STATE BOARD OF OPTOMETRY
2450 DEL PASO ROAD, SUITE 105, SACRAMENTO, CA 95834
P (916) 575-7170 F (916) 575-7292 www.optometry .ca.gov

Continuing Education Course Approval Checklist

Title: Episcleritis, Scleritis, and Iritis

Provider Name: Dr. Joseph Pruitt

☑Completed Application
Open to all Optometrists? ☑Yes ☐No
Maintain Record Agreement? ☑Yes ☐No

☑Correct Application Fee

☐Detailed Course Summary

☑Detailed Course Outline

☑PowerPoint and/or other Presentation Materials

☐Advertising (optional)

☑CV for EACH Course Instructor

☑License Verification for Each Course Instructor
Disciplinary History? ☐Yes ☑No

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CONTINUING EDUCATION COURSE APPROVAL APPLICATION

$50 Mandatory Fee

Board Use Only			
Receipt #	Payor ID	Beneficiary ID	Amount
1-3323	4395914	4395914	$50

Pursuant to California Code of Regulations (CCR) § 1536, the Board will approve continuing education (CE) courses after receiving the applicable fee, the requested information below and it has been determined that the course meets criteria specified in CCR § 1536(g).

In addition to the information requested below, please attach a copy of the course schedule, a detailed course outline and presentation materials (e.g., PowerPoint presentation). Applications must be submitted 45 days prior to the course presentation date.

Please type or print clearly.

Course Title	**Course Presentation Date**
Episcleritis, Scleritis, and Iritis	04/28/2017

Course Provider Contact Information

Provider Name

Joseph (First) Pruitt (Last) Allan (Middle)

Provider Mailing Address

Street 11980 Mt Vernon Ave. **City** Grand Terrace **State** CA **Zip** 92313

Provider Email Address PRUITT.JOSEPH@gmail.com

Will the proposed course be open to all California licensed optometrists?	☑ YES ☐ NO
Do you agree to maintain and furnish to the Board and/or attending licensee such records of course content and attendance as the Board requires, for a period of at least three years from the date of course presentation?	☑ YES ☐ NO

Course Instructor Information

Please provide the information below and attach the curriculum vitae for each instructor or lecturer involved in the course. If there are more instructors in the course, please provide the requested information on a separate sheet of paper.

Instructor Name

Joseph (First) Pruitt (Last) Allan (Middle)

License Number 13429	**License Type** TLG
Phone Number (909) 721-7751	**Email Address** pruitt.joseph@gmail.com

I declare under penalty of perjury under the laws of the State of California that all the information submitted on this form and on any accompanying attachments submitted is true and correct.

Joseph

Signature of Course Provider

3/13/2017

Date

1 **Episcleritis, Scleritis, and Iritis**

Joseph A. Pruitt, O.D., M.B.A., FAAO
Staff Optometrist
Minneapolis VA Health Care System

2 **Episcleritis**

- Inflammation of the episclera
  - The connective tissue sheath between the sclera and conjunctiva
  -
- Generally benign condition occurring in young adults
  - Marked tendency to reoccur

3 **Episcleritis**

- Two different forms:
-
  - Simple: accounts for ~80% of episcleritis
  -
  - Nodular: accounts for ~20%

4 **Simple Episcleritis**

- Acute onset of signs and symptoms
  - Sometimes within ½ hour
  -
  -
- More common in women than men
  - Women: 20-50 years old
  - Men: 30-60

5 **Simple Episcleritis**

- Patient complains of mild to moderate discomfort
  - Hotness, pricking, etc
  - Tenderness may be present on direct palpitation to the irritated area
-
- *Note: pain should be localized to solely the eye. Pain radiating to the forehead think scleritis*

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- Lids may be involved in severe cases
-
- Photophobia may be present
  - Should be mild, if severe think corneal disease
  -
- No discharge; but may experience epiphora
-
- Vision should not be affected significantly
  - ...if at all
  -
- History often reveals recurrence of similar problem
-

7 **Simple Episcleritis**

- Appears as wedge or sector of deep injection and inflammation
  - Redness varies from firey→brick-red→mild red flush
  -

- Should not appear bluish as in scleritis
- Typically apex of wedge towards the limbus, base away
- Usually in interpapebral area (temporal > nasal)
- Mild elevation of overlying conjunctiva possible

8 **Simple Episcleritis**

- Usually unilateral
  - Although can be bilateral
- May involve entire anterior segment in rare cases
- Anterior chamber reaction absent
- Palpebral conjunctiva and cornea remain clear

9 **Simple Episcleritis**

- Must rule out any other causes of red eyes
  - Rule out common forms of conjunctivits
  - Rule out pingueculae and phlyctenulosis
  - Rule out scleritis
  - Rule out trauma
    - Typically by history
  - Mechanical injury
  - Chemical injury
  - Radiation exposure

10 **Simple Episcleritis**

- Treatment
  - Mild cases: optional
    - Self-limiting (~1-2 weeks)
    - Cold pack q 3-5 hrs for ~5 days
    - If symptomatic and concerned about cosmesis
      - Mild steroid (FML , Pred Mild, *Alrex*) QID
      - Topical NSAID (Acular, Nevanac, Voltaren) QID
      - Oral NSAID PRN

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- Treatment
  - Monderate to severe cases:
    - Prednisilone 1% (PredForte) or Lotemax QID→Q4H
    - Oral NSAID*
      - Ibuprofen (1200-1600 mg/day)
      - Naproxen (220-660 mg/day)

