

**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 used 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

**Endocrine:** denies

**Dermatological:** denies

**Gastrointestinal:** denies

**Genitourinary:** denies

**Musculoskeletal:** denies

**Neurologic:** trouble sleeping

**Psychiatric:** denies

**Immunologic:** denies

**Hematologic:** 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):**

	<u>VA Distance</u>	<u>VA Near</u>
OD: +7.00 DS	20/20	20/20
OS: +7.00 DS	20/20	20/20

**Habitual spectacles with markings and frame measurements:** see *Image 1*

**External assessment:** frame is noted to be properly aligned and adjusted

**Patient’s distance PD:** 58 mm

**Pupils:** PERRL, negative RAPD

**EOMs:** full, no restrictions

**Confrontation fields:** full to finger counting OD, OS

**Subjective refraction:**

	<u>VA Distance</u>	<u>VA Near</u>
OD: +7.00 DS	20/20	20/20
OS: +7.00 DS	20/20	20/20

**Von Graefe phorias:** ortho at distance, 10<sup>Δ</sup> exo 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

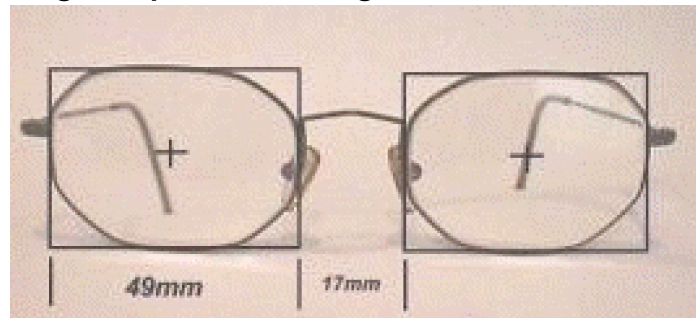
posterior pole: normal

periphery: unremarkable

**Blood pressure:** 118/74 mmHg, right arm, sitting

**Pulse:** 78 bpm, regular

**Image 1: optical center = geometric center of frame**



correct answer

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. 5.6<sup>Δ</sup> BI
  - b. 5.6<sup>Δ</sup> BO
  - c. 11.2<sup>Δ</sup> BI
  - d. 11.2<sup>Δ</sup> 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. 9 – 10<sup>Δ</sup> exophoria
  - b. 9 – 10<sup>Δ</sup> esophoria
  - c. 15 – 16<sup>Δ</sup> exophoria
  - d. 15 – 16<sup>Δ</sup> 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. Which of the following is a requirement of The Federal Trade Commission's (FTC's) Eyeglasses Rule? **(Legal and Ethical Issues)**
- a. Contact lens prescriptions must be released
  - b. Spectacle prescriptions must include a specified minimum of elements
  - c. The words "OK for contact lenses" must be written on spectacle prescriptions
  - d. Spectacle prescriptions must 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

## **PAM EXAMINATION: SAMPLE CASE 2**

### **Demographics**

42-year-old white female; computer programmer

### **Chief complaint**

red 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 used by patient**

artificial tears q.i.d. 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

**Endocrine:** none

**Dermatological:** denies

**Gastrointestinal:** occasional diarrhea with cramping

**Genitourinary:** denies

**Musculoskeletal:** denies

**Neurologic:** denies

**Psychiatric:** denies

**Immunologic:** none

**Hematologic:** 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 RAPD

**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**



correct answer

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 two of the following are extra-intestinal manifestations of idiopathic inflammatory bowel disease? (Select 2) **(Clinical Correlation of Basic Science Principles)**
  - a. Joint pain
  - b. Pulmonary infections
  - c. Dermatitis
  - d. Cardiac arrhythmia
  - e. Orthostatic hypotension
  
3. Which of the following is the most appropriate treatment for this patient's anterior segment condition OD? **(Treatment / Management)**
  - a. Polytrim® solution q.3h
  - b. Natamycin suspension q.4h
  - c. Viroptic® solution q.2h
  - d. Erythromycin ointment b.i.d.
  - e. FML® suspension q.i.d.
  
