PAM EXAMINATION: SAMPLE CASE 1

Demographics
34-year-old black male; industrial engineer

Chief complaint
problem with new glasses

History of present illness
Character/signs/symptoms: new glasses “don’t feel right”
Location: OD, OS
Severity: moderate
Nature of onset: gradual
Duration: 1 month
Frequency: constant
Exacerbations/remissions: none
Relationship to activity or function: none
Accompanying signs/symptoms: none

Secondary complaints/symptoms
none

Patient ocular history
last eye exam 1 month ago, received new spectacle prescription

Family ocular history
father: cataracts

Patient medical history
depression

Medications taken by patient
Prozac®

Patient allergy history
penicillin

Family medical history
father: died from heart failure at age 56

Review of systems
Constitutional/general health: denies
Ear/nose/throat: denies
Cardiovascular: denies
Pulmonary: denies
Dermatological: denies
Gastrointestinal: denies
Genitourinary: denies
Musculoskeletal: denies
Neuropsychiatric: trouble sleeping
Endocrine: denies
Hematologic: denies
Immunologic: denies

Mental status
Orientation: oriented to time, place, and person
Mood: appropriate
Affect: appropriate

Clinical findings
Habitual spectacle Rx (high index 1.67 plastic lenses, 1 month old):
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<tr>
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<th>VA Distance</th>
<th>VA Near</th>
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<tbody>
<tr>
<td>OD: +7.00 DS</td>
<td>20/20</td>
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Habitual spectacles with markings and frame measurements: see Image 1

External assessment: frame is noted to be properly aligned and adjusted
Distance PD: 58 mm
Pupils: PERRL, negative APD
EOMs: full, no restrictions
Confrontation fields: full to finger counting OD, OS
Subjective refraction: 

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Von Graefe phorias: orthophoria at distance, 10° exophoria at near
Near vergences: 15/20/16 BI, 10/15/4 BO

Slit lamp:
- lids/lashes/adnexa: unremarkable OD, OS
- conjunctiva: normal OD, OS
- cornea: clear OD, OS
- anterior chamber: deep and quiet OD, OS
- iris: normal OD, OS
- lens: clear OD, OS
- vitreous: clear OD, OS

IOPs: 11 mmHg OD, 10 mmHg OS @ 1:00 PM by applanation tonometry

Fundus OD:
- C/D: 0.1H/0.1V
- macula: normal
- posterior pole: normal
- periphery: unremarkable

Fundus OS:
- C/D: 0.15H/0.15V
- macula: normal
- posterior pole: normal
- periphery: unremarkable

Blood pressure: 118/74 mmHg, right arm, sitting
Pulse: 78 bpm, regular

Image 1: optical center = geometric center of frame
1. Which of the following is the MOST likely cause of this patient’s discomfort when wearing his new spectacles? (Diagnosis)
   a. Demands on positive fusional vergence
   b. Demands on negative fusional vergence
   c. Aberration from high index lenses
   d. Normal adaptation to a new prescription

2. Which of the following is the TOTAL prismatic effect at distance induced by the spectacles? (Clinical Correlation of Basic Science Principles)
   a. 2.2\(^\circ\) BD OD
   b. 2.2\(^\circ\) BU OD
   c. 5.6\(^\circ\) BI
   d. 5.6\(^\circ\) BO
   e. 11.2\(^\circ\) BI
   f. 11.2\(^\circ\) BO

3. Which of the following near cover test results is MOST likely to be obtained through this patient’s habitual spectacle prescription? (Related to Diagnosis)
   a. 2 – 3\(^\circ\) right hyperphoria
   b. 2 – 3\(^\circ\) right hypophoria
   c. 9 – 10\(^\circ\) exophoria
   d. 9 – 10\(^\circ\) esophoria
   e. 15 – 16\(^\circ\) exophoria
   f. 15 – 16\(^\circ\) esophoria

4. Which of the following is the MOST appropriate management for this patient? (Treatment / Management)
   a. Remake the spectacles to eliminate the BO prism.
   b. Remake the spectacles to eliminate the BI prism.
   c. Remake the spectacles with CR-39™ lenses.
   d. Remake the spectacles with polycarbonate lenses.
   e. Educate the patient about spectacle adaptation.

