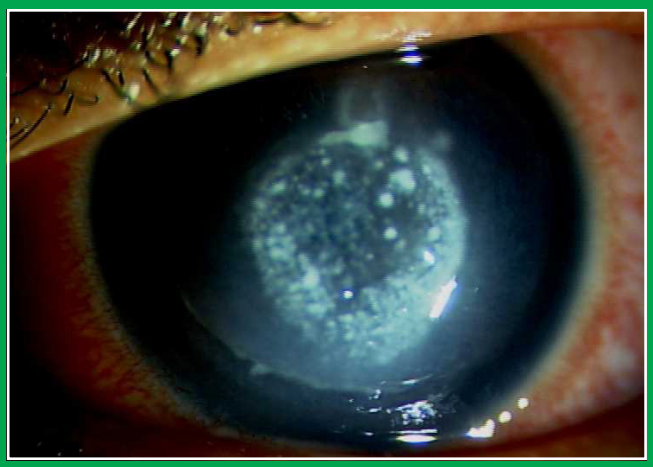
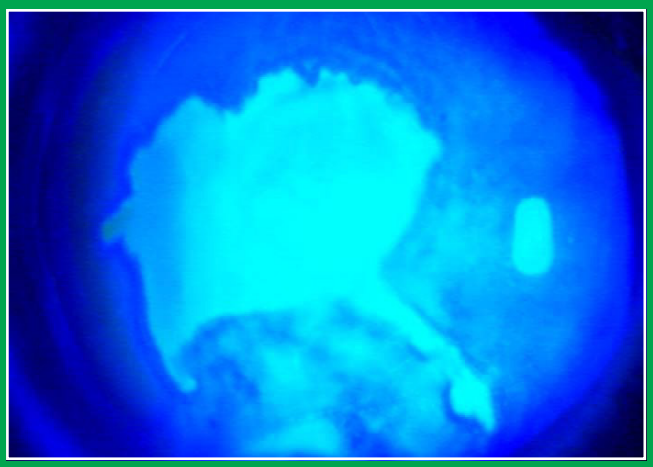
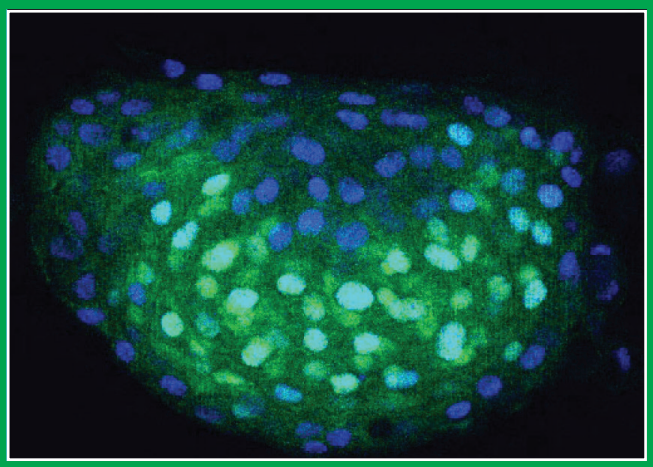




Cornea and Anterior Segment - Observership



Ethics and Professionalism in Ophthalmology

Some of the goals listed below are specific to the requirements of the United States or other nations. They are included here as a guideline only.

Basic Level Goals:

1. Provide the definition and basic concepts behind the following terms used in medical ethics:
   a. Morality versus ethics (intent-based standards versus conduct-based standards)
   b. Autonomy and surrogacy
   c. Beneficence
   d. Nonmaleficence
   e. Truth telling
   f. Distributive justice
   g. Fiduciary responsibility to patients
   h. Compassion
2. Describe the ethical principles listed in the following key medical documents:
   a. Hippocratic Oath[1]
   b. Declaration of Geneva[2]
   c. Ethical Code, International Council of Ophthalmology[3]
   d. Code of Ethics, American Academy of Ophthalmology[4]
3. Describe the basics of ophthalmic practice management:
   a. Partnership arrangements
   b. Income distribution methods
   c. Contractual negotiations
   d. Hiring and supervising of employees
   e. Basic accounting
      i. Profit/loss statements
      ii. Billing
      iii. Collections
      f. Financial management
4. Describe the basics of the health care system and reimbursement for services as appropriate to the local, regional, and national market of the trainee (eg, medical documentation, third party payers, managed care, Medicare [USA], Medicaid [USA], private insurance, nationalized health care systems [United Kingdom, Canada, and others]).

