

Certified Paraoptometric (CPOA) Certification Examination Test Specifications and Content Outline

Domain 01: Clinical Principles, Testing, and Procedures (50%; 90 operational items, 10 pretest items)

1. Record accurate case history
 - a. Chief complaint
 - i. History of present illness components
 - ii. Pain level, where appropriate
 - b. Ocular history of patient and family
 - c. Pertinent medical history of patient and immediate family
 - d. Current medications – prescription and OTC
 - e. Supplements - prescription and OTC
 - f. Allergies – medication and environmental
 - g. Social – tobacco/alcohol/substance use
 - h. Work/school duties
 - i. Hobbies/how patient uses their vision
2. Perform visual acuity testing
 - a. Types of acuity charts
 - i. Snellen
 - ii. Allen figures
 - iii. Tumbling E's
 - iv. Landolt C's
 - b. Alternative assessment of visual acuity
 - i. Counting fingers (may be referred to as finger count or finger counting)
 - ii. Hand motion
 - iii. Light perception
 - iv. No light perception
 - c. Pinhole acuity testing – how is it done and why it is useful
3. Perform Amsler grid testing
 - a. Understand what conditions necessitate testing
 - b. Perform test and accurately record results
4. Perform blood pressure measurement (manual or automated)
 - a. Know correct procedure and positioning of patient to take BP
 - b. Understand ranges of normal, high, and hypertensive crisis
5. Perform stereoacuity testing
 - a. Understand common test types
 - i. Randot
 - ii. Stereofly
 - b. Understand suppression check
6. Perform color vision assessment
 - a. Understand test types
 - i. Pseudo-Isochromatic Plates
 1. Ishihara
 2. PIP Colorblind test
 - ii. D-15

- b. Understand types of color deficit
 - i. Genetic
 - 1. Red/Green
 - 2. Blue/Yellow
 - ii. Acquired
- 7. Perform ocular motility testing
 - a. Understand actions of extraocular muscles
 - b. Assess extraocular muscle movements
 - c. Identify and properly record any restrictions
 - d. Identify nystagmus
- 8. Perform pupillary testing
 - a. Understand normal pupillary response to light and near point constriction
 - b. Understand and identify afferent pupillary defect
 - c. Properly record size, shape, reaction, any abnormalities, and grading of APD
- 9. Perform tonometry (contact or noncontact) to measure intraocular pressure
 - a. Non-contact tonometer (NCT)
 - b. Tonopen
 - c. iCare
 - d. Goldmann applanation
- 10. Perform confrontation visual field screening
 - a. Proper test distance from patient
 - b. Procedure and patient instructions
 - c. Properly record any restrictions
- 11. Perform autorefraction and autokeratometry
- 12. Administer, record, and maintain inventory of diagnostic and therapeutic eye drops
 - a. Understand types of diagnostic eye drops and potential side effects
 - i. Mydriatics
 - ii. Cycloplegics
 - b. Understand types of prescribed drops and potential side effects
 - i. Glaucoma
 - ii. Anti-infective
 - 1. Antibiotic
 - 2. Antiviral
 - iii. Dry Eye Medications
 - iv. Allergy
 - v. Steroid
 - vi. NSAID
 - c. Instill drops and properly record in patient record
- 13. Perform testing to evaluate cornea (including ultrasound pachymetry, topography)
 - a. Pachymetry as used in:
 - i. Glaucoma
 - ii. Preoperative evaluation (LASIK, PRK)
 - b. Topography as used for:
 - i. Keratoconus
 - ii. Other corneal irregularities
- 14. Perform fundus photography and optical coherence tomography (OCT) of posterior segment

- a. Posterior pole vs. wide field photos
 - b. OCT of optic nerve vs. macula
 - c. How to achieve quality images
15. Perform automated visual field testing
- a. Use appropriate trial lenses when needed
 - b. Give proper instructions to patient
 - c. 10-2
 - d. 24-2
 - e. 30-2
 - f. Superior lid field
 - g. Threshold vs. SITA Fast
 - h. Understand reliability indices
16. Perform subjective refraction (including manual, automated/programmed)
- a. Understand types of refraction
 - i. Undilated
 - ii. Cycloplegic
 - b. Perform and record refraction
 - i. Distance
 - 1. Sphere power
 - 2. Jackson crossed cylinder to determine axis and cylinder power
 - 3. Binocular balance
 - 4. Final sphere power
 - 5. Horizontal and vertical phorias
 - ii. Near
 - 1. Binocular crossed cylinder
 - 2. Determination of add power
 - 3. Horizontal and vertical phorias
17. Perform cover test
- a. Cover-uncover
 - b. Alternating
 - c. Accurately record findings
18. Perform dry eye testing (including tear volume/Schirmer's, tear osmolarity, meibography, tear inflammation)
- a. SPEED symptom questionnaire
 - b. Tear breakup time
 - c. Vital dye staining
 - i. Fluorescein
 - d. Tear volume (Schirmer's)
 - e. Tear osmolarity
 - f. Tear inflammation
 - g. Meibography
19. Perform optical coherence tomography (OCT) of anterior segment
- a. Anterior chamber angles
 - b. Pachymetry
20. Perform chairside scribing
- a. Accurately record doctor's exam findings in electronic record
 - b. Accurately record doctor's diagnosis and plan
21. Assist with dry eye treatment (including patient education of procedures, expectations, ongoing care; meibomian gland treatment, intense pulsed light therapy/IPL)

