الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

Mapping of Ophthalmology Postgraduate Curricular Competencies with Assessment Tools

This outline maps curricular competencies\objectives with the assessment tools and potential test type. Tests will emphasize certain parts of the outline, and no single test will include questions on all aspects. Questions may include content that is not included in this outline.

Construct	Domain	Rotation	Year	Code	Performance indicator / Curriculum	Page #	Learning Domain (1:Cognitive, 2:Skills, 3:Attitude)	Assessment Type	Assessment Method			
									MCQ - Part 1 Written	MCQ - Final Written	OSCE - Final Clinical	SOE - Final Clinical
A. Medical Expert	A.1 Basic science	A.1.1 General	R1	A1.1.1	Clinical **knowledge base** in **general ophthalmology**, **pathology**, **anesthesia**, **optics and refraction**	37	1	Written, Oral	*	*		*
			R1	A1.1.2	Be able to undertake and interpret **Gram, Giemsa, and GMS staining** for ocular specimens.	39	1	Written	*	*		
			R1	A1.1.3	To recognize the , **histopathological stains**, **histopathological appearance of common ocular diseases**, especially ocular dystrophies and ocular neoplasms and assess the **prognosis** of various tumors based on the histopathology features.	39	1	Written, Oral	*	*		*
		A.1.2 Anterior segment	R2	A.1.2.1	Confirms the knowledge obtained in PGY1 level during general ophthalmology rotation, which includes **corneal anatomy and basic science** in corneal **inflammation**, **infection**, corneal **laceration**, and **dry eye**.	51	1	Written, Oral	*	*		*
			R2	A.1.2.2	Describes the fundamentals of **ocular microbiology** and recognizes **corneal and conjunctival inflammations and infections** (e.g., staphylococcal hypersensitivity, simple microbial keratitis, trachoma, ophthalmia neonatorum, herpes zoster ophthalmicus, herpes simplex keratitis, and conjunctivitis).	51	1	Written, Oral	*	*		*
			R2	A.1.2.3	Describes the basic principles of **ocular pharmacology** of anti-microbial, anti-inflammatory, and immune modulating agents (e.g., indications and contraindications for topical corticosteroids, non-steroidal anti-inflammatory agents, and antibiotics). Recognizes and describes the treatment of **chemical burns** (e.g., types of agents, medical therapy).	51	1	Written, Oral, Performacne	*	*	*	*
			R2	A.1.2.4	Knows the basic mechanisms of **traumatic and toxic injury** to the anterior segment (e.g., alkali burn, lid laceration, orbital fracture, etc.).	51	1	Written	*	*		
			R3	A.1.2.5	Knows the more complex **anatomy, embryology, physiology, pathology, microbiology, immunology, genetics, epidemiology, and pharmacology of the cornea, conjunctiva, sclera, eyelids, lacrimal apparatus, and ocular adnexa.**	60	1	Written		*		
			R3	A.1.2.6	Describes more **complex ocular microbiology** as (e.g., complex, mixed or atypical bacterial, fungal, acanthamoeba, viral or parasitic keratitis).	60	1	Written		*		
			R3	A.1.2.7	Describes the **pathology of ocular cicatricial pemphigoid.**	61	1	Written		*		
			R3	A.1.2.8	Describes the **epidemiology and pathology of peripheral corneal thinning of ulceration** (e.g., Terrien's marginal degeneration, Mooren's ulcer, rheumatoid arthritis-related corneal melt).	61	1	Written		*		
			R3	A.1.2.9	Describes **mechanisms of traumatic and toxic injury to the anterior segment** (e.g., long-term sequelae of acid and alkali burn, complex lid laceration involving the lacrimal system, full-thickness laceration).	60	1	Written		*		
			R4	A.1.2.10	Understands the **new modality in corneal surgeries** e.g., Descemet's stripping automated endothelial keratoplasty and keratoprosthesis).	72	1	Written		*		
		A.1.3 Optics & refraction	R1	A.1.3.1	All topics	39, 40	1	Written, Oral, Performance	*	*	*	*
			R2	A.1.3.2	Knows the basic science of **IOL calculation and biometry.**	51	1	Written	*	*		
			R2	A.1.3.3	Understands the fundamentals of **corneal optics and refraction** (e.g., keratoconus).	51	1	Written	*	*		
			R2	A.1.3.4	Describes the principles, techniques, and indications of **YAG laser** iridotomy.	47	1	Written, Oral	*	*		*
			R2	A.1.3.5	Describes the principles, techniques, and indications of s**uture lysis**.	47	1	Written, Oral	*	*		*
			R2	A.1.3.6	Describes basic principles of **laser photocoagulation.**	50	1	Written	*	*		
			R2	A.1.3.7	Understands the physics of **laser delivery systems and lenses**.	50	1	Written	*	*		
			R4	A.1.3.9	Understands the physics of **laser delivery systems and lense**s.	70	1	Written		*		
		A.1.4 Glaucoma	R2	A.1.4.1	Describes the **anatomy of the anterior chamber angle and ciliary body complex.**	47	1	Written	*	*		
			R2	A.1.4.2	Describes the **physiology of aqueous humor**.	47	1	Written	*	*		
			R2	A.1.4.3	Understands the principles and clinical application of **optic nerve head imaging** (e.g.,OCT, and HRT)	47	1	Written	*	*		
			R2	A.1.4.4	Understands the principles of and is able to describe and interpret **visual field tests**.	47	1	Written	*	*		
			R2	A.1.4.5	Describes the principles of medical management, including indications for and side effects of **glaucoma treatment options** (e.g., topical and systemic medications) for simple glaucoma (e.g., POAG, PACG).	47	1	Written	*	*		

			R2	A.1.4.6	Performs basic **tonometry** (e.g., applanation, pneumotonometry, Schiotz [if applicable], tonopen, airpuff) and recognizes the pitfalls and artifacts of testing; is able to recognize the importance of **corneal topography in glaucoma** (adjusting IOP according to CCT and adjusting applanation according to the cylinder axis).	47	1, 2	Written, Oral, Performance	*	*	*	*
			R3	A.1.4.7	Describes more advanced **optic nerve- and nerve fiber-layer anatomy** in primary and secondary glaucoma and recognizes **typical and atypical features associated with glaucomatous cupping** (e.g., rim pallor, rapid progression, central acuity loss, hemianopic or other non-glaucomatous types of visual field loss).	55	1	Written		*		
			R3	A.1.4.8	To describe the principles, indications, and more advanced **anatomic findings and gonioscopic** features of primary and secondary glaucomas (e.g., plateau iris, appositional closure); they also must know the indications of UBM, AS OCT, and their application in glaucoma.	55	1	Written, Oral		*		*
			R4	A.1.4.9	Applies the most **advanced knowledge of optic nerve- and nerve fiber-layer anatomy**	67	1	Written		*		
			R4	A.1.4.10	Describes the **aqueous humor dynamic**s in the more advanced and complex etiologies of glaucoma (e.g., angle recession, combined or multifactorial glaucoma, traumatic or inflammatory glaucoma, pigmentary dispersion glaucoma).	67	1	Written		*		
		A.1.5 Retina	R2	A.1.5.1	Describes basic principles and **retinal anatomy, embryology, and physiology** (layers of the retina, retinal and RPE physiology, vascular supply of the eye).	50	1	Written	*	*		
			R2	A.1.5.2	Describes fundamentals and demonstrates basic understanding of **fluorescein angiography** as applied to retinal vascular disease (e.g., indications, phases of the angiogram, patterns of hyper- and hypofluorescences).	50	1	Written	*	*		
			R2	A.1.5.3	Has necessary knowledge to request appropriate **investigations**. 1. Awareness of the place of fluorescein angiogram, OCT, ICG, electrophysiology, and visual field testing in retinal diagnosis. 2. Awareness of the relative place of ultrasound, CT, and MRI in retinal diseases.	50	1	Written, Oral	*	*		*
			R2	A.1.5.4	Demonstrates understanding of **genetic inheritance patterns in retinal diseases**	50	1	Written	*	*		
			R3	A.1.5.5	Describes **macular anatomy and function** of common macular disease (e.g., age-related macular degeneration, macular hole, macular dystrophies, macular pucker, macular edema, central serous chorioretinopathy).	57	1	Written		*		
			R3	A.1.5.6	Understands the basic fundamental concepts of **retinal electrophysiology** (ERG, EOG, and VER).	57	1	Written		*		
			R3	A.1.5.7	Describes the fundamentals of **OCT**.		1	Written		*		
			R3	A.1.5.8	Describes fundamentals of, and changes in, **OCT** in different diseases.	58	1	Written, Oral		*		*
			R3	A.1.5.9	Has basic information about **vitreous substitutes** (e.g., gases, heavy liquids, silicone).	58	1	Written		*		
			R4	A.1.5.10	Describes **detailed retinal anatomy and physiology.**	68	1	Written		*		
			R4	A.1.5.11	Describes the fundamentals of **retinal electrophysiology.**	69	1	Written		*		
			R4	A.1.5.12	Describes more **advanced concepts of fluorescein/indocyanine green** (ICG) angiography as applied to retinal vascular and other diseases (e.g., indications, phases of the angiogram).	68	1	Written		*		
			R4	A.1.5.13	Demonstrates an understanding of **genetic inheritance patterns in retinal diseases** and could counsel family appropriately in important ocular genetic areas.	70	1	Written		*		
			R4	A.1.5.14	Describes (or develops an understanding of) the **pathophysiology of macular diseases.**	70	1	Written		*		
			R4	A.1.5.15	Describes the mechanisms of retinal breaks and **rhegmatogenous retinal detachment** in blunt closed **globe injuries**	69	1	Written		*		
			R4	A.1.5.16	Describes the fundamentals of the various **vitreous substitutes** namely gases, silicone oil, and heavy liquid perfluorocarbons.	69	1	Written		*		
		A.1.6 Uveitis	R2	A.1.6.1	Describes basic principles of **history taking, examination, and work-up** of a patient with retina and uveitis diseases.	50	1	Written	*	*		
			R2	A.1.6.2	Understands the mechanisms of **ocular immunology**	51	1	Written	*	*		
			R3	A.1.6.3	Describes the **immunosuppressive agent**s used to treat uveitis.	58	1	Written		*		
			R3	A.1.6.4	Describes the principles of **ocular pharmacology** for anti-infective, anti-inflammatory, and immune modulating agents (e.g., use of topical non-steroidal agents, topical cyclosporine).	61	1	Written		*		
			R4	A.1.6.5	Describes **basic immune mechanisms in uveitis.**	70	1	Written		*		
			R4	A.1.6.6	Describes **antimicrobial agents** used to treat infectious uveitis (e.g., tuberculosis, toxoplasmosis, syphilis, viral infections).	70	1	Written, Oral		*		*
			R4	A.1.6.7	Describes **immunosuppressive agents** used to treat uveitis, including indication, route of administration, dosage, side effects, and patient monitoring.	70	1	Written, Oral		*		*
		A.1.7 Pediatric	R1	A.1.7.1	Demonstrates awareness of **electrophysiology** in pediatric ophthalmology diagnosis.	44	1	Written	*	*		
			R1	A.1.7.2	Demonstrates awareness of **ultrasound, CT, and MRI** in childhood eye disease.	44	1	Written	*	*		
			R1	A.1.7.3	Demonstrates understanding of **genetic inheritance patterns** in pediatric eye disease	44	1	Written	*	*		