**Always want to use the lowest effective dose*

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- Follow-up
  - Weekly until resolved
  - Normal course (with or without) treatment 10-21 days
  - Once resolved, see on annual basis
  -
- Education
  - Advise patient of possible recurrences for next 3 months → 3 year period

13 **Simple Episcleritis**

- ≥ 3 recurrences warrants systemic work-up
-
- However keep in mind:
  - Only 30% of patients have associated clinical findings
    - Of those, only 5% showed association with collagen disease
    - 7% associated with Herpes Zoster
    - 3% associated with gout or syphillis
    - The balance, various other conditions

14 **Simple Episcleritis**

- Reported associated systemic diseases
  - Rheumatoid arthritis
  - Systemic lupus erythematosus (SLE)
  - Giant cell arteritis
  - Polyarteritis nodosa
  - Sarcoidosis
  - Herpes zoster
  - Tuberculosis
  - Syphilis
  - Gout
  - Thyrotoxicosis

15 **Simple Episcleritis**

16 **Nodular Episcleritis**

- Far less common
  - Only ~20% of all cases
  -
- Symptoms similar to simple form, but more severe:
  - Pain often present w/o palpitation
  - Tenderness greater than simple with palpitation
  - Photophobic responses may be moderate to severe
  - Vision still normal despite presentation

17 **Nodular Episcleritis**

- Recurrent history not as frequent with nodular as simple
-
- Recurrence of the two are NOT mutually exclusive
  - Simple episcleritis can recur as nodular and vice versa
  -
- Systemic associations continue to be rare

18 **Nodular Episcleritis**

- Signs
  - Similar to simple, but more intense with development of a nodule
    - Nodule is an organized area of cellular infiltrate in the center of sectoral

inflamed wedge
- Increases in size rapidly initially, often reaching the size of pea
- Usually a single site, but can be multiple
- Increased edema and infiltration as compared to simple form
  - Especially in area of nodule

19 **Nodular Episcleritis**
- Anterior chamber may show mild reaction
  - Trace cells + flare
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- Cornea still remain completely uninvolved
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- After multiple occurrences in the same area, the superficial lamellae of the sclera can appear transparent
  - Not to be confused with scleral thinning or necrosis

20 **Nodular Episcleritis**
- Differentiation:
  - Nodular = increased objective & subjective intensity
  - Nodular = presence of a nodule
  -

21 **Nodular Episcleritis**
- Treatment
  - Same as moderate to severe episcleritis
    - Prednisilone 1%
      - Increase to q2-4 h based on severity
    - Oral ibuprofen
      - 1200-1600 mg/day
    - Rarely in severe cases, oral steroids are needed for prolonged non-responsive cases, which is called...?
    -
      - Periodosis fugax
      -
  - Patient to be followed weekly until resolved

22 **Nodular Episcleritis**
- Normal course for nodule regression can extend months with or without treatment
  - Usually no more than 2 to 3 months
  -
- What is a quick and easy test to differentiate between episcleritis and scleritis...?
  - Instill phenylephrine 2.5% and or 10% if necessary
- Why does this work?
  - 2.5% drop does not penetrate into sclera, but 10% does

23 **Nodular Episcleritis**

24 **Scleritis**
- Severe destructive disease
  - Potentially leading to loss of an eye
- Most common in 4th to 6th decades of life
- Women > men (8:5)
- Bilateral in 52% of patients
  - Of which, 50% are bilateral at onset
    - Remaining will develop in other eye within 5 years

25 **Scleritis**
- Very severe pain
  - Almost intolerable
  - Often prevents sleep
  - Often is accompanied by general malaise
  - Mildly relieved by analgesics
- Gradual onset
  - Generally building up over several days
- Pain can radiate to the brow and jaw area

26 **Scleritis**
- Often a history of recurrences
- Vision is typically reduced
- Severe photophobia
- Profuse tearing
- Angry red eye
  - Usually diffuse with 360^0 involvement
  - Deep scleral vessels may produce a bluish to purplish color (which cannot be blanched with 2.5% phenyl)

27 **Scleritis**
- Sclera may appear edematous as well as thinned
- Often associated with corneal involvment
  - Peripheral corneal thinning or guttering (keratolysis)
- Anterior uveitis almost always present as well
- Inflammatory nodules may be present on anterior sclera

28 **Scleritis**
- Often associated with other ocular findings
  - Posterior involvement
  - Glaucoma
  - Cataracts
  - Hyperopic refractive shift
  -
- High likelihood of systemic disease
  - >50%

29 **Scleritis**
- Associated systemic diseases:
  - Rheumatoid disease
    - Most common
  - Herpes Zoster Ophthalmicus
  - Syphilis
  - Gout
  - TB
  - Others
    - Subacute Infectious Polyarthritis with Mucositis (formerly known as...?)
    -
      - Reiter's Syndrome

    - Granulomatosis with polyangitis (formerly known as...?)
    -

- Wegener's Granulomatosis

30 **Scleritis**

- Can be divided into different types
  - Which may not indicate etiology
  - Although may help with treatment and prognosis
  -
- Different types of scleritis:
  - Anterior
    - Diffuse
    - Nodular
    - Necrotizing (with or without inflammation)
  - Posterior

31 **Scleritis**

- Diffuse Anterior Scleritis
  - Most common
  - Least severe scleritis
  - Inflammation is widespread
  - Normal radial pattern of vessels is lost
    - Due to anastamosis, beading and tortuosity of vessels

32 **Diffuse Anterior Scleritis**

33 **Scleritis**

- Nodular Anterior Scleritis
  - Appears similar to nodular episcleritis on cursory exam
  - Nodules consist of scleral tissue
    - Immovable
  - Nodules are tender to the touch
  - Sclera may appear transparent below the nodule
    - But is not necrotic

