

# Certified Paraoptometric Assistant Examination (CPOA)

## Outline

This expanded outline will provide you with additional information and a better understanding of the areas that may be covered on the Certified Paraoptometric Assistant (CPOA) Examination to help you prepare for the examination. The following outline includes a detailed explanation of the areas covered on the examination, as requested by paraoptometric and doctors of optometry. The expanded outline does not change the content of the examination nor weightings of the examination domains that were set during the 2019 Job Task Analysis. You should be familiar with all the terms, meanings and uses. Please refer to the recommended study resources found in the Certified Paraoptometric Candidate Handbook. All 100 scored questions (as well as additional pre-test questions) on the examination are of the objective, multiple-choice type. Passing score is determined by the CPC.

## I. Testing and Procedures (25%)

- A. Take case histories
  - 1. Chief complaint
    - a. History of present illness
    - b. Pain level
  - 2. Ocular history of patient and family
  - 3. Pertinent medical history of patient and family
  - 4. Current medications – prescription and OTC
  - 5. Allergies – medication and environmental
  - 6. Height/Weight/BMI
  - 7. Social – tobacco/alcohol/recreational substance use
  - 8. Work/School duties
  - 9. Hobbies/How patient uses their vision
- B. Administer, record, and transmit prescribed medications
  - 1. E-prescribe
  - 2. Dispense prescribed samples
  - 3. Transmit authorized refill requests
- C. Perform testing procedures – be able to explain the purpose of each of these to the patient
  - 1. Visual acuity testing
    - a. Types of acuity charts
      - i. Snellen
      - ii. Allen figures
      - iii. Tumbling E's
    - b. Alternative assessment of visual acuity
      - i. Counting fingers
      - ii. Hand motion
      - iii. Light perception
      - iv. No light perception
    - c. Understand pinhole acuity testing – how is it done and why it is useful
  - 2. Stereoacuity testing
    - a. Understand suppression check

- b. Understand most common types
          - i. Randot
          - ii. Stereofly
    - 3. Blood pressure measurement (manual or automated)
      - a. Understand ranges for normal, elevated, and high blood pressure levels
      - b. Know correct way/positioning of patient to take BP
      - c. <https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings>
    - 4. Keratometry
      - a. Manual
      - b. Automated
    - 5. Color vision assessment
      - a. Understand most common test types
        - i. Pseudo-Isochromatic Plates
          - a. Ishihara
          - b. PIP Colorblind test
        - ii. D-15
      - b. Understand most common types of color deficit
        - i. Genetic
          - a. Red/Green
          - b. Blue/Yellow
        - ii. Acquired
    - 6. Ocular motility testing
      - a. Understand actions of extraocular muscles
      - b. Assess extraocular muscle movements
      - c. Test pursuits and saccades
      - d. Identify and record abnormalities/restrictions
      - e. Understand common causes of restriction
      - f. Be able to recognize nystagmus
- D. Maintain examination rooms
  - 1. Clean
  - 2. Sanitize
  - 3. Stock
- E. Maintain ophthalmic equipment
  - 1. Clean
  - 2. Sanitize
  - 3. Calibrate
  - 4. Change bulbs and batteries
- F. Educate patients
  - 1. Why each test is performed
  - 2. Prescriptions for drops or other medications
    - a. Drop/ointment instillation technique
    - b. Review dosing, duration of treatment
    - c. Importance of adherence to treatment
  - 3. Treatment procedures performed in clinic

- a. Purpose of treatment
- b. What to expect during treatment
- c. Instructions for at-home care after treatment
- 4. Supplements
  - a. For macular degeneration, such as AREDS2 formula
  - b. For improving macular pigment, such as lutein & zeaxanthin