			R2	A.1.7.4	Describes basic **anatomy and physiology of extra-ocular muscles** (e.g., innervation of extraocular muscles, primary actions, comitant and incomitant deviations, overaction and underaction, restrictive and paretic saccades and pursuit movements).	48	1	Written	*	*		
			R2	A.1.7.5	Describes basic **visual development** and visual assessment of the pediatric ophthalmology patient (e.g., central, steady, maintained fixation, illiterate E, Allen cards, and Landolt C ring).	48	1	Written	*	*		
			R2	A.1.7.6	Describes basic **sensory adaptations for binocular vision** (e.g., normal and anomalous retinal correspondence, suppression, horopter, Panum's area, fusion, and stereopsis, monofixation syndrome).	48	1	Written	*	*		
			R4	A.1.7.7	Recognizes the **differences between child and adult ocular tissues and repair**, and reasons for the differences in surgical and refractive management of aphakia, glaucoma, etc.	73	1	Written		*		
			R4	A.1.7.8	Describes **more advanced anatomy and physiology of strabismus** (e.g., torsion, tertiary actions, and consecutive deviations).	74	1	Written		*		
			R4	A.1.7.9	Describes **more advanced sensory adaptations** (e.g., normal and anomalous retinal correspondence, suppression, phoropter, Panum's area, fusion, and stereopsis, monofixation syndrome).	74	1	Written		*		
			R4	A.1.7.10	Applies the **more advanced knowledge of strabismus anatomy and physiology** (e.g., spiral of Tillaux, secondary and tertiary actions, primary and secondary deviation, spread of comitance) in evaluation of patients.	74	1	Written		*		
			R4	A.1.7.11	Describes clinical application of the **most advanced sensory and motor adaptations** (e.g., anomalous head position, anomalous retinal correspondence).	74	1	Written		*		
			R4	A.1.7.12	Applies the **most advanced principles of binocular vision and amblyopia** (e.g., physiology of binocular vision, diplopia, confusion and suppression, normal and abnormal retinal correspondence, classification and characteristics of amblyopia).	75	1	Written		*		
			R4	A.1.7.13	**Applies Hering's and Sherrington's laws in more advanced cases** (e.g., pseudoparesis of the contralateral antagonist, enhancement of ptosis in myasthenia gravis).	75	1	Written		*		
		A.1.8 Oculoplastic	R1	A.1.8.1	To describe **basic eyelid, lacrimal, and orbital anatomy and physiology** (e.g., eyelid, orbicularis, orbital structures, meibomian glands, lacrimal glands, glands of Zeis, Whitnall's ligament, Muller's muscle, Lockwood's ligament, canaliculi, puncta, orbital bones, orbital foramina, paranasal sinuses, annulus of Zinn, arterial and venous vascular supply, lymphatics, nerves, and extraocular muscles).	41	1	Written	*	*		
			R1	A.1.8.2	To identify **normal orbital anatomy on imaging studie**s (e.g., magnetic resonance imaging, computed tomography, ultrasound).	41	1	Written, Oral	*	*		*
			R1	A.1.8.3	To describe the anatomy and **interpret basic radiology studies of the brain and orbits**	43	1	Written, Oral	*	*		*
			R3	A.1.8.4	Describes more **advanced eyelid, lacrimal, and orbital anatomy and physiology** (e.g., lacrimal apparatus, orbital vascular anatomy).	62	1	Written		*		
			R3	A.1.8.5	Describes the **genetics (where known) of congenital eyelid deformities** (e.g., coloboma, distichiasis, epicanthus, telecanthus, blepharophimosis, ankyloblepharon, epiblepharon, euryblepharon, and Goldenhar, treacher-Collins, Waardenburg syndromes).	62	1	Written, Oral		*		*
		A.1.9 Neuro	R1	A.1.9.1	Describe the **neuro-anatomy** of the visual pathways, cranial nerves, pupil, accomodative neuroanatomy, ocular motility neuronal pathways.	42	1	Written	*	*		
	A.2 Assessment & Diagnosis	**A.2.1 General**	R1	A.2.1.1	The resident should be able to diagnose the following clinical conditions, including, but **not limited to:** 1. **Conjunctivitis**—acute and chronic, bacterial and viral, and infectious and non- infectious. 2. **Keratitis**—bacterial and viral, and infectious and non-infectious. 3. **Uveitis**—acute and chronic, granulomatous and non-granulomatous, and anterior and posterior. 4. **Glaucoma**—all types. 5. **Cataract** diseases. 6. **Eye lid disorders**. 7. Common retinal disease, including: i. **retinal detachment and retinal breaks.** ii. **diabetic retinopathy.** iii. **retinal vein occlusions and arterial occlusions**. 8. **AION and temporal arteritis.** 9. **Thyroid eye diseases.** 10. **Traumatic ocular injuries.** 11. **Removal of corneal foreign bodies.** 12. Management and treatment of **chemical eye injuries.** 13. Diagnose and treat ocular emergencies: i. **ruptured globes.** ii. **globe perforation and penetration.**	38	1	Written, Oral, Performance	*	*	*	*

					iii. **acute angle-closure glaucoma**. iv. **central retinal artery occlusion.** 15. Familiarity with common **ophthalmic medications,** including indications and contra-indications: viii. Diagnostic drops. ix. Topical anti-infectives. x. Other topical drops. xi. Topical steroids. xii. Topical glaucoma medications. xiii. Oral ocular hypotensive medications—carbonic anhydrase inhibitors and hyperosmotics. xiv. Oral steroids.							
			R1 & R2	A.2.1.2	Assess **YAG PI procedure**s and know the indications, parameters, and possible complications.	41, 46	1, 2	Written, Oral	*	*		*
			R1, R2, R3,	A.2.1.3	Obtains a complete, organized, and succinct **history and physical examination.**	36, 66	2	Performance			*	
			R1	A.2.1.4	Assess the general health of **trauma** patients.	41	1, 2	Written, Oral, Performance	*	*	*	*
			R1	A.2.1.5	Perform and interpret a **tangent screen test**.	43	1&2	Written, Performance	*	*		
			R1	A.2.1.6	Able to effectively diagnose most common & **emergency ophthalmic problem**s, and be able to develop differential diagnosis and a treatment plan for such patients	37, 40	1	Written, Oral, Performance	*	*	*	*
			R1	A.2.1.7	Perform **corneal scraping** for cultures	41	2	Performance			*	
			R1	A.2.1.8	Be able to recognize complications that may be caused by different methods of **anesthesia.**	39	1	Written, Oral	*	*	*	*
			R2	A.2.1.9	Performs a basic extraocular **exam,** slit lamp exam, tonometry, funduscopy, pupil, and cranial nerves exam.	46	2	Performance			*	
		A.2.2 Anterior segment	R2	A.2.2.1	Performs **subjective refraction** techniques and retinoscopy in patients with cataracts.	52	2	Oral, Performance			*	*
			R2	A.2.2.2	Performs **corneal scrapping** and is able to interpret the result (e.g., culture techniques, culture media, Gram stain, Giemsa stain, calcofluor white, acid fast).	52	2	Written, Oral, Performance	*	*	*	*
			R2	A.2.2.3	Assesses emergency surgical cases (e.g., lid laceration repair, removal of superficial corneal foreign body, and removal of corneal suture).	46	1	Written, Oral	*	*		*
			R2	A.2.2.4	Shows the basic knowledge obtained in R1 level during general ophthalmology rotation regarding causes and types of **cataract,** preoperative cataract evaluation, and complications of cataract surgery.	51	1, 2, 3	Written, Oral, Observational	*	*		*
			R2	A.2.2.5	Describes the **etiologies of superficial punctuate keratitis** (e.g., dry eye, Thygeson's superficial punctate keratopathy, blepharitis, toxicity, ultraviolet photo keratopathy, contact lens related).	52	1	Written	*	*		
			R2	A.2.2.6	Knows the differential diagnosis of **dislocated or subluxated lens** (e.g., trauma, Marfan syndrome, homocystinuria, Weill-Marchesani syndrome, syphilis).	51	1	Written, Oral	*	*		*
			R2	A.2.2.7	Understands the differential diagnosis of **red eye**.	51	1	Written, oral	*	*		*
			R2	A.2.2.8	Recognizes **ocular surface tumors.**	52	1	Written	*	*		
			R2	A.2.2.9	Describes **congenital abnormalities of the cornea and anterior segment** (e.g., Peter's, Axenfeld's, and Rieger's anomaly, microphthalmos, aniridia, birth trauma, buphthalmos).	51	1	Written, Oral	*	*		*
			R2	A.2.2.10	Recognizes the basic presentations of **ocular allergy** (e.g., phlyctenules, seasonal hay fever, vernal conjunctivitis, allergic and atopic conjunctivitis, giant papillary conjunctivitis).	51	1	Written, oral	*	*		*
			R2	A.2.2.11	Recognizes **lid margin disease** (e.g., staphylococcal blepharitis, meibomian gland dysfunction).	51	1	Written, Oral	*	*		*
			R2	A.2.2.12	Recognizes the manifestations of **anterior segment inflammation** (e.g., red eye associated with acute and chronic iritis).	51	1	Written	*	*		
			R2	A.2.2.13	Recognizes and describes the etiologies of **hyphema and microhyphema.**	51	1	Written, oral	*	*		*
			R2	A.2.2.14	Recognizes the **anterior segment manifestations of systemic diseases** (e.g., Wilson's disease) and pharmacologic side effects (e.g., amiodarone vortex keratopathy).	52	1	Written	*	*		
			R2	A.2.2.15	Describes characteristic **corneal and conjunctival degenerations** (e.g., pterygium, pinguecula, senile plaques of the sclera, keratoconus).	52	1	Written	*	*		
			R2	A.2.2.16	Recognizes the common c**orneal dystrophies and degenerations** (e.g., map-dot finger print dystrophy, Meesmann's dystrophy, Reis-Buckler dystrophy, Francois dystrophy, Schnyder dystrophy, congenital hereditary stromal dystrophy, lattice dystrophy, granular dystrophy, macular dystrophy, congenital hereditary endothelial dystrophy, Fuchs' dystrophy, posterior polymorphous dystrophy, Salzmann's degeneration).	52	1	Written, Oral	*	*		*
			R2	A.2.2.17	Shows the basic knowledge obtained in R1 level during general ophthalmology rotation regarding c**omplications of cataract surgery**.	51	1	Written, Oral	*	*		*
			R3	A.2.2.18	Describes the **epidemiology of Bitot's** spots.	60	1	Written		*		

			R3	A.2.2.19	Describes the **pre-operative evaluation of the cataract patient**, including: a. The systemic diseases of interest or relevance to cataract surgery. b. The relationship between external and corneal disease of relevance to cataracts and cataract surgery (e.g., lid abnormalities, dry eye). c. The relationships between glaucoma, uveitis, and capsular opacities related to cataract surgery.	59	1	Written, Oral		*		*
			R3	A.2.2.20	Describes the less common causes of l**ens abnormalities** (e.g., lenticonus, ectopia lentis, etc.).	59	1	Written		*		
			R3	A.2.2.21	Correlates the concordance of the v**isual acuity with the density of media opacity** (e.g., cataract) and evaluates the etiology of discordance between acuity and findings from examination of the media.	60	2	Written, Performance		*		*
			R3	A.2.2.22	Describes the epidemiology, clinical features, pathology, evaluation, and treatment of inflammatory, degenerative, dellen-related, infectious, immunologic **peripheral corneal thinning of ulceration** (e.g., Terrien's marginal degeneration, Mooren's ulcer, rheumatoid arthritis-related corneal melt).	60, 61	1	Written, Oral		*		*
			R3	A.2.2.23	Recognizes common **conjunctival neoplasia** (e.g., benign, malignant tumors).	60	1	Written, oral		*		*
			R3	A.2.2.24	Recognizes less common corneal or **conjunctival presentations of degenerations** (e.g., inflamed, atypical or recurrent pterygium, band keratopathy).	60	1	Written, Oral		*		*
			R3	A.2.2.25	Describes the differential diagnosis and evaluation of **Bitot's spots.**	60	1	Written		*		
			R3	A.2.2.26	Describes the differential diagnosis and evaluation, of T**hygeson's superficial punctuate keratopathy.**	60	1	Written		*		
			R3	A.2.2.27	Describes more complex ocular microbiology and describes the differential diagnosis of more complicated **corneal and conjunctival infections** (e.g., complex, mixed or atypical bacterial, fungal, acanthamoeba, viral or parasitic keratitis).	60	1	Written, Oral		*		*
			R3	A.2.2.28	Describes differential diagnosis and evaluation of **interstitial keratitis** (e.g., syphilis, viral diseases, non-infectious, immunologic, inflammation).	60	1	Written, Oral		*		*
			R3	A.2.2.29	Describes less common, but more serious, differential diagnosis of **"red eye"** (e.g., autoimmune and inflammatory disorders causing scleritis, episcleritis, conjunctivitis, and orbital cellulitis).	60	1	Written, Oral		*		*
			R3	A.2.2.30	Recognizes, evaluates **chronic conjunctivitis** (e.g., chlamydia, trachoma, molluscumcontagiosum, Parinaud's oculoglandular syndrome, ocular rosacea).	61	1	Written, Oral		*		*
			R3	A.2.2.31	Interprets the results of the requested tests (e.g., **B-scan result** and culture results).	54	1	Written		*		
			R3	A.2.2.32	Describes the use of A and B scan ultrasonography in cataract surgery.	59	1	Written		*		
			R3	A.2.2.33	Describes **glare analysis** testing in pre and post cataract surgery.	59	1	Written		*		
			R3	A.2.2.34	Familiarity with, and master interpretation of, different modalities of **keratometry** (e.g., orb scan, pentacam).	61	1	Written, oral		*		*
			R3	A.2.2.35	Describes key features of **trachoma**, including epidemiology, clinical features and staging, and its complications (e.g., cicatrisation), prevention (e.g., facial hygiene), topical and systemic antibiotic treatment (especially in hyperendemic regions), and surgery (e.g., tarsal rotations).	60	1	Written		*		
			R3	A.2.2.36	Recognizes and c**orneal lacerations** (perforating and non-perforating).	61	1	Written		*		
			R3	A.2.2.37	Recognize large, recurrent, or atypical **pterygia** that may require surgery.	61	1	Written		*		
			R3	A.2.2.38	Describes the clinical features, pathology, evaluation, and treatment of **ocular cicatricial pemphigoid.**	61	1	Written		*		
			R3	A.2.2.39	Recognizes and evaluates the ocular complications of severe diseases, such as **chronic exposure keratopathy, contact dermatitis, and Stevens-Johnson syndrome**.	61	1	Written, oral		*		*
			R4	A.2.2.40	Recognizes **intraoperative complications of cataract and IOL implant surgery** (e.g., posterior capsular tears, zonular dialysis, vitreous prolapse, dropped lens fragments, choroidal effusions).	72	1	Written, oral		*		*
			R4	A.2.2.41	Performs **IOL calculation in complex cases** (post-refractive surgery).	72	1, 2	Written, Oral, Performance		*		*
			R4	A.2.2.42	Describes the differential diagnosis and the external manifestations of the most **complex or uncommon anterior segment inflammations** (e.g., syphilitic keratouveitis).	72	1	Written, oral		*		*
			R4	A.2.2.43	Diagnoses the most severe **corneal exposure** cases.	72	1	Written		*		
			R4	A.2.2.44	Recognizes **postoperative corneal surgery complications** (especially immunologically-mediated rejection).	72	1	Written, oral		*		*
			R4	A.2.2.45	Understands the **new modality in corneal surgeries**, and the indications and complications (e.g., Descemet's stripping automated endothelial keratoplasty and keratoprosthesis).	72	1	Written		*		

