is indicated
 - outline an appropriate plan for management
- For common corneal emergencies such as
 - corneal abrasion
 - corneal foreign body
 - infectious keratitis
 - gonococcal conjunctivitis
 - ocular surface chemical burn
 - corneal perforation
 - corneal/corneoscleral laceration

be able to

- document and draw key findings
- arrive at an appropriate diagnosis and, as relevant, differential diagnosis
- institute required diagnostic work-up
- initiate appropriate and timely urgent treatment directed at managing the acute process and preventing potential complications
- with assistance and supervision, develop and carry out a definitive management plan
- Acquire a fundamental understanding, based on reading of the required text and didactic teaching sessions, of
 - normal corneal anatomy and physiology
 - disease presentations in cornea and external disease
 - pharmacotherapy of cornea and external disease
 - interactions of drugs with the ocular surface, including effects of the ocular surface status on drug penetration and bioavailability, as well as drug-induced effects on the ocular surface
 - microbiology and immunology of the cornea and external eye
 - surgical principles of corneal wound healing, incision creation, and wound apposition

INTERPERSONAL AND COMMUNICATION SKILLS

- Appropriately and clearly document history, examination findings, clinical impression, and plan in the medical record in a timely fashion
- Communicate with patients and their families in a clear, understandable, and contextually appropriate fashion
- Communicate effectively and appropriately with other members of the health care team
- Work in an effective, collegial, and cooperative fashion with other members of the health care team, including ancillary and support staff

PROFESSIONALISM

- Maintain ethical, professional, and responsible conduct at all times with patients, professional colleagues, and support staff

PRACTICE-BASED LEARNING AND IMPROVEMENT

- Initiate a regular, sustained, and organized program of lifelong learning by regular reading of standard texts and the ophthalmic literature
- Be able to critically analyze an article with respect to methodology, validity, and applicability
- Maintain a log of noteworthy patients seen in clinic and carry out appropriate learning-based activities accordingly, including

- For patients with diagnoses or presentations that are unfamiliar to the resident, review, at a minimum, the material contained in the required texts
- For patients with particularly unusual or complex diagnoses, presentations, or treatment plans, perform an in-depth reading of supplemental texts and selected reading of the relevant ophthalmic literature
- Consult with attending physicians regarding any questions or issues that may arise during the course of patient care, including those in the following areas:
 - Interpretation of findings and tests
 - Medical knowledge
 - Differential diagnosis
 - Formulation of assessment and plan
 - Interpretation of the medical literature
 - Patient communication
 - Assessment of patient compliance
 - Systems-based care issues

SYSTEMS-BASED PRACTICE

- Understand the role of other health care professionals and support staff outside of ophthalmology in the larger health care system and how to work effectively, appropriately, and cooperatively with other health care professionals and support staff to deliver effective, high quality, and compassionate outpatient and inpatient medical care. Examples include but are not limited to the following:
 - Consulting with pharmacists regarding questions of drug selection, drug interaction, pharmacokinetics, and pharmacoeconomics
 - Consulting with physicians in laboratory medicine, pathology, and radiology regarding interpretation of laboratory results, pathologic findings, or imaging studies
 - Working with medical interpreters to provide language-appropriate and culturally sensitive counseling and explanations to patients
- Be aware of potential issues of health care access and understand how to refer patients to appropriate agencies, professionals, and other resources to help resolve health care access issues
- Understand how to identify and report identified systems issues that could affect delivery of high quality patient care, and assist as appropriate to discover and implement appropriate solutions for such problems

SECOND YEAR

At the *completion* of the second year of residency, residents will be expected to have attained *all* of the competencies of the first year, plus have gained the following *additional* competencies:

PATIENT CARE AND MEDICAL KNOWLEDGE

[Diagnostic and Therapeutic Skills]

- Further expand knowledge base and refine clinical skills by managing patients with increasingly specialized and complex problems
- Develop ability to complete a patient work-up at an increased pace compared to that of a first-year resident, without sacrificing thoroughness
- Perform cycloplegic refraction in an eye with clear media to arrive at an approximation of the final refraction (within ± 0.75 D of the sphere, ± 0.75 D of the cylinder, ± 20 degrees of the axis)
- Be able to perform all elements of a slit lamp examination with proficiency and skill
- Know how to perform a work-up for patients seeking refractive surgery, including understanding of appropriate candidates for surgery, contraindications to surgery, and elements of surgical counseling
- Know when to obtain, how to perform, and how to interpret additional types of ancillary tests relevant to cornea and external disease, including
 - Corneal topography
 - Cultures of the lids, conjunctiva, and cornea
- Demonstrate intermediate levels of surgical skill competency including
 - Ability to maintain appropriate levels of zoom, focus, illumination, and centration throughout a surgical case
 - Fluency in the handling and tying of 10-0 nylon suture
 - Creation of self-sealing clear corneal incisions
 - Closure of corneoscleral and corneal incisions with minimum levels of induced astigmatism
 - Closure of simple corneal lacerations without assistance and closure of complex corneal lacerations with or without some assistance
 - Epithelial debridement
 - Conjunctival dissection, lesion excision, and closure using a running suture or interrupted (buried knot or exposed knot) suture technique
 - Performance of “X”-type suture closure

[Knowledge, Synthesis, Formulation, and Application]

- Differentiate abnormal from normal corneal topography findings, and correctly identify topographic patterns consistent with
 - regular astigmatism
 - irregular astigmatism
 - subclinical and clinically overt keratoconus

- post-PRK/LASIK
- Understand the surgical principles of keratorefractive surgery and be able to recognize common postoperative findings after LASIK including
 - normal flap appearance
 - post-LASIK dry eye / neurotrophic keratopathy
 - peripheral epithelial ingrowth
- Acquire a more in-depth understanding, based on reading of the required text, didactic teaching sessions, and clinical examination of patients, of an expanded range of classic or minimally atypical disease presentations in corneal and external disease such as
 - neonatal conjunctivitis
 - chlamydial conjunctivitis
 - giant papillary conjunctivitis, vernal keratoconjunctivitis, and atopic keratoconjunctivitis
 - marginal (catarrhal) keratitis and acne rosacea
 - exposure keratopathy and neurotrophic keratopathy
 - herpes zoster ophthalmicus
 - corneal dellen and peripheral corneal thinning disorders
 - interstitial keratitis
 - anterior basement membrane corneal dystrophy
 - traumatic recurrent corneal erosion syndrome
 - endothelial graft rejectionand for each entity, be able to formulate an appropriate
 - differential diagnosis
 - diagnostic work-up, as indicated
 - management plan
- Identify gaps in patient understanding and compliance and perform appropriate education and counseling to enhance understanding and compliance
- Succinctly abstract a case for oral presentation or discussion

INTERPERSONAL AND COMMUNICATION SKILLS

- Perform routine preoperative and postoperative surgical counseling in a clear and understandable fashion and be able to document the informed consent process appropriately
- Be able to discuss “bad news” and complications with patients in an appropriate, understandable, and empathetic fashion
- Identify gaps in patient understanding and compliance and perform appropriate education and counseling to enhance understanding and compliance
- Succinctly abstract a case for oral presentation or group discussion

PROFESSIONALISM

- Understand and maintain compliance with privacy and confidentiality regulations in oral, written, and electronic communications with patients, professional colleagues, and support staff, both inside and outside of the workplace

PRACTICE-BASED LEARNING AND IMPROVEMENT

- Understand how to appropriately integrate the information learned from critical reading of standard texts with prior learned information and apply any resultant changes in knowledge into clinical practice
- Maintain a log of surgical patients in which the resident has participated and carry out appropriate learning-based activities accordingly, including
 - Identifying the cause of surgical complications that may occur
 - Understanding the prevention and management of such complications
- Effectively analyze and discuss surgical cases and complications, including in a peer discussion setting
- Supplement case-based surgical learning with other methods of surgical learning, including surgical wet lab practice, hands-on microsurgery course learning, surgical video review, and surgical conference attendance

SYSTEMS-BASED PRACTICE

- Understand how to work effectively, appropriately, and cooperatively with other health care professionals and support staff to deliver effective, high quality, and compassionate surgical care. Examples include but are not limited to the following:
 - Working with primary care providers, preoperative clinic providers, and anesthesiologists to perform appropriate preoperative assessment and counseling
 - Working with all members of the preoperative, operative, and postoperative team to delivery high quality care and minimize errors
- Work with other members of the health care team to reduce medication errors and improve patient safety, including
 - Charting prescribed medications in a format and means that is accessible and understandable to other providers
 - Understanding, identifying, and alerting patients and providers of any potential systemic side effects or drug interactions of prescribed ophthalmic medications

THIRD YEAR

At the *completion* of the third year of residency, residents will be expected to have attained *all* of the competencies of the first and second years, plus have gained the following *additional* competencies:

PATIENT CARE AND MEDICAL KNOWLEDGE

[Diagnostic and Therapeutic Skills]

- Further expand and refine clinical skills by managing patients with increasingly specialized and complex problems
- Develop ability to complete a patient work-up at an increased pace compared to that of a second-year resident, without sacrificing thoroughness
- Perform cycloplegic refraction in an eye with clear media to arrive at a good approximation of the final refraction (within ± 0.5 D of the sphere, ± 0.5 D of the cylinder, ± 10 degrees of the axis) and be able to recognize and understand the clinical import of abnormalities detected on retinoscopic examination (e.g., scissoring, oil droplet reflex)
- Perform rigid contact lens over-refraction
- Understand indications for and correct fitting of therapeutic bandage soft contact lenses
- Know when to obtain, how to perform, and how to interpret additional types of ancillary tests relevant to cornea and external disease, including
 - Aberrometry
 - Specular microscopy
- Demonstrate more advanced levels of surgical skill competency including
 - Closure of complex corneal lacerations without assistance
 - Management of corneal perforation, including use of tissue glue
 - Temporary and permanent tarsorrhaphy
 - Dissection, harvesting, and placement of free conjunctival grafts
 - Anterior vitrectomy
 - Anterior chamber intraocular lens placement
 - Repositioning and manipulation of posterior chamber intraocular lenses
 - Penetrating keratoplasty closure, with assistance

[Knowledge, Synthesis, Formulation, and Application]

- Achieve confidence and competence in assessing, formulating the differential diagnosis of, and instituting initial management of patients with complex and multiply concurrent problems involving the cornea and external eye
- Understand the range of therapeutic options and formulate an appropriate management plan for common diagnoses and operative complications that may require surgical intervention, including
 - symptomatic corneal edema with good visual potential
 - symptomatic corneal edema with poor visual potential
 - band keratopathy