## II. Special Procedures (25%)

- A. Perform clinical procedures
  - 1. Pupillary response test
    - a. Understand normal pupillary reaction
    - b. Understand afferent pupillary defect and how to identify it
    - c. Properly record irregularities and abnormalities
  - 2. Tonometry (contact and non-contact)
    - a. Non-contact tonometer (NCT)
    - b. Tonopen
    - c. iCare
    - d. Goldmann
    - e. Proper disinfection of tonometers
  - 3. Slit lamp examination
    - a. Understand what the slit lamp is used to evaluate
      - i. External adnexa
      - ii. Anterior segment
      - iii. Posterior segment with funduscope lenses
    - b. Understand parts of slit lamp and their function
  - 4. Visual field testing
    - a. Confrontations
      - i. Know proper test distance from patient
      - ii. Understand how to perform
      - iii. Properly record restrictions
    - b. Automated
      - i. 30-2
      - ii. 24-2
      - iii. 10-2
      - iv. Ptosis Testing
      - v. Threshold vs. SITA Fast
      - vi. Frequency Doubling Technology (FDT)
        - a. Screening
        - b. Threshold
  - 5. Cover Test
    - a. Identify heterophorias vs. heterotropias
      - i. Cover test
      - ii. Cover/uncover test
      - iii. Esophoria
      - iv. Esotropia
      - v. Exophoria

- vi. Exotropia
  - vii. Hypertropia
- b. Identify latent nystagmus\*
- c. Accurately record findings
- 6. Testing for Dry Eye
  - a. SPEED symptom questionnaire
  - b. Tear breakup time
  - c. Vital dye staining
    - i. Fluorescein
    - ii. Lissamine green
    - iii. Rose bengal
  - d. Tear volume (Schirmer's)
    - i. Tear Lake
    - ii. Tear meniscus
  - e. Tear osmolarity (TearLab)
  - f. Tear inflammation (Inflammadry)
    - i. MMP-9
    - ii. Cytokines
  - g. Meibography
  - h. Meibomian gland evaluator/expression
- 7. Meibography
- 8. Corneal topography
- 9. Specular microscopy
- 10. Scanning computerized ophthalmic testing (OCT)
  - a. Optic nerve
  - b. Macula
  - c. Anterior segment
- 11. Glaucoma testing
  - a. Pachymetry
  - b. Gonioscopy (understand, not perform)
- 12. Electroretinogram (ERG) and Visual Evoked Potential (VEP) (such as Diopsys)
- 13. Ancillary Testing
  - a. Electrooculogram
  - b. A-scan
  - c. B-scan
  - d. Glare Testing (Brightness Acuity Tester (BAT))
- 14. Macular Pigment Optical Density (MPOD)
- 15. Pupillary testing
  - a. Size in bright and dim lighting
  - b. Shape
  - c. Speed
  - d. Direct and consensual response
  - e. Constriction with accommodation & convergence
  - f. Evaluate for afferent pupillary defect
 

Current outline says "near points of accommodation and convergence but those are names of different tests NPA, NPC, which belong elsewhere. "c" above covers the intent.
- 16. Amsler grid testing
  - a. Understand what conditions necessitate testing
  - b. Perform test and accurately record results

- c. Explain to patient how to perform test at home
- 17. Frequency doubling technology (FDT) visual fields
- 18. Aberrometry
- 19. Refraction (manual or automated)
  - a. Understand types of refraction
    - i. Undilated
    - ii. Cycloplegic
    - iii. Autorefraction
  - b. Perform and record refraction
  - c. Calculate spherical equivalent
- 20. Contrast sensitivity
  - a. Understand purpose of test and when it should be performed
- 21. Anterior segment photography
- 22. Fundus photography
  - a. Posterior pole (optic nerve, macula)
  - b. Wide-field
- 23. Low vision
  - a. Understand definition of low vision
  - b. Understand how low vision may affect patient's ADLs (activities of daily living)
  - c. Specialized visual acuity testing for patients with low vision
  - d. Understand different types of low vision devices
    - i. Hand and stand magnifiers
    - ii. Telescopes
    - iii. Electronic devices
- 24. Pachymetry
  - a. Uses
    - i. Glaucoma
    - ii. Trauma
    - iii. Pre-operative LASIK, PRK
- 25. Traumatic brain injuries
  - a. Understand traumatic brain injury and how it affects the visual system
  - b. Understand most common symptoms of traumatic brain injury
  - c. Understand most common testing abnormalities (for example, saccades)
- 26. Vision therapy
  - a. Understand conditions that are typically treated with vision therapy
    - i. Convergence insufficiency
    - ii. Accommodative disorders
    - iii. Oculomotor disorders
  - b. Testing for above conditions
    - i. Near point of convergence (NPC)
    - ii. Near Point of Accommodation (NPA)
    - iii. Negative Relative Accommodation (NRA)
    - iv. Positive Relative Accommodation (PRA)
    - v. Binocular Crossed Cylinder (BCC)
    - vi. Accommodative facility
    - vii. Fusional vergences
    - viii. Worth 4-Dot test
- B. E-Prescribe
- C. Complete/copy medication refills
- D. Administer diagnostic/therapeutic medications