			R4	A.2.2.46	Understands the preoperative assessment, patient selection, surgical management, and postoperative care for **refractive surgery.**	72	1	Written, Oral, Performance		*	*	*
			R4	A.2.2.47	Understands and performs **complicated contact lens fitting** (e.g., post keratoplasty).	73	1 & 2	Written, Oral, Performance		*		*
		A.2.3 Optics & refraction	R1	A.2.3.1	All Topics	39, 40	1	Written, Oral	*	*		*
		A.2.4 Glaucoma	R2	A.2.4.1	Performs basic **gonioscopy** (e.g., recognizes angle structures, identifies angle closure), and is able to perform "compressive gonioscopy" technique, interpretate findings and knows its clinical applications.	46, 47	1, 2	Written, Oral, Performance	*	*		*
			R2, R3	A.2.4.2	Understands importance of and performs DTC (**diurnal tension Curve**).	47 & 55	1, 2	Written, oral, Performance	*	*		*
			R2	A.2.4.3	Stereo assessment of the **optic nerve head** and importance of **OCT** of optic nerve head in assessing MRW and invisible extension of Bruch's membrane, which leads to underestimation of the remaining rim.	47	1, 2	Written, Oral, Performance	*	*		*
			R2	A.2.4.4	Performs evaluation of **POAG** (primary open-angle glaucoma) and **PACG** (primary angle-closure glaucoma).	47	1, 2	Written, Oral, Performance	*	*	*	*
			R2	A.2.4.5	Describes the features of and recognizes **primary and secondary angle-closure** glaucoma.	47	1	Written, Oral	*	*		*
			R2	A.2.4.6	Describes the clinical features of and to recognize **hypotony** (e.g., Seidel test for transconjunctival leakage) and realizes the risk of infection,	47	1	Written, Oral	*	*		*
			R3	A.2.4.7	Describes more advanced forms of **perimetry** (e.g., kinetic and automated static visual fields) and perimetry strategies (e.g., threshold testing, supra-threshold testing, special algorithms) and should be able to understand the Garway-Heath map: Mapping the expected area of visual field loss according to the damaged optic nerve rim area. Should be able to distinguish glaucomatous VF damage from retinal and neurological changes.	55	1	Written, Oral		*		*
			R3	A.2.4.8	Describes the evaluation of, more complex glaucomas (e.g., **angle recession, inflammatory, steroid-induced, pigmentary, pseudoexfoliative, phacolytic, neovascular, post-operative, lens particle glaucomas, plateau iris, glaucomatocyclitic crisis, iridocorneal endothelial syndromes, and aqueous misdirection**)	55	1	Written, Oral		*		*
			R3	A.2.4.9	Describes the features of **primary infantile** and **juvenile glaucomas**.	55	1	Written, Oral		*		*
			R3	A.2.4.10	Describes and recognizes **normal tension glaucoma** ("low tension glaucoma").	55	1	Written, Oral		*		*
			R3	A.2.4.11	Describe **flat anterior chamber.**	55	1	Written, Oral		*		*
			R3	A.2.4.12	Recognizes **complications of glaucoma surgery.**	55	1	Written, Oral		*		*
			R4	A.2.4.13	Describes the clinical features of and recognizes less common etiologies of **ocular hypotony**.	67	1	Written, Oral		*		*
			R4	A.2.4.14	Describes the features of, and recognizes, the more **complex and advanced forms of primary and secondary open-angle and angle-closure glaucoma.**	67	1	Written, Oral		*		*
			R4	A.2.4.15	Describe techniques, methods, and tools for **analyzing the optic nerve head and nerve fiber layer**, including: a. Optic nerve head OCT; understands the principle of OCT and MRW. b. Ability to read and correlate glaucomatous VF damage with ONH damage and predict the possible future zone of damage. c. Ability to read AS OCT and UBM, and correlate the findings with glaucoma mechanism and future planning for management.	67	1	Written, Oral		*		*
		A.2.5 Retina	R2	A.2.5.1	Recognizes **emergency retinal conditions**	50	1	Written, oral	*	*		*
			R2	A.2.5.2	Describes **etiologies and mechanisms of retinal detachment.**	50	1	Written	*	*		
			R2, R3	A.2.5.3	Describes and recognizes different stages of **diabetic retinopathy** and **retinopathy of prematurity.**	50 & 57	1	Written, Oral	*	*		*
			R3	A.2.5.4	Recognizes the signs and patterns of **retinal vascular disease.**	57	1	Written, oral		*		*
			R3	A.2.5.5	Describes common forms of **retinal vascular disease** (e.g., branch, hemi- or central retinal vein, and artery occlusion).	57	1	Written		*		
			R3	A.2.5.6	Describes typical features of common **macular disease** (e.g., age-related macular degeneration, macular hole, macular dystrophies, macular pucker, macular edema, central serous chorioretinopathy).	57	1	Written, Oral		*		*
			R3	A.2.5.7	Describes and recognizes features of **closed blunt traumatic injuries** and understands their management (commotion retinae, traumatic choroidal ruptures peripheral retinal dialysis, Purtscher's retinopathy, etc.).	57	1	Written, oral		*		*
			R3	A.2.5.8	Recognizes patterns of **retinal diseases** and appropriately categorizes encountered pathologies into one category: vascular, inflammatory, degenerative, dystrophic, tumoral, and acquired.	57	1	Written, Oral		*		*
			R3	A.2.5.9	Interprets **imaging techniques** (e.g., fluorescein angiography, indocyanine green angiography, optical coherence tomography, ultrasound).	59	1	Written, Oral		*		*
			R3	A.2.5.10	Describes typical features of **retinitis pigmentosa.**	57	1	Written		*		
			R3	A.2.5.11	Describes features of, recognizes, and evaluates **posterior vitreous detachments** and **retinal detachments.**	57	1	Written		*		
			R3	A.2.5.12	Describes the features of **infectious endophthalmitis**	57	1	Written		*		
			R4	A.2.5.13	Requests special **ancillary testing** aiming to reach special diagnosis (e.g., FFA, ICG, PCR).	66	1	Written, Oral		*		*
			R4	A.2.5.14	Describes principles of **retinal detachment** recognition, various types of retinal detachment and retinal break.	67, 68	1	Written		*		
			R4	A.2.5.15	Describes and recognizes typical features of less common **macular** diseases (e.g., parafoveal telangiectasias, cone dystrophies, inherited macular dystrophies, fundus flavimaculatus, toxic maculopathies, vitreomacular traction).	68, 70	1	Written, oral		*		*
			R4	A.2.5.16	Describes indications for and complications of **laser** photocoagulation.	68	1	Written, oral		*		*

			R4	A.2.5.17	Describes the fundamentals, evaluations, and management of **peripheral retinal disease** and **vitreous** pathology (e.g., vitreous hemorrhage, retinal breaks) and the criteria to refer.	68	1	Written, Oral		*		*
			R4	A.2.5.18	Describes and evaluates, **choroidal detachments** and u**veal effusion syndrome**.	68	1	Written		*		
			R4	A.2.5.19	Identifies and evaluates **retinoschisis** (e.g., juvenile, senile).	68	1	Written		*		
			R4	A.2.5.20	Diagnoses and recognizes the complications of **retinopathy of prematurity** (e.g., retinal detachment).	68	1	Written, Oral		*		*
			R4	A.2.5.21	Diagnoses and evaluates the following retinal vascular diseases: a. A**rterial and venous obstructions.** b. **Diabetic retinopathy.** c. **Hypertensive retinopathy.** d. **Peripheral retinal vascular occlusive disease**. e. Acquired retinal vascular diseases. f. **Ocular ischemic syndrom**e. g. Sickle cell retinopathy.	68-69	1	Written, oral		*		*
			R4	A.2.5.22	Describes and recognizes common and uncommon macular disorders: a. **Age-related macular degeneration** (ARMD). b. **Choroidal neovascularization.** c. **High myopia.** d. **Macular dystrophies.** e. **Macular pucker** (e.g., epiretinal membrane). f. **Macularholes.** g. **Cystoid macular edema.** h. **Central serous choroidopathy (retinopathy).** i. **Optic pit and secondary serious detachment.** j. **Retinal pigment epithelial detachment.**	69	1	Written, oral		*		*
			R4	A.2.5.23	Describes, recognizes, and evaluates hereditary retinal and **choroidal disease**s (e.g., gyrate atrophy, choroideremia, retinitis pigmentosa, cone dystrophies, Stargardt's disease, Best's disease, congenital stationary night blindness).	69	1	Written		*		
			R4	A.2.5.24	Describes and evaluates **posterior uveitis** syndromes and **endophthalmitis**.	69	1	Written, oral		*		*
			R4	A.2.5.25	Describes the sequelae of open globe **injuries**, the mechanism of retinal detachment in this setting	69	1	Written, oral		*		*
			R4	A.2.5.26	Describes the indications for conventional in the treatment of **CSCR**.	69	1	Written		*		
			R4	A.2.5.27	Describes and recognizes **retinopathy of prematurity** (e.g., stages and treatment indications).	69	1	Written, oral		*		*
			R4	A.2.5.28	Understands the role and describes the indications of **intravitreal injections** (e.g., Avastin, Lucentis, and triamcinolone) as adjuvant therapy for macular edema complicating retinal vascular disease, retinal venous occlusive disease, and choroidal neovascularization.	69	1	Written, oral		*		*
			R4	A.2.5.29	Describes indications and interpret basic e**lectrophysiological tests** (e.g., electroretinogram [ERG], electrooculogram [EOG], visual evoked potential [VEP], dark adaptation).	69	1	Written, oral		*		*
			R4	A.2.5.30	Interprets basic **ocular imaging techniques** (e.g., B-scan echography, nerve fiber layer analysis).	70	1	Written, oral		*		*
			R4	A.2.5.31	Performs detailed fundus **drawings** of the retina with vitreoretinal relationships in the most complex retinal cases (e.g., recurrent retinal detachment, and retinoschisis with and without retinal detachment).	70, 71	2	Performance			*	
			R4	A.2.5.32	Independently performs vitreous **tap/biopsy** and intravitreal injection for endophthalmitis.	69, 71	2	Oral, Performance			*	*
			R4	A.2.5.33	Fully understands the indications for intravitreal **anti-VEGF** therapy and describes the diagnoses in which it can be used.	71	1	Written		*		
			R4	A.2.5.34	Has necessary knowledge to request appropriate **investigations**: a. Recognizes role of fluorescein angiogram, OCT, ICG, electrophysiology, and visual field testing in retinal diagnosis. b. Recognizes the role of ultrasound, CT, and MRI in retinal diseases.	70	1	Written, Oral		*		*
			R4	A.2.5.35	Recognizes **emergency retinal conditions** and how to manage them.	70	1	Written, Oral		*		*
		A.2.6 Uveitis	R3	A.2.6.1	Describes signs and symptoms of **anterior and posterior uveitis** (e.g., keratic precipitates, anterior chamber cells and flare, iris atrophy, transillumination, heterochromia and nodules, posterior vitreous haze and opacities, macular edema, snowbanking, retinal vasculitis, exudative retinal detachment, optic nerve head swelling, hyperemia and infiltration, retinitis, choroiditis).	58	1	Written, Oral		*		*
			R3	A.2.6.2	Describes differential diagnosis of **anterior uveitis** (e.g., juvenile idiopathic arthritis, HLA-B27 associated uveitis, Fuchs' heterochromic uveitis, herpetic, sarcoidosis, etc.).	58	1	Written, oral		*		*
			R3	A.2.6.3	Describes typical features and differential diagnosis of **posterior segment uveitis**: a. Behcet's disease. b. Vogt-Koyanagi-Harada disease and sympathetic ophthalmia. c. Sarcoidosis. d. Toxoplasmosis. e. Differential diagnosis of retinal vasculitis. f. Infectious disorders (e.g., Tuberculosis, acute retinal necrosis, human immunodeficiency virus and AIDS, syphilis, cytomegalovirus retinitis, herpes simplex, herpes zoster). g. Endophthalmitis. h. Masquerade syndromes.	58	1	Written, Oral		*		*
			R3	A.2.6.4	Describes the **classification of uveitis** (e.g., acute and chronic uveitis, granulomatous and non-granulomatous, anterior, intermediate, and posterior).	58	1	Written		*		
			R3	A.2.6.5	Describes the differential diagnosis and external manifestations of more complex **anterior segment inflammation** (e.g., acute and chronic iritis with and without systemic disease).	60	1	Written, Oral		*		*
			R3, R4	A.2.6.6	Diagnoses **acute uveitis** patients from an emergency point of view (e.g., usage of cycloplegic drops, complete fundus exam, requesting specific work up according to the differential diagnosis).	54, 66	1	Written, Oral		*		*