- a. Meibomian gland treatment
 - b. Intense pulsed light therapy (IPL)
 - c. Patient education
 - i. Preparing for procedures
 - ii. What to expect during procedures
 - iii. Patient guidelines for after care
22. Assist with lacrimal dilation and irrigation, foreign body and rust ring removal (including patient education pre- and post-procedure and about management options and expectations)
- a. Have necessary tools available
 - b. Patient education before and after procedures
23. Perform anterior segment photography
- a. Lids and lashes
 - b. Cornea
 - c. Conjunctiva
 - d. Iris
24. Coordinate referrals to other offices for surgery or other specialty services

Tasks in Domain 01: Clinical Principles, Testing, and Procedures draw upon the following Competencies: C02, C03, C04, C05, C06, C07, C08, C09, C11, C14, C15, C20

Domain 02: Ophthalmic Optics and Dispensing (13.15%; 24 operational items, 3 pretest items)

1. Use components of eyeglass prescriptions
 - a. Sph/Cyl/Axis/Add power
 - b. Pupillary distance
 - c. Optical center/Seg/Fitting cross height
 - d. Transposition to minus or plus cylinder format
 - e. Conversion of distance prescription to
 - i. Near
 - ii. Intermediate
 - f. Slab off
2. Perform lensometry (automated and manual) to verify prescription
 - a. Lens types: single vision, progressive, bifocal, trifocal, anti-fatigue, prism
 - b. Identify errors outside ANSI standards for all parameters
3. Measure base curve with lens clock
4. Measure C-size, frame boxing measurements (including A, B, DBL, ED, temple)
5. Perform interpupillary distance measurement at distance, intermediate, and near
6. Measure segment/optical center/fitting cross heights, frame fit (including pantoscopic tilt, vertex distance, face form)
 - a. Standard placement for each type of multifocal (progressive, bifocal, trifocal)
 - b. Adult vs. children's measurements
7. Educate and assist patient in selecting eyewear (including frames, specialty considerations, lens materials and coatings)
 - a. Understand principles of frame selection based on style, shape, type of spectacle prescription
 - b. Understand different types of lens materials (polycarbonate, plastic, etc.)
 - c. Understand lens features such as anti-reflective coatings, adaptive lenses, blue light protection

8. Place an order for frames and eyeglass prescriptions, including relevant components
9. Dispense/adjust/repair eyewear
10. Troubleshoot patients' problems with eyewear
 - a. Ask appropriate questions to discover root issue
 - i. How they feel on the nose, ears, temples
 - ii. Blurred or distorted vision
 - iii. What improves vision (tilting or turning head a certain way)
 - b. Understand common reasons for non-adaptation to eyewear
 - i. Frame fit
 - ii. Induced prism
 - iii. Lens material
 - iv. Lens design (progressive, digital)
 - v. Base curve

Tasks in Domain 02: Ophthalmic Optics and Dispensing draw upon the following Competencies: C01, C02, C06, C11, C13, C15

Domain 03: Contact Lenses (16.3%; 29 operational items, 3 pretest items)

1. Use components of contact lens prescriptions
 - a. Convert spectacle prescription to contact lens prescription
 - i. Using vertex distance as appropriate
 - ii. Using spherical equivalent as appropriate
2. Order diagnostic contact lenses
 - a. For individual patients
 - b. For in-office trial lens sets
3. Clean and polish gas permeable lenses
4. Place an order for a patient's contact lens prescription, including relevant components
5. Explain types of contact lenses to patient (including soft, gas permeable, hybrid, scleral)
 - a. Understand types of available contact lenses
 - i. Soft
 1. Daily disposable
 2. Frequent replacement (2-week, 3-month, extended wear)
 3. Daytime vs overnight wear
 4. Toric
 5. Multifocal
 - a. For presbyopia
 - b. For myopia management
 6. Combined toric/multifocal
 - ii. Gas permeable
 1. Single vision
 2. Toric and bitoric
 3. Bitoric and multifocal
 4. Ortho K
 - a. Vision correction
 - b. Myopia management
 - iii. Hybrid
 - iv. Scleral