34 **Nodular Anterior Scleritis**

35 **Scleritis**

- Necrotizing Anterior Scleritis with Inflammation
  - Associated with severe inflammation and extreme discomfort
    - Often wakes up patient during night
  - Extreme danger of losing eye
    - Thus, early detection is crucial
  - Sclera itself will appear swollen with overlying areas of inflammation
  -

36 **Scleritis**

- Necrotizing Anterior Scleritis with Inflammation (continued)
-
  - Following the acute inflammation, the sclera becomes transparent
    - Underlying choroidal pigment becomes visable
    -
  - If inflammation continues the entire anterior segment can become involved
  -,

37 **Necrotizing Anterior Scleritis with Inflammation**

38 **Scleritis**

- Necrotizing Anterior Scleritis without Inflammation
  - Also called...?

- Scleromalacia perforans
-
- Characterized by an almost total lack of symptoms

- Occurs almost exclusively in individuals with longstanding polyarticular rheumatism
-
  - Majority of which are women

39 **Scleritis**
- Necrotizing Anterior Scleritis without Inflammation (continued)
-
  - The anterior sclera loses its covering of episclera
    - An area of yellow-white tissue develops as a result
    - Eventually separates or absorbs leaving behind just conjunctiva or nothing at all

40 **Necrotizing Anterior Scleritis without Inflammation**

41 **Scleritis**
- Posterior Scleritis
-
  - Thought to be more common than recognized due to not being able to view posterior sclera
  -
  - Usually only discovered if anterior scleritis is involved or if other signs in orbit lead towards it being present.
  -

42 **Scleritis**
- Posterior Scleritis
-
  - If inflammation remains posterior
    - exudative retinal detachment is possible
    - Retinal swelling
    - Swelling of the disc
    -
  - If inflammation extends outward EOMs become involved leading to:
    - Proptosis
    - Lower lid retraction
    - Ophthalmoplegia

43 **Posterior Scleritis**

44 **Scleritis**
- Due to severity, condition requires prompt diagnosis and urgent care
- Complete physical examination by internist and lab work is crucial
- Referral to a specialist is advisable:
  - Uveitic specialist if anterior
  - Retinal specialist if posterior
- Topical therapies (i.e. steroids) are of questionable value
  - May increase patient comfort
  - BUT...?
    - Beware of long-term use

45 **Scleritis**
- Narcotics may provide temporary relief of symptoms
-

- Intensive inflammatory control is mainstay of treatment
-
- Mild to moderate presentations
  - 600 mg oral ibuprofen qid x 1-2 weeks
  - 25 mg oral indomethacin tid x 1-2 weeks

46 **Scleritis**

- Severe or posterior uveitis
  - 60 to 100 mg oral prednisone for 3-5 days, then taper
  - Or more intensive immunosuppressive agents (e.g. methotrexate)
  -
- Complications from oral treatment
  - Indomethacin
    - GI upset
    - Can be treated with H2 blocker

47 **Scleritis**

- Complications from oral treatment (continued)
-
  - Prednisone
    - Hyperglycemia
    -
  - Immunosupressive agents
    - Leukopenia
    - Bladder toxicity
    - Opportunistic infection

48 **Scleritis**

- Treatment with subconjunctival or subtenons is contraindicated
  - Could lead to perforation

- Surgical treatment for defects in sclera is rarely needed
  - Underlying disease is not treated

49 **Scleritis**

- Follow-up
  - Underlying medical condition should be managed by appropriate specialist
  -
  - Essentially must be followed closely, but base f/u schedule on severity of presentation and opinion of specialist
  -

50 **Scleritis**

- "Brawny" scleritis
  - Disambiguation...sort of
  -
    - In literature it has been described as:
      - Gelatinous-appearing swelling surrounding the cornea with a tendency to involve the periphery of the cornea (a.k.a. gelatinous scleritis)
      -
      - Necrotizing Anterior Scleritis with Inflammation
      -

51 **Uveitis**

- Inflammation of one or more of the 3 parts of the uveal tract:
  - Anterior...?
    - Iritis, iridocyclitis
  - Intermediate...?
    - Pars planitis
  - Posterior...?
    - Choroditis
  - All 3...?
    - Panuveitis

52 **Anterior Uveitis**
- Typically involves photophobia, pain and excessive tearing
- Visual acuity may be mildly reduced
  - Most often 20/40 or better
- Deep peri-limbal injection of the conjunctiva + episclera
  - Normal palpebral conjunctiva

53 **Anterior Uveitis**
- Cornea may have mild edema or grayish-brown endothelial deposits (i.e. keratic precipitates)
  - Granulomatous
    - Large; yellow-white; some call "greasy"
  - Non-granulomatous
    - Smaller; white; fine

54 **Anterior Uveitis**
- Hallmark sign...?
  - Cells and Flare
    - Cells =
      - WBCs floating in the aqueous
        - An accumulation of WBCs in the anterior chamber is...?
          - Hypopyon
    - Flare =
      - Liberated protein from the inflamed iris or ciliary body, which causes a "smokey" appearance

55 **Anterior Uveitis**
- Posterior synechia may be present
  - Less frequently, anterior synechia

- IOP initially reduced due to hypotony of ciliary body
  - But eventually may rise due to accumulation of inflammatory by-products in trabecular meshwork

56 **Anterior Uveitis**
- May be chronic or acute
  - Chronic is very often due to underlying systemic disorder