			R4	A.2.6.7	**Describes** complications of **uveitis**.	70	1	Written		*		
			R4	A.2.6.8	Describes different types of **endophthalmitis** (acute postoperative, chronic postoperative, post-traumatic, and endogenous).	70	1	Written		*		
		A.2.7 Pediatric	R1	A.2.7.1	Describe the indications for, and perform, **forced duction testing**.	43	1& 2	Written, Oral, Performance	*	*	*	*
			R1	A.2.7.2	Recognizes situations in which **examination under anesthesia** is necessary to clarify the diagnosis.	44	1	Written, Oral	*	*		*
			R1	A.2.7.3	Perform an assessment of saccade accuracy and smooth pursuit with **optokinetic testing.**	43	2	Oral, Performance			*	*
			R2	A.2.7.4	Describes basic examination techniques for **extra-ocular muscles** (e.g., ductions and versions, cover and uncover testing, alternate cover testing, prism cover testing).	48	1	Written	*	*		
			R2	A.2.7.5	Fills the orthoptic work up sheet with strabismus findings and to uses appropriate **orthoptic abbreviations**.	48	2	Oral, Performance			*	*
			R2	A.2.7.6	Describes evaluation of **vertical strabismus** (e.g., neurogenic, myogenic, neuromuscular junction, oblique overaction or underaction, dissociated vertical deviation, restrictive).	48	1	Written	*	*		
			R2	A.2.7.7	Describes different etiologies of **amblyopia** (e.g., deprivation, ametropic, strabismic, anisometropic, organic).	48	1	Written	*	*		
			R2	A.2.7.8	Describes etiologies of **esotropia** (e.g., congenital, comitant vs. incomitant, accommodative vs. non-accommodative, sensory, neurogenic, myogenic, neuromuscular junction, restrictive, nystagmus blockage syndrome, consecutive).	48	1	Written	*	*		
			R2	A.2.7.9	Describes etiologies of **exotropia** (e.g., congenital, comitant vs. incomitant, intermittent vs. constant, sensory, neurogenic, myogenic, neuromuscular junction, restrictive, basic, divergence excess, exophoria, convergence in sufficiency).	48	1	Written	*	*		
			R2	A.2.7.10	Describes etiologies of **vertical strabismus** (e.g., neurogenic, myogenic, neuromuscular junction, oblique overaction or underaction, dissociated vertical deviation, restrictive).	48	1	Written	*	*		
			R2	A.2.7.11	Describes etiologies & types of **pediatric cataracts**	49	1	Written	*	*		
			R2	A.2.7.12	Describes the pattern of **refractive errors in the pediatric** age group, their relation to ocular alignment.	49	1	Written	*	*		
			R2	A.2.7.13	Demonstrates the ability to diagnose **congenital glaucoma,** knows the contraindications of medications in pediatrics, and knows the differential diagnosis.	47	1	Written, Oral	*	*		*
			R2	A.2.7.14	Describes **vertical strabismus** patterns (e.g., A or V pattern).	48	1	Written, Oral	*	*		*
			R2	A.2.7.15	Describes different forms of childhood **nystagmus**.	48	1	Written, Oral	*	*		*
			R2	A.2.7.16	Describes common **congenital ocular motility or lid syndromes** (e.g., Duane syndrome, Marcus Gunn jaw winking, Brown syndrome),	49	1	Written, Oral	*	*		*
			R2	A.2.7.17	Describes basic evaluation of **decreased vision in infants and children** (e.g., retinopathy of prematurity, hereditary retinal disorders, congenital glaucoma, measles, and vitamin A deficiency).	49	1	Written, Oral	*	*		*
			R2	A.2.7.18	Describes identifiable **congenital ocular anomalies and systemic association** (e.g., microphthalmia, persistent fetal vasculature, optic nerve diseases).	49	1	Written, Oral	*	*		*
			R2	A.2.7.19	Describes features, classificationt indications of r**etinopathy and prematurity.**	48	1	Written, Oral	*	*		*
			R2	A.2.7.20	Describes and recognizes ocular findings in **child abuse** (e.g., retinal hemorrhages)	49	1	Written, Oral	*	*		*
			R2	A.2.7.21	Describes typical features of **retinoblastoma,** ancillary diagnostic tools, international classification.	49	1	Written, Oral	*	*		*
			R4	A.2.7.22	Develops comfort and confidence dealing with children, and fast, accurate **loose lens refraction.**	73	2	Performance			*	
			R4	A.2.7.23	Develops comfort and confidence in evaluating children with l**ens disorders**.	73	2	Oral, Performance				*
			R4	A.2.7.24	Develops familiarity with the **major syndromes** that involve the eye.	73	1	Written, Oral	*	*		*
			R4	A.2.7.25	Describes basics of **binocular sensory testing** (e.g., Titmus stereo test, Randot stereo test, Worth 4-dot, Bagolini lenses).	74	1	Written, Oral		*		*
			R4	A.2.7.26	Describes and recognizes different etiologies of **amblyopia.**	74	1	Written, Oral		*		
			R4	A.2.7.27	Describes and recognizes etiologies of **esotropia.**	74	1	Written		*		
			R4	A.2.7.28	Describes and recognizes etiologies of **exotropia**.	74	1	Written		*		
			R4	A.2.7.29	Describes etiologies & evaluation of **vertical strabismus** (e.g., neurogenic, myogenic, neuromuscular junction, oblique overaction or underaction, dissociated vertical deviation, restrictive, A & V pattern).	74	1	Written, Oral		*		*
			R4	A.2.7.30	Describes and recognizes the different forms of childhood **nystagmus** (e.g., sensory, motor, congenital, acquired).	74	1	Written, Oral		*		*
			R4	A.2.7.31	Describes and recognizes less common **hereditary or malformative ocular anomalies and syndromes** (e.g., Mobius, Goldenhar syndrome).	74	1	Written		*		
			R4	A.2.7.32	Describes the main features of **dyslexia** and its relationship to vision.	74	1	Written		*		
			R4	A.2.7.33	Describes & evaluates recognizable cause of **blindness in infants & childresn** (e.g., albinism, optic nerve hypoplasia, achromatopsia, Leber's congenital amaurosis, retinal dystrophy, congenital optic atrophy).	74	1	Written, Oral		*		*
			R4	A.2.7.34	Describes etiology and evaluation of **congenital infections** (e.g., toxoplasmosis, rubella, cytomegalovirus, syphilis, herpes).	74	1	Written, Oral		*		*
			R4	A.2.7.35	Describes and recognizes the common causes of **pediatric uveitis**.	74	1	Written, oral		*		*

			R4	A.2.7.36	Describes and performs the most **advanced strabismus examination techniques** (e.g., prism cover testing in multiple cranial neuropathies, patients with nystagmus, dissociated vertical deviation, double Maddox rod testing).	74	1& 2	Written, performacne		*	*	
			R4	A.2.7.37	Performs the most **advanced techniques of assessment of visual development in complicated or non-cooperative pediatric ophthalmology patients** (e.g., less common objective measures of visual acuity, electrophysiologic testing).	74	2	Performance			*	
			R4	A.2.7.38	Recognizes the most **complicated etiologies of amblyopia** (e.g., refraction non-compliance, patching failures, pharmacologic penalization).	74	1	Written, oral		*		*
			R4	A.2.7.39	Recognizes all etiologies of **esotropia** (e.g., post- surgical/consecutive).	74	1	Written, Oral		*		*
			R4	A.2.7.40	Recognize all etiologies of **exotropia** (e.g., supranuclear, consecutive, paralytic).	75	1	Written, Oral		*		*
			R4	A.2.7.41	Recognizes the most **complex strabismus patterns** (e.g., aberrant, regeneration, post-surgical, thyroid ophthalmopathy, and myasthenia gravis).	75	1	Written, Oral		*		*
			R4	A.2.7.42	Recognizes the most **complex etiologies of vertical strabismus** (e.g., skew deviation, post-surgical, restrictive).	75	1	Written, Oral		*		*
			R4	A.2.7.43	Recognizes and evaluates the **less common congenital ocular anomalies** (e.g., unusual genetic syndromes).	75	1	Written		*		
			R4	A.2.7.44	Recognizes **pediatric orbital diseases** (e.g., orbital tumors, orbital fractures, rhabdomyosarcoma, severe congenital orbital malformations).	75	1	Written, Oral		*		*
			R4	A.2.7.45	Assesses more **advanced ocular motility problems** (e.g., bilateral or multiple cranial neuropathy, myasthenia gravis, thyroid eye disease).	75	1	Written		*		
			R4	A.2.7.46	Performs more **advanced measurements of strabismus** (e.g., double Maddox rod testing, Lancaster red green testing, use of synoptophore or amblyoscope).	75	2	Oral, Performacne			*	*
			R4	A.2.7.47	Performs **assessment of vision in more difficult patients** (e.g., uncooperative child, mentally impaired, nonverbal or preverbal).	75	2	Oral, Performacne			*	*
			R4	A.2.7.48	Exercises surgical judgment for the **indications and contraindications for strabismus surgery.**	75	1	Written, Oral		*		*
			R4	A.2.7.49	Performs **pre-operative assessment and intraoperative techniqu**es and describe intraoperative and post-operative complications of strabismus surgery.	75	1, 2	Written, Oral, Performacne		*	*	*
			R4	A.2.7.50	Describes **indications for adjustable sutur**es in more complicated cases (e.g., thyroid ophthalmopathy).	75	1	Written		*		
			R4	A.2.7.51	Describes more complex **complications of strabismus surger**y (e.g., globe perforation, endophthalmitis, over correction).	75	1	Written, oral		*		*
		A.2.8 Oculoplastic	R1	A.2.8.1	Describe typical features of **orbital cellulitis.**	41	1	Written, Oral	*	*		*
			R1	A.2.8.2	To perform **pre-operative and post-operative assessment** of patients with common oculoplastic disorders.	41	2	Oral, Performance			*	*
			R1	A.2.8.3	To identify indications for, and to perform, the **basic assessment of the orbit** (e.g., hertel exophthalmometry, inspection, palpation, auscultation).	41	1&2	Written, performance	*	*	*	
			R1	A.2.8.4	To recognize different causes of **eyelids malposition.**	41	1	Written	*	*		
			R1	A.2.8.5	To identify indications for, and to perform, the basic **lacrimal assessment** (e.g., dye testing, punctal dilation, canalicular probing, lacrimal irrigation).	41	1&2	Written, Oral, performance	*	*	*	*
			R1	A.2.8.6	To describe the indications for and order appropriately **of radiology studies of the brain and orbits**, demonstrating the ability to communicate with radiologists in order to maximize both choice of proper diagnostic tests and accuracy of interpretation.	43	1	Written, Oral	*	*		*
			R1	A.2.8.7	Recognize localized **trichiasis.**	41	1	Written, Oral	*	*		*
			R1	A.2.8.8	To recognize **floppy eyelid syndrome.**	41	1	Written	*	*		
			R3	A.2.8.9	Recognizes common and uncommon **benign and malignant lid lesions.**	62	1	Written, Oral		*		*
			R3	A.2.8.10	Recognizes common **malpositions of the eyelids** (e.g., entropion, ectropion, and ptosis).	62	1	Written, Oral		*		*
			R3	A.2.8.11	Describes the clinical features and evaluation of **congenital eyelid deformities** (e.g., coloboma, distichiasis, epicanthus, telecanthus, blepharophimosis, ankyloblepharon, epiblepharon, eurylepharon, and Goldenhar, treacher-Collins, Waardenburg syndromes).	62	1	Written, Oral		*		*
			R3	A.2.8.12	Describes the clinical features and evaluation of **congenital orbital deformities** (e.g., anophthalmia, microphthalmia, cryptophthalmia, hypertelorism).	62	1	Written, Oral		*		*
			R3	A.2.8.13	Describes the mechanisms of more advanced eyelid, orbital, and lacrimal **trauma** (e.g., full thickness lid laceration, chemical burns to the face).	62	1	Written, Oral		*		*
			R3	A.2.8.14	Describes features of and evaluates more complicated cases of **nasolacrimal duct obstruction**, canaliculitis, dacryocystitis, acute and chronic dacryoadenitis, preseptal cellulitis, and orbital cellulitis.	62	1	Written, Oral		*		*
			R3	A.2.8.15	Recognizes, evaluates, **thyroid ophthalmopathy** (e.g., epidemiology, symptoms and signs; associated systemic diseases; orbital imaging; differential diagnosis; surgical, medical, and radiation indications; side effects of treatment)	62	1	Written, Oral		*		*
			R3	A.2.8.16	Recognizes, evaluates, orbital inflammatory **pseudotumor** (e.g., symptomsand signs, orbital imaging, differential diagnosis).	62	1	Written, Oral		*		*
			R3	A.2.8.17	Recognizes **blepharospasm and hemifacialspasm.**	62	1	Written, Oral		*		*