1. Single vision
2. Multifocal
6. Educate patient on contact lens care
 - a. Informed consent
 - b. Selection of care system
 - i. Soft lenses
 1. Multipurpose
 2. Peroxide-based
 - ii. Gas permeable and scleral lenses
 1. Cleaning and conditioning
 2. Multipurpose
 3. Peroxide-based
 - iii. Appropriate for HydraPEG
 - c. Educate patients on contact lens care and handling
 1. Hygiene
 2. Wearing time
 3. Replacement schedule
 4. Cleaning/disinfection
 5. Symptoms requiring removal of lenses
 6. Techniques to remove a dislodged lens
 7. Follow up appointments
7. Insert and remove contact lenses (soft, gas permeable)
8. Train new contact lens patients in insertion and removal techniques (of soft, gas permeable, hybrid, and scleral lenses)
 - a. Hygiene/handwashing
 - b. Insertion/removal methods
9. Screen patients on their experience with contact lenses
 - a. Ask appropriate questions about comfort and vision
 - b. Verify compliance with cleaning/disposal/wearing time

Tasks in Domain 03: Contact Lenses draw upon the following Competencies: C07, C11, C12

Domain 04: Professional Issues (13.15%; 24 operational items, 3 pretest items)

1. Assist with patient complaints and concerns and refer to appropriate staff if outside of scope of training
 - a. Listen to patient, gather & document all pertinent details, document conversation
 - b. Convey information to manager for assistance as needed
2. Respond to incoming telephone calls
 - a. Perform telephone triage
 - i. Determine patient needs
 1. Emergency visit
 - a. Understand symptoms necessitating an emergency visit
 2. Non-urgent visit
 - a. Understand non-urgent symptoms and schedule accordingly
 3. Routine exam
 - b. Transfer and/or document incoming calls appropriately
 - i. Patients

- ii. Vendors/Sale representatives
 - iii. Other healthcare providers
 - iv. Take and deliver messages to appropriate parties
 - v. Record necessary details in electronic health record
- 3. Schedule patient appointments (including rescheduling, sending reminders/confirmations, recalls, referrals/co-management)
- 4. Assist with inventory
 - a. Miscellaneous office supplies
 - b. Frames
 - c. Contact lens trials & supplies
 - d. OTC sales items
 - e. Ophthalmic & medical supplies
 - f. Exam room supplies
- 5. Comply with federal, state, and local regulations (including HIPAA, OSHA, and CMS guidelines)
- 6. Explain to patients the difference between vision plans and medical insurance and reasons for billing each
- 7. Assist with medical billing and coding
 - a. Evaluate for accuracy
 - i. Diagnostic codes
 - ii. Procedure codes

Tasks in Domain 04: Professional Issues draw upon the following Competencies: C05, C08, C09, C10, C14, C15, C16, C17, C18, C19, C20

Domain 05: Science of the Eye (7.4%; 13 operational items, 1 pretest item)

- 1. Identify the components and function of tear film
 - a. Aqueous layer
 - b. Lipid layer
 - c. Mucus layer
 - d. Relative thickness and functions of each
- 2. Identify the components and function of conjunctiva and sclera (including palpebral, bulbar)
 - a. Bulbar conjunctiva
 - b. Palpebral conjunctiva
 - c. Episclera
 - d. Sclera
- 3. Identify the angle structures
 - a. Iris root
 - b. Ciliary body
 - c. Scleral spur
 - d. Trabecular meshwork
 - e. Schwalbe's line
- 4. Describe the components and function of the uvea (including iris/pupil)
 - a. Iris muscles and control of pupillary function
- 5. Define high myopia and compare/contrast myopia management strategies

- a. Topical treatment such as low dose atropine
 - b. Contact lens treatment
 - i. Multifocal
 - ii. Ortho-K
 - c. Pros and cons of each
6. Describe amblyopia and patching therapy
- a. Type
 - i. Refractive
 - ii. Strabismic
 - b. Patching
 - i. Types of patching available
 - ii. Schedule
 - iii. Duration
 - iv. Activities during patching
7. Describe nystagmus
- a. Type
 - i. Jerk
 - ii. Pendular
 - iii. Latent
 - b. Effect on vision
 - c. Mitigating factors
8. Differentiate among the heterophorias and heterotropias
- a. Tropia
 - i. Exotropia
 - ii. Esotropia
 - iii. Vertical (hyper or hypo) tropia
 - b. Phoria
 - i. Exophoria
 - ii. Esophoria
 - iii. Vertical phoria
 - c. Compare and contrast clinical findings and symptoms
 - d. How to differentiate clinically
9. Educate patient on complications and treatment related to blepharitis
- a. Etiology
 - i. Staph bacteria
 - ii. Demodex
 - iii. Meibomian gland dysfunction
 - iv. Ocular rosacea
 - b. Treatment
 - i. Lid scrubs
 - ii. Intense pulse light treatment
10. Educate patient on treatment for hordeolum/chalazion
- a. How to properly perform hot compresses
 - b. Frequency and duration of treatment
11. Differentiate among the types of dry eye disease (including aqueous, lipid, and mucin deficiencies)
- a. Aqueous deficient
 - i. Common symptoms