- Acute is most often the result of trauma
  - Can also just be idiopathic or may be the 1st sign of underlying systemic disease
    - Thus, your call if you adhere to "1 non-granulomatous" rule

57 **Anterior Uveitis**

- Treatment is aimed at stopping inflammatory response
  - Pred Forte 1%/Lotemax 0.5% qid to q1h based on severity of presentation
  -
  - Cycloplege if great discomfort or posterior synechia
    - Homoatropine 5%
    -
  - Occasionally injectable and oral steroids are needed
    - Oral prednisone 60 to 80 mg
    - Kenalog 40

58 **Anterior Uveitis**

- When should lab tests be done...?
-
  - Recurrent or chronic
  - Bilateral
  - Recalcitrant
  - Granulomatous
  - If history suggest

59 **Anterior Uveitis**

- What do you want to order and why?
  - CBC
    - Assesses general health
  - ESR/CRP
    - Non-specific for inflammatory conditions
  - ANA/RF
    - For rheumatologic disorders, RA, SLE etc.
  - RPR/FTA-ABS
    - Syphillis
  - ACE/Serum calcium
    - Sarcoid; (x-ray)
  - ELISA
    - Lyme disease, toxo
  - HLA Typing
    - B-27: Ankylosing Spondylitis; (x-ray)
    - B-5: Behcet's
    - A-20: Birdshot Choriopathy
  - PPD
    - TB; (x-ray)
  - MRI
    - MS

60 **Anterior Uveitis**

- Causes
  - Idiopathic (40%)
  - HLA-B27 Arthropathies (21%)
  - JRA (11%)
  - Herpetic (10%)

- Sarcoid (6%)
- FHI aka FUS (5%)
- SLE (3%)
- IOL related (1%)
- Miscellaneous

61 ☐ **Anterior Uveitis**

- Most often, if properly treated, resolves without consequence/complications
  - However, possible complications include:
    - Band keratopathy
    - Bullous keratopathy
    - Cataracts
    - CME, ERM, or macular hole
    - Glaucoma (rare)
    - Death (very rare...but possible)

Episcleritis, Scleritis, and Iritis

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Staff Optometrist
Minneapolis VA Health Care System

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- Generally benign condition occurring in young adults
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Episcleritis

- Two different forms:
  - Simple: accounts for ~80% of episcleritis
  - Nodular: accounts for ~20%

Simple Episcleritis

- Acute onset of signs and symptoms
  - Sometimes within ½ hour
- More common in women than men
  - Women: 20-50 years old
  - Men: 30-60

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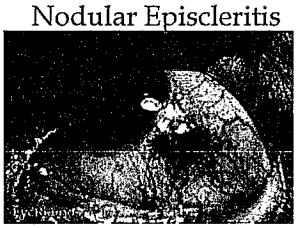
Nodular Episcleritis



Scleritis

- Severe destructive disease
  - Potentially leading to loss of an eye
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- Women > men (8:5)
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- Inflammatory nodules may be present on anterior sclera

Scleritis

- Often associated with other ocular findings
  - Posterior involvement
  - Glaucoma
  - Cataracts
  - Hyperopic refractive shift
- High likelihood of systemic disease
  - >50%

Scleritis

- Associated systemic diseases
  - Rheumatoid disease
    - Most common
  - Herpes Zoster Ophthalmicus
  - Syphilis
  - Gout
  - TB
  - Others
    - Subacute Infectious Polyarthritis with Mucositis (formerly known as…?)
      - Reiter's Syndrome
    - Granulomatosis with polyangiitis (formerly known as…?)
      - Wegener's Granulomatosis

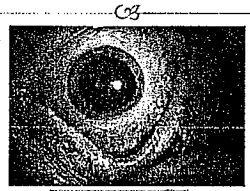
Scleritis

- Can be divided into different types
  - Which may not indicate etiology
  - Although may help with treatment and prognosis
- Different types of scleritis:
  - Anterior
    - Diffuse
    - Nodular
    - Necrotizing (with or without inflammation)
  - Posterior

Scleritis

- Diffuse Anterior Scleritis
  - Most common
  - Least severe scleritis
  - Inflammation is widespread
  - Normal radial pattern of vessels is lost
    - Due to anastamosis, beading and tortuosity of vessels

Diffuse Anterior Scleritis



Scleritis

- Nodular Anterior Scleritis
  - Appears similar to nodular episcleritis on cursory exam
  - Nodules consist of scleral tissue
    - Immovable
  - Nodules are tender to the touch
  - Sclera may appear transparent below the nodule
    - But is not necrotic

Nodular Anterior Scleritis

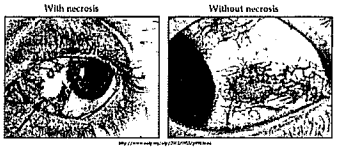
Scleritis

- Necrotizing Anterior Scleritis with Inflammation
  - Associated with severe inflammation and extreme discomfort
    - Often wakes up patient during night
  - Extreme danger of losing eye
    - Thus, early detection is crucial
  - Sclera itself will appear swollen with overlying areas of inflammation

Scleritis

- Necrotizing Anterior Scleritis with Inflammation (continued)
  - Following the acute inflammation, the sclera becomes transparent
    - Underlying choroidal pigment becomes visable
  - If inflammation continues the entire anterior segment can become involved

Necrotizing Anterior Scleritis with Inflammation



Scleritis

- Necrotizing Anterior Scleritis without Inflammation
  - Also called…?
    - Scleromalacia perforans
  - Characterized by an almost total lack of symptoms
  - Occurs almost exclusively in individuals with longstanding polyarticular rheumatism
    - Majority of which are women