5. The Federal Trade Commission’s (FTC’s) “Eyeglasses” rule requires: (Legal and Ethical Issues)
   a. the release of contact lens prescriptions.
   b. a specified minimum of elements for spectacle prescriptions.
   c. that the words “OK for contact lenses” be written on spectacle prescriptions.
   d. that spectacle prescriptions be provided to patients at the conclusion of examinations.
6. This patient often handles caustic liquids while at work and is concerned about the safety of his eyes. Which of the following would provide the patient with the GREATEST amount of protection in the event of a chemical splash accident? (Public Health)

a. Large-diameter soft contact lenses
b. Gas permeable contact lenses
c. Safety goggles with indirect venting under a face shield
d. Safety frames with side shields attached to the temples
Demographics
42-year-old white female; computer programmer

Chief complaint
red right eye

History of present illness
  Character/signs/symptoms: redness worse in the inner corner
  Location: OD
  Severity: moderate, getting worse
  Nature of onset: sudden
  Duration: 2 days
  Frequency: constant
  Exacerbations/remissions: none
  Relationship to activity or function: none
  Accompanying signs/symptoms: mild discomfort, slight tearing

Secondary complaints/symptoms
none

Patient ocular history
last comprehensive eye exam 1 year ago; wears PALs

Family ocular history
mother: cataract surgery at age 55

Patient medical history
inflammatory bowel disease diagnosed 5 years ago

Medications taken by patient
artificial tears four times per day for the past 2 days; oral prednisone; ibuprofen; multivitamin

Patient allergy history
dust; pollen; NKDA

Family medical history
mother: type 2 diabetes mellitus

Review of systems
Constitutional/general health: occasional malaise
Ear/nose/throat: denies
Cardiovascular: denies
Pulmonary: denies
Dermatological: denies
Gastrointestinal: occasional diarrhea with cramping
Genitourinary: denies
Musculoskeletal: denies
Neuropsychiatric: denies
Endocrine: none
Hematologic: none
Immunologic: none

Mental status
Orientation: oriented to time, place, and person
Mood: appropriate
Affect: appropriate

Clinical findings
BVA: Distance
  OD: 20/20
  OS: 20/20
Pupils: PERRL, negative APD
EOMs: full, no restrictions
Confrontation fields: full to finger counting OD, OS
Slit lamp:
- lids/lashes/adnexa: unremarkable OD, OS
- conjunctiva: see Image 1 OD, normal OS
- cornea: clear OD, OS
- anterior chamber: deep and quiet OD, OS
- iris: normal OD, OS
- lens: trace NS OD, OS
- vitreous: clear OD, OS

IOPs: 24 mmHg OD, 25 mmHg OS @ 9:30 AM by applanation tonometry

Fundus OD:
- C/D, macula, posterior pole: see Image 2
- periphery: unremarkable

Fundus OS:
- C/D, macula, posterior pole: see Image 3
- periphery: unremarkable

Blood pressure: 124/88 mmHg, right arm, sitting
Pulse: 72 bpm, regular

Image 1: OD right gaze

Image 2

Image 3
1. Which of the following is the MOST likely diagnosis of this patient’s anterior segment condition OD? (Diagnosis)
   a. Nodular episcleritis
   b. Phlyctenular keratoconjunctivitis
   c. Conjunctival abrasion
   d. Inflamed pingueculum

2. Which of the following is the MOST likely extra-intestinal manifestation of idiopathic inflammatory bowel disease? (Clinical Correlation of Basic Science Principles)
   a. joint inflammation
   b. pulmonary infections
   c. orthostatic hypotension
   d. cardiac arrhythmia
   e. weight gain

3. Which of the following is the MOST appropriate treatment for this patient’s anterior segment condition OD? (Treatment / Management)
   a. Polytrim® solution every 3 hours
   b. Natamycin suspension every 4 hours
   c. Viroptic® solution every 2 hours
   d. Erythromycin ointment twice per day
   e. FML® suspension 4 times per day

4. After initiating treatment, which of the following is the MOST appropriate follow-up interval? (Related to Treatment / Management)
   a. 24 hours
   b. 4 days
   c. 4 weeks
   d. 3 months
   e. 6 months
   f. 1 year

5. Assuming appropriate treatment is initiated, which of the following clinical findings will MOST likely manifest at the next follow-up examination? (Related to Treatment / Management)
   a. Tenderness of the globe to touch
   b. Elevated intraocular pressure
   c. Reduced ocular injection
   d. Corneal melt
6. The proportion of new cases of this patient’s ocular condition within a population at risk during a specified time period represents the: (Public Health)

a. prevalence
b. standardized rate
c. morbidity ratio
d. relative risk
e. incidence
Demographics
21-year-old Asian male; college student

Chief complaint
problems with contact lenses

History of present illness
Character/signs/symptoms: contact lenses move excessively and are uncomfortable
Location: OD, OS
Severity: mild
Nature of onset: gradual
Duration: 3 months
Frequency: constant
Exacerbations/remissions: worse when moving eyes
Relationship to activity or function: when wearing contact lenses
Accompanying signs/symptoms: itchiness, redness