- recurrent corneal erosions
 - superior limbic keratoconjunctivitis
 - suspicious limbal lesions
 - descemetocoele and corneal perforation
 - corneal wound leak, rupture, or malapposition
 - surgically induced spherical and/or astigmatic refractive errors
 - intraocular lens malposition or subluxation
 - naturally occurring refractive errors
 - post-refractive surgery refractive errors
 - Understand indications for, surgical principles of, and postoperative management of penetrating and lamellar keratoplasty, including endokeratoplasty
 - Recognize and appropriately treat surgical complications of keratoplasty, including
 - loose and broken sutures
 - graft rejection (all forms)
 - graft failure
 - postkeratoplasty astigmatism
 - postkeratoplasty glaucoma
 - cystoid macular edema
 - Understand the indications for, appropriate clinical use of, and side effect profile of specialized pharmacotherapy of corneal and external disease, including
 - antimicrobial therapy, including fortified antibiotics, antivirals, antifungal agents, and antiparasitics
 - topical and systemic anti-collagenase / anti-metalloproteinase therapy
 - topical and systemic immunomodulatory therapies
 - Acquire an in-depth understanding, based on reading, didactic teaching sessions, and clinical examination of patients, of classic and atypical manifestations of the full range of disease presentations in corneal and external disease including
 - infectious, inflammatory, and immunologic disorders
 - congenital and developmental abnormalities
 - corneal dystrophies and degenerations
 - neoplasms of the conjunctiva and cornea
 - drug toxicity, chemical injuries, and trauma
 - corneal and conjunctival manifestations of systemic disease
 - surgical complications
- and for each entity, be able to formulate an appropriate
- differential diagnosis
 - diagnostic work-up, as indicated
 - management plan

INTERPERSONAL AND COMMUNICATION SKILLS

- Prepare and deliver a concise, polished presentation at Grand Rounds that demonstrates ability to abstract and summarize clinical data and to highlight select points for teaching purposes
- Communicate with outside physicians in a timely and appropriate fashion, including formulation and prompt transmission of thoughtful and appropriately detailed referral letters

PROFESSIONALISM

- Understand elements of coding and regulatory compliance relevant to medical practice
- Effectively supervise and teach medical students and junior residents

PRACTICE-BASED LEARNING AND IMPROVEMENT

- Participate in continuous self-assessment and formulate a plan to gain and update skills and knowledge on a career-long basis
- Regularly review surgical and medical case logs to spot systematic diagnostic and therapeutic errors, and institute appropriate actions to manage those errors and prevent future ones
- Understand how to create and implement a surgical log to track refractive outcomes after cataract and/or refractive surgery and how to institute nomogram adjustments to correct for any systematic errors that may be identified
- Understand and apply the principles of evidence-based medicine to daily practice

SYSTEMS-BASED PRACTICE

- Understand how to identify and report identified systems issues that could affect access to or delivery of high quality patient care, and assist as appropriate to discover, implement, and disseminate appropriate solutions for such problems

UVEITIS SERVICE

GOALS AND OBJECTIVES

Nisha Acharya, MD, MS

Residents will rotate through this service at the F.I. Proctor Foundation during their second and third years of residency.

SECOND YEAR RESIDENTS

The second year resident on the cornea/international rotation will attend the Monday morning uveitis clinic at the Proctor Foundation for 5 weeks of the rotation (when they are not away on the international rotation).

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To demonstrate a basic proficiency in the diagnosis and concepts of treatment of ophthalmic conditions in the field of uveitis and ocular inflammatory disease

OBJECTIVE

To counsel and educate patients and their families regarding their uveitis diagnosis and prognosis

OBJECTIVE

To efficiently and competently evaluate a uveitis patient in clinic as well as inpatient consults.

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences related to uveitis, including journal clubs

OBJECTIVE

To demonstrate an understanding of the principles of ocular immunology

- a. Types and mechanisms of immune reaction
- b. Role of B- and T-cells in immunological disease
- c. Mechanisms of cellular vs. humoral immunity in ocular disease
- d. Complement and ocular disease
- e. The role of cytokines and adhesion molecules in ocular disease
- f. Ocular immune defense mechanisms

OBJECTIVE

To demonstrate the proper clinical exam of uveitis patients, including a targeted history, physical and review of systems

- a. Evaluation: classification “naming” of the condition (through discussions in clinic as well as designated readings)
- b. Acute, chronic, recurrent
- c. Non-granulomatous vs granulomatous
- d. Location: anterior, intermediate, posterior, diffuse, vasculitis, chorioretinitis,

episcleritis, scleritis

e. Anterior uveitis: HLA-B27 related disease, traumatic iritis, post-operative uveitis, glaucomatocyclitic uveitis, lens induced uveitis, herpetic uveitis, juvenile idiopathic arthritis related uveitis, tubulointerstitial nephritis and uveitis, Fuchs' heterochromic iridocyclitis, idiopathic anterior uveitis

f. Intermediate uveitis: Lyme, MS, sarcoidosis, pars planitis

g. Posterior and diffuse uveitis: toxoplasmosis, syphilis, TB, toxocariasis, histoplasmosis, sarcoidosis, herpetic retinal infections, CMV retinitis, Lyme disease, Behcet's disease, VKH, sympathetic ophthalmia, endophthalmitis, masquerade syndromes

OBJECTIVE

To demonstrate a thorough understanding of the diagnostic evaluations required for a uveitis patient, including what are appropriate laboratory and ancillary studies

OBJECTIVE

To demonstrate the proper use and interpretation of ophthalmic ancillary testing used on the uveitis service, including automated perimetry, b-scan ultrasonography, macular OCT, and fluorescein angiography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To communicate effectively with other departments and referring physicians regarding consultations or shared patient care

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for uveitis patients, including those with a chronic disease

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of uveitis patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, referral letters and calls to other physicians involved in the management of care

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To understand the nature of multidisciplinary care required to optimally care for uveitis patients

OBJECTIVE

To advocate for quality patient care and assist patients in obtaining the proper referrals within their health care system

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To identify and assimilate evidence from scientific studies related to the patient's diagnosis

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies in uveitis

THIRD YEAR RESIDENTS

The 3rd year resident will rotate on the uveitis service for 10 weeks during the glaucoma block. The goals of this rotation will be similar to that of the second year but there will be greater emphasis on understanding principles of treatment of uveitis.

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To demonstrate a basic proficiency in the diagnosis and concepts of treatment of complex ophthalmic conditions in the field of uveitis and ocular inflammatory disease

OBJECTIVE

To counsel and educate patients and their families regarding their uveitis diagnosis and prognosis

OBJECTIVE

To efficiently and competently evaluate a uveitis patient in clinic as well as inpatient consults.

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences related to uveitis, including journal clubs

OBJECTIVE

To demonstrate an understanding of the principles of ocular immunology

OBJECTIVE

To demonstrate the proper clinical exam of uveitis patients, including a targeted history, physical and review of systems

OBJECTIVE

To demonstrate a thorough understanding of the diagnostic evaluations required for a uveitis patient, including what are appropriate laboratory and ancillary studies

OBJECTIVE

To demonstrate the proper use and interpretation of ophthalmic ancillary testing used on the uveitis service, including automated perimetry, b-scan ultrasonography, macular OCT, fluorescein angiography

OBJECTIVE

To demonstrate an understanding of the therapeutic principles involved in uveitis, including the indications for steroid-sparing therapy and the issues involved with immunomodulatory treatment

- a. Use of local, peri-ocular, and systemic corticosteroids
- b. Understand when steroid-sparing treatment is indicated
- c. Exposure to these steroid-sparing therapies
- d. Classes: alkylating agents (cyclophosphamide, chlorambucil), antimetabolites (methotrexate, mycophenolate mofetil, azathioprine), T-cell inhibitors (cyclosporine, tacrolimus, sirolimus), biologics (infliximab, adalimumab, etanercept, rituximab, etc)
- e. Further understanding of complications and surgical issues in uveitis patients

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To communicate effectively with other departments and referring physicians regarding consultations or shared patient care since

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for uveitis patients, including those with a chronic disease

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of uveitis patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, referral letters and calls to other physicians involved in the management of the patients' care

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To understand the nature of multidisciplinary care required to optimally care for uveitis patients

OBJECTIVE

To advocate for quality patient care and assist patients in obtaining the proper referrals within their health care system

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To identify and assimilate evidence from scientific studies related to the patient's diagnosis

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies in uveitis

REQUIRED READINGS:

American Academy of Ophthalmology Basic Science Text on Uveitis

Jabs DA, Nussenblatt RB, Rosenbaum JT; Standardization of Uveitis Nomenclature (SUN) Working Group. Standardization of uveitis nomenclature for reporting clinical data. Results of the First International Workshop. *American Journal of Ophthalmology*, 2005 Sep;140(3):509-16.

Jabs, DA, Rosenbaum JT, Foster CD, et al. Guidelines for the use of immunosuppressive drugs in patients with ocular inflammatory disorders. *Am J Ophthalmol* 2000; 130:492-513.

CONTACT LENS SERVICE

GOALS AND OBJECTIVES

Andrew Mick, OD and Patrick Casey, OD

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To examine a soft spherical contact lens on the eye, and appreciate its fitting characteristics.

OBJECTIVE

To discuss fitting soft contact lens on eye including limbal coverage and movement, edge chips and cracks, and to perform a spherical over-refraction on the contact lens and arrive at an appropriate power.

OBJECTIVE

To understand the correlation between base curve selection and keratometric reading, materials used in designs, types of refractive errors that can be corrected, the concept of Dk (Diffusion coefficient of oxygen) with different plastics, and solution types used in cleaning, disinfecting and storing.

OBJECTIVE

Examine a spherical gas-permeable lens on the, and appreciate its fitting characteristics.

OBJECTIVE

To understand affect of base curve on GP selection, the materials and plastics available, how base curve and diameter correlates, the possible modifiability of lenses using appropriate tools, and how to evaluate contact lens parameters including power, base curve, and diameter

OBJECTIVE

To discuss fitting of gas-permeable contact lens on eye including quantifying of movement, examining contact lens for scratches and deposits, and to perform a spherical over-refraction on the contact lens and arrive at an appropriate power.

OBJECTIVE

To complete a retinoscopic evaluation and be close to true refractive error.

OBJECTIVE

To understand what scissoring versus normal reflexes look like with retinoscopy, and to use and learn the concept of POW (Plus-On-With).

OBJECTIVE

To examine a soft-toric contact lens on the eye, and appreciate its fitting characteristics.

OBJECTIVE

To view a soft contact lens and be able to tell if the lens is spherical, toroidal, or a multifocal.

OBJECTIVE

To be able to utilize concept of LARS on rotated toric lens, to perform SCOR (Sphero-Cylindrical Refraction) over toric lens if acuities are poor, to calculate cross-cylinder results to arrive at new toric lens power.

OBJECTIVE

To evaluate soft aphakic lenses on infants, and be able to apply and remove contact lenses on infants.

OBJECTIVE

To examine a spherical gas-permeable lens on the, and appreciate its fitting characteristics.

OBJECTIVE

To determine if gas-permeable lens fitting is flat or steep and quantify dioptrically.

OBJECTIVE

To appreciate how peripheral curvatures and diameters will affect lens fitting.

OBJECTIVE

To understand when bitorics, large diameter lenses, etc. are needed.

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend contact lens seminars and lectures whenever schedule allows.

OBJECTIVE

To demonstrate critical thinking in handling of challenging contact lens patients by appreciating the types of lenses available.