Scleritis

- Necrotizing Anterior Scleritis without Inflammation (continued)
  - The anterior sclera loses its covering of episclera
    - An area of yellow-white tissue develops as a result
    - Eventually separates or absorbs leaving behind just conjunctiva or nothing at all

Necrotizing Anterior Scleritis without Inflammation

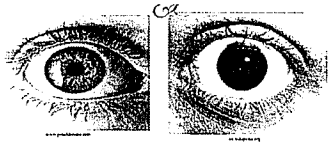
Scleritis

- Posterior Scleritis
  - Thought to be more common than recognized due to not being able to view posterior sclera
  - Usually only discovered if anterior scleritis is involved or if other signs in orbit lead towards it being present

Scleritis

- Posterior Scleritis
  - If inflammation remains posterior
    - exudative retinal detachment is possible
    - Retinal swelling
    - Swelling of the disc
  - If inflammation extends outward EOMs become involved leading to:
    - Proptosis
    - Lower lid retraction
    - Ophthalmoplegia

Posterior Scleritis



Scleritis

- Due to severity, condition requires prompt diagnosis and urgent care
- Complete physical examination by internist and lab work is crucial
- Referral to a specialist is advisable:
  - Uveitic specialist if anterior
  - Retinal specialist if posterior
- Topical therapies (i.e. steroids) are of questionable value
  - May increase patient comfort
  - BUT…?
    - Beware of long-term use

Scleritis

- Narcotics may provide temporary relief of symptoms
- Intensive inflammatory control is mainstay of treatment
- Mild to moderate presentations
  - 600 mg oral ibuprofen qid x 1-2 weeks
  - 25 mg oral indomethacin tid x 1-2 weeks

Scleritis

- Severe or posterior uveitis
  - 60 to 100 mg oral prednisone for 3-5 days, then taper
  - Or more intensive immunosuppressive agents (e.g. methotrexate)
- Complications from oral treatment
  - Indomethacin
    - GI upset
    - Can be treated with H2 blocker

Scleritis

- Complications from oral treatment (continued)
  - Prednisone
    - Hyperglycemia
  - Immunosuppressive agents
    - Leukopenia
    - Bladder toxicity
    - Opportunistic infection

Scleritis

- Treatment with subconjunctival or subtenons is contraindicated
  - Could lead to perforation
- Surgical treatment for defects in sclera is rarely needed
  - Underlying disease is not treated

Scleritis

- Follow-up
  - Underlying medical condition should be managed by appropriate specialist
  - Essentially must be followed closely, but base f/u schedule on severity of presentation and opinion of specialist

Scleritis

- "Brawny" scleritis
  - Disambiguation…sort of
    - In literature it has been described as:
      - Gelatinous-appearing swelling surrounding the cornea with a tendency to involve the periphery of the cornea (a.k.a. gelatinous scleritis)
      - Necrotizing Anterior Scleritis with Inflammation

Uveitis

- Inflammation of one or more of the 3 parts of the uveal tract:
  - Anterior…?
    - Iritis, iridocyclitis
  - Intermediate…?
    - Pars planitis
  - Posterior…?
    - Choroditis
  - All 3…?
    - Panuveitis

Anterior Uveitis

- Typically involves photophobia, pain and excessive tearing
- Visual acuity may be mildly reduced
  - Most often 20/40 or better
- Deep peri-limbal injection of the conjunctiva + episclera
  - Normal palpebral conjunctiva

Anterior Uveitis

- Cornea may have mild edema or grayish-brown endothelial deposits (i.e. keratic precipitates)
  - Granulomatous
    - Large; yellow-white; some call "greasy"
  - Non-granulomatous
    - Smaller; white; fine

Anterior Uveitis

- Hallmark sign…?
  - Cells and Flare
    - Cells =
      - WBCs floating in the aqueous
        - An accumulation of WBCs in the anterior chamber is…?
          - Hypopyon
    - Flare =
      - Liberated protein from the inflamed iris or ciliary body, which causes a "smokey" appearance

Anterior Uveitis

- Posterior synechia may be present
  - Less frequently, anterior synechia
- IOP initially reduced due to hypotony of ciliary body
  - But eventually may rise due to accumulation of inflammatory by-products in trabecular meshwork

Anterior Uveitis

- May be chronic or acute
  - Chronic is very often due to underlying systemic disorder
  - Acute is most often the result of trauma
    - Can also just be idiopathic or may be the 1st sign of underlying systemic disease
      - Thus, your call if you adhere to "1 non-granulomatous" rule

Anterior Uveitis

- Treatment is aimed at stopping inflammatory response
  - Pred Forte 1%/Lotemax 0.5% qid to q1h based on severity of presentation
  - Cycloplege if great discomfort or posterior synechia
    - Homeatropine 5%
  - Occasionally injectable and oral steroids are needed
    - Oral prednisone 60 to 80 mg
    - Kenalog-40

Anterior Uveitis

- When should lab tests be done...?
  - Recurrent or chronic
  - Bilateral
  - Recalcitrant
  - Granulomatous
  - If history suggest

Anterior Uveitis

- What do you want to order and why?
  - CBC
    - Assesses general health
  - ESR/CRP
    - Non-specific for inflammatory conditions
  - ANA/RF
    - For rheumatologic disorders, RA, SLE etc.
  - RPR/FTA-ABS
    - Syphilis
  - ACE/Serum calcium
    - Sarcoid; (x-ray)
  - ELISA
    - Lyme disease, toxo
  - HLA Typing
    - B-27: Ankylosing Spondylitis; (x-ray)
    - B-5: Behcet's
    - A-29: Birdshot Choriopathy
  - PPD
    - TB; (x-ray)
  - MRI
    - MS

