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 paraoptometrics 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. Stereoaucuity 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](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 funduscopic 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. Electretinogram (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. Autorefractioin
   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