OBJECTIVE

To understand current trends in the field of contacts including contact lens care regimens and frequency replacement modalities.

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their contact lens care.

OBJECTIVE

To be able to demonstrate to patients proper contact lens application and removal techniques.

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for the needs of contact lens patients.

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent.

OBJECTIVE

To at least try and provide care in any contact lens scenario no matter how foreign the concept.

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To understand the Electronic Medical Records system setup for the VISION clinic in Millberry Union.

OBJECTIVE

To be able to use a system in place to order contact lenses efficiently from manufacturers and distributors.

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To use information technology to manage notes and observations made in contact lens clinic.

OBJECTIVE

To be able to access current optometric information online for complex contact lens fitting philosophy.

COMPREHENSIVE OPHTHALMOLOGY SERVICE

GOALS AND OBJECTIVES

Cynthia S. Chiu, MD

SECTION 1: ASSESSMENT OF THE OPHTHALMIC EMERGENCY

All residents: to understand the diagnosis and management of the following medical emergencies

A. Ophthalmic Trauma

1. corneal abrasion
2. corneal chemical burn
3. corneal foreign body
4. hyphema
5. iris trauma (iridodialysis, traumatic mydriasis, angle recession)
6. lens trauma (traumatic cataract, phacoanaphylaxis, lens dislocation)
7. ciliary body/angle trauma (traumatic iritis, cyclodialysis)
8. vitreous hemorrhage
9. globe rupture
10. intraocular foreign body
11. orbital fracture (entrapment, retrobulbar hemorrhage)

B. Vascular events

1. retinal artery occlusion
2. retinal vein occlusion
3. choroidal neovascularization
4. ischemic optic neuropathy (arteritic, non-arteritic)

C. Infections

1. corneal ulcer (bacterial, viral, fungal)
2. endophthalmitis
3. cellulitis (preseptal, orbital)

D. Neurologic

1. optic neuritis
2. papilledema
3. third-nerve palsy
4. abducens palsy
5. fourth-nerve palsy
6. Horner's syndrome

E. Degenerative

1. vitreous detachment
2. retinal detachment (rhegmatogenous, serous, exudative, tractional)

REQUIRED READING: AAO Basic and Clinical Science Course, Fundamentals of Ophthalmology syllabus (to be provided)

REQUIRED SKILLS:

1. indirect ophthalmoscopy
2. gonioscopy
3. tonometry

4. ultrasonography
5. perimetry
6. surgical techniques: wound repair, lateral canthotomy/cantholysis, anterior chamber paracentesis, corneal scraping

SECTION 2: MANAGEMENT OF COMMON OPHTHALMIC DISORDERS

All residents: to understand the diagnosis and management of the following medical conditions

Cornea/Anterior Segment

1. blepharitis/chalazia
2. exposure keratopathy (Bell's Palsy, Lagophthalmos)
3. dry eye
4. corneal/conjunctival degenerations (pterygium, pingueculum, arcus)
5. conjunctivitis (viral, bacterial, allergic, toxic)
6. conjunctival hemorrhage
7. corneal dystrophies (map-dot-fingerprint, Fuchs')
8. uveitis (irits, scleritis, peripheral ulcerative keratitis)

Iris/Angle/Glaucoma

1. abnormal anatomy (narrow angle, plateau iris, pigment dispersion)
2. glaucoma (open angle, normal tension, angle closure)

Lens

1. cataract (congenital, senile, toxic, traumatic)
2. IOL disorders (posterior capsular opacity, lens dislocation, UGH syndrome)

Vitreous/Retina

1. pigmented ocular lesions
2. diabetic retinopathy
3. age-related macular degeneration
4. retinal dystrophies (retinitis pigmentosa, congenital stationary night blindness)
5. lattice degeneration
6. high myopia
7. cystoid macular edema

Neuro-Ophthalmology

1. optic neuropathy (ischemic, infectious, inflammatory, metabolic, traumatic)
2. visual field defects (pituitary tumors, stroke)
3. motility disorders (strabismus, nerve palsies, multiple sclerosis, nystagmus)

Eyelids/Lacrimal System/Orbit

1. contact dermatitis
2. trichiasis
3. ectropion/entropion
4. ptosis/dermatochalasis
5. nasolacrimal gland obstruction
6. proptosis

Optics

1. refractive error (astigmatism, latent hyperopia, presbyopia)
2. anisometropia/aniseikonia

Systemic

1. involvement in systemic diseases (rheumatoid arthritis, thyroid)
2. effect from systemic medications (plaquenil, ethambutol, topiramate)

REQUIRED READING: AAO Basic and Clinical Science Course, Fundamentals of Ophthalmology syllabus (to be provided)

REQUIRED SKILLS:

1. indirect ophthalmoscopy
2. gonioscopy
3. tonometry
4. ultrasonography
5. perimetry
6. probe/irrigation
7. exophthalmometry
8. refraction (automated, manual)
9. lensometry
10. keratometry (automated, manual)
11. prism neutralization
12. surgical techniques: laser capsulotomy, laser iridotomy, chalazion incision and curettage, skin/conjunctival excisional biopsy, temporal artery biopsy

SECTION 3: EVALUATION AND MANAGEMENT OF CATARACTS

All residents: to understand the diagnosis and management of cataracts

A. Pre-operative evaluation

1. cornea (guttae, scars, limitations to view)
2. anterior chamber (depth, access)
3. iris (pupillary dilation, pseudoexfoliation)
4. lens (zonular integrity)
5. retinal pathology (maculopathy, s/p vitrectomy)
6. keratometry and axial length
7. choice of IOL
8. patient health and stability (challenges during and after surgery)
9. planning (anesthesia, anticoagulation, compliance)
10. patient consent

B. Post-operative management

1. wound management (wound leak, wound burn, suture removal)
2. IOL (position, posterior-capsular opacity)
3. intraocular pressure (retained viscoelastic, steroid response)
4. retinal injury (cystoid macular edema, vitreous or retinal detachment)
5. optimizing visual outcome (refraction, anisometropia)
6. complications (bullous keratopathy, iris injury, IOL dislocation, vitreous)
7. endophthalmitis

REQUIRED READING:

First year resident: Fundamentals of Ophthalmology syllabus

Second/Third year resident:

Simplifying Phaco by Paul Koch

Phacodynamics by Barry Seibel

Phaco Chop by David Chang

DVD/CD-rom library of surgical techniques

All residents: to videotape and review all surgical cases

REQUIRED SKILLS:

First year resident: extracapsular cataract extraction with IOL

bridle suture
shelved limbal wound
beer-can capsulotomy
simco cannula
peripheral iridectomy
wound closure

Second/Third year resident: phacoemulsification with IOL

scleral tunnel
clear corneal shelved wound (astigmatic axis, limbal relaxing incisions)
divide and conquer
stop and chop
phaco chop
iris hooks
capsular tension ring
trypan blue
viscodissection
management of capsule rupture
anterior vitrectomy
ACIOL

All residents: laser capsulotomy, laser iridotomy, laser suture lysis, laser vitreolysis

SECTION 4: PERFORMING THE OPHTHALMIC CONSULTATION

All residents: to efficiently and effectively provide ophthalmic support to the inpatient hospital

- A. Triage
- B. Patient evaluation
- C. Communication with requesting service (recommendations, notice of dilation)
- D. Conduct (affability, availability, ability)

SECTION 5: STANDARDS OF PHYSICIANSHIP

All residents: to conduct daily activities with professionalism and responsibility

- A. Patient care: residents should
 - 1. understand the barriers to healthcare in a multi-cultural patient population
 - 2. understand the issues of compliance in a geriatric patient population
 - 3. track diagnostic tests (laboratory and radiologic) and communicate results to patients
 - 4. provide compassionate and tailored care to each individual patient
- B. Practice-based learning and improvement: residents should
 - 1. expand their knowledge on newly-learned diagnoses by referencing textbooks and performing literature searches
 - 2. practice surgical skills in the wet-lab as often as needed to perform safe surgery

- on patients
- 3. master examination techniques by direct observation and feedback by the service faculty
- 4. participate in scholarly activities (manuscripts and presentations)
- C. Interpersonal and communication skills: residents should
 - 1. interact with faculty, peers, students, and technical, administrative, and clerical staff with respect and professional demeanor
 - 2. communicate with patients and their families clearly and empathically utilizing written documents to enhance patient understanding
 - 3. demonstrate aptitude and willingness to teach peers and medical students
 - 4. communicate with referring physicians by telephone or written report
 - 5. on the consultation service, communicate with the team requesting consultation as well as the bedside nurse
- D. Professionalism: residents should
 - 1. demonstrate good work ethic in timeliness, dress, and attitude
 - 2. follow all hospital regulations (hand-washing, HIPAA, sterile technique, sharps disposal, clean environment)
- E. Systems-based practice: residents should
 - 1. try to optimize patient care by communicating with other physicians and health care providers
 - 2. try to identify barriers to quality patient care and work collaboratively with faculty toward improvement

GLAUCOMA SERVICE GOALS AND OBJECTIVES

Robert L. Stamper, MD

The ultimate goal of the glaucoma service is to inculcate in each resident an appreciation of the broad range of glaucoma, its presentations, etiology, epidemiology, diagnosis, differential diagnosis and effects on the eye and quality of life of those who suffer with it. The resident should leave University of California at San Francisco with the basic knowledge of the types of glaucoma, the basis and mechanics of pharmacologic, laser and surgical therapy. The resident will be skilled in performing slit lamp examination, gonioscopy, ophthalmoscopy – direct and biomicroscopic, and pachymetry; he/she will be able to interpret achromatic and chromatic threshold perimetry, HRT, and OCT. The resident will be knowledgeable about and skilled in performing laser trabeculoplasty and iridotomy. The resident will also be knowledgeable about, able to state indications and contraindications for, skilled at performing and capable of post-operative management of trabeculectomy, Ex-PRESS shunt implantation, Ahmed tube-shunt implantation and at least one form of cyclo destruction. The resident will be able to apply the knowledge and skills needed for management of most glaucoma patients so as to fulfill the six competencies: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems-based practice.

REQUIRED READING:

By the end of the first year, the resident will have finished reading:
Glaucoma Section of the Basic and Clinical Science Course of the AAO and Stamper, Lieberman and Drake: Becker & Shaffer's Diagnosis and Therapy of the Glaucomas – 8th edition 2007 Elsevier (available late 2007) or Allingham et al: Shields Textbook of Glaucoma – 5th Edition, 2004 Lippincott

By the completion of the UC Surgery Rotation (1st Year)

The resident will:

1. PATIENT CARE:

- a. Be able to appropriately and effectively care for patients with primary open and angle-closure glaucoma with compassion and an understanding of the effect glaucoma and its medical, surgical and psychological management have on the patient, his/her quality of life, family and social milieu as well as those variables on the patient.
- b. The resident should be able to ascertain the home environment of the patient and who (if any) is/are the support persons who are potential helpers in glaucoma management.