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 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. Which of the following is the proportion of new cases of this patient's ocular condition within a population at risk during a specified time period? (Public Health)
- a. Prevalence
  - b. Standardized rate
  - c. Morbidity ratio
  - d. Relative risk
  - e. Incidence

**PAM EXAMINATION: SAMPLE CASE 3**

**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 monthly soft contact lenses; does not remember last replacement date; 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

**Endocrine:** denies

**Dermatological:** denies

**Gastrointestinal:** denies

**Genitourinary:** denies

**Musculoskeletal:** denies

**Neurologic:** denies

**Psychiatric:** denies

**Immunologic:** denies

**Hematologic:** denies

**Mental status**

**Orientation:** oriented to time, place, and person

**Mood:** appropriate

**Affect:** appropriate

**Clinical findings**

<b>VA with current CLs:</b>	<u>Distance</u>	<u>Near</u>	<u>Pinhole</u>
OD:	20/30	20/30	no improvement
OS:	20/30	20/30	no improvement

**Pupils:** PERRL, negative RAPD

**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

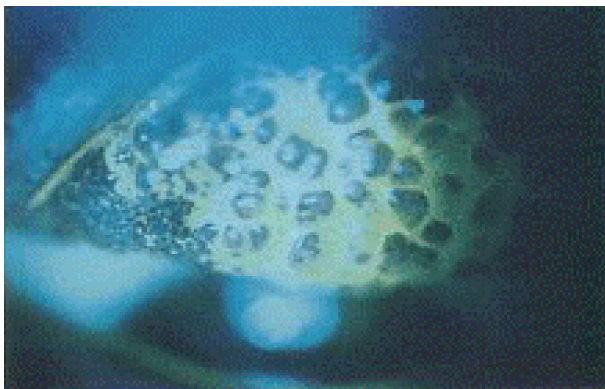
posterior pole: normal

periphery: lattice degeneration without holes 360°

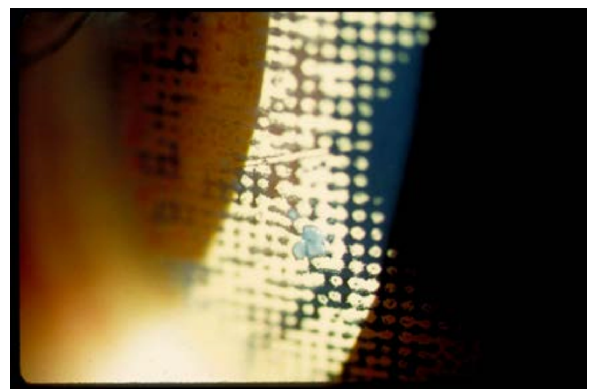
**Blood pressure:** 116/70 mmHg, right arm, sitting

**Pulse:** 68 bpm, regular

**Image 1: following instillation of fluorescein sodium, using cobalt filter**



**Image 2: contact lens assessment OD**



correct answer

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 management 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)
- |    | <u>OD</u> | <u>OS</u> |
|----|-----------|-----------|
| 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  |

**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**

Plaquenil® 200 mg per day for 2 years

**Patient allergy history**

hay fever; NKDA

**Family medical history**

mother: diabetes

**Review of systems**

**Constitutional/general health:** malaise

**Ear/nose/throat:** denies

**Cardiovascular:** denies

**Pulmonary:** denies

**Endocrine:** denies

**Dermatological:** denies

**Gastrointestinal:** denies

**Genitourinary:** denies

**Musculoskeletal:** joint pain

**Neurologic:** denies

**Psychiatric:** denies

**Immunologic:** denies

**Hematologic:** denies

**Mental status**

**Orientation:** oriented to time, place, and person

**Mood:** appropriate

**Affect:** appropriate

**Clinical findings**

<b>Habitual spectacle Rx:</b>	<u>VA Distance</u>	<u>VA Near (with Add)</u>
OD: +1.50 -0.50 x 085	20/200	20/200
OS: +2.00 -0.75 x 090	20/20	20/20
+2.50 D Add		