1. Understand purpose of diagnostic eye drops
  - i. Mydriatics
  - ii. Cycloplegics
  - iii. Miotics (becoming more common in YAG-PI laser use)
2. Understand types of prescribed drops and potential side effects
  - i. Glaucoma
  - ii. Anti-infective
    1. Antibiotics
    2. Antivirals
  - iii. Dry Eye Medications
  - iv. Allergy
  - v. Steroids
  - vi. NSAIDS
3. Understand medications for emergency use such as closed angle
4. Instill drops and properly record use in patient record
- E. Assist with surgical procedures (for example, safety procedures, patient education, patient preparation, etc.)
  - a. Pre and post operative procedures
    - i. Safety/Aseptic techniques
      1. Disinfection
      2. Sterilization
    - ii. Instrument preparation
    - iii. Patient preparation
    - iv. Patient education
  - b. Lacrimal irrigation
  - c. Foreign body & rust ring removal

### III. Ophthalmic Optics and Dispensing (12%)

- A. Order and maintain eyewear inventory and frame display
- B. Understand how frames and lenses are fabricated
- C. Educate and assist patient in selecting eyewear
  1. Understand principles of frame selection based on style, shape, type of spectacle prescription
  2. Understand different types of lens materials (polycarbonate, plastic, etc.)
  3. Understand lens features such as anti-reflective coatings, adaptive lenses, blue light protection
- D. Perform interpupillary distance measurement
  1. Distance
  2. Intermediate
  3. Near
- E. Measure segment heights
  1. Progressive, Bifocal, Trifocal
    - i. Understand the types of multifocal and where “ideal” measurement is for each type
    - ii. Adult vs. children’s measurements
- F. Dispense/adjust/repair eyewear
- G. Use digital dispensing technology for as worn measurements

- H. Understand and use eyeglass prescriptions
  - i. Sph/Cyl/Axis/ADD
  - ii. PD
  - iii. OC/Seg/Fitting cross height
  - iv. Transposition
  - v. Conversion
    - 1. Near
    - 2. Intermediate
  - vi. Slab off
- I. Perform lensometry for verification of accuracy
  - 1. Manual
  - 2. Automated
  - 3. Single vision, Progressive, Bifocal, Trifocal
  - 4. Prescribed prism
- J. Edge Lenses
  - 1. Understand how lens edging is performed
  - 2. Available edge modification
  - 3. Hand edging lenses in lab
- K. Tint Lenses (please remove because, there are significant OSHA issues with this process)
- L. Troubleshoot patients' problems with eyewear
  - 1. 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)
  - 2. 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

#### IV. Contact Lenses (13%)

- A. Maintain/order/inventory contact lenses
  - 1. Trials/diagnostic lenses
  - 2. Lens supplies for sale
- B. Educate patients concerning contact lens options and fees
  - 1. Understand types of available contact lenses
    - a. Soft
      - i. Daily disposable
      - ii. Frequent replacement (2-week, 3-month, extended wear)
      - iii. Daytime vs overnight wear
      - iv. Toric
      - v. Multifocal
        - 1. For presbyopia
        - 2. For myopia management
      - vi. Combined toric/multifocal
    - b. Gas permeable
      - i. Single vision
      - ii. Toric and bitoric
      - iii. Bitoric and multifocal