2. MEDICAL KNOWLEDGE (AND SKILLS):

- a. Be able to describe and distinguish the major types of open angle, closed angle glaucoma and pediatric glaucoma by their clinical course, diagnostic signs and general management. These include primary open

angle, low tension, pigmentary, exfoliative, uveitic, steroid, lens induced, and traumatic. Also the primary and secondary angle closure glaucomas and their time course. For the major adult as well as pediatric glaucomas, the resident will

- i. Know the systemic and other associations
- ii. Be familiar with the risk factors for each type of glaucoma
- iii. Be able to intelligently discuss basic theories of pathogenesis
- b. Accurately perform slit lamp biomicroscopy of the anterior segment.
- c. Accurately measure intraocular pressure by applanation tonometry and by pneumotonometry
 - i. Be able to discuss advantages and disadvantages of each including dynamic contour tonometry
 - ii. Know the sources of error e.g. central corneal thickness, corneal elasticity
 - iii. Be able to discuss the major factors impinging on intraocular pressure
- d. Perform gonioscopy using a three mirror or four mirror contact lens including compression gonioscopy
- e. Be able to describe normal and pathological angle anatomy
- f. Be able to describe the typical findings of glaucoma in the optic nerve and perform direct and slit lamp examination of the optic nerve.
- g. Know the advantages and disadvantages of kinetic vs. static perimetry as well as their basis
- h. Know the basic visual field defects associated with glaucoma and their differential diagnosis
- i. Be familiar with the indications and basic findings in various forms of glaucoma of ultrasound biomicroscopy, scanning laser ophthalmoscopy (HRT) and ocular coherence tomography.
- j. Know the major classes of pharmaceutical agents used to treat glaucoma, their mechanism of action, dosages and side effects including
 - i. Beta blockers
 - ii. Prostaglandin-like agents
 - iii. Adrenergic agonists
 - iv. Carbonic anhydrase inhibitors – topical and systemic
 - v. Hyperosmotics
 - vi. Parasympathetic agents
- k. To understand and be able to harness the social and financial factors that may drive the choice of treatment both initially and ongoing.
- l. Be able to competently manage the routine cases of open and closed angle glaucoma.

3. PRACTICE-BASED LEARNING AND IMPROVEMENT:

The resident must be able to identify those parts of glaucoma pathophysiology, diagnosis and management that are not evidence-based or have significant lacunae in understanding.

- a. The resident should be able to formulate ways of testing the efficacy of their own management as well as those of the establishment.
 - b. The resident should be able to find support for his/her diagnosis or management from the scientific literature and be able to critically assess that literature for its strengths and weaknesses.
4. **INTERPERSONAL AND COMMUNICATION SKILLS:**
- a. The resident should be able to communicate to the patient (and family or other support personnel) the nature of glaucoma, its untreated or partially treated consequences, its management and the consequences of the management.
 - b. The resident should be able to communicate with the primary care physician, anesthesiologist and other care-givers involved in the patient's care relevant information that may impact on the care of the patient as a whole or other medical conditions.
 - c. Similarly, the resident should be able to communicate to other members of the health care team (pharmacists, nurses, social workers, insurance or other third party payers, etc) the interactions and consequences of the glaucoma management regimen.
5. **PROFESSIONALISM:**
- a. The resident will conduct him or herself with a strong sense of responsibility to the patient's best interests.
 - b. The resident will conduct him or herself in a professional manner, instilling confidence in his or her actions.
 - c. The resident will conduct him or herself in an ethical and honest manner keeping the patient's best interests in the forefront.
6. **SYSTEMS-BASED PRACTICE:**
- a. Know the basic facts of and factors affecting adherence, persistence and compliance.
 - b. Be able to assess each patient for psychological, constitutional, social, financial factors that may impinge on (i.e. improve or degrade adherence and persistence)
 - c. Be able to enlist the aid of family and/or friends to improve adherence
 - d. Be conversant with medical center (UCSF, VA, SFGH) and community resources to help improve adherence and persistence.

BY THE END OF UC GLAUCOMA/ONCOLOGY ROTATION (3RD YEAR), THE RESIDENT WILL BE ABLE TO:

1. Demonstrate the knowledge base, perform the skills, and exhibit the competencies noted above at a level compatible with a fully trained comprehensive ophthalmologist as well as demonstrate the additional knowledge and skills listed below.
2. Be able to accurately describe and interpret:
 - a. Visual fields
 - b. Frequency doubled perimetry
 - c. Optic nerve by slit lamp biomicroscopy

- d. Chamber angle by gonioscopy
 - e. Laser scanning optic nerve results
3. Be able to discuss the indications, contraindications, complications, advantages and disadvantages of and appropriate anesthesia for and to perform capably:
 - a. Selective laser trabeculoplasty
 - b. Argon (or diode) laser trabeculoplasty
 - c. Argon laser iridoplasty
 - d. Laser suture lysis
 - e. Nd:YAG iridotomy
 - f. Trans-scleral cyclophotocoagulation
 - g. Endocyclophotocoagulation

4. Be able to discuss the indications, contraindications, complications, advantages and disadvantages, and post-operative management of and appropriate anesthesia for
 - a. Trabeculectomy
 - b. Ex-PRESS shunt implantation
 - c. Ahmed or other tube-shunt drainage device
 - d. Cyclo-destructive procedures including trans-scleral and endoscopic
 - e. Needling of failing filtering bleb
 - f. Management of the post-operative flat chamber
5. Be able to competently perform 3 a or b, c, and f.
6. Discuss and use correctly anti-metabolite therapy including mitomycin and 5-fluorouracil including pros, cons, complications, dosages and controversies.
7. Discuss pros and cons of various combined cataract extraction and glaucoma procedures.

NEURO-OPHTHALMOLOGY SERVICE

GOALS AND OBJECTIVES

Jonathan C. Horton, MD, PhD

1. PATIENT CARE: Residents learn to deliver patient care that is compassionate, appropriate, and effective for the treatment of patients with neuro-ophthalmological problems. Emphasis is placed on the importance of the history and neuro-visual examination in the diagnosis of patients with neuro-ophthalmological disease. Often the diagnosis can be made simply by office examination, without resort to laboratory testing or radiology.

2. MEDICAL KNOWLEDGE: A broad fund of knowledge is essential for the astute diagnosis and treatment of patients with neuro-ophthalmological disease. Residents are expected to acquire the following basic knowledge pertaining to neuro-ophthalmology:

I. NEUROANATOMY:

Know anatomy of the afferent sensory pathway from retina to visual cortex. Know anatomy of efferent visuomotor pathway, including pathways governing vertical gaze, horizontal gaze, saccades, smooth pursuit, and innervation of eye muscles and eyelids. Know anatomy of skull base, cavernous sinus, and orbit. Know anatomy of pathways governing pupil function. Be familiar with blood supply to retina, optic nerve, chiasm, and visual cortex.

II. VISUAL FIELDS:

Know basic principles of visual field testing and understand how to interpret visual fields. Be able to localize lesions in visual pathway based upon analysis of visual field defects.

III. OCULOMOTOR FUNCTION:

Be able to test eye movements and eye alignment. Recognize basic oculomotor disorders and be familiar with the differential diagnosis of diplopia. Recognize various forms of nystagmus and be able to interpret their significance.

IV. OPTIC NERVE DISEASE:

Recognize the fundusoscopic appearance of common neuro-ophthalmological conditions that affect the optic nerve. Be familiar with the various forms of optic neuropathy: demyelinative, ischemic, compressive, infiltrative, toxic, nutritional, hereditofamilial, and congenital. Know their typical field defects, clinical findings, and appropriate workup.

V. NEURO-OPHTHALMOLOGY IN SYSTEMIC DISEASE:

Be familiar with systemic diseases that produce important neuro-ophthalmological manifestations such as: phakomatoses, myasthenia gravis, multiple sclerosis, cranial arteritis, lupus erythematosus, syphilis, AIDS, etc.

VI. TRANSIENT VISUAL LOSS:

Know differential diagnosis of transient visual loss. Know anatomy of cerebral and ocular circulation; carotid and vertebrobasilar systems. Know clinical findings associated with amaurosis fugax, ocular ischemic syndrome, and AION. Know how to evaluate a patient with transient visual loss.

VII. ORBITAL DISEASE:

Understand basic principle of how to evaluate the patient with orbital pain, proptosis, ptosis, enophthalmos, or trauma. Know basic differential diagnosis of orbital disease: Graves, infection, tumor, inflammatory, trauma, etc.

VIII. NEUROIMAGING:

Be familiar with basic principles and techniques of computed tomography, angiography, magnetic resonance, and ultrasound. Know which techniques are most suitable for evaluation of different neuro-ophthalmological conditions. Be able to identify structures of major importance to the ophthalmologist on imaging studies.

3. PRACTICE-BASED LEARNING AND IMPROVEMENT: Residents are encouraged to indulge their intellectual curiosity, and to continue to acquire new knowledge from textbooks, the peer-reviewed literature, attendance at Grand Rounds, teaching conferences, and through discussions with colleagues. When unusual cases are encountered or the optimal management of a patient is uncertain, residents should routinely probe further by consulting libraries, on-line resources, and other doctors with more experience. Below is a list of standard reference works in neuro-ophthalmology that are useful:

SUGGESTED REFERENCES:

Brodsky MC, Baker RS, Latif MH (1996) **Pediatric Neuro-Ophthalmology**. New York: Springer.

Campos EC, Von Noorden GK (2006) **Binocular Vision and Ocular Motility. Theory and Management of Strabismus**. 6th ed. St. Louis: Mosby.

Chalupa LM, Werner JS, (2004) **The Visual Neurosciences**. Vols 1-2, Cambridge, MA: MIT Press.

Glaser JS (1999) **Neuro-ophthalmology**. 3rd ed. Philadelphia: Lippincott Williams & Wilkins.

Hauser SL (2006) **Harrison's Neurology in Clinical Medicine**. New York: McGraw-Hill.

Leigh, RJ, Zee DS (2006) **The Neurology of Eye Movements**. 4th ed. Oxford: Oxford University Press.

Miller NR, Newman NJ, Biouesse V, Kerrison JB (2005) **Walsh and Hoyt's Clinical Neuro-Ophthalmology**. 6th ed. Vols 1-3, . Philadelphia: Lippincott Williams & Wilkins.

Miller NR, Newman NJ (1999) **Walsh & Hoyt's Clinical Neuro-Ophthalmology: The Essentials**, 1st edition, Philadelphia: Lippincott Williams & Wilkins.

Pane A, Burdon M, Miller, NR (2007) **The Neuro-ophthalmology Survival Guide**. St. Louis: Mosby.

Rosen ES, Thompson HS, Cumming WJK, Eustace P (1998) **Neuro-ophthalmology**. London: Mosby.

4. INTERPERSONAL AND COMMUNICATION SKILLS: Many neuro-ophthalmological diseases are rare and unfamiliar to patients. Extra patience and time are required to explain their causes and implications. Even if a disease cannot be cured, patients can benefit by understanding the diagnosis and prognosis. In neuro-ophthalmology, compared with other branches of ophthalmology, more time and patience are required to convey this information to patients.