			R3	A.2.8.18	Recognizes less-common **orbital tumors** (e.g., metastatic lesions).	62		Written, Oral		*		*
			R3	A.2.8.19	Recognizes periorbital **changes with age** (e.g., dermatochalasis).	62	1	Written, Oral		*		*
			R3	A.2.8.20	Identifies indications for and performs more advanced assessment of **eyelids and eyebrows** (e.g., facial symmetry, brow ptosis).	63	1	Written, Oral		*		*
			R3	A.2.8.21	Identifies indications for and performs more a**dvanced lacrimal assessment** (e.g., interpretation of dye testing, canalicular probing in trauma).	63	1	Written		*		
			R3	A.2.8.22	Recognizes **orbital trauma** (e.g., intraorbital foreign body, retrobulbar hemorrhage, fracture).	63	1	Written, oral		*		*
			R3	A.2.8.23	Identifies **common orbital pathology** (e.g., orbital fractures, orbital tumors) **on imaging studies** (e.g., magnetic resonance imaging, computed tomography, ultrasound).	63	1	Written, oral		*		*
		A.2.9 Neuro	R1	A.2.9.1	Describe, detect, and quantitate a **relative afferent pupillary defect.**	43	1&2	Written, Performacne	*	*	*	
			R1 & R2	A.2.9.2	Describe the indications for confrontational & automated v**isual field testing,** and perform and interpret perimetry studies.	43, 47	1&2	Written, oral, Performacne	*	*	*	*
			R1	A.2.9.3	Describe the differential diagnosis, evaluation of **congenital optic nerve abnormalities** (e.g., optic pit, disc coloboma, papillorenal syndrome, morning glory syndrome, tilted disc, optic nerve hypoplasia, myelinated nerve fiber layer, melanocytoma, disc drusen, and Bergmeister's papilla).	43	1	Written, oral	*	*		*
			R1	A.2.9.4	List the differential diagnosis of **anisocoria** (e.g., sympathetic or parasympathetic lesion; "physiologic" or normal).	43	1	Written, oral	*	*		*
			R1	A.2.9.5	List the causes for **light-near dissociation** (e.g., diabetic neuropathy, tonic pupil, and Argyll-Robertson pupils).	43	1	Written, oral	*	*		*
			R1	A.2.9.6	Describe indications for, and perform, basic **pharmacologic pupillary testing** for Horner syndrome, pharmacologic dilation, and Adie's tonic pupil.	43	1&2	Written, Oral, Performacne	*	*		*
			R1	A.2.9.7	Assess the anterior visual pathways and ocular motor structures on **CT and MRI**	43	1	Written	*	*		
			R1	A.2.9.8	Describe the typical features, evaluation of the most common **optic neuropathies** (e.g., demyelinating optic neuritis; ischemic optic neuropathy [arteritic and non-arteritic]; toxic or nutritional optic neuropathy; Leber's hereditary optic neuropathy; ethambutol toxicity; neuroretinitis; and compressive, inflammatory, infiltrative, and traumatic optic neuropathies).	42	1	Written, Oral	*	*		*
			R1	A.2.9.9	Describe the typical features, evaluation, and management of the most common **ocular motor neuropathies** (e.g., third, fourth, and sixth nerve palsy).	42	1	Written, Oral	*	*		*
			R1	A.2.9.10	Describe the typical features of **cavernous sinus and superior orbital fissure syndromes** (e.g., infectious, vascular, neoplastic, inflammatory, and traumatic etiologies).	42	1	Written, Oral	*	*		*
			R1	A.2.9.11	Describe the typical features, evaluation, of the most common causes of **nystagmus** (e.g., infantile motor and sensory, downbeat, upbeat, gaze-evoked, and drug-induced).	42	1	Written, Oral	*	*		*
			R1	A.2.9.12	Describe the typical features, evaluation of the most common **pupillary abnormalities** (e.g., relative afferent pupillary defect, anisocoria, Horner syndrome, third nerve palsy, and Adie's tonic pupil).	42	1	Written, Oral	*	*		*
			R1	A.2.9.13	Describe the typical features, evaluation of the most common **visual field defects** (e.g., optic nerve, optic chiasm, optic radiation, and occipital cortex).	42	1	Written, Oral	*	*		*
			R1	A.2.9.14	Describe the clinical features, evaluation of ocular **myasthenia gravis**.	42	1	Written, Oral	*	*		*
			R1	A.2.9.15	Describe the clinical features, evaluation,of **carotid-cavernous fistula**.	43	1	Written, Oral	*	*		*
			R1	A.2.9.16	Describe the differential diagnosis & evaluation of **congenital optic nerve abnormalities** (e.g., optic pit, disc coloboma, papillorenal syndrome, morning glory syndrome, tilted disc, optic nerve hypoplasia, myelinated nerve fiber layer, melanocytoma, disc drusen, and Bergmeister's papilla).	43	1	Written, Oral	*	*		*
			R3	A.2.9.17	Describes typical and atypical features, evaluation of the most common **optic neuropathies** (e.g., papilledema, optic neuritis, ischemic, inflammatory, infectious, infiltrative, compressive, and hereditary optic neuropathies).		1	Written, oral		*		*
			R3	A.2.9.18	Describes typical and atypical features, evaluation of the more complex **supranuclear and internuclear palsies** and less common ocular **motor neuropathies** (e.g., progressive supranuclear palsy and internuclear ophthalmoplegia).		1	Written, oral		*		*
			R3	A.2.9.19	Describes typical and atypical features, evaluation of the more complex and less common forms of **nystagmus** (e.g., rebound, convergence- retraction).		1	Written, oral		*		*
			R3	A.2.9.20	Describes typical and atypical features, evaluation of the more complex and less common **pupillary abnormalities** (e.g., light-near dissociation, pharmacologic miosis and mydriasis).		1	Written, oral		*		*
			R3	A.2.9.21	Describes typical and atypical features, evaluation of the more complex and less common **visual field defects** (e.g., lateral geniculate, monocular temporal crescent).		1	Written, oral		*		*
			R3	A.2.9.22	Describes more advanced aspects of **visual field i**ndications, selection, and interpretation (e.g., artifacts of automated perimetry, testing, and thresholding strategies).		1	Written, oral		*		*

			R3	A.2.9.23	Describes neuro-ophthalmic aspects of common **systemic diseases** (e.g., hypertension, diabetes, thyroid disease, myasthenia gravis, temporal arteritis, systemic infections, and inflammation).		1	Written, oral		*		*
			R3	A.2.9.24	Describes neuro-ophthalmologic findings in **trauma** (e.g., traumatic optic neuropathy, traumatic strabismus).		1	Written, oral		*		*
			R3	A.2.9.25	Describes typical features of **inherited neuro-ophthalmologic diseases** (e.g., Leber's hereditary optic neuropathy, autosomal dominant optic atrophy, spinocerebellar degenerations).		1	Written, oral		*		*
			R3	A.2.9.26	Recognizes, evaluates ocular **myasthenia gravis**.		1	Written, oral		*		*
			R3	A.2.9.27	Describes the indications for, administers, and interprets the results of **intravenous edrophonium** (Tensilon and Prostigmine) tests for myasthenia gravis, and other tests used to diagnose myasthenia gravis (e.g., ice test).		1	Written, oral		*		*
			R3	A.2.9.28	Performs a detailed **cranial nerve evaluation** (e.g., testing of oculomotor, trochlear, trigeminal, and facial nerve function).		2	Written, oral			*	*
			R3	A.2.9.29	Describes the more advanced interpretation of **neuro-radiologic images** (e.g., indications and interpretation of orbital tumors, thyroid eye disease, pituitary adenoma, optic nerve glioma, optic nerve sheath meningioma).		1	Written, oral		*		*
			R3	A.2.9.30	Describes the evaluation, management, and **specific testing** (e.g., stereopsis, mirror test, red green testing) of patients with "functional" (non-organic) visual loss (e.g., recognize nonorganic spiral or tunnel visual fields).		1	Written, oral		*		*
			R3	A.2.9.31	Describe the indications and the complications of **temporal artery biopsy**.		1	Written, oral		*		*
	A.3 Management	**A.3.1 General**	R1	A.3.1.1	The resident should be able to manage, and treat the following clinical conditions, including, but not limited to: 2. **Conjunctivitis**—acute and chronic, bacterial and viral, and infectious and non- infectious. 3. **Keratitis**—bacterial and viral, and infectious and non-infectious. 4. **Uveitis**—acute and chronic, granulomatous and non-granulomatous, and anterior and posterior. 5. **Glaucoma**—all types. 6. **Cataract** diseases. 7. **Eye lid disorders**. 8. Common **retinal disease**, including: i. Retinal detachment and retinal breaks. ii. Diabetic retinopathy. iii. Retinal vein occlusions and arterial occlusions. 9. AION and temporal arteritis. 10. Thyroid eye diseases. 11. Traumatic ocular injuries. 12. Removal of corneal foreign bodies. 13. Management and treatment of chemical eye injuries. 14. Diagnose and treat ocular emergencies: i. Ruptured globes. ii. Globe perforation and penetration.	38	1	Written & oral	*	*		*
					iii. Acute angle-closure glaucoma. iv. Central retinal artery occlusion. 15. Familiarity with common **ophthalmic medications**, including indications and contra-indications: viii. Diagnostic drops. ix. Topical anti-infectives. x. Other topical drops. xi. Topical steroids. xii. Topical glaucoma medications. xiii. Oral ocular hypotensive medications—carbonic anhydrase inhibitors and hyperosmotics. xiv. Oral steroids.							
			R1	A.3.1.2	have the knowledge to appropriately manage patients who need **tertiary care,** either to a sub-specialist in ophthalmology or other specialties if required.	37	1	Written & oral	*	*		*
			R1	A.3.1.3	To know to manage complications of various types of **anesthesia** used in ocular surgeries.	39	1	Written & oral	*	*		*
			R1	A.3.1.4	Able to effectively manage most common & **emergency** ophthalmic problems, and be able to develop a treatment plan for such patients	37, 40	1	Written & oral	*	*		*
			R1	A.3.1.5	Residents learn to function independently and manage a wide variety of **ocular pathology and ocular trauma** at an early point in their ophthalmic training.	40	3	Observational				
			R1	A.3.1.6	**Preparation for OR**: Residents are expected to demonstrate the following attributes: • Punctuality. • Knowledge about each case. • Knowledge about instruments and their appropriate use. • Minimizes tissue trauma in surgery. • Appropriate speed of surgery. • Knows own limits. • Listens and learns from instruction. • Assists well, anticipating appropriately. • Interacts effectively with all members of OR staff.	42	3	Observational				
			R1	A.3.1.7	Counsel family appropriately in important **ocular genetic** areas at the level of counseling.	44	2	Oral, Performacne			*	*
			R2	A.3.1.8	Develops experience in management of **common ocular emergencies.**	46	1	Written, Oral	*	*		*
			R2	A.3.1.9	Participates in implementing a **management plan.**	46	3	Observational				
			R3	A.3.1.10	Participates in implementing a **management plan.**	54	3	Observational				
			R3	A.3.1.11	Manages very urgent **ocular emergency** (e.g., endophthalmitis, acute angle-closure glaucoma, and pupil involvement in third cranial nerve palsy).	54	1	Written, Oral		*		*
			R3	A.3.1.12	Manages or participates in the management of **surgical cases that present to the ER** (e.g., endophthalmitis, corneal laceration, lid laceration, and removal of corneal foreign body).	54	1, 2	Written, Oral, Performance		*	*	*

			R3	A.3.1.13	Interprets the results of the requested **tests** and manages the patients accordingly (e.g., B-scan result and culture results).	54	1	Written, Oral		*		*
			R3	A.3.1.14	Manages **acute uveitis** patients from an emergency point of view (e.g., usage of cycloplegic drops, complete fundus exam, requesting specific work up according to the differential diagnosis).	54	1	Written, Oral		*		*
			R3	A.3.1.15	Performs **emergency laser treatment** after consulting the subspecialty on-call (e.g., YAG PI [peripheral iridotomy], first session of PRP [panretinal photocoagulation] in severe PDR [proliferative diabetic retinopathy] cases).	54	2	Oral, Performacne				*
			R4	A.3.1.16	Manages **very urgent ocular emergencies** (e.g., endophthalmitis, acute angle-closure glaucoma, pupil evolved 3rd cranial N. palsy) and understands the appropriate triaging of patients.	66	1	Written, Oral		*		*
			R4	A.3.1.17	Manages or participates in management of **surgical cases that present to the ER** (e.g., endophthalmitis, corneal laceration, lid laceration, and removal of corneal foreign body).	66	1	Written, Oral		*		*
			R4	A.3.1.18	Interprets the results of the requested **tests** and manages patients accordingly (e.g., B-scan result, FFA results, OCT, and PCR).	66	1	Written, Oral		*		*
			R4	A.3.1.19	Manages **acute uveitis** patients from an emergency point of view (e.g., use of cycloplegic drops, complete fundus exam, requesting specific work up according to the differential diagnosis).	66	1	Written, Oral		*		*
			R4	A.3.1.20	Performs **emergency laser treatmen**t after consulting the subspecialty on-call (e.g., YAG PI, first session of PRP in severe PDR cases).	66	2	Oral, Performacne				*
			R4	A.3.1.21	Performs **intravitreal injection** for endophthalmitis.	66	2	Oral, Performacne			*	*
		A.3.2 Anterior segment	R2	A.3.2.1	Manages very urgent ocular **emergency** (e.g., chemical burns).	46	1	Written, Oral				*
			R2	A.3.2.2	Familiar with the techniques of extracapsular **cataract** extraction and phacoemulsification.	51	1	Written, Oral				*
			R2	A.3.2.3	Treats **lid margin disease** (e.g., staphylococcal blepharitis, meibomian gland dysfunction).	51	1	Written, Oral				*
			R2	A.3.2.4	Describes the treatment of **superficial punctuate keratitis** (e.g., dry eye, Thygeson's superficial punctate keratopathy, blepharitis, toxicity, ultraviolet photo keratopathy, contact lens related).	52	1	Written, Oral				*
			R2	A.3.2.5	Performs **local injections** of corticosteroids, antibiotics, and anesthetics.	52	2	Performance			*	
			R2	A.3.2.6	Implements the **basic preparatory procedure for cataract surgery** (e.g., obtaining informed consent, identification of instruments, sterile technique, gloving and gowning, prep and drape, and other pre-operative preparation).	52	2	Oral, Performance			*	*
			R2	A.3.2.7	Familiarity with the **operating microscope** and knows how to use the foot pedal.	52	2	Performance				
			R2	A.3.2.8	Assists in **cataract surgery,** including ECCE and phacoemulsification.	52	2	Performance				
			R2	A.3.2.9	Performs **phacoemulsification** in a practice setting (e.g., animal or wet lab).	52	2	Oral, Performance				
			R2	A.3.2.10	Performs the following **steps of cataract surgery** under direct supervision, including any or all of the following: a. Wound construction. b. Anterior capsulotomy/capsulorhexis. c. Installation and removal of viscoelastics. d. Phacoemulsification, nuclear disassembly, and lens expression. e. Cortical cleanup. f. IOLimplantation.	52	2	Performance				*
			R2	A.3.2.11	Performs primary **pterygium excision.**	52	2	Oral, Performance			*	*
			R2	A.3.2.12	Performs an **isolated corneal laceration repair** (e.g., linear laceration not extending to limbus).	52	2	Oral, Performance			*	*
			R2	A.3.2.13	Knows the medical treatment of **hyphema and microhyphema.**	52	1	Written, Oral	*	*		*
			R3	A.3.2.14	Confirms the knowledge obtained in previous levels of the common **complications of cataract** and anterior segment surgery (e.g., intraocular pressure elevations, hyphema, endophthalmitis, cystoid macular edema, retinal detachment, intraocular lens dislocation, lens-induced glaucoma, and uveitis).	60	1	Written, Oral		*		*
			R3	A.3.2.15	Describes surgical indications of **hyphemas.**	61	1	Written		*		
			R3	A.3.2.16	Treats complex **corneal lacerations** (e.g., lacerations extending beyond the limbus).	61	2	Performance			*	
			R3	A.3.2.17	Describes the **instruments and techniques** of cataract extraction, including extra- capsular-surgery and phacoemulsification (e.g., trouble-shooting the phacoemulsification machine, altering the machine parameters).	59	1	Written, Oral		*		*
			R3	A.3.2.18	Describes the types, indications, and techniques of **anesthesia for cataract surgery** (e.g., topical, local, general).	59	1	Written, Oral		*		*