- ii. Exam signs
 - iii. Systemic associations such as Sjogren's Syndrome
 - b. Lipid deficient (Meibomian gland dysfunction)
 - i. Common symptoms
 - ii. Exam signs
 - iii. Associations such as Rosacea
 - c. Mucin deficient
 - i. Common symptoms
 - ii. Exam signs
 - iii. Associations such as scarring and oral medication
- 12. Compare and contrast the types of conjunctivitis
 - a. Common symptoms
 - b. Exam signs
 - c. How to differentiate between bacterial, viral, and allergic
- 13. Differentiate among the types of cataracts (including nuclear sclerosis, cortical, posterior subcapsular)
 - a. Nuclear sclerosis
 - i. Refractive changes
 - ii. Other exam signs
 - iii. Symptoms
 - b. Cortical
 - i. Symptoms
 - ii. Exam signs
 - c. Posterior subcapsular
 - i. Symptoms
 - ii. Exam signs
 - iii. Systemic associations such as diabetes mellitus
- 14. Educate patient on home Amsler monitoring of vision
 - a. Test distance & conditions (monocular, with near correction)
 - b. Changes patient should be looking for and when to alert office
 - c. Frequency of testing
- 15. Provide patient education (including for testing, home treatments like lid scrubs, hot compresses, prescribed and over-the-counter medications, prescribed supplements)
 - a. Regarding in-office testing
 - b. For home treatments
 - i. Lid scrubs
 - ii. Hot compresses
 - iii. Prescriptions and OTC medications
 - iv. Prescribed supplements
- 16. Describe diabetic retinopathy
 - a. Etiology
 - b. Examination signs on photography and OCT imaging
 - i. Background retinopathy
 - ii. Diabetic macular edema
 - iii. Neovascularization/proliferative retinopathy
 - c. Effect on vision
 - d. Treatment
 - i. Glucose control

- ii. Laser treatments for proliferative retinopathy
 - iii. Injections for proliferative retinopathy and macular edema
- 17. Describe glaucoma and its common topical treatments
 - a. Differentiate between
 - i. Open angle glaucoma
 - ii. Low tension glaucoma
 - b. Risk factors for glaucoma
 - c. Topical treatments
 - i. Prostaglandins
 - ii. Beta blockers
 - iii. Alpha agonists
 - iv. Carbonic anhydrase inhibitors
 - v. Combinations
 - vi. Preservative-free versions and when they're needed
- 18. Describe symptoms of vitreous disorders (including posterior vitreous detachment, floaters)
 - a. Floaters
 - b. Weiss ring
 - c. Flashes of light
- 19. Differentiate between antibiotics and antivirals
 - a. Ocular bacterial infections
 - i. Conjunctivitis
 - ii. Keratitis/corneal ulcers
 - b. Ocular viral infections
 - i. Conjunctivitis
 - ii. Herpes simplex
 - iii. Herpes zoster
 - c. When antibiotic vs. antiviral medications are used

Tasks in Domain 05: Science of the Eye draw upon the following Competencies: C01, C02, C03

CPOA Competencies

- C01. Ophthalmic optics (including refractive status of the eye and binocularity)
- C02. Basic math and algebra (as they relate to clinical applications)
- C03. Basic medical terminology and abbreviations
- C04. Mitigating quality issues to improve results from imaging, testing, and procedures
- C05. Required documentation for proper recordkeeping
- C06. Eyecare instrumentation
- C07. Infection control
- C08. Telephone etiquette and triage
- C09. Patient confidentiality
- C10. Diversity in the workplace/cultural competency
- C11. Proper storage of tools and supplies
- C12. Contact lens care
- C13. Considerations in proper frame styling and fitting
- C14. Office emergency protocols

- C15. Building good rapport with patients/chairside manner
- C16. Medical/healthcare/workplace ethics
- C17. Patient and staff rights
- C18. Principles of team management
- C19. Principles of conflict resolution
- C20. Basic concepts related to claims/billing