Anterior Uveitis

- Causes
  - Idiopathic (40%)
  - HLA-B27 Arthropathies (21%)
  - JRA (11%)
  - Herpetic (10%)
  - Sarcoid (6%)
  - FHI aka FUS (5%)
  - SLE (3%)
  - IOL related (1%)
  - Miscellaneous

Anterior Uveitis

- Most often, if properly treated, resolves without consequence/complications
  - However, possible complications include:
    - Band keratopathy
    - Bullous keratopathy
    - Cataracts
    - CME, ERM, or macular hole
    - Glaucoma (rare)
    - Death (very rare...but possible)

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pruitt.joseph@gmail.com

Joseph A. Pruitt, O.D., M.B.A., FAAO

Objective:

Education:

Nova Southeastern University, Fort Lauderdale-Davie, Florida 2008-2011
Master of Business Administration, 2011

West Los Angeles Veteran Affairs Healthcare Center, Los Angeles, California 2007-2008
Residency Certificate, Geriatric/Primary Care, 2008

Illinois College of Optometry, Chicago, Illinois 2003-2007
Doctor of Optometry, 2007

California State Polytechnic University, Pomona, California 2000-2003
Bachelor of Science, Biology, 2003

University of Memphis, Memphis, Tennessee 1999-2000
Major in Biology

Licenses:

Tennessee #2753 Date of Issue: July 10, 2007
- Active
- Injectible Certification
- Therapeutic Certification

California #13429T Date of Issue: Sept. 28, 2007
- Active
- Therapeutic and Pharmaceutical Agent + Lacrimal Irrigation and Dilation + Glaucoma (TLG) Certified

Georgia #OPT002454 Date of Issue: June 12, 2008
- Active
- Diagnostic and Therapeutic Pharmaceutical Agent Certified

Minnesota #3130 Date of Issue: June 17, 2008
- Active
- Diagnostic Pharmaceutical Agent (DPA) Certified
- Therapeutic Pharmaceutical Agent (TPA) Certified

Board Certification:

American Board of Certification in Medical Optometry Date of recertification: Feb 2018
- Board certified

Certifications:

Drug Enforcement Agency (DEA) Certified Date of Expiration: Mar 2020

Cardiopulmonary Resuscitation (CPR) &
Automated External Defibrillator (AED) Recommended Renewal: Mar 2017

Bausch & Lomb Overnight Orthokeratology Date of Issue/Completion: April 6, 2006
- Certification Number: 20060406002

Paragon Corneal Refractive Therapy (CRT) — Date of Issue/Completion: Dec. 28, 2007
- Certification Number: 161000

Advance Competence in Medical Optometry (ACMO) — Date Taken: June 13, 2008
- Administered by the National Board of Examiners in Optometry (NBEO)
- Examination only made available to candidates meeting specific clinical experience requirements/pre-requisites
- Passed examination

Employment:

Riverside San Bernardino County Indian Health, Inc (RSBCIHI) — Oct. 2014- present
- Director of Eye Care
- Staff Optometrist

Riverside San Bernardino County Indian Health, Inc (RSBCIHI) — July 2014- Oct. 2014
- Staff Optometrist

Minneapolis Veteran Affairs Health Care System — Nov 2008- June 2014
- Low Vision/Staff Optometrist
- Optometric Residency Coordinator
  - Spearheaded and implemented program
- Student Externship Coordinator
  - Spearheaded and implemented program

Wal-Mart Vision Center (Red Wing & Rochester, MN) — Jul 2008- Nov 2008
- Associate Optometrist

EyExam of California — Oct 2007- June 2008
- On-call/Fill-in Optometrist

Faculty Appointments:

Western University of Health Science / College of Optometry, Pomona, California — Jan 2015 - present
- Clinical Assistant Professor of Optometry
- RSBCIHI Externship Site Program Director
  - As part of being RSBCIHI Eye Care Director

University of the Incarnate Word-Rosenberg School of Optometry, San Antonio, Texas — May 2012- June 2014
- Clinical Assistant Professor
- Minneapolis VA HCS Externship Site Program Director

Midwestern University-Arizona College of Optometry, Glendale, Arizona — May 2012- June 2014
- Adjunct Clinical Assistant Professor
- Minneapolis VA HCS Externship Site Program Director

Southern College of Optometry, Memphis, Tennessee — Dec 2010- June 2014
- Adjunct Faculty
- Minneapolis VA HCS Externship Site Program Director

University of Missouri, St. Louis College of Optometry, St. Louis, Missouri — Jul 2009- June 2014
- Adjunct Assistant Professor
- Minneapolis VA HCS Externship Site Program Director

Experience:

Riverside-San Bernardino Indian Health, Inc — Oct 2014 - present
- Director of Eye Care
  - Oversee all organizational Eye Care activities

- Staff Optometrist

Riverside-San Bernardino Indian Health, Inc — Jul 2014 – Oct 2014
- Staff Optometrist

Minneapolis Veteran Affairs Medical Center — Nov 2008- June 2014
- Staff Optometrist
  - Primary Eye Care
  - Low Vision
    - Sole low vision eye care provider
  - Polytrauma/Traumatic Brain Injury (TBI) Ocular Health & Vision Assessments

- VISN 23 Low Vision Continuum of Care Conference (May 2009)
  - Faculty
  - Planning committee