- iv. Ortho K
      - 1. Vision correction
      - 2. Myopia management
    - c. Hybrid
    - d. Scleral
      - i. Single vision
      - ii. Multifocal
  - 2. Provide fees for fitting/evaluation services and supplies of all of the above
- C. Insert and remove contact lenses
  - 1. Soft
  - 2. Gas permeable
  - 3. Hybrid
  - 4. Scleral
- D. Select proper care system for contact lenses
  - 1. Soft lenses
    - a. Multipurpose
    - b. Peroxide-based
  - 2. Gas permeable and scleral lenses
    - a. Cleaning and Conditioning
    - b. Multipurpose
    - c. Peroxide-based
    - d. Safe for HydraPEG
- E. Perform contact lens fitting
  - 1. Soft
  - 2. Gas Permeable
  - 3. Hybrid
  - 4. Scleral
- F. Educate patients on contact lens care and handling
  - 1. Informed consent
  - 2. Hygiene
  - 3. Wearing time
  - 4. Replacement schedule
  - 5. Cleaning/disinfection
  - 6. Symptoms requiring removal of lenses
  - 7. Follow up appointments
  - 8. Insertion and removal techniques
  - 9. Techniques to remove a dislodged lens
- G. Measure gas permeable base curves using radiuscope
- H. Verify other gas permeable contact lens measurements
  - 1. Lensometer (power)
  - 2. Reticle (overall diameter, optic zone diameter)
  - 3. Calipers (center thickness, edge thickness)
- I. Clean and polish
  - 1. Gas permeable lenses
  - 2. Prosthetic eyes
- J. Use slit lamp to evaluate contact lens fit
  - 1. Soft lenses
    - a. Diameter
    - b. Movement
    - c. Centration
    - d. Toric orientation



2. Gas permeable lenses
  - a. Use of Fluorescein
  - b. Diameter
  - c. Centration
  - d. Movement
- K. Troubleshoot contact lens problems
  1. Vision
  2. Comfort
  3. Redness

#### IV. Professional Issues (25%)

- A. Office Operations
  1. Maintain a neat, orderly, up-to-date office
  2. Welcome/greet arriving patients
    - a. Check-in procedures
      - i. Collect/update demographics
      - ii. Identification
      - iii. Insurance/Vision Plan cards
  3. Prepare patient charts for optometrist to review
  4. Direct patient flow to proper department
    - a. Check in/Check out
    - b. Optical Dispensary
    - c. Pretesting
    - d. Special testing
    - e. Billing Department
  5. Perform telephone triage
    - a. Determine patient needs
      - i. Emergency visit
      - ii. Non-urgent visit
      - iii. Routine exam
  6. Document incoming calls appropriately
    - a. Patients
    - b. Other healthcare providers
    - c. Vendors/Sale representatives
    - d. Take and deliver messages to appropriate parties
    - e. Record details in electronic health record when warranted
  7. Manage patient appointments
    - a. Schedule
    - b. Referrals
    - c. Reminders
    - d. Confirmations
  8. Relay communication between doctor, patient, specialists, and pharmacy as needed
  9. Provide patient education resources regarding diagnoses and ophthalmic surgery
  10. Assist with maintaining accounts receivable/payable
  11. Present fees and payment information to patients

- a. Verify benefits online when available
- b. Insurance coverage vs. Out-of-pocket expense
- c. Vision plan vs. medical insurance

## B. Business Skills

1. Use computer to enter information into records
  - a. Posting charges
  - b. Accounting
  - c. Electronic health record
    - i. Incorporate doctor's comments into patient charts
2. Assist with updating office manuals
  - a. Office procedures
  - b. Employee policies
3. Assist manager with employee payroll
  - a. Track vacation time/paid time off
  - b. Compile hours worked
4. Help manage employee schedules
  - a. Office hours
  - b. Staff meetings
5. Maintain computer software
6. Help coordinate external advertising
  - a. Print ads
  - b. Online ads
  - c. Social media
7. Understand and assist with internal reports
  - a. Daily transactions
  - b. Production
  - c. Inventory
8. Meet with vendors and sales representatives