			R3	A.3.2.19	Describes indications, techniques, and complications of **surgical procedures**, including a. Extracapsular surgery. b. Intracapsular surgery. c. Phacoemulsification. d. Paracentesis. e. IOL implantation.	59	1	Written, Oral		*		*
			R3	A.3.2.20	Certain of knowledge regarding the indications, principles, and techniques of **YAG laser capsulotomy**, and understands the proper timing of YAG laser capsulotomy.	60	1	Written, Oral		*		*
			R3	A.3.2.21	Treats **peripheral corneal thinning** (e.g., inflammatory, degenerative, dellen-related, infectious, immunologic)	60	1	Written, Oral		*		*
			R3	A.3.2.22	Treats less common corneal or conjunctival presentations of **degenerations** (e.g., inflamed, atypical or recurrent pterygium, band keratopathy).	60	1	Written, Oral		*		*
			R3	A.3.2.23	Describes management of **Bitot's spots.**	60	1	Written, Oral		*		*
			R3	A.3.2.24	Describes the management of **Thygeson's uperficial punctuate keratopathy.**	60	1	Written, Oral		*		*
			R3	A.3.2.25	Describes treatment of **interstitial keratitis** (e.g., yphilis, viral diseases, non-infectious, immunologic, inflammation).	60	1	Written, Oral		*		*
			R3	A.3.2.26	Describes topical and systemic antibiotic treatment of **trachoma** (especially in hyperendemic regions), and surgery (e.g., tarsal rotations).	60	1	Written, Oral		*		*
			R3	A.3.2.27	Treats **corneal lacerations** (perforating and non-perforating).	61	1	Written, Oral		*		*
			R3	A.3.2.28	Treats large, recurrent, or **atypical pterygia** that may require surgery.	61	1	Written, Oral		*		*
			R3	A.3.2.29	Treats **chronic conjunctivitis** (e.g., chlamydia, trachoma, molluscumcontagiosum, Parinaud's oculoglandular syndrome, ocular rosacea).	61	1	Written, Oral		*		*
			R3	A.3.2.30	Describes the treatment of **ocular cicatricial pemphigoid.**	61	1	Written, Oral		*		*
			R3	A.3.2.31	Treats the ocular complications of **severe disease**s, such as chronic exposure keratopathy, contact dermatitis, and Stevens-Johnson syndrome.	61	1	Written, Oral		*		*
			R3	A.3.2.32	Recognizes and treats **complex corneal lacerations** (e.g., lacerations extending beyond the limbus).	61	1	Written, Oral		*		*
			R3	A.3.2.33	Describes the epidemiology, clinical features, pathology, evaluation, and treatment of **peripheral corneal thinning of ulceration** (e.g., Terrien's marginal degeneration, Mooren's ulcer, rheumatoid arthritis-related corneal melt).	61	1	Written, Oral		*		*
			R3	A.3.2.34	Performs **extracapsular surgery** in uncomplicated cases and start undertaking some steps in difficult cases (e.g., corneal scaring).	61	2	Oral, Performance				*
			R3	A.3.2.35	Performs **phacoemulsification** in a practice setting (e.g., animal or practice lab) and then in the operating room under supervision, including mastery of the following skills: a. Wound construction. b. Anterior capsulotomy. c. Installation and removal of viscoelastics. d. Extracapsular technique. e. Beginning phacoemulsification techniques (e.g., sculpting, divide and conquer, phaco-chop). f. Irrigation and aspiration. g. Cortical cleanup. h. IOL implantation (e.g., anterior and posterior chamber and special IOLs).	61	2	Oral, Performance				*
			R3	A.3.2.36	Performs **techniques** that include keratometry, keratoscopy, endothelial cell count and evaluation, specular microscopy, and pachymetry.	61	2	Oral, Performance				*
			R3	A.3.2.37	Performs **stromal micropuncture.**	61	2	Oral, Performance			*	*
			R3	A.3.2.38	Performs application of **corneal glue.**	61	2	Oral, Performance			*	*
			R3	A.3.2.39	Performs more complex **pterygium** excision, including conjunctival grafting.	62	2	Oral, Performance				*
			R3	A.3.2.40	Performs manual **superficial or lamellar keratectomy.**	62	2	Oral, Performance				*
			R3	A.3.2.41	Performs **more complex corneal laceration repair** (e.g., stellate perforating laceration).	62	2	Oral, Performance			*	*
			R4	A.3.2.42	Describes the techniques and complications of **more advanced anterior segment surgery** (e.g., pseudoexfoliation, small pupils, mature cataract, hard nucleus, black cataract, post-traumatic, zonular dehiscence, secondary IOLs, indications for premium IOLs, capsular tension rings, iris hooks, use dye to stain the anterior capsule).	72	1	Written, Oral		*		*
			R4	A.3.2.43	Describes the indications, techniques, and complications of **cataract extraction combined with other ocular disease:** glaucoma (e.g., combined cataract and glaucoma procedures, glaucoma in cataractous eyes, cataract surgery in patients with prior glaucoma surgery), retina (e.g., cataract surgery in patients with scleral buckle or prior vitrectomy), cornea (e.g., cataract extraction in patients with corneal opacities), ophthalmic plastic surgery (e.g., ptosis following cataract surgery), and refractive surgery (e.g., cataract surgery in eyes that have undergone refractive surgery).	72	1	Written, Oral		*		*
			R4	A.3.2.44	Treats the most severe **corneal exposure** cases.	72	1	Written, Oral		*		*

			R4	A.3.2.45	Manages **postoperative corneal surgery complications** (especially immunologically-mediated rejection).	72	1	Written, Oral		*		*
			R4	A.3.2.46	Comfortable in performing **phacoemulsification** in straightforward cases and encouraged to start undertaking more complex cases (e.g., poor pupil dilation).	73	2	Performance				
			R4	A.3.2.47	Performs **implantation of different IOL** design (e.g., foldable 1-piece or 3-piece IOL).	73	2	Oral, Performance				*
			R4	A.3.2.48	Deals with **intraoperative complications** under direct supervision.	73	1, 2	Written, Oral		*		*
			R4	A.3.2.49	Manage patients with **traumatic cataract**, including pre-op, intra-op, and post-op management.	73	1, 2	Written, Oral		*		*
			R4	A.3.2.50	Performs **intravitreal tap and injects** for endophthalmitis when it is indicated.	73	2	Oral, Performance			*	*
			R4	A.3.2.51	Performs other **complex ocular surface surgery** (e.g., amniotic membrane, conjunctival autograft).	73	2	Oral, Performance			*	*
			R4	A.3.2.52	Performs **basic non-laser refractive surgery techniques** (e.g., relaxing keratotomy and astigmatic keratotomy).	73	2	Oral, Performance				*
			R4	A.3.2.53	Manages and treats more complex neoplasms of the conjunctiva (e.g., carcinoma, melanoma).	73	1, 2	Written, Oral		*		*
		A.3.3 Optics & refraction	R1	A.3.3.1	All Topics	39, 40	1, 2	Written, Oral, Performance		*	*	*
		A.3.4 Glaucoma	R2	A.3.4.1	Knows the initial steps in managing **leaking bleb and blebitis**, and identifies bleb-related endophthalmitis.		1	Written, Oral	*	*		*
			R2	A.3.4.2	Then assists performing **YAG laser** iridotomy, and must know laser settings and lenses used.	47	2	Oral, Performance				*
			R2	A.3.4.3	Assists and then starts performing the **initial steps for the following procedures** under close supervision: a) Simple primary trabeculectomy. b) Suture lysis following trabeculectomy ;must know laser settings and lenses used. c) Bleb management (bleb needling or autologous blood injection).	47	2	Oral, Performance				*
			R3	A.3.4.4	Describes the **treatment of, more complex glaucomas** (e.g., angle recession, inflammatory, steroid-induced, pigmentary, pseudoexfoliative, phacolytic, neovascular, post-operative, lens particle glaucomas, plateau iris, glaucomatocyclitic crisis, iridocorneal endothelial syndromes, and aqueous misdirection).	55	1	Written, Oral		*		*
			R3	A.3.4.5	Performs **YAG or argon laser** procedures in more advanced glaucoma patients (e.g., acute angle closure, hazy cornea repeat laser, vitreous lysis, suture lysis).	55	2	Oral, Performance				*
			R3	A.3.4.6	Prepares the patient for **laser and surgeries** (i.e., starting medications, postoperative medications, requests antimetabolites, knows the doses, and realizes the need for certain management of patients, such as post-cataract diabetics).	55	1, 2	Written, Oral		*		*
			R3	A.3.4.7	Performs **cyclophotocoagulation** for more advanced cases (e.g., prior surgery, monocular); performs routine and repeat trabeculectomy with or without antimetabolites.	55	2	Oral, Performance				*
			R3	A.3.4.8	Describes, manages, and treats surgically, if necessary, a **flat anterior chamber.**	55	1, 2	Written, oral, Performance		*		*
			R3	A.3.4.9	Treats complications of **glaucoma surgery.**	55	1, 2	Written, Oral, Performance		*		*
			R3	A.3.4.10	Performs **digital massag**e of the globe (CRAO management).	58	2	Oral, Performance			*	*
			R3	A.3.4.11	Performs anterior chamber **paracentesis** in phakic and aphakic eyes (CRAO management).	58	2	Oral, Performance			*	*
			R3	A.3.4.12	Masters the techniques of **panretinal photocoagulation.**	59	2	Oral, Performance				*
			R3	A.3.4.13	Starts performing **intravitreal injection**	59	2	Oral, Performance			*	*
			R4	A.3.4.14	Treats less common etiologies of ocular **hypotony.**	67	1	Written, Oral		*		*
			R4	A.3.4.15	Describes the principles of **laser treatments of glaucoma** (e.g., indications, techniques, and complications, and use of various types of laser energy, spot size, laser wavelengths).	67	1	Written, Oral		*		*
			R4	A.3.4.16	Describes the **surgical treatment of glaucoma**: (e.g., trabeculectomy, combined cataract and trabeculectomy and cyclodestructive procedures, including indications, techniques and complications).	67	1	Written, Oral		*		*
			R4	A.3.4.17	Describes and applies specific **medical treatment**s for more advanced and complex forms of primary and secondary open-angle glaucoma and angle-closure glaucoma.	67	1	Written, Oral		*		*
			R4	A.3.4.18	Describes the **aqueous humor dynamic**s and their treatment in the more advanced and complex etiologies of glaucoma (e.g., angle recession, combined or multifactorial glaucoma, traumatic or inflammatory glaucoma, pigmentary dispersion glaucoma).	67	1	Written		*		
			R4	A.3.4.19	Performs **combined procedures** (e.g., Trab + Phaco or ECCE).	67	2	Oral, Performance				*
			R4	A.3.4.20	Assists and then performs some steps in **advanced procedures** (e.g., glaucoma drainage devices, non-penetrating surgeries).	67	2	Oral, Performance				*
			R4	A.3.4.21	Understands the indications and complications of **tube surgeries**, and is able to perform the procedure's steps under direct supervision.	67	1	Written, Oral		*		*
		A.3.5 Retina	R2	A.3.5.1	Describes treatment indications of r**etinopathy and prematurity.**	48	1	Written, Oral,	*			*
			R2	A.3.5.2	Manage **emergency retinal condition**s.	50	1	Written, Oral,	*			*
			R2	A.3.5.3	Familiarity with management of ocular **trauma** and surgical **complications**.	50	1	Written, Oral,	*			*
			R2	A.3.5.4	could counsel family appropriately in important ocular **genetic** areas.	50	2	Written, Oral, Performance	*	*	*	*
			R2	A.3.5.5	Manage **emergency retinal** conditions.	50	1	Written, Oral	*			*
			R3	A.3.5.6	Enumerates the causes of **peripheral retinal neovascularizatio**n and their management.	57	1	Written		*		*
			R3	A.3.5.7	Describes the management of **infectious endophthalmitis**	57	1	Written, Oral		*		*