Secondary complaints/symptoms
wants new back-up spectacles

Patient ocular history
last eye exam 3 years ago; wears opaque/colored conventional soft contact lenses; last replaced 2 years ago; occasionally sleeps with the contact lenses; uses multi-purpose solution

Family ocular history
father: retinal detachment at age 20

Patient medical history
last physical examination 1 year ago

Medications taken by patient
Claritin®

Patient allergy history
seasonal allergies; skin allergies; NKDA

Family medical history
father: prostate cancer

Review of systems
Constitutional/general health: denies
Ear/nose/throat: frequent runny nose
Cardiovascular: denies
Pulmonary: denies
Dermatological: denies
Gastrointestinal: denies
Genitourinary: denies
Musculoskeletal: denies
Neuropsychiatric: denies
Endocrine: denies
Hematologic: denies
Immunologic: denies

Mental status
Orientation: oriented to time, place, and person
Mood: appropriate
Affect: appropriate

Clinical findings
VA with current CLs: Distance Near Pinhole
OD: 20/30 20/30 no improvement
OS: 20/30 20/30 no improvement

Pupils: PERRL, negative APD
EOMs: full, no restrictions
Confrontation fields: full to finger counting OD, OS
Keratometry:
  OD:  45.25 @ 180 / 44.50 @ 090; mires slightly distorted
  OS:  45.50 @ 180 / 44.75 @ 090; mires slightly distorted

Subjective refraction:  VA Distance VA Near
  OD:  -7.50 DS        20/20     20/20
  OS:  -8.25 DS        20/20     20/20

Slit lamp:
  lids/lashes/adnexa:  unremarkable OD, OS
  conjunctiva:  mild bulbar injection OD, OS; palpebral see Image 1 OD, OS similar to OD
  cornea:  mild diffuse superficial punctate keratitis OD, OS
  anterior chamber:  deep and quiet OD, OS
  iris:  normal OD, OS
  lens:  clear OD, Mittendorf’s dot OS
  vitreous:  clear OD, OS
  contact lens assessment: see Image 2 OD, OS similar to OD

IOPs:  15 mmHg OD, 17 mmHg OS @ 3:15 PM by applanation tonometry

Fundus OD:
  C/D:  0.4H/0.45V
  macula:  normal
  posterior pole:  normal
  periphery:  lattice degeneration without holes 360°

Fundus OS:
  C/D:  0.5H/0.5V
  macula:  normal
  posterior pole:  normal
  periphery:  lattice degeneration without holes 360°

Blood pressure:  116/70 mmHg, right arm, sitting

Pulse:  68 bpm, regular

1. Which of the following is the MOST likely diagnosis of this patient’s ocular condition? (Diagnosis)
   a. Adult inclusion conjunctivitis
   b. Bacterial conjunctivitis
   c. Viral conjunctivitis
   d. Giant papillary conjunctivitis
2. Which type of antibody is involved in atopic disease? (Clinical Correlation of Basic Science Principles)
   a. IgA
   b. IgE
   c. IgG
   d. IgM

3. Which of the following is the MOST appropriate INITIAL treatment for this patient’s ocular condition? (Treatment / Management)
   a. Discontinue contact lens wear
   b. Artificial tears
   c. Replace contact lenses
   d. Topical ophthalmic antibiotic

4. Once the patient’s condition has resolved, which of the following would be the MOST appropriate contact lens wear modality? (Related to Treatment / Management)
   a. Disposable, 1-day daily wear soft
   b. Disposable, 1-week extended wear soft
   c. Frequent replacement, 3-month soft
   d. Conventional daily wear soft

5. When refitting this patient with contact lenses, which of the following contact lens powers is MOST appropriate? (Related to Treatment / Management)
   OD   OS
   a. -6.50 DS  -6.75 DS
   b. -7.00 DS  -7.50 DS
   c. -7.50 DS  -8.00 DS
   d. -8.00 DS  -8.50 DS

6. Following a successful contact lens fitting, including a period of lens wear, the patient asks for a copy of his contact lens prescription. Which of the following statements BEST describes the optometrist’s responsibility? (Legal and Ethical Issues)
   a. The optometrist must comply with the patient’s request.
   b. The optometrist must provide a prescription with all required contact lens parameters as long as the patient agrees to return for follow-up care.
   c. The optometrist is required to provide a prescription only if the contact lenses are to be purchased elsewhere.
   d. The optometrist does not have to provide a contact lens prescription unless required by state law.
PAM EXAMINATION: SAMPLE CASE 4

Demographics
62-year-old white female; travel agent

Chief complaint
decreasing vision

History of present illness
Character/signs/symptoms: blurred vision
Location: OD
Severity: severe
Nature of onset: gradual
Duration: 6 months
Frequency: constant
Exacerbations/remissions: none
Relationship to activity or function: none
Accompanying signs/symptoms: none