5. PROFESSIONALISM: Principles of professional conduct continue to be emphasized on the neuro-ophthalmology service by treating patients with dignity, courtesy, and

compassion, respecting confidentiality, being honest, dressing and behaving appropriately, and by adhering to basic principles of ethics and humanity.

6. SYSTEMS-BASED PRACTICE: Neuro-ophthalmology is an interdisciplinary subspecialty, that requires interaction with neurologists, neurosurgeons, endocrinologists, radiologists, internists, optometrists, and family practitioners. Residents learn to broaden their horizons beyond ophthalmology, and reinforce their basic medical skills

RETINA SERVICE

GOALS AND OBJECTIVES

Daniel M. Schwartz, MD

During the 1st Year, residents should learn the Basic Science Course in Retina and read topically on the cases they see in clinic and at conferences. They should attend the weekly Fluorescein Angiography Conference and read the Gass Atlas on the cases presented in the conference. First Year Residents will also be expected to present occasional cases at Fluorescein Angiography Conference, Grand Rounds and the bi-month Thursday Retina Dinners.

During the 2nd Year, residents will gain the bulk of their didactic Retina clinical experience on the Retina Services at UCSF, the VA and SFGH. They should read the following texts to build their fund of knowledge:

1. Gass Atlas of Macular Disease
2. Michels' Retina Detachment
3. Ryan (Ed.) Retina
4. Hilton Retinal Detachment (Academy Manual)
5. Basic Science Course Retina Manual (Academy Manual)

GOALS AND OBJECTIVES FOR RETINA SERVICE DURING THE 2ND YEAR:

GOAL: PATIENT CARE

- **OBJECTIVE: RESIDENT WILL DEMONSTRATE PROFICIENCY IN CLINICAL EVALUATION AND BASIC TREATMENT OF PATIENTS WITH RETINAL DISEASE. THIS WILL INCLUDE THE FOLLOWING SKILLS:**
 1. Competence at indirect ophthalmoscopy, including scleral depression
 2. Competence performing macular and 3-mirror exam
 3. Ability to draw retinal pathology, including retinal detachment
 4. Ability to treat retinal breaks with laser and cryo
 5. Ability to laser macular edema and perform panretinal photocoagulation
 6. Ability to interpret fluorescein angiography
 7. Ability to interpret optical coherence tomography (OCT)
 8. Ability to interpret electrophysiological studies (ERG, mfERG)
 9. Ability to perform intravitreal injections
 10. Ability to tap and inject for treatment of endophthalmitis
 11. Understand principles be able to perform various steps in scleral buckling surgery
 12. Understand principles and be able to perform simple "core" Vitrectomy

GOAL: MEDICAL KNOWLEDGE

- **OBJECTIVE: RESIDENT MUST DEMONSTRATE KNOWLEDGE OF MEDICAL AND SURGICAL DISEASES OF THE RETINA, INCLUDING EPIDEMIOLOGY, CLINICAL FEATURES, DIFFERENTIAL DIAGNOSIS, PATHOGENESIS, THERAPY, PROGNOSIS, AND IMPACT OF EACH DISEASE ON EVERYDAY LIFE. DISEASE ENTITIES INCLUDE THE FOLLOWING:**
 1. Retinovascular disease (diabetes, vaso-occlusive disease, vasculitis, Coats, etc.)
 2. Diseases causing choroidal neovascularization (e.g. AMD, myopia, POHS, angioid streaks, trauma, etc.)
 3. Chorioretinal inflammatory disease
 4. Diseases of the vitreoretinal interface (epiretinal membranes, macular holes, vitreomacular traction, etc.)
 5. Hereditary retinal degenerations
 6. Toxic retinopathies
 7. Rhegmatogenous retinal detachment
 8. Exudative and tractional retinal detachment
 9. Ocular trauma (penetrating, blunt)
 10. Surgical management of PVR, penetrating trauma, proliferative diabetic retinopathy, and vitreoretinal interface disorders

GOAL: PRACTICE BASED LEARNING AND IMPROVEMENT

- **OBJECTIVE: DEMONSTRATE ABILITY TO USE CLINICAL SKILLS AND MEDICAL KNOWLEDGE TO OBTAIN RELEVANT HISTORY, EXAMINE PATIENTS, AND DEVELOP MANAGEMENT PLAN.**
- **OBJECTIVE: DEMONSTRATE APPROPRIATE USE OF ANCILLARY TESTING BASED ON CLINICAL ASSESSMENT OF EACH PATIENT.**
- **OBJECTIVE: MAINTAIN CURRENCY OF MEDICAL KNOWLEDGE, INCLUDING RESULTS OF NATIONAL CLINICAL TRIALS, AND BE ABLE TO CRITICALLY ANALYZE THE VALUE OF NEW THERAPIES.**

GOAL: INTERPERSONAL AND COMMUNICATIONS SKILLS

- **OBJECTIVE: RESIDENT WILL BECOME PROFICIENT AT COMMUNICATING DISEASE ENTITIES AND MANAGEMENT OPTIONS TO PATIENTS AND THEIR FAMILIES. RESIDENT WILL LEARN HOW TO USE AIDS SUCH AS EYE MODELS AND SCHEMATICS TO FACILITATE UNDERSTANDING OF THESE DISEASES BY PATIENTS AND THEIR FAMILIES.**

- **OBJECTIVE: RESIDENT WILL BE ABLE TO GIVE CLEAR EXPLANATION OF RATIONALE FOR RETINAL PROCEDURES, AND EXPLAIN ALTERNATIVE THERAPIES AND RISKS.**

GOAL: PROFESSIONALISM

- **OBJECTIVE: RESIDENT WILL DEMONSTRATE PROFESSIONALISM AROUND PATIENTS, THEIR FAMILIES, PHYSICIANS, AND OTHER HEALTHCARE STAFF.**
- **OBJECTIVE: RESIDENT WILL RESPOND QUICKLY TO MESSAGES FROM PATIENTS, FAMILY MEMBERS, AND HEALTHCARE STAFF.**

GOAL: SYSTEMS BASED PRACTICE

- **OBJECTIVE: RESIDENT WILL EXERCISE GOOD JUDGMENT AND INVOLVE OTHER MEDICAL SPECIALTIES AS NEEDED TO DIAGNOSE AND MANAGE RETINAL DISEASES.**
- **OBJECTIVE: RESIDENT WILL UNDERSTAND WHEN LOW-VISION REFERRALS ARE APPROPRIATE. RESIDENT WILL ALSO BE ABLE TO EXPLAIN BENEFITS AND LIMITATIONS OF LOW-VISION AIDS TO PATIENTS.**
- **OBJECTIVE: RESIDENT WILL UNDERSTAND ROLE OF SOCIAL WORKER IN HELPING PATIENTS WITH LOW VISION OBTAIN SOCIAL SERVICES.**

THIRD YEAR RESIDENTS:

During the 3rd Year, Chiefs will continue to build their Retina fund of knowledge by attending the weekly Fluorescein Angiography course and presenting cases at Grand Rounds. They will also participate, where appropriate, in Vitreoretinal surgery cases at all 3 teaching hospitals.

Residents during all three years are encouraged to seek out Retina Service attendings to participate in basic and clinical research projects to present at Resident's Day and/or major meetings (AAO, ARVO).

OPHTHALMIC PLASTIC SURGERY SERVICE GOALS AND OBJECTIVES

Timothy J. McCulley, MD

FIRST YEAR RESIDENTS

UCSF: the first year residents will rotate on the UCSF Hospital ophthalmic plastic surgery rotation. They will attend outpatient clinics on the 2nd and 4th Mondays (all day) and Thursday afternoons weekly. They will also participate in surgery on Tuesday mornings and all day on Wednesday. Minor and cosmetic procedures will be performed on Friday afternoons in the seventh floor minor procedure room.

VA: first year residents will assess ophthalmic plastic patients in the mornings and assist in surgery in the afternoons of the 1st, 3rd and 5th Mondays of the month.

1. Evaluate all patients in clinic. Perform complete ophthalmic plastic examinations and formulate assessments and plans, both medical and surgical.
2. Assist in all cases focusing on basic surgical principles such as proper handling of soft tissue and suturing techniques.
3. As skill level permits, a first year resident will function as primary surgeon on select cases.
4. First year residents will attend the didactic ophthalmic plastic lecture series on selected Thursdays and during the special basic science and laboratory sessions.

SECOND AND THIRD YEAR RESIDENTS

Although there is no designated oculoplastic time during the second and third years, residents will be expected to put to practice what was learned during the first year rotation in comprehensive clinics.

Senior residents are expected to supervise and provide guidance to junior residents in comprehensive clinics as well as when on call during evenings and on weekends.

KNOWLEDGE OF THE FOLLOWING SHOULD BE OBTAINED DURING THE FIRST YEAR OF RESIDENCY AND SOLIDIFIED IN SUBSEQUENT YEARS:

EXAMINATION TECHNIQUES:

- A. Eyelids
 - 1. Margin-reflex-distance (MRD)
 - 2. Levator function (LF)
 - 3. Laxity
 - 4. Eyelash (trichiasis etc.)
 - 5. Tone (spasm/paresis)
 - a. Lower lid distraction test
 - b. Snap back test
 - 6. Neoplasm
- B. Orbit
 - 1. Exophthalmometry
 - 2. Inflammation
 - 3. Neuro-ophthalmic effects of orbital disease
- C. Lacrimal system
 - 1. Outflow
 - a. Tear lake
 - b. Dye disappearance test
 - c. Irrigation
 - d. Nasal examination with speculum and endoscope
 - 2. Production
 - a. Corneal evaluation for dry eye disease and exposure
 - b. Schirmer's test
- D. Brows and face - be able to assess eyebrow position for brow ptosis and paralysis and determine its relation to upper lid dermatochalasis. Assess facial paralysis. Evaluate the effect of midface cicatricial, paralytic, and involuntional changes on lower eyelid position.
- E. Imaging techniques
 - 1. Computed tomography
 - 2. Magnetic resonance imaging
 - a. T1, T2, flair, DWI, FIESTA and fat suppressed sequences

MEDICAL AND SURGICAL KNOWLEDGE:

- A. Orbit
 - 1. Common orbital disorders of children
 - a. Congenital anomalies
 - b. Inflammatory disorders
 - c. Orbital cellulitis
 - d. Orbital pseudotumor
 - e. Neoplasm
 - f. Dermoid and epidermoid tumors
 - g. Capillary hemangioma
 - h. Lymphangioma