## C. Practice Management

1. Understand and perform medical billing and coding
  - a. Verify accuracy
  - b. Maintain MIPS (Merit-based Incentive Payment System)
2. Help maintain diagnostic listings and fee schedule
3. Assist with insurance issues
  - a. Filing claims
  - b. Contacting insurance companies
4. Assist with staff training
  - a. New staff members
  - b. New ophthalmic equipment
  - c. New computer software
5. Assist in purchasing ophthalmic examination equipment and supplies
6. Assist with ophthalmic inventory
  - a. office supplies
  - b. Frames
  - c. Contact lenses

- d. OTC sales items
- e. Ophthalmic supplies
- 7. Take inventory and reorder miscellaneous office supplies
- 8. Comply with federal regulations (HIPAA, OSHA)

## Knowledge Areas and Skills

- ✓ Anatomy and Physiology of the Eye
  - a. Orbit
  - b. Extraocular muscles
  - c. Lids
  - d. Lacrimal system
    - i. Tear film
      - 1. Aqueous layer
      - 2. Lipid layer
      - 3. Mucus layer
  - e. Conjunctiva
    - i. Palpebral
    - ii. Bulbar
    - iii. Fornix
  - f. Sclera
  - g. Cornea
  - h. Anterior chamber and angle structures
  - i. Uvea
    - i. Iris
  - j. Lens
  - k. Vitreous
  - l. Retina
  - m. Optic nerve
  - n. Macula
  - o. Visual pathway
- ✓ Eye Conditions, Disorders, and Diseases
  - a. Refractive conditions
    - i. Hyperopia
    - ii. Myopia
      - 1. High myopia
      - 2. Myopia management
    - iii. Astigmatism
    - iv. Presbyopia
  - b. Amblyopia
  - c. Strabismus
  - d. Nystagmus
  - e. Accommodative disorders
  - f. Binocular vision disorders
  - g. Keratoconus
  - h. Blepharitis
    - i. Staph

- ii. Demodex
    - iii. Meibomitis
  - i. Corneal dystrophies
    - i. Epithelial basement membrane
    - ii. Endothelial (Fuch's)
  - j. Cataracts
    - i. Nuclear sclerosis
    - ii. Cortical
    - iii. Posterior subcapsular
  - k. Hordeolum/Chalazion
  - l. Conjunctivitis
    - i. Bacterial
    - ii. Viral
    - iii. Allergic
  - m. Subconjunctival hemorrhage
  - n. Glaucoma
    - i. Open angle
    - ii. Closed angle
    - iii. Ocular hypertension
  - o. Macular degeneration
    - i. Dry
    - ii. Wet
  - p. Diabetic retinopathy
    - i. Proliferative
    - ii. Non-proliferative
    - iii. Macular edema
  - q. Vitreous pathology
    - i. Posterior vitreous detachment
    - ii. Floaters
  - r. Retinal pathology
    - i. Holes, tears
    - ii. Detachment
- ✓ Biology
  - a. Infection control
  - b. Universal precautions
- ✓ Optics
  - a. Correction of refractive errors
  - b. Elements of an ophthalmic prescription
  - c. Types of lenses
  - d. Measurements
  - e. Frame fitting
  - f. ANSI Standards
- ✓ Optical math
- ✓ Medical Terminology
  - a. Prefixes
  - b. Suffixes
  - c. Root words
  - d. Directional

- e. Abbreviations
- ✓ Conflict Resolution Skills
- ✓ Diversity Awareness
- ✓ Communication Skills (including interpersonal, linguistic and writing skills)
- ✓ Leadership Skills
- ✓ Management Skills
- ✓ Stress Management
- ✓ Accounting
- ✓ Marketing
- ✓ Computer Skills
  - a. Website Development
  - b. Social Media
- ✓ Time Management Skills
- ✓ Labor Relations and the Law
- ✓ Professionalism
  - a. Healthcare/Workplace Ethics
  - b. Patient rights/staff rights