Standard Level Goals:

1. Describe basic medical ethics in the ophthalmic practice, including:

a. Confidentiality of health information
b. Professional competence and maintenance of competence
c. Informed consent
d. Responsibility to report the unethical conduct of others
e. Adequate patient assessment and avoidance of under/over treatment and under/over testing

2. Identify elements of effective physician-patient communication, including:

a. Relevant cultural and linguistic differences that potentially influence ethical delivery of services

3. Describe advanced aspects of practice management (eg, business models, documentation requirements and coding, privacy requirements, accommodating patients or employees with disabilities).
4. Describe advanced aspects of health care reimbursement (eg, physicians' role in managed care organizations, administrative role, third-party reimbursement, capitated programs).
5. Describe the framework of patient-care quality as it relates to patient safety, patient advocacy, effectiveness, efficiency, timeliness, and equity.
6. Describe how ophthalmologists are responsible for ensuring that all those in the service area of the practice have access to affordable eye care, and define how ophthalmologists are uniquely trained and certified to do so.
7. Identify the various missions of ophthalmology organizations with respect to service to members, patients, clinical education, quality of care. Define and mitigate the consequences of conflicting missions.
8. Identify how participation of ophthalmologists in ophthalmology organizations serves the profession and society.
9. Identify the responsibilities of ophthalmologists and ophthalmology societies to ensure that everyone has the right to sight.

Medical Ethics Documents

1. Hippocratic Oath
   http://www.nlm.nih.gov/hmd/greek/greek_oath.html
2. Declaration of Geneva, World Medical Association http://www.wma.net/en/30publications/10policies/g1/
3. Ethical Code, International Council of Ophthalmology
   www.icoph.org/pdf/icoethicalcode.pdf
4. Code of Ethics, American Academy of Ophthalmology
   http://www.aao.org/about/ethics/code_ethics.cfm
5. Nuremburg Code
   http://ohsr.od.nih.gov/guidelines/nuremberg.html
6. Declaration of Helsinki, World Medical Association
   http://www.wma.net/en/30publications/10policies/b3/
7. Belmont Report
   http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html

Cornea and Anterior Segment

Basic Level Goals:

A. Cognitive Skills

1. Describe the basic anatomy, embryology, physiology, pathology, microbiology, immunology, genetics, epidemiology, and pharmacology of the cornea, conjunctiva, sclera, eyelids, lacrimal apparatus, and ocular adnexa.**
2. Understand the fundamentals of corneal optics and refraction (eg, astigmatism, keratoconus).**
3. Describe congenital abnormalities of the cornea, sclera, and globe (eg, Peter anomaly, microphthalmos, birth trauma, buphthalmos).**
4. Describe characteristic corneal and conjunctival degenerations (eg, pterygium, pinguecula, Salzmann nodular degeneration, senile plaques of the sclera).**
5. Recognize the classic corneal dystrophies (eg, map-dot-fingerprint dystrophy, lattice dystrophy, granular dystrophy, macular dystrophy, Fuchs dystrophy).**
6. Describe the fundamentals of ocular microbiology and recognize corneal and conjunctival inflammations and infections (eg, staphylococcal hypersensitivity, simple microbial keratitis, fungal corneal ulcers, trachoma, ophthalmia neonatorum, herpes zoster ophthalmicus, herpes simplex keratitis, adenovirus keratoconjunctivitis and conjunctivitis).**
7. Describe the basic principles of ocular pharmacology of anti-infective, anti-inflammatory, and immune modulating agents (eg, indications and contraindications for topical corticosteroids, nonsteroidal anti-inflammatory agents, and antibiotics).**
8. Recognize and treat lid margin disease (eg, staphylococcal blepharitis, meibomian gland dysfunction).**
9. Describe the basic differential diagnosis of acute and chronic conjunctivitis or red eye (eg, scleritis, episcleritis, conjunctivitis, orbital cellulitis, gonococcal and chlamydial conjunctivitis).**
10. Recognize and treat pyogenic granuloma.**
11. Recognize the basic presentations of ocular allergy (eg, phlyctenules, seasonal hay fever, vernal conjunctivitis, allergic and atopic conjunctivitis, giant papillary conjunctivitis).**
12. Understand the mechanisms of ocular immunology and recognize the external manifestations of anterior segment inflammation (eg, red eye associated with acute and chronic iritis).**
13. Describe the symptoms, signs, testing, and evaluation for dry eye (eg, Schirmer test, tarsorrhaphy); and treatment for dry eye.**
14. Describe the etiologies and treatment of superficial punctate keratopathy (eg, dry eye, Thygeson superficial punctate keratopathy, neurotrophic keratitis, blepharitis, toxicity, ultraviolet photo keratopathy, contact lens-related keratitis).**
15. Recognize and describe the etiologies of hyphema and microhyphema.**
16. Describe the basic mechanisms of traumatic and toxic injury to the anterior segment and treatment (eg, chemical and thermal burns, lid laceration, orbital fracture).**
17. Recognize corneal lacerations (perforating and nonperforating), anterior segment trauma, corneal and conjunctival foreign bodies.**
18. Describe the epidemiology, differential diagnosis, evaluation, and management of common benign and malignant lid lesions, including pigmented lesions of the conjunctiva and lid (eg, nevi, melanoma, primary acquired melanosis, ocular surface squamous neoplasia).**