- i. Optic nerve glioma
 - j. Rhabdomyosarcoma
 - k. Leukemia
 - l. Neuroblastoma
 - m. Systemic disorders
 - n. Neurofibromatosis
2. Common orbital disorders of adults
- a. Inflammatory disorders
 - b. Orbital cellulitis - know how etiology, organisms, and treatment differ from childhood cellulitis. Be able to differentiate fungal orbital infections.
 - c. Thyroid orbitopathy - etiology, diagnosis, physical signs, management, surgical rehabilitation.
 - d. Orbital pseudotumor
 - e. Vasculitis - Wegener's, PAN, sarcoidosis, lethal midline granuloma
 - f. Neoplasm
 - g. Vascular tumors - cavernous hemangioma, hemangiopericytoma, AV malformations, orbital varix, CCF - direct and indirect.
 - h. Lacrimal gland tumors - benign and malignant mixed tumors, adenoid cystic carcinoma, and other inflammatory and lymphoid causes of lacrimal gland enlargement.
 - i. Fibro-osseous tumors - fibrous dysplasia, osteoma
 - j. Neural tumors - meningioma, schwannoma, optic nerve glioma
 - k. Histiocytic lesions
 - l. Lymphoid tumors
 - m. Metastatic tumors
 - n. Trauma - blow out fractures, le forte fractures, optic canal and other orbital fractures - diagnosis and management, traumatic optic neuropathy, orbital hemorrhage, penetrating orbital injury.
- B. Anophthalmic socket - know associated problems and management
- 1. Enucleation
 - 2. Evisceration
 - 3. Exenteration
 - 4. Management of the anophthalmic socket
- C. Eyelid
- 1. Congenital
 - a. Blepharophimosis syndrome
 - b. Blepharoptosis
 - c. Ectropion
 - d. Entropion
 - e. Epiblepharon
 - f. Euryblepharon
 - g. Ankyloblepharon
 - h. Coloboma
 - i. Cryptophthalmos

- j. Distichiasis
- 2. Inflammation
 - a. Chalazion, hordeolum
 - b. Preseptal cellulitis
- 3. Trauma - blunt, penetrating, burns
- 4. Involution changes
 - a. Ectropion
 - b. Entropion
 - c. Blepharoptosis
 - d. Dermatochalasis
- 5. Blepharochalasis
- 6. Eyelid retraction
- 7. Misdirected eyelashes
- 8. Eyelid tumors
 - a. Verruca vulgaris
 - b. Seborrheic keratosis
 - c. Actinic keratosis
 - d. Molluscum
 - e. Nevus
 - f. Xanthelasma
 - g. Basal cell carcinoma
 - h. Squamous cell carcinoma
 - i. Sebaceous gland carcinoma
 - j. Cutaneous melanoma and variants
- 9. Dystonia
 - a. Blepharospasm
 - b. hemifacial spasm
 - c. Facial nerve palsy
- D. Lacrimal drainage system
 - 1. Congenital tearing - etiology, workup, management
 - 2. Acquired tearing - etiology, workup, management
 - 3. Infection
 - a. Canaliculitis
 - b. Dacryocystitis
 - c. Neoplasm
 - 4. Trauma

ADDITIONAL GOALS AND OBJECTIVES FOR RESIDENTS AT ALL LEVELS OF TRAINING

GOAL: TO PURSUE EXCELLENCE IN OCULOPLASTIC PATIENT CARE

OBJECTIVE

To demonstrate proficiency in the diagnosis and treatment of complex oculoplastic conditions as outlined above.

OBJECTIVE

To counsel and educate patients and their families regarding their eye care with special emphasis on informed consent of surgical procedures

OBJECTIVE

To demonstrate proficiency in the performance of surgical procedures in management of conditions outlined above.

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences

OBJECTIVE

To demonstrate a thorough understanding of the indications, complications, and expected outcomes of all oculoplastic procedures

OBJECTIVE

To demonstrate critical thinking in their approach to clinical situations and research questions

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To demonstrate leadership in the coordination and management of all members of the eye care team including fellows, residents, optometrists, and ancillary staff

OBJECTIVE

To demonstrate the ability to work cordially with departmental ancillary staff including health technicians and front desk clerks

OBJECTIVE

To communicate effectively with other departments regarding consultations or shared patient care

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion all patients

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of all patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

OBJECTIVE

To educate fellow residents in matters of professionalism

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To learn the UCSF electronic medical records system, learn to look up patient imaging and laboratory study results.

OBJECTIVE

To identify and utilize characteristics of the UCSF Medical System which distinguish it from other health care systems

OBJECTIVE

Learn to maneuver through bureaucracy which would otherwise hinder patient care.

OBJECTIVE

To advocate for quality patient care and assist patients in dealing with the healthcare system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To analyze practice experience and perform at least one practice-based improvement activity

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

OBJECTIVE

To use information technology to manage information, access on-line medical information; and support the resident's own education

PEDIATRIC OPHTHALMOLOGY AND STRABISMUS

GOALS AND OBJECTIVES

Tina Rutar, MD; Alejandra de Alba, MD; Jonathan Horton, MD PhD

SECOND YEAR RESIDENTS

The second year residents will have a 10 week long rotation in which they spend 80% of their time on the pediatric ophthalmology service and 20% on neuro-ophthalmology. First year residents will also spend one half day per week in pediatric ophthalmology clinic during their 10 week UC subspecialties rotation. First and second-year residents will also participate in pediatric ophthalmology clinic or surgery at San Francisco General Hospital approximately one half-day per week during each of their 10 week San Francisco General Hospital rotations..

PATIENT CARE:

Residents will

1. Examine patients in the pediatric ophthalmology clinic. New patients will be examined by the resident. They will see both pediatric and adult patients with strabismus.
2. Perform inpatient consultations on all children in the hospital.
3. Attend inpatient Retinopathy of Prematurity rounds in the intensive care nursery.
4. Assist in the pre-op, intra-op and post-op care of surgical patients.

MEDICAL KNOWLEDGE:

At the completion of the rotation each resident should have an understanding of the following pathologic processes.

STRABISMUS

Infantile esotropia
Accommodative esotropia
Duane syndrome
Abducens paresis
Oculomotor paresis
Thyroid eye disease
Trochlear paresis
Exotropia
Double elevator palsy / monocular elevation deficiency
Myasthenia gravis
Restrictive strabismus due to blowout fracture
Brown syndrome
Congenital fibrosis/dysinnervation disorders
Acquired strabismus in adults
Convergence spasm and insufficiency

AMBLYOPIA

Anisometropic
Strabismic

Deprivation
Management and treatment options

RETINOPATHY OF PREMATURITY

Risk factors
Screening protocol
Staging
Treatment

CONGENITAL CATARACT

Differential diagnosis
Associated syndromes
Workup
Treatment

CONGENITAL GLAUCOMA

Diagnosis
Treatment

CONGENITAL PTOSIS

ANTERIOR SEGMENT DYSGENESIS

Peters anomaly
Sclerocornea
Axenfeld / Rieger anomaly

OPTIC NERVE HYPOPLASIA

Septo-Optic Dysplasia

CEREBRAL VISUAL IMPAIRMENT

COLOBOMA

LEBERS CONGENITAL AMAUROSIS

ANIRIDIA

ALBINISM

REFRACTIVE ERRORS

Examination techniques/retinoscopy/cycloplegia
When to correct, when to observe

NASOLACRIMAL OBSTRUCTION

Diagnosis
Treatment

NYSTAGMUS

Differential diagnosis
Treatment

ORBITAL DERMOID

OPHTHALMIC MANIFESTATIONS OF INFLICTED CHILDHOOD NEUROTRAUMA

OPHTHALMIC MANIFESTATIONS OF SYSTEMIC DISEASE, PEDIATRIC GENETIC

SYNDROMES

Inborn errors of metabolism
Cranio-facial syndromes
Phacomatoses

PRACTICE-BASED LEARNING AND IMPROVEMENT:

Residents will

1. Prepare a case for presentation at grand rounds
2. Read and critically evaluate journal articles and reading assignments
3. Demonstrate proficiency in retinoscopy in all ages
4. Perform accurate refraction
5. Perform and record an accurate motility exam
6. Demonstrate ability to assess and quantify visual acuity in preverbal, preliterate, and literate children
7. Demonstrate ability to accurately diagnose strabismus conditions
8. Demonstrate ability to diagnose and develop treatment plan for amblyopia
9. Demonstrate ability to develop surgical plan for treatment of strabismus
10. Demonstrate understanding of the techniques and mechanisms of strabismus surgery
11. Demonstrate ability to perform extraocular muscle surgery involving the rectus muscles and the inferior oblique muscle
12. Demonstrate understanding of instrumentation and surgical techniques necessary for cataract surgery in children
13. Demonstrate ability to perform an EUA on children who cannot complete an examination in clinic
14. Demonstrate ability to perform probing and irrigation of nasolacrimal duct
15. Demonstrate understanding of adjustable suture techniques
16. Present surgical cases and complication in weekly morbidity/microsurgery conference; demonstrate full knowledge of the condition/complication and propose future prevention strategies

INTERPERSONAL AND COMMUNICATION SKILLS:

Residents will

1. Demonstrate the ability to discuss pediatric eye conditions with children and their families. These discussions involve sensitivity to patients' physical and emotional development, the patient-child relationship, the impact on school performance, and the limitations on future activities and occupations that visual impairment may induce.
2. Demonstrate the ability to properly counsel patients and their families the risks, benefits, and alternatives to pediatric surgical procedures.
3. Demonstrate the ability to counsel patients with amblyopia, and their families, the costs and benefits of amblyopia treatment.
4. Demonstrate ability to counsel patients with monocular visual impairment, and their families, the importance of proper eye protection.

PROFESSIONALISM:

Residents will

Interact with all healthcare, administrative, and clerical personnel with professional conduct.

Coordinate the care of pediatric inpatients requiring ongoing ophthalmologic care by ensuring the appropriate transfer of patients to the new pediatric resident when they rotate off service.

SYSTEMS-BASED PRACTICE:

Residents will

- Engage in teaching of medical students and peers.
- Identify any barriers against efficient and quality patient care, both related to the institution and to the patients' socioeconomic or cultural background.
- Interact with referring physicians by verbal or written methods.
- Interact with teachers, school officials, social workers, case managers, and other individuals involved in the care of visually disabled children in order to provide high quality patient care.

REQUIRED READING:

1. *Pediatric Ophthalmology and Strabismus* volume in American Academy of Ophthalmology Basic and Clinical Science Course
2. Rosenbaum and Santiago: *Clinical Strabismus Management: Principles and Surgical Techniques*: Chapters on Rectus Muscle Recession, Adjustable Suture Technique and Resection, and Inferior Oblique Muscle Surgery
3. Wright, Kenneth. *Color Atlas of Strabismus Surgery: Strategies and Techniques*
4. Taylor and Hoyt. *Pediatric Ophthalmology and Strabismus*. 3rd edition.
(Chapters from the textbook that are relevant to specific patients encountered in clinic.)
5. Wilson E. *Pediatric cataract surgery: Techniques, Complications and Management*. 1st edition.