- Established Associated Health Education Affiliation Agreement with University of Missouri, St. Louis College of Optometry, Ferris State University Michigan College of Optometry, & Southern College of Optometry for the optometric externship program
  - Externship program director

- Established Associated Health Education Affiliation Agreement with the Illinois College of Optometry for the optometry residency program
  - Residency in Primary Care/Brain Injury and Vision Rehabilitation
  - Residency program director
    - Designed the program's curriculum
    - Secured all necessary approvals and funding
    - After the initial site visit, program received full ACOE accreditation

Wal-Mart Vision Center (Red Wing & Rochester, MN) — Jul 2008- Nov 2008
- Associate Optometrist

Residency:

West Los Angeles Veteran Affairs Healthcare Center — Jul 2007- June 2008
- Geriatrics/Primary Care
  - Primary Care including Diabetic exams
  - Low Vision evaluations/exams
  - Nursing home/in-patient exams
  - Medically justified specialty contact lenses exams/fittings
  - Lecture Internal Medicine's and Endocrinology's Residents & Interns on Diabetic Retinopathy
    - Given during Chief Resident rotation
  - Precept Southern California College of Optometry's interns

Optometric Externships:

Atlantic Eye Institute, Jacksonville Beach, FL — Feb-May 2007
- OD/MD private practice with an emphasis on Contact Lenses and Primary Care
- Observed multiple surgical procedures:
  - Cataract Extraction
  - Blepharoplasty
  - Strabismus recession and resection

Memphis Veterans Affairs Medical Center (VAMC), Memphis, TN — Nov 2006-Feb 2007
- Emphasis on Primary Care
- Assisted in direct care in a high patient volume

medical optometric eye clinic
- Assisted in optometric injections and fluorescence angiographies procedures

Illinois Eye Institute (IEI), Chicago, IL — Aug-Nov 2006
- Emphasis on Pediatrics/Binocular Vision, Advance Care, and Low Vision
- Performed comprehensive eye exams on pediatric patients (infants-11yrs of age)
- Performed comprehensive eye exams on "at risk/2nd chance" children one day a week at Maryville Academy
- Constructed, tailored and performed successful binocular vision/vision therapy treatments to 4 children over a 10 week period
- Assisted in the treatment of advance glaucoma with attending University of Chicago ophthalmologist
- Performed problem specific examinations one day per week in IEI's Emergency/Urgent Care/Walk-in clinic
- Performed full Low Vision examinations including Low Vision device selection and training

Body of Christ Optometry Clinic, Tegucigalpa, Honduras — May-Aug 2006
- Emphasis on Primary and Advance Care
- Performed full-scope optometric care in a high patient volume medical clinic geared towards the underprivileged
- Also worked closely with a local ophthalmologist
  - Observed and assisted in Cataract Extraction and Incision and Curettage procedures
  - Provided pre and post-surgical care

Primary Care Clinical Education
Illinois Eye Institute, Chicago, IL — Aug 2005-May 2006

Volunteer Optometric Assistant
Body of Christ Optometry Clinic, Tegucigalpa, Honduras — Jun-Aug 2004
- Assisted staff optometrist in direct patient care in the clinic and multiple remote satellite outreach locations

Professional Affiliations/Memberships:
- Accreditation Council on Optometric Education
  - Consultant, 2014-present
- American Academy of Optometry (AAO)
  - Fellow; Class of 2009
- American Optometric Association (AOA)
- Armed Forces Optometric Society (AFOS)
- European Academy of Optometry and Optics (EAOO)
  - Candidate for Fellowship
- Fellowship of Christian Optometrists (FCO)
- Minneapolis VAMC Medical Staff Association
  - Steering Committee, member 2010-2014
- National Association of Veteran Affairs Optometrists (NAVAO)
  - Newsletter Committee, member 2010-2014
- National Optometric Association (NOA)
  - Minnesota's NOA State Representative 2010-2012
  - National Optometric Student Association (NOSA)
    - NOSA National Vice-President: 2006-2007
    - NOSA-ICO President: 2005-2006
    - NOSA-ICO Vice-President: 2004-2005

- Volunteer Optometric Service to Humanity (VOSH)
- Journal of Rehabilitation Research and Development
  - Peer Reviewer, 2013-2014

Activities:

- VOSH Medical Mission Trip, Bamenda, Cameroon (May 2010)
- Mayo Medical School/Brighter Tomorrow's Winter Warmth Festival (Jan 2009 & Jan 2010)
  - Fun day of activities for children battling cancer and their families
  - Volunteer
- Veteran Affairs Disaster Emergency Medical Personnel System (DEMPS)
  - Volunteer (Aug 2009-present)
- FCO Optometry Mission Trip, Port Au Prince, Haiti (Feb 2007)
- SVOSH Medical Mission Trip, Addis Addaba, Ethiopia (Mar-Apr 2006)
- FCO Optometry Mission Trip, Tegucigalpa, Honduras (Apr 2003 & Nov 2004)

Honors/Rewards:

- Recognition of Excellence in Teaching as Clinical Assistant Professor, Western University Health Sciences/College of Optometry (2015-2016 Academic Year)
- Nomination for Medical Staff Clinical Excellence Award (2012 & 2013)
- Recognition for Outstanding Dedication and Service as Adjunct Assistant Professor, University of Missouri – St. Louis (2010-2011 Academic Year)
- Journal of the American Optometric Association: Optometry's Eagle Award (Nov 2010)
- Certificate of Appreciation (July 2009)
  - Department of Veterans Affairs – VISN 23
    - Awarded for participation in VISN 23 Blind and Low Vision Continuum of Care Conference
- Recognition for Clinical Excellence (May 2007)
- Derald Taylor Low Vision Award (May 2007)
- Clinical Dean's List (summer 2005; summer & fall 2006, winter & spring 2007)
- Academic Dean's List (fall 2004)
- Wildermuth Leadership Award/Scholarship (Aug 2006)
- Vistakon Acuvue Eye Health Advisor Citizenship Scholarship (Jan 2006)
- NOSA Service Award/Scholarship (Aug 2004)

Publications:

Pruitt JA. The Management of Homonymous Hemianopsia Secondary to Hemispheric Ischemic Cerebral Vascular Accident. Accepted for publication by Review Optometry (July 2010)

Rittenbach TL, Pruitt JA. A Roundup of Recently Approved Ophthalmic Drugs (and their Use in Practice.) Rev Optom. 2014. 151(2):22-28.