Secondary complaints/symptoms
eyes feel scratchy all day

Patient ocular history
corneal abrasion OS at age 45

Family ocular history
father: macular degeneration

Patient medical history
rheumatoid arthritis

Medications taken by patient
Plaquinil® 200 mg per day for 2 years

Patient allergy history
hayfever; NKDA

Family medical history
mother: diabetes

Review of systems
Constitutional/general health: malaise
Ear/nose/throat: denies
Cardiovascular: denies
Pulmonary: denies
Dermatological: denies
Gastrointestinal: denies
Genitourinary: denies
Musculoskeletal: joint pain
Neuropsychiatric: denies
Endocrine: denies
Hematologic: denies
Immunologic: denies

Mental status
Orientation: oriented to time, place, and person
Mood: appropriate
Affect: appropriate

Clinical findings
Habitual spectacle Rx:

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<tr>
<td>OS: +2.00 -0.75 x 090</td>
<td>20/20</td>
<td>20/20</td>
</tr>
<tr>
<td></td>
<td>+2.50 D Add</td>
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Pupils: PERRL, negative APD
EOMs: full, no restrictions
Confrontation fields: full to finger counting OD, OS
Subjective refraction:

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<th>Pinhole</th>
<th>VA Near (with Add)</th>
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<tbody>
<tr>
<td>OD:</td>
<td>+1.75 -0.75 x 090</td>
<td>20/200 no improvement</td>
<td>20/200</td>
</tr>
<tr>
<td>OS:</td>
<td>+1.75 -0.50 x 095</td>
<td>20/20</td>
<td>20/20</td>
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+2.50 D Add

Amsler grid:

OD: see Image 1
OS: see Image 2

Slit lamp:

- lids/lashes/adnexa: unremarkable OD, OS
- conjunctiva: normal OD, OS
- cornea: clear OD, OS
- anterior chamber: deep and quiet OD, OS
- iris: normal OD, OS
- lens: 1+ nuclear sclerosis OD, OS
- vitreous: posterior vitreous detachment OD, syneresis OS

IOPs: 14 mmHg OD, 14 mmHg OS @ 11:20 AM by applanation tonometry

Fundus OD:

- C/D: 0.4H/0.45V
- macula, posterior pole: see Image 3
- periphery: scattered pavingstone degeneration 360°

Fundus OS:

- C/D, macula, posterior pole: see Image 4
- periphery: scattered pavingstone degeneration 360°

Blood pressure: 134/82 mmHg, right arm, sitting

Pulse: 76 bpm, regular

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Note: When visual fields are displayed side-by-side, the OD visual field will be on the right and the OS visual field will be on the left.
1. The MOST likely diagnosis of the patient's fundus condition OD is: (Diagnosis)
   
   a. bull's eye maculopathy.
   b. histoplasmosis.
   c. wet age-related maculopathy.
   d. solar retinopathy.
   e. macular hole.

2. The MOST likely etiology of the patient's fundus condition OD is: (Clinical Correlation of Basic Science Principles)
   
   a. drug toxicity.
   b. stimulation of new blood vessel growth.
   c. vitreous traction.
   d. systemic infection.
   e. thermal damage.

3. If the patient manifests progressive lenticular changes and an increase in myopia, which of the following types of cataracts is MOST likely responsible for these clinical signs? (Clinical Correlation of Basic Science Principles)
   
   a. Anterior cortical
   b. Nuclear sclerotic
   c. Cortical
   d. Posterior polar
4. Which of the following is the **MOST** appropriate management for this patient?  
*(Treatment / Management)*

a. Annual monitoring  
b. Vitrectomy  
c. Oral prednisone  
d. Laser photocoagulation  
e. Ocuvite®  
f. Anti-VEGF injection

5. Which of the following is **MOST** appropriate to include in the education of this patient?  
*(Related to Treatment / Management)*

a. Polycarbonate spectacle lenses are important to protect the left eye.  
b. Genetic counseling for the patient’s grandchildren is essential.  
c. The patient’s rheumatologist should discontinue the Plaquenil®.  
d. Sunglasses should be worn full-time to protect the retina.  
e. Consultation with a pulmonologist should be scheduled.  
f. Low vision aids are necessary for activities of daily living.

6. This patient called your office a week ago and asked for your advice over the phone, prior to scheduling her first appointment. Which of the following describes the circumstance whereby giving professional advice over the telephone can establish a doctor-patient relationship?  
*(Legal and Ethical Issues)*

a. The telephone conversation is sufficient by itself.  
b. The telephone conversation is sufficient only if payment is tendered for the advice.  
c. The telephone conversation is sufficient only if follow-up care is given in the office.  
d. The telephone conversation is sufficient only if it is an emergency.