			R3	A.3.5.8	Describes the indications, techniques, and complications of **intravitreal injections**	58	1	Written, Oral		*		*
			R4	A.3.5.9	Describes the basics of **surgical vitrectomy** (e.g.,mechanics instruments, and technique).	69	1	Written, Oral		*		*
			R4	A.3.5.10	Describes th emanagement of **retinal detachment & retinal breaks**	67	1	Written, Oral		*		*
			R4	A.3.5.11	Treats c**horoidal detachments** and **uveal effusion syndrome.**	68	1	Written, Oral		*		*
			R4	A.3.5.12	Treats the complications of **retinopathy of prematurity** (e.g., retinal detachment).	68	1	Written, Oral		*		*
			R4	A.3.5.13	Treats the following retinal vascular diseases: a. **Arterial and venous obstructions.** **b. Diabetic retinopathy.** **c. Hypertensive retinopathy.** **d. Peripheral retinal vascular occlusive disease. e. Acquired retinal vascular diseases.** **f. Ocular ischemic syndrome**. g. Sickle cell retinopathy.	68-69	1	Written, Oral		*		*
			R4	A.3.5.14	Describes the techniques for **retinal detachment repair** (e.g., pneumatic retinopexy, scleral buckling, vitrectomy).	69	1	Written, Oral		*		*
			R4	A.3.5.15	Describes the basics of **surgical vitrectomy** (e.g., indications, mechanics instruments, and technique).	69	1	Written, Oral		*		*
			R4	A.3.5.16	Performs peripheral scatter **photocoagulation** (sector or panretinal).	69	2	Oral, Performance				*
			R4	A.3.5.17	Describes the fundamentals of **special vitreoretinal techniques**: a. Macular hole repair. b. Epiretinal membrane peeling. c. Complex vitrectomy for proliferative vitreoretinopathy. d. Use of heavy liquids and intraocular gases (e.g., perfluorocarbons).	69	1	Written		*		
			R4	A.3.5.18	Treats **posterior uveitis syndromes** and **endophthalmitis.**	69	1	Written, Oral		*		*
			R4	A.3.5.19	Assists in performing s**cleral buckling**.	69	2	Performance				
			R4	A.3.5.20	Treats **infectious endophthalmitis**.	69	2	Written, Oral		*		*
			R4	A.3.5.21	Performs **intravitreal injection** for endophthalmitis.	69	2	Oral, Performance			*	*
			R4	A.3.5.22	Describes the management of retinal breaks and rhegmatogenous retinal detachment in blunt **closed globe injuries**	69	1	Written, Oral		*		*
			R4	A.3.5.23	Describes the principles of **vitrectomy** in retinal detachment with open globe injuries.	69	1	Written, Oral		*		*
			R4	A.3.5.24	Masters indications of **prophylactic laser therapy** for peripheral retinal lesions.	69	1	Written, Oral		*		*
			R4	A.3.5.25	Describes and recognizes **retinopathy of prematurity** (e.g., stages and treatment indications).	69	1	Written, Oral		*		*
			R4	A.3.5.26	Performs **laser retinopexy** (demarcation) for isolated retinal breaks.	70	2	Oral, Performance				*
			R4	A.3.5.27	Performs **laser therapy for ROP**.	70	2	Oral, Performance				*
			R4	A.3.5.28	Performs **cryotherapy** of retinal holes and other pathology.	70	2	Oral, Performance				*
			R4	A.3.5.29	Describes indications, techniques, and complications of **pars plana vitrectomy** and assists in a **retinal surger**y or **performs part of the procedure** under supervision.	71	1, 2	Written, Oral,		*		*
			R4	A.3.5.30	Performs **intravitreal injections** of antibiotics/steroids and other treatment agents.	71	2	Oral, Performance			*	*
			R4	A.3.5.31	Starts to perform **macular laser** in macular edema in DME and BRVO.	71	2	Oral, Performance				*
			R4	A.3.5.32	Performs posterior segment **photocoagulation** in more complicated retinal cases: a. Diabetic focal/grid macular treatment (e.g., monocular patient, repeat treatment). b. Repeat peripheral scatter photocoagulation (panretinal). c. Laser retinopexy (demarcation) of large or multiple breaks; cryotherapy. d. LIO for ROP.	71	2	Oral, Performance				*
			R4	A.3.5.33	Independently performs **intravitreal injections** for diabetic macular edema, CNV, and retinal vein occlusion.	71	2	Oral, Performance			*	*
		A.3.6 Uveitis	R4	A.3.6.1	Describes management of **uveitis**.	70	1	Written, Oral		*		*
			R4	A.3.6.2	Describes (or develops an understanding of) management of **macular diseases.**	70	1	Written, Oral		*		*
			R4	A.3.6.3	Recognizes **emergency retinal** conditions and how to manage them.	70	1	Written, Oral		*		*
			R4	A.3.6.4	Undertakes **periocular injections.**	71	1	Written, Oral		*		*
		A.3.7 Pediatric	R2	A.3.7.1	Describes **child abuse** (e.g., retinal hemorrhages) and appropriately refers to child protective services or other authorities.	49	1	Written, Oral	*	*		*
			R2	A.3.7.2	Describes current modalities of treatment **retinoblastoma,** .	49	1	Written, Oral	*	*		*
			R2	A.3.7.3	Describes **principles of treatment** (e.g., congenital, comitant vs. incomitant, accommodative vs. non-accommodative, sensory, neurogenic, myogenic, neuromuscular junction, restrictive, nystagmus blockage syndrome, consecutive).	48	1	Written, Oral	*	*		*
			R2	A.3.7.4	Describes principles of **treatment** (e.g., congenital, comitant vs. incomitant, intermittent vs. constant, sensory, neurogenic, myogenic, neuromuscular junction, restrictive, basic, divergence excess, exophoria, convergence in sufficiency).	48	1	Written, Oral	*	*		*
			R2	A.3.7.5	Describes management of **vertical strabismus** (e.g., neurogenic, myogenic, neuromuscular junction, oblique overaction or underaction, dissociated vertical deviation, restrictive).	48	1	Written, Oral	*	*		*
			R2	A.3.7.6	Describes **non-surgical treatment** of strabismus.	48	1	Written, Oral	*	*		*
			R2	A.3.7.7	Describes **pediatric cataracts**, surgical indications, and appropriate optical correction based on the age of the patients.	49	1	Written, Oral	*	*		*
			R2	A.3.7.8	Describes the pattern of **refractive errors** in the pediatric age group and principles of their management.	49	1	Written, Oral	*	*		*
			R2	A.3.7.9	Describes and recognizes ocular findings in **child abuse** (e.g., retinal hemorrhages) and appropriately refers to child protective services or other authorities.	49	1	Written, Oral	*	*		*

			R2	A.3.7.10	Describes current modalities of treatment typical features of **retinoblastoma.**	49	1	Written, Oral	*	*		*
			R2	A.3.7.11	Assists a primary surgeon in performing extraocular muscle **surgery** and other surgeries in the pediatric ophthalmology field and participates in some steps, including: a. b. c. d. e. Recession. Resection. Muscleweakening(e.g.,tenotomy)andstrengthening(e.g.,tuck)procedures. Transposition. Is familiar with the appropriate uses, doses, and side effects of botulinum toxin Type A (Oculinum) in strabismus. f. Cataract surgery in pediatric age group. g. Congenital glaucoma surgeries.	49	2	Oral, Performance				*
			R3	A.3.7.12	Identifies the more complex, **congenital abnormalities of the cornea, sclera, and globe** (e.g., hamartomas and choristomas).	60	1	Written, Oral		*		*
			R4	A.3.7.13	Develops competence in principles of **genetic counseling** pertaining to major ophthalmological conditions.	73	2	Performance			*	
			R4	A.3.7.14	Develop surgical competence in the management of pediatric and adult comitant and incomitant **strabismus** including formulation of surgical plan; discussion for consent, including complications and their management; rectus muscle surgery, and post- operative management.	73	2	Oral, Performance				*
			R4	A.3.7.15	Develops comfort and confidence in managing children with **lens disorders.**	73	1	Written, Oral		*		*
			R4	A.3.7.16	Develops comfort and confidence in **prescribing glasses** for children.	73	1	Written		*		
			R4	A.3.7.17	Describes etiologies, evaluation, and management of **vertical strabismus** (e.g., neurogenic, myogenic, neuromuscular junction, oblique overaction or underaction, dissociated vertical deviation, restrictive).	74	1	Written, Oral		*		*
			R4	A.3.7.18	Describes and uses the **non-surgical treatments, strabismus and amblyopia** (e.g., patching, atropine penalization, Fresnel, and grind-in prism therapy).	74	1	Written, Oral		*		*
			R4	A.3.7.19	Describes management of **congenital infections** (e.g., toxoplasmosis, rubella, cytomegalovirus, syphilis, herpes).	74	1	Written, Oral		*		*
			R4	A.3.7.20	Treats the most **complicated etiologies of amblyopia** (e.g., refraction non-compliance, patching failures, pharmacologic penalization).	74	1	Written, Oral		*		*
			R4	A.3.7.21	Helps treating all etiologies of **esotropia** (e.g., post- surgical/consecutive).	74	2	Oral, Performance				*
			R4	A.3.7.22	Helps treating all etiologies of **exotropia** (e.g., supranuclear, consecutive, paralytic).	75	2	Oral, Performance				*
			R4	A.3.7.23	Recognizes the most complex s**trabismus patterns and principle of treatment** (e.g., aberrant, regeneration, post-surgical, thyroid ophthalmopathy, and myasthenia gravis).	75	1	Written, Oral		*		*
			R4	A.3.7.24	Treats the most **complex etiologies of vertical strabismus** (e.g., skew deviation, post-surgical, restrictive).	75	1	Written, Oral		*		*
			R4	A.3.7.25	Applies **non-surgical treatment** (e.g., patching, atropine penalization) of more complicated forms of amblyopia (e.g., non-compliant, patching failures).	75	1	Written, Oral		*		*
			R4	A.3.7.26	Recognizes and understands principles of treatment for **complex pediatric glaucoma.**	75	1	Written, Oral		*		*
			R4	A.3.7.27	Recognizes complex **pediatric eyelid disorder**s (e.g., congenital deformities, lid lacerations, lid tumors).	75	1	Written, Oral		*		*
			R4	A.3.7.28	Treats (or refer) **pediatric orbital diseases** (e.g., orbital tumors, orbital fractures, rhabdomyosarcoma, severe congenital orbital malformations).	75	1	Written, Oral		*		*
			R4	A.3.7.29	Recognizes the pattern of **refractive errors** in children and prescribe glasses.	75	1	Written		*		
			R4	A.3.7.30	Performs the following strabismus **surgeries:** a. Recession. b. Resection. c. Muscle weakening (e.g.,tenotomy) and strengthening (e.g.,tuck) procedures. d. Transposition.	75	2	Oral, Performance				*
			R4	A.3.7.31	Manages the **complication of strabismus surgery** (e.g., slipped muscle, anterior segment ischemia).	75	1	Written, Oral		*		*
			R4	A.3.7.32	Familiarity with the appropriate uses, doses, and side effects of **botulinum toxin Type A** in strabismus.	75	1	Written, Oral		*		*
			R4	A.3.7.33	Describes and performs the **pre-operative assessment and intraoperative techniques**, and describe p**ostoperative complication**s for more complicated strabismus surgery (e.g., re-operation, slipped muscle).	75	1, 2	Written & Oral		*		*
			R4	A.3.7.34	**Describes** fully principles of management of **pediatric cataract** (including evaluation for causes, evaluation for significance, timing and type of surgery, and options for aphakia correction).	75	1	Written & Oral		*		*
			R4	A.3.7.35	Manages more complex **complications of strabismus surger**y (e.g., globe perforation, endophthalmitis, over correction).	75	1, 2	Written, Oral, performance		*		*
			R4	A.3.7.36	Performs accurate **cycloplegic refraction** and prescribes glasses for children whenever needed.	75	2	Written, Performance		*	*	
		A.3.8 Oculoplastic	R1	A.3.8.1	Treat **floppy eyelid syndrome.**	41	1	Written		*		
			R1	A.3.8.2	Treat localized **trichiasis.**	41	1	Written		*		
			R1	A.3.8.3	To perform small lid and **conjunctival procedures** (e.g., removal of benign eyelid skin lesions, chalazion curettage, or excision), epilation, lateral tarsorrhaphy. Simple incisional or excisional biopsy of a lid lesion.	41	2	Performance			*	
			R1	A.3.8.4	To assesst and do some steps in dacryocystorhinostomy (**DCR**)	41	2	Oral, Performance				*
			R3	A.3.8.5	Treats common **malpositions of the eyelids** (e.g., entropion, ectropion, and ptosis).	62	1	Written, Oral		*		*
			R3	A.3.8.6	Treat common and uncommon **benign and malignant lid lesions.**	62	1	Written, Oral		*		*