Pruitt JA. Management strategies for patients with AION. Rev Optom. 2011. 148(6):57-65.

Pruitt JA. Neuro-Optometric Rehabilitation Association Program Summary. Optimum VA: The Official Newsletter of the National Association of VA Optometrists Summer 2010.

Pruitt JA, Ilsen P. On the frontline: What an optometrist needs to know about myasthenia gravis. Optometry 81(9): 454-460.

Pruitt JA, Sokol T, Maino D. Fragile X Syndrome and the Fragile X-associated Tremor/Ataxia Syndrome. Eye Care Review: Ophthalmology, Optometry, Opticianry 4(2): 17-23

Posters/Presentations

Pruitt JA. The Curious Case of the Functionally Legally Blind Patient with 20/25 (6/7.5) Visual Acuity. *Accepted into American Optometric Association Annual Meeting: Optometry's Meeting (2012) Poster Session.*

Pruitt JA, Prussing N. Successfully Treated Horizontal Diplopia Returns with Subsequent Traumatic Brain Injury. *Accepted into American Optometric Association Annual Meeting: Optometry's Meeting (2012) Poster Session.*

Pruitt JA, Prussing N. The Curious Case of the Functionally Legally Blind Patient with 20/25 (6/7.5) Visual Acuity. European Academy of Optometry and Optics Annual Meeting (2012) Poster Session.

Pruitt JA, Prussing N. Successfully Treated Horizontal Diplopia Returns with Subsequent Traumatic Brain Injury. European Academy of Optometry and Optics Annual Meeting (2012) Case Presentation Session.

Pruitt JA, Prussing N. Traumatic Brain Injury Resulting in Horizontal Diplopia Resolved 5 Years Later with 12 Weeks of Vision Therapy. Minnesota Optometric Association Annual Meeting (2012) Poster Session.

Pruitt JA, Wiley LM. Overcoming Mental Barriers in Visual Rehabilitation. American Optometric Association Annual Meeting: Optometry's Meeting (2011) Poster Session.

Pruitt JA, Prussing N. Traumatic Brain Injury Resulting in Horizontal Diplopia Resolved 5 Years Later with 12 Weeks of Vision Therapy. European Academy of Optometry and Optics Annual Meeting (2011) Poster Session.

Pruitt JA. Overcoming Mental Barriers in Visual Rehabilitation. European Academy of Optometry and Optics Annual Meeting (2011) Case Presentation Session.

Pruitt JA, Wiley LM. Overcoming Mental Barriers in Visual Rehabilitation. Minnesota Optometric Association Annual Meeting's (2011) Poster Session

Pruitt JA, Ilsen P, Yeung C. Ptosis Crutch: Success Treating Myogenic Ptosis Secondary to Myasthenia Gravis. American Optometric Association (AOA) 2008 Optometry Meeting Poster Session

Pruitt JA, Ilsen P. Ptosis Crutch: Success Treating Myogenic Ptosis Secondary To Myasthenia Gravis. Southeastern Congress of Optometry (SECO) 2008 Multimedia Poster Session

Lectures and Other:

Riverside-San Bernardino County Indian Health, Inc.: Eye Care Rounds (Nov 2016)
- Ptosis Crutch: Success Treating Myogenic Ptosis Secndary to Myasthenia Gravis
- CA Board of Optometry-approved CE

Riverside-San Bernardino County Indian Health, Inc.: Eye Care Rounds (Sept 2016)
- Visual Fields
- CA Board of Optometry-approved CE

Riverside-San Bernardino County Indian Health, Inc.: Eye Care Rounds (July 2016)
- Ethical Concerns with Short-term Mission Trips
- CA Board of Optometry-approved CE

Riverside-San Bernardino County Indian Health, Inc.: Eye Care Rounds (July 2016)
- Systemic Urgencies and Emergencies
- CA Board of Optometry-approved CE

Riverside-San Bernardino County Indian Health, Inc.: Eye Care Rounds (Mar 2016)
- Episcleritis, Scleritis, and Iritis
- CA Board of Optometry-approved CE

Illinois College of Optometry: Practice Opportunities Symposium (Mar 2011)
- Represented and presented on VA Optometry
- Participated in panel discussion on "Residency-trained Optometrists"

University of Minnesota: Pre-Optometry Club (Oct. 2010)

- Presentation on the profession of Optometry
- Presented and represented VA Optometry and NOA

Illinois College of Optometry: Capstone Ceremony (May 2010)

- Represented and presented on VA Optometry

Illinois College of Optometry: Practice Opportunities Symposium (Mar 2010)

- Participant in Residency-trained Speaker's Panel
- Represented and presented on VA Optometry

Illinois College of Optometry: White Coat Ceremony/Smart Business Program (Sept 2009)

- Participant on Recent Graduate Speaker's Panel