**Pupils:** PERRL, negative RAPD

**EOMs:** full, no restrictions

**Confrontation fields:** full to finger counting OD, OS

<b>Subjective refraction:</b>	<u>VA Distance</u>	<u>Pinhole</u>	<u>VA Near (with Add)</u>
OD: +1.75 -0.75 x 090	20/200	no improvement	20/200
OS: +1.75 -0.50 x 095	20/20		20/20
+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:**

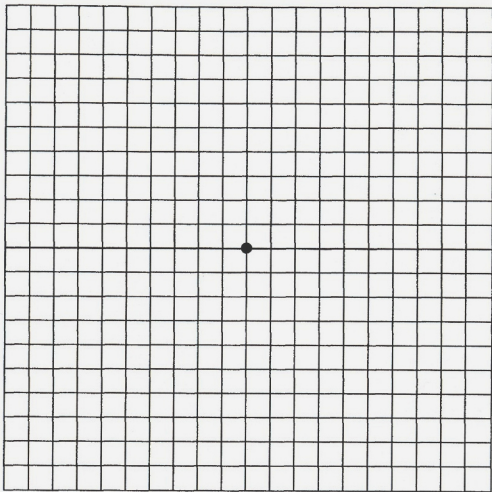
C/D, macula, posterior pole: see *Image 4*

periphery: scattered pavingstone degeneration 360°

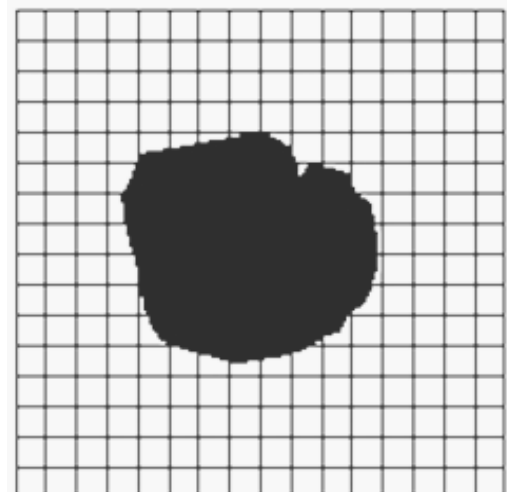
**Blood pressure:** 134/82 mmHg, right arm, sitting

**Pulse:** 76 bpm, regular

**Image 2: OS**



**Image 1: OD**

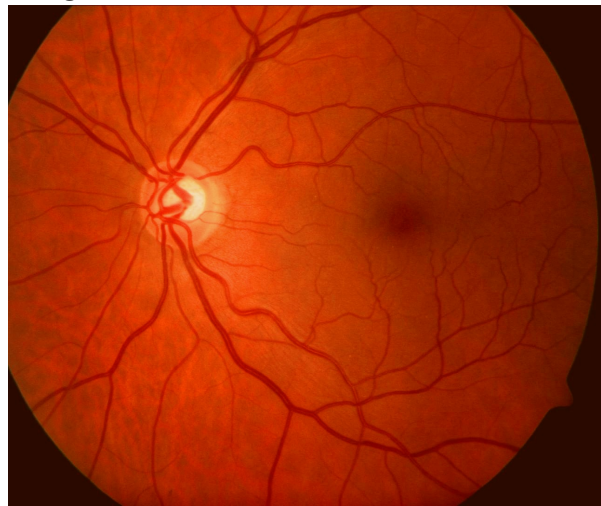


*Note: When visual fields are displayed side-by-side, the OD visual field will be on the right and the OS visual field will be on the left.*

Image 3: OD



Image 4: OS



correct answer

- 1. Which of the following is the most likely diagnosis of the patient's fundus condition OD?**  
**(Diagnosis)**
  - a. Bull's eye maculopathy
  - b. Histoplasmosis
  - c. Wet age-related maculopathy
  - d. Solar retinopathy
  - e. Macular hole**
  
- 2. Which of the following is the most likely etiology of the patient's fundus condition OD?**  
**(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. Ocuville®
- 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 the office a week ago and asked for the doctor's 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