			R3	A.3.8.7	Describes the treatment of **congenital eyelid deformities** (e.g., coloboma, distichiasis, epicanthus, telecanthus, blepharophimosis, ankyloblepharon, epiblepharon, euryblepharon, and Goldenhar, treacher-Collins, Waardenburg syndromes).	62	1	Written, Oral		*		*
			R3	A.3.8.8	Describes the management of **congenital orbital deformities** (e.g., anophthalmia, microphthalmia, cryptophthalmia, hypertelorism).	62	1	Written, Oral		*		*
			R3	A.3.8.9	Treats more **complicated cases of nasolacrimal duc**t obstruction, canaliculitis, dacryocystitis, acute and chronic dacryoadenitis, preseptal cellulitis, and orbital cellulitis.	62	1	Written, Oral		*		*
			R3	A.3.8.10	Describes indications for treatment of more advanced eyelid, orbital, and lacrimal **trauma** (e.g., full thickness lid laceration, chemical burns to the face).	62	1	Written, Oral		*		*
			R3	A.3.8.11	Treats **thyroid ophthalmopathy** (e.g., epidemiology, symptoms and signs; associated systemic diseases; orbital imaging; differential diagnosis; surgical, medical, and radiation indications; side effects of treatment)	62	1	Written, Oral		*		*
			R3	A.3.8.12	Treats **orbital inflammatory pseudotumor** (biopsy indications, choice of treatments).	62	1	Written, Oral		*		*
			R3	A.3.8.13	Treats,or refers b**lepharospasm and hemifacialspasm.**	62	1	Written, Oral		*		*
			R3	A.3.8.14	Manage **changes with age** (e.g., dermatochalasis).	62	1	Written, Oral		*		*
			R3	A.3.8.15	Performs more complicated **minor lid procedures** (e.g., large benign skin lesions) or surgery (e.g., recurrent or multiple chalazion and lid laceration repair).	63	2	Oral, Performance			*	*
			R3	A.3.8.16	Recognizes the indications and complications, and performs more complex **minor operating room or limited operating room procedures** (e.g., incision and drainage of recurrent or larger chalazia, excision of moderate sized benign eyelid lesions).	63	1	Written, Oral		*		*
			R3	A.3.8.17	Treats **orbital trauma** (e.g., intraorbital foreign body, retrobulbar hemorrhage, fracture).	63	1	Written, Oral		*		*
			R3	A.3.8.18	Treats common presentations of **preseptal or orbital cellulitis.**	63	1	Written, Oral		*		*
			R3	A.3.8.19	Describes and performs the **basic lacrimal procedures** below (also, he/she should know the indication and complications of these procedures): a. Lacrimal drainage testing (irrigation, dye disappearance test). b. Lacrimal intubation. c. Dacryocystorhinostomy (external). d. Repairs simple lacerations of the lacrimal apparatus.	63	1, 2	Written, Oral, Performance		*		*
		A.3.9 Neuro	R1	A.3.9.1	Describe management of the most **common optic neuropathies** (e.g., demyelinating optic neuritis; ischemic optic neuropathy [arteritic and non-arteritic]; toxic or nutritional optic neuropathy; Leber's hereditary optic neuropathy; ethambutol toxicity; neuroretinitis; and compressive, inflammatory, infiltrative, and traumatic optic neuropathies).	42	1	Written, Oral	*	*		*
			R1	A.3.9.2	Describe the management of the most common **ocular motor neuropathies** (e.g., third, fourth, and sixth nerve palsy).	42	1	Written, Oral	*	*		*
			R1	A.3.9.3	Describe the management of the most common causes of **nystagmus** (e.g., infantile motor and sensory, downbeat, upbeat, gaze- evoked, and drug-induced).	42	1	Written, Oral	*	*		*
			R1	A.3.9.4	Describe the management of the most common **pupillary abnormalities** (e.g., relative afferent pupillary defect, anisocoria, Horner syndrome, third nerve palsy, and Adie's tonic pupil).	42	1	Written, Oral	*	*		*
			R1	A.3.9.5	Describe the management of the most common **visual field defects** (e.g., optic nerve, optic chiasm, optic radiation, and occipital cortex).	42	1	Written, Oral	*	*		*
			R1	A.3.9.6	Describe the management of ocular **myasthenia gravis**.	42	1	Written, Oral	*	*		*
			R1	A.3.9.7	Describe the management of **carotid-cavernous fistula**.	43	1	Written, Oral	*	*		*
			R3	A.3.9.8	Describes management of the most common **optic neuropathies** (e.g., papilledema, optic neuritis, ischemic, inflammatory, infectious, infiltrative, compressive, and hereditary optic neuropathies).	63	1	Written Oral		*		*
			R3	A.3.9.9	Describes management of the more complex s**upranuclear and internuclear palsies and less common ocular motor neuropathies** (e.g., progressive supranuclear palsy and internuclear ophthalmoplegia).	63	1	Written Oral		*		*
			R3	A.3.9.10	Describes management of the more complex and less common forms of **nystagmus** (e.g., rebound, convergence- retraction).	63	1	Written Oral		*		*
			R3	A.3.9.11	Describes management of the more complex and less common **pupillary abnormalities** (e.g., light-near dissociation, pharmacologic miosis and mydriasis).	63	1	Written Oral		*		*
			R3	A.3.9.12	Describes typical and atypical features, evaluation of the more complex and less common **visual field defects** (e.g., lateral geniculate, monocular temporal crescent).	64	1	Written Oral		*		*
			R3	A.3.9.13	Treats **ocular myasthenia gravis.**	64	1	Written Oral		*		*
			R3	A.3.9.14	Describes the management of patients with **"functional" (non-organic) visual loss** (e.g., recognize nonorganic spiral or tunnel visual fields).	64	1	Written, Oral		*		*
	A.4 Health Promotion & Illness prevention		R1	A.4.1	Educate patient and families, and promote the importance of long-term healthy behavior and preventive healthcare (i.e., smoking cessation, screening tests, regular check-up, eye protection).	37	2	Oral, Performance			*	*
			R3	A.4.2	Describes the epidemiology and performs s**creening** for routine and more advanced primary and secondary open-angle and angle-closure glaucoma.	55	1	Written, Oral		*		*
B. Communicator	B.1 Verbal		R1	B.1.1	Establishes **good rapport** with patients and families.	36	3	Performance			*	
			R1	B.1.2	Ability to obtain **history and pertinent examination findings** without undue stress to the patient and family.	36	2	Performance			*	
			R1	B.1.3	Interacts effectively with all **members of OR staff**.		3	Performance			*	
			R2	B.1.4	Discusses appropriate information with **patients, families, and health care team.**	45	2	Performance			*	
			R2	B.1.5	Consults and **delegates effectively**.		3	Observational				
			R3	B.1.6	The senior resident will demonstrate greater **brevity, accuracy, and clarity in**	53	3	Performance			*	

			R3	B.1.7	**Consults and presents the case** to the on-call consultant and subspecialty team, if needed.	54	3	Performance			*	
			R4	B.1.8	As well as encompassing previously demonstrated aptitudes, the senior resident will be more accomplished in **dealing with less explicit or straightforward communication styles** in both patients and medical personnel.	65	2	Performance			*	
			R4	B.1.9	The senior resident will demonstrate g**reater brevity, accuracy, and clarity in communications**	65	3	Performance			*	
			R4	B.1.10	Consults and p**resents the case to the consultant on-call and for subspecialty** team, if needed.	66	3	Performance			*	
	B.2 Non-verbal		R1	B.2.1	Produces consultation **reports and progress notes t**hat are organized, legible, complete, and signed.	36	2	Performance, Observational			*	
			R1	B.2.2	**Dictates reports and consultations t**hat are complete and timely	36	2	Performance, Observational			*	
			R2	B.2.3	**Writes consultation reports and progress notes** that are organized, legible, complete, and signed.	45	2	Performance, Observational			*	
			R2	B.2.4	**Dictates reports and consultations** are complete and timely.	45	2	Performance, Observational			*	
			R2	B.2.5	Establishes a good **rapport** with patients and families.	45	3	Performance, Observational			*	
C. Collaborator			R1	C.1	**Consults & delegates** effectively	36	3	Performance, Observational			*	
			R1	C.2	Interacts effectively with **other health professionals,** recognizing their roles and expertise.	36	3	Performance, Observational			*	
			R2	C.3	Interacts effectively with other health professionals, recognizing their **roles and expertise.**	45	3	Performance, Observational			*	
			R3	C.4	the senior resident will be more familiar with **avenues of collaboration**, have a better grasp of the networks of people involved in accomplishing tasks, and be more adept at giving and receiving feedback.	53	3	Oral, Observational				*
			R3	C.5	Works and coordinates with other medical specialists in **managing ER** patients for both life- and ocular-saving benefits.	54	3	Oral, Performance			*	*
			R4	C.6	The senior will be more familiar with **avenues of collaboration**, have a better grasp of the networks of people involved in accomplishing tasks	65	3	Oral, Observational				*
D. Manager/ Leader			R2	D.1	Demonstrates appropriate leadership within the **interdisciplinary health care team.**	45	3	Observational				
			R2	D.2	Sets realistic priorities and **uses time effectively** in order to optimize professional	45	3	Observational				
			R2	D.3	Applies the principles of **quality improvemen**t and quality assurance.	46	3	Observational				
			R3	D.4	The senior resident will also be able to describe i**mpediment**s to patients attaining optimum medical care, and is capable of suggesting solutions.	54	3	Observational				
			R3	D.5	The senior resident will have a basic **grasp of financial, social, and political** factors that influence the delivery of medical care to patients. The senior resident will also be able to describe impediments to patients attaining optimum medical care, and is capable of suggesting solutions.	53	3	Observational				
				D.6	The senior will be more aware of the **multitude of factors (non-medical)** that promote or inhibit efficient operations of a medical unit, office, and operating room. The senior will demonstrate tools and techniques used to manage time more effectively.	53	3	Observational				
			R4	D.7	The senior will be more aware of the **multitude of factors (non-medical)** that promote or inhibit efficient operations of a medical unit, office, and operating room. The senior will demonstrate tools and techniques used to manage time more effectively.	65	3	Observational				
E. Scholar			R1	E.1	Understands and makes effective use of **information technology.**	36	2	Performance			*	
			R1	E.2	Demonstrates understanding and commitment to the need for **continuous learning**; develops and implements an on-going and effective personal	37	3	Observational				
			R1	E.3	Demonstrates the ability to use **Medline and other similar database** searches for scientific information.	37	2	Performance			*	
			R1	E.4	Acts as an e**ffective teacher of medical interns, medical students, and other**	37	3	Observational				
			R1	E.5	Demonstrates the ability to receive effective and constructive feedback	36	2, 3	Performance, observational				
			R1	E.6	Demonstrates the ability to effectively prepare and deliver clinical **oral presentations.**	37	2	Performance				
			R1	E.7	Familiarity with current **guidelines and patterns** of practice for ophthalmology.	37	1	Wtitten, Oral	*	*		*
			R2	E.8	Familiarity with current **guidelines and patterns** of practice for ophthalmology.	46	1	Wtitten, Oral		*		*
			R2	E.9	Demonstrates the ability to provide and receive effective and constructive **feedback.**	45	2, 3	Performance, Observational			*	
			R2	E.10	Understands and makes effective use of **information technology.**	45	2	Performance			*	
			R2	E.11	Makes clinical **decisions based on sound evidence** and efficient use of available resources with the guide of more senior staff in the team.	45	1	Written, Oral		*		*
			R2	E.12	Demonstrates the ability to conduct a **research** project, including generation of a hypothesis, development of a protocol, statistical analysis, and presentation of results.	45	1	Written		*		
			R2	E.13	Effective **teacher** of medical interns and medical students.	45	2	Performance				
			R2	E.14	Demonstrates the ability to effectively prepare and deliver clinical **oral presentations.**	45	2	Performance				
			R2	E.15	Develops **lifelong learning s**kills.	45	3	Observational				
			R2	E.16	Seeks advice when necessary, accepts **advice**, and responds appropriately.	46	3	Observational				
			R2	E.17	Familiarity with the current **guidelines and patterns** of practice for ophthalmic disease.	46	1	Written, Oral		*		*

			R3	E.18	Critically **appraises** medical information and integrates information from a variety of sources.	53	1, 2	Performance				
			R3	E.19	Demonstrates the ability to **conduct a research project,** including generation of hypothesis, development for a protocol, statistical analysis, and presentation of results.	53	1	Written		*		
			R3	E.20	Demonstrates the ability to effectively prepare and deliver clinical **oral presentations.**	53	2	Performance				
			R3	E.21	Develops **lifelong learning** skills.	53	3	Observational				
			R3	E.22	The senior will demonstrate the ability to quickly and accurately **find reference material i**n support of a particular clinical approach.	53	2	Performance			*	
			R3	E.23	Familiarity with **international studies in neuro-ophthalmology** (e.g., Optic neuritis study) and their applications.	63	1	Written, oral		*		*
			R4	E.24	The senior will demonstrate the ability to quickly and accurately **find reference** material in support of a particular clinical approach.	65	2	Performance			*	
			R4	E.25	Effective **teacher** of residents, medical students, and other staff.	65	2	Performance				
			R4	E.26	Describes the findings in the major **studies of anti-VEGF treatment** for CNV, DME, and retinal vein occlusions.	68	1	Written, oral		*		*
			R4	E.27	Describes the findings of **major studies in retinal disease**s, including the following: a. Diabetic Retinopathy Study (DRS). b. Diabetic Vitrectomy Study (DVS). c. Early Treatment of Diabetic Retinopathy Study (ETDRS). d. Macular Photocoagulation Study (MPS). e. Diabetes Control and Complications Trial (DCCT). f. Branch Vein Occlusion Study (BVOS). g. Central Vein Occlusion Study (CVOS). h. United Kingdom Prospective Diabetes Study (UKPDS). i. Age-RelatedEyeDiseaseStudy(AREDS). j. Verteporfin in Photodynamic Therapy Study (VIP). k. Treatment of Age-Related macular Degeneration with Photodynamic Therapy Study (TAP). l. Endophthalmitis Vitrectomy Study (EVS).	68	1	Written, oral		*		*
			R4	E.28	Describes the results and applies the conclusions to clinical practice of the major **clinical trials in glaucoma** (e.g., Ocular Hypertension Treatment Study, Glaucoma Laser Trial, Normal Tension Glaucoma Study, and Advanced Glaucoma Intervention Study).	67	1	Written, oral		*		*
F. Health advocate			R1	F.1	Respect and empower patient autonomy.	37	3	Observational				
			R1	F.2	Promote equitable health care.	37	3	Observational				
			R2	F.3	Respects and empowers patient autonomy.	46	3	Observational				
			R2	F.4	Promotes equitable health care.	46	3	Observational				
			R4	F.5	Respect and empower patient autonomy.	65	3	Observational				
			R4	F.6	Promote equitable health care.	65	3	Observational				
G. Professional			R1	G.1	Demonstrates **integrity, honesty, compassion, and respect for diversity.**	37	3	Performance			*	
			R1	G.2	Understands the **principles of ethics** and applies these to clinical situations.	37	1, 3	Written, performance	*	*	*	
			R1	G.3	Demonstrates an awareness of **own limitations**, seeks advice when necessary, accepts	37	3	Peroformance, Observational			*	
			R2	G.4	**Punctual** in attending to responsibilities.	45	3	Observational				
			R2	G.5	Demonstrates **integrity, honesty, compassion,** and respect for diversity.	45	3	Performance			*	
			R2	G.6	Fulfills medical and legal obligations of the specialist.	45	3	Observational				
			R2	G.7	Understands the **principles of ethics** and applies these to clinical situations.	46	1	Written, performance	*	*	*	
			R2	G.8	Demonstrates awareness of **own limitations**	46	3	Observational				
			R3	G.9	The senior will continue to demonstrate those personal attributes that comprise **professional and collegial behavior**. Beyond this, the senior will be able to fluently discuss what is meant by "professional" and what constitutes a breach of professionalism.	53	3	Performance			*	
			R4	G.10	The senior will continue to demonstrate those personal attributes that comprise professional and collegial behavior. Beyond this, the senior will be able to fluently discuss what is meant by "professional" and what constitutes a breach of professionalism.	65	3	Performance			*	