THE FOLLOWING TOOLS WILL BE USED TO ASSESS PROFICIENCY:

1. E-Value
2. Surgical skills
3. Direct observation of retinoscopy and motility examinations
4. OKAP scores

OCULAR ONCOLOGY SERVICE GOALS AND OBJECTIVES

Paul Stewart, MD

For the third-year resident rotating on the ocular oncology service:

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE:

To demonstrate proficiency in the diagnosis and treatment of malignant conditions involving the eye such as uveal melanoma, retinoblastoma, metastatic tumors to the eye and orbit and their associated systemic malignancies, squamous cell carcinoma of the conjunctiva and its precursor lesions, melanoma of the conjunctiva and its precursor lesions

OBJECTIVE:

To counsel and educate patients and their families regarding their eye malignancy with special emphasis on informed consent for surgical procedures, radiation therapy, or medical management of their conditions

OBJECTIVE:

To demonstrate safety and proficiency in the use of lasers to treat all relevant malignancies of the eye

OBJECTIVE:

To demonstrate proficiency in the performance of surgical procedures including enucleation, conjunctival excisional biopsy, examination under anesthesia with tumor localization, and placement of tantalum marker rings for proton beam therapy

OBJECTIVE:

To efficiently and competently manage the third year ocular oncology clinic as well as both inpatient and interfacility consults

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE:

To attend all educational sessions/conferences

OBJECTIVE:

To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform while rotating on the ocular oncology service

OBJECTIVE:

To prepare evidence-based and ad-hoc educational sessions for trainees on the service, including medical students

OBJECTIVE:

To demonstrate critical thinking in their approach to clinical situations and research questions, using available medical literature.

OBJECTIVE:

To demonstrate the proper use and interpretation of all available ophthalmic ancillary testing including Ultrasonic A-B scan studies, fluorescein angiography, ultrasound biomicroscopy, and digital fundus photography.

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE:

To demonstrate team building skills in working with fellows, residents, medical students, and ancillary staff

OBJECTIVE:

To demonstrate the ability to coordinate schedules with departmental ancillary staff including clinical trials coordinator and front desk clerks

OBJECTIVE:

To communicate effectively with other departments regarding consultations or shared patient care

OBJECTIVE:

To demonstrate proficiency and compassion in communicating with patients regarding their malignant condition.

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE:

To demonstrate respect and compassion for the needs of patients with cancer and potentially blinding eye conditions.

OBJECTIVE:

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE:

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of ocular oncology patients

OBJECTIVE:

To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, encounter forms, and consultation forms from other departments

OBJECTIVE:

To educate medical students in matters of professionalism

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE:

To incorporate the strengths of UCSF system and resources into clinical care, especially the availability of cross departmental team management of ocular malignancies and systemic disease

OBJECTIVE:

To advocate for quality patient care and to assist patients in navigating the complexities of the UCSF system

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE:

To analyze practice experience and perform at least one practice-based improvement activity

OBJECTIVE:

To identify and assimilate evidence from scientific studies related to ocular oncology patients' health problems

OBJECTIVE:

To apply knowledge of study design and statistical methods to the appraisal of clinical studies

OBJECTIVE:

To use information technology to manage information, access on-line medical information; and support their own education and the education of other team members.

OPHTHALMIC PATHOLOGY

GOALS AND OBJECTIVES

J. Brooks Crawford, MD

1. FIRST YEAR RESIDENTS

The first year residents will have a rotation in the eye pathology laboratory on Monday and Wednesday afternoons for a period of 2 months. During that period each resident should:

- a. Examine and write a report on at least 2 eyes that have been submitted to the laboratory for evaluation.
- b. Evaluate all of the cases (whole eyes, biopsies exenteration specimens and outside consultations) that are sent to the laboratory during that period. This will be done with the eye pathology instructors.
- c. Look at specimens from the teaching collection that will not ordinarily be seen during their rotation. These will be evaluated as “unknowns” and then discussed with the eye pathology instructors.

The first year residents will attend the didactic eye pathology lecture series following Grand Rounds on selected Thursdays and during the special basic science sessions.

Twice during the course of the academic year, each resident will take a test using projected photomicrographs. These tests will cover the material they are expected to know. The results will be discussed with the residents after the test.

At the completion of the first year of residency training, each resident should have an understanding of the following pathologic processes:

- I. Inflammation
 - A. The cells of inflammation, types of inflammation, and inflammatory processes
 - B. Nongranulomatous inflammation
 - C. Granulomatous inflammation (especially sympathetic uveitis, lens induced uveitis, foreign body granulomas)
 - D. Inflammation due to micro-organisms, sarcoidosis, foreign bodies
- II. Cornea
 - A. Corneal wounds
 - B. Corneal degenerations (especially pterygiums, endothelial degeneration)

- C. Dystrophies
- D. Congenital abnormalities (e.g. mesodermal dysgenesis)

- III. Glaucoma
 - A. Congenital glaucoma
 - B. Primary open angle glaucoma
 - C. Angle closure glaucoma
 - D. Secondary glaucomas

- IV. Uveal Tract
 - A. Inflammatory processes
 - B. Tumors (especially melanomas and metastatic tumors)

- V. Lens
 - A. Congenital abnormalities (PHPV, congenital cataracts)
 - B. Cataractogenesis including complications
 - C. Cataract surgery and complications (e.g. epithelial ingrowth, stripped Descemet's membrane)

- VI. Retina
 - A. Inflammatory processes (e.g. Toxoplasmosis, CMV retinitis, Toxocara)
 - B. Tumors (especially retinoblastoma)
 - C. Retinal vascular disease (diabetes, hypertension, arterial and venous occlusive disease)

- VII. Optic Nerve
 - A. Atrophy
 - B. Tumors (glioma, meningioma)

- VIII. Orbit
 - A. Inflammatory processes
 - B. Benign and malignant tumors

- IX. Lids
 - A. Inflammation and inflammatory tumors
 - B. Benign tumors
 - C. Malignant tumors (especially basal cell carcinoma, squamous cell carcinoma, sebaceous gland carcinoma, melanoma)

- X. Conjunctiva
 - A. Inflammatory processes
 - B. Neoplasia (melanotic lesions, CIN, squamous cell carcinoma)

2. SECOND AND THIRD YEAR RESIDENTS

Each resident will be expected to

- a. Look at and evaluate any eye or biopsy that they have performed or assisted with. This will be done in the eye pathology laboratory with one of the eye pathology instructors at a mutually agreed upon time but within 1 to 3 weeks of the surgery during which the material was obtained.
- b. Attend as many of the didactic teaching sessions and tests that their schedule permits.

3. ALL RESIDENTS

In addition to the above instruction in ocular pathology, additional exposure to the discipline will occur during Grand Rounds, particularly the ones devoted to ocular pathology.

Furthermore, the following are guidelines with respect to the six core competencies:

PATIENT CARE. The resident in every case studied with the pathology instructor should know how this diagnosis influences the care and prognosis for the patient under study.

KNOWLEDGE. The resident should meet the goals and objectives outlined above and demonstrate this knowledge orally to the pathology instructor and demonstrate it by satisfactory performance on the twice yearly test.

LEARNING AND CONTINUING SELF EDUCATION. This will be expected of every resident and evaluated on an individual basis with the one-on-one teaching sessions, on the twice yearly test, and during questions posed at grand rounds.

COMMUNICATION. The resident must learn how to prepare a proper pathology request (clinical history, location of biopsy, special requests). The resident must also be able to prepare a concise, pertinent and accurate pathology report (e.g. each first year resident will prepare 2 complete reports on specimens acquired during the rotation in eye pathology).

PROFESSIONALISM. The resident is responsible for attending all scheduled pathology sessions.

SYSTEM BASED PRACTICE. The resident should have knowledge of the value and the limitations of a pathology specimen and its report (e.g. inadequate biopsy, more or different tissue needed, biopsy not indicated), when to ask for another

opinion or an outside consult, how to integrate the pathology diagnosis into the complete care of the individual patient.

At the completion of each successive year of training, each resident should have a more complete and refined understanding of the pathological processes outlined above for first year residents including new and emerging material from the literature, from personal experience, and from selected areas of research.

REQUIRED READING:

American Academy of Ophthalmology Basic Science Module of Eye Pathology

Ocular Pathology. A Color Atlas. Yanoff, M and Fine BS. (copy available in eye pathology laboratory)

SAN FRANCISCO VA HOSPITAL OPHTHALMOLOGY SERVICE FIRST YEAR ROTATION GOALS AND OBJECTIVES

Ayman Naseri, MD

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To demonstrate proficiency in the diagnosis and treatment of common ophthalmic conditions such as refractive error, diabetes, glaucoma, macular degeneration, and blepharitis

OBJECTIVE

To counsel and educate patients and their families regarding their eye care

OBJECTIVE

To demonstrate safety and proficiency in the use of lasers to perform peripheral iridotomies and posterior capsulotomies

OBJECTIVE

To demonstrate proficiency in the performance of surgical procedures including extracapsular cataract extraction, pterygium surgery and basic oculoplastic procedures

OBJECTIVE

To efficiently and competently manage the first year ophthalmology clinics

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences

OBJECTIVE

To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at the VA

OBJECTIVE

To prepare ad hoc educational sessions for trainees on the service

OBJECTIVE

To demonstrate critical thinking in their approach to clinical situations and research questions

OBJECTIVE

To demonstrate the proper use and interpretation of ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, and b-scan ultrasonography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To demonstrate the ability to work cordially with departmental ancillary staff including health technicians and front desk clerks

OBJECTIVE

To communicate effectively with other departments regarding consultations or shared patient care

OBJECTIVE

To work as a supportive team member with other ophthalmology and optometry residents

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for the needs of VA patients

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of VA patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To list three characteristics of the VA Medical System that distinguish it from other health care systems

OBJECTIVE

To incorporate the strengths of VA systems and resources into clinical care, especially the electronic medical record

OBJECTIVE

To advocate for quality patient care and assist patients in dealing with VA system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To analyze practice experience and perform at least one practice-based improvement activity

OBJECTIVE

To identify and assimilate evidence from scientific studies related to VA patients' health problems

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

OBJECTIVE

To use information technology to manage information, access on-line medical information; and support their own education

SAN FRANCISCO VA HOSPITAL OPHTHALMOLOGY SERVICE SECOND YEAR ROTATION GOALS AND OBJECTIVES

Ayman Naseri, MD

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To demonstrate proficiency in the diagnosis and treatment of common retinal conditions such as diabetic retinopathy, macular degeneration, retinal tears/detachments, and macular holes/puckers

OBJECTIVE

To counsel and educate patients and their families regarding their eye care

OBJECTIVE

To demonstrate safety and proficiency in the use of lasers to perform horseshoe tear retinopexy, focal laser for CSME, and pan-retinal photocoagulation

OBJECTIVE

To demonstrate proficiency in the performance of surgical procedures including basic phacoemulsification, basic retinal and oculoplastic procedures

OBJECTIVE

To efficiently and competently manage the second year ophthalmology clinics

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences

OBJECTIVE

To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at the VA

OBJECTIVE

To prepare ad hoc educational sessions for trainees on the service

OBJECTIVE

To demonstrate critical thinking in their approach to clinical situations and research questions

OBJECTIVE

To demonstrate the proper use and interpretation of ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, b-scan ultrasonography, a-scan/iol master, macular OCT, and fluorescein angiography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To demonstrate the ability to work cordially with departmental ancillary staff including health technicians and front desk clerks