Standard Level Goals:

Standard Level Goals:

A. Cognitive Skills

1. Describe the more complex anatomy, embryology, physiology, pathology, microbiology, immunology, genetics, epidemiology, and pharmacology of the cornea, conjunctiva, sclera, eyelids, lacrimal apparatus, and ocular adnexa.
2. Describe the more complex congenital abnormalities of the cornea, sclera, anterior segment and globe and their associated systemic manifestations (eg, Axenfeld, Rieger, and Peter anomalies, aniridia, hamartomas and choristomas).
3. Understand more complex corneal optics and refraction (eg, irregular astigmatism, keratoconus, anisometropia).
4. Correlate the concordance of the visual acuity with the density of media opacity (eg, cataract, corneal scars, edema), and evaluate the etiology of discordance between acuity and findings from examination of the media.
5. Recognize and treat less common corneal or conjunctival presentations of degenerations and common conjunctival neoplasms (eg, inflamed, atypical, or recurrent pterygium, band keratopathy, benign and malignant tumors).
6. Describe the epidemiology, clinical features, pathology, evaluation, and treatment of peripheral corneal thinning disorders or ulceration (eg, Terrien marginal degeneration, Mooren ulcer, rheumatoid arthritis-related corneal melt, dellen).
7. Describe the epidemiology, differential diagnosis, evaluation, and management of vitamin A deficiency (eg, Bitot spot, dry eye, slowed dark adaptation) and neurotrophic corneal diseases.
8. Recognize and treat recurrent corneal erosions.
9. Recognize, evaluate, and treat chronic conjunctivitis (eg, chlamydia, trachoma, molluscum contagiosum, Parinaud oculoglandular syndrome, ocular rosacea).
10. Describe more complex ocular microbiology and describe the differential diagnosis of more complicated corneal and conjunctival infections (eg, complex, mixed, or atypical bacterial, fungal, Acanthamoeba, viral, or parasitic keratitis).
11. Describe the more complex principles of ocular pharmacology of anti-infective, anti-inflammatory, and immune modulating agents (eg, use of topical nonsteroidal and steroidal agents, cyclosporine, and anti-tumor necrosis factor agents).
12. Describe the differential diagnosis, evaluation, and management of Thygeson superficial punctate keratopathy.
13. Describe more complex differential diagnosis of red eye (eg, autoimmune and inflammatory disorders causing scleritis, episcleritis, conjunctivitis, orbital cellulitis).
14. Describe key features of trachoma, including epidemiology, clinical features, staging, and its complications (eg, cicatrization), prevention (eg, facial hygiene), and topical and systemic antibiotic treatment (especially in hyperendemic regions), and surgery (eg, tarsal rotation).
15. Describe differential diagnosis, evaluation, and treatment of interstitial keratitis (eg, syphilis, viral diseases, noninfectious, immunologic, inflammation).
16. Describe the differential diagnosis and the external manifestations of more complex anterior segment inflammation (eg, acute and chronic iritis with and without systemic disease).
17. Recognize, evaluate, and treat the ocular complications of severe diseases, such as chronic exposure keratopathy, contact dermatitis, and rosacea.
18. Describe the clinical features, pathology, evaluation, and treatment of ocular cicatricial pemphigoid and Stevens-Johnson syndrome.
19. Describe the classification, pathology, indications for surgery, and prognosis of common eyelid abnormalities (eg, blepharoptosis, trichiasis, distichiasis, essential blepharospasm, entropion, ectropion) and understand their relationship to secondary diseases of the cornea and conjunctiva (eg, exposure keratopathy).
20. Recognize and treat foreign body, animal, and plant substance injuries and understand the risk of injury with organic material.
21. Describe more complex mechanisms of traumatic and toxic injury to the anterior segment (eg, long-term sequelae of acid and alkali burn, complex lid laceration involving the lacrimal system, full-thickness laceration).

22. Recognize and treat corneal lacerations (perforating and nonperforating).
23. Recognize and treat more complex hyphemas (eg, surgical indications, evacuation).
24. Recognize the anterior segment manifestations of systemic diseases (eg, Wilson disease) and pharmacologic side effects (eg, amiodarone vortex keratopathy).
25. Recognize and treat common and uncommon benign and malignant lid lesions.