OBJECTIVE

To communicate effectively with other departments regarding consultations or shared patient care

OBJECTIVE

To work as a supportive team member with other ophthalmology and optometry residents

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

OBJECTIVE

To coordinate with volunteer retinal faculty that attend retinal clinics and surgery

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for the needs of VA patients

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of VA patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To list three characteristics of the VA Medical System that distinguish it from other health care systems

OBJECTIVE

To incorporate the strengths of VA systems and resources into clinical care, especially the electronic medical record

OBJECTIVE

To advocate for quality patient care and assist patients in dealing with VA system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To analyze practice experience and perform at least one practice-based improvement activity

OBJECTIVE

To identify and assimilate evidence from scientific studies related to VA patients' health problems

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

OBJECTIVE

To use information technology to manage information, access on-line medical information; and support their own education

SAN FRANCISCO VA HOSPITAL OPHTHALMOLOGY SERVICE THIRD YEAR ROTATION GOALS AND OBJECTIVES

Ayman Naseri, MD

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVE

To demonstrate proficiency in the diagnosis and treatment of complex ophthalmic conditions such as advanced glaucoma, advanced corneal disease, uveitis, and ocular-associated systemic disease, in addition to those expected of first and second year residents

OBJECTIVE

To counsel and educate patients and their families regarding their eye care with special emphasis on informed consent of surgical procedures

OBJECTIVE

To demonstrate safety and proficiency in the use of lasers to treat all relevant ophthalmic pathologies including those expected of first and second year residents

OBJECTIVE

To demonstrate proficiency in the performance of surgical procedures including advanced phacoemulsification, glaucoma filtering procedures, and advanced oculoplastic procedures

OBJECTIVE

To efficiently and competently manage the third year ophthalmology clinics as well as both inpatient and interfacility consults

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVE

To attend all educational sessions/conferences

OBJECTIVE

To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at the VA

OBJECTIVE

To prepare ad hoc educational sessions for trainees on the service

OBJECTIVE

To demonstrate critical thinking in their approach to clinical situations and research questions

OBJECTIVE

To demonstrate the proper use and interpretation of all available ophthalmic ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, b-scan ultrasonography, a-scan/iol master, macular OCT, fluorescein angiography, and corneal topography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVE

To demonstrate leadership in the coordination and management of all members of the eye care team including fellow residents, optometrists, and ancillary staff

OBJECTIVE

To demonstrate the ability to work cordially with departmental ancillary staff including health technicians and front desk clerks

OBJECTIVE

To communicate effectively with other departments regarding consultations or shared patient care

OBJECTIVE

To demonstrate proficiency in communicating with patients regarding their health care

OBJECTIVE

To coordinate with volunteer faculty that attend both clinics and surgery

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVE

To demonstrate respect and compassion for the needs of VA patients

OBJECTIVE

To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent

OBJECTIVE

To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of VA patients

OBJECTIVE

To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

OBJECTIVE

To educate fellow residents in matters of professionalism

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVE

To list three characteristics of the VA Medical System that distinguish it from other health care systems

OBJECTIVE

To incorporate the strengths of VA systems and resources into clinical care, especially the electronic medical record

OBJECTIVE

To advocate for quality patient care and assist patients in dealing with VA system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVE

To analyze practice experience and perform at least one practice-based improvement activity

OBJECTIVE

To identify and assimilate evidence from scientific studies related to VA patients' health problems

OBJECTIVE

To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

OBJECTIVE

To use information technology to manage information, access on-line medical information; and support their own education

**SAN FRANCISCO GENERAL HOSPITAL
OPHTHALMOLOGY SERVICE**

BENNIE JENG, MD

FIRST YEAR ROTATION GOALS AND OBJECTIVES

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVES

- To demonstrate proficiency in the diagnosis and treatment of common ophthalmic conditions such as refractive error, diabetes, glaucoma, macular degeneration, and blepharitis
- To demonstrate proficiency in the assessment of facial and ocular trauma
- To counsel and educate patients and their families regarding their eye care
- To demonstrate safety and proficiency in the use of lasers to perform peripheral iridotomies and posterior capsulotomies
- To demonstrate proficiency in the performance of surgical procedures including extracapsular cataract extraction, pterygium surgery and basic oculoplastic procedures
- To efficiently and competently manage the first year ophthalmology clinics

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVES

- To attend all educational sessions/conferences
- To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at SFGH
- To prepare ad hoc educational sessions for trainees on the service
- To demonstrate critical thinking in their approach to clinical situations and research questions
- To demonstrate the proper use and interpretation of ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, and b-scan ultrasonography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVES

- To demonstrate the ability to work cordially with departmental ancillary staff including nurses, health technicians and administrative clerks
- To communicate effectively with other departments regarding consultations or shared patient care

- To work as a supportive team member with other ophthalmology residents and optometrists
- To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVES

- To demonstrate respect and compassion for the needs of SFGH patients
- To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent
- To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of SFGH patients
- To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVES

- To achieve basic understanding of the community based mission of healthcare for SFGH patients
- To incorporate the strengths of SFGH systems and resources into clinical care, especially the electronic medical record
- To achieve a basic understanding of health care eligibility at SFGH
- To advocate for quality patient care and assist patients in dealing with SFGH system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVES

- To analyze practice experience and perform at least one practice-based improvement activity
- To identify and assimilate evidence from scientific studies related to SFGH patients' health problems - health care in a public hospital setting
- To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- To use information technology to manage information, access on-line medical information; and support their own education

**SAN FRANCISCO GENERAL HOSPITAL
OPHTHALMOLOGY SERVICE
SECOND YEAR ROTATION GOALS AND OBJECTIVES**

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVES

- To demonstrate proficiency in the diagnosis and treatment of the ocular manifestations of common diseases encountered in a public hospital population including AIDS, drug abuse, alcoholism, and sexually transmitted diseases
- To demonstrate proficiency in the assessment of facial and ocular trauma
- To counsel and educate patients and their families regarding their eye care
- To demonstrate safety and proficiency in the use of lasers to perform horseshoe tear retinopexy, focal laser for CSME, and pan-retinal photocoagulation
- To demonstrate proficiency in the performance of surgical procedures including basic phacoemulsification, basic retinal, trauma and oculoplastic procedures
- To efficiently and competently manage the second year ophthalmology clinics

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVES

- To attend all educational sessions/conferences
- To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at the SFGH
- To prepare ad hoc educational sessions for trainees on the service
- To demonstrate critical thinking in their approach to clinical situations and research questions
- To demonstrate the proper use and interpretation of ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, b-scan ultrasonography, a-scan/IOL calculations, macular OCT, and fluorescein angiography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVES

- To demonstrate the ability to work cordially with departmental ancillary staff including nurses, health technicians and administrative clerks

- To communicate effectively with other departments regarding consultations or shared patient care
- To work as a supportive team member with other ophthalmology residents and optometrists
- To demonstrate proficiency in communicating with patients regarding their health care

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVES

- To demonstrate respect and compassion for the needs of SFGH patients
- To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent
- To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of SFGH patients
- To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVES

- To achieve basic understanding of the community based mission of healthcare for SFGH patients
- To incorporate the strengths of SFGH systems and resources into clinical care, especially the electronic medical record
- To achieve a greater understanding of health care eligibility at SFGH
- To advocate for quality patient care and assist patients in dealing with SFGH system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVES

- To analyze practice experience and perform at least one practice-based improvement activity
- To identify and assimilate evidence from scientific studies related to SFGH patients' health problems - health care in a public hospital setting
- To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- To use information technology to manage information, access on-line medical information; and support their own education

**SAN FRANCISCO GENERAL HOSPITAL
OPHTHALMOLOGY SERVICE
THIRD YEAR ROTATION GOALS AND OBJECTIVES**

GOAL: TO PURSUE EXCELLENCE IN OPHTHALMIC PATIENT CARE

OBJECTIVES

- To demonstrate proficiency in the diagnosis and treatment of complex ophthalmic conditions such as advanced glaucoma, advanced corneal disease, uveitis, retinal pathology, and ocular-associated systemic disease, in addition to those expected of first and second year residents
- To demonstrate proficiency in the assessment of facial and ocular trauma
- To counsel and educate patients and their families regarding their eye care with special emphasis on informed consent of surgical procedures

- To demonstrate safety and proficiency in the use of lasers to treat all relevant ophthalmic pathologies including those expected of first and second year residents
- To demonstrate proficiency in the performance of surgical procedures including advanced phacoemulsification, glaucoma filtering procedures, retina procedures, trauma and oculoplastic procedures
- To efficiently and competently manage the third year ophthalmology clinics as well as inpatient consults

GOAL: TO ADVANCE IN MEDICAL KNOWLEDGE

OBJECTIVES

- To attend all educational sessions/conferences
- To demonstrate a thorough understanding of the indications, complications, and expected outcomes of any procedure which they perform at the SFGH
- To prepare ad hoc educational sessions for trainees on the service
- To demonstrate critical thinking in their approach to clinical situations and research questions
- To demonstrate the proper use and interpretation of all available ophthalmic ancillary testing including automated perimetry, optic nerve analysis, ultrasonic pachymetry, b-scan ultrasonography, a-scan/IOL calculations, macular OCT, and fluorescein angiography

GOAL: TO DEVELOP IMPROVED INTERPERSONAL AND COMMUNICATION SKILLS

OBJECTIVES

- To demonstrate leadership in the coordination and management of all members of the eye care team including fellow residents, optometrists, and ancillary staff
- To demonstrate the ability to work cordially with departmental ancillary staff including nurses, health technicians and administrative clerks
- To communicate effectively with other departments regarding consultations or shared patient care
- To demonstrate proficiency in communicating with patients regarding their health care
- To coordinate with volunteer faculty that attend both clinics and surgery

GOAL: TO DEMONSTRATE A COMMITMENT TO PROFESSIONALISM

OBJECTIVES

- To demonstrate respect and compassion for the needs of SFGH patients
- To demonstrate a commitment to ethical principles pertaining to clinical care, confidentiality of patient information, and informed consent
- To demonstrate sensitivity and responsiveness to the culture, age, gender, and disabilities of SFGH patients
- To complete in a timely fashion thorough and precise patient care notes, surgical dictations, discharge summaries, and encounter forms
- To educate fellow residents in matters of professionalism

GOAL: TO UNDERSTAND SYSTEMS-BASED PRACTICE

OBJECTIVES

- To achieve understanding of the community based mission of healthcare for SFGH patients
- To incorporate the strengths of SFGH systems and resources into clinical care, especially the electronic medical record
- To achieve an understanding of health care eligibility at SFGH
- To advocate for quality patient care and assist patients in dealing with SFGH system complexities

GOAL: TO INCORPORATE PRACTICE-BASED LEARNING AND IMPROVEMENT

OBJECTIVES

- To analyze practice experience and perform at least one practice-based improvement activity
- To identify and assimilate evidence from scientific studies related to SFGH patients' health problems - health care in a public hospital setting
- To apply knowledge of study design and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

- To use information technology to manage information, access on-line medical information; and support their own education