



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:

Provider Name:

- 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

Table with 4 columns: Receipt #, Payor ID, Beneficiary ID, Amount. Row 1: 1-3323, 4395914, 4395914, (50)

\$50 Mandatory Fee

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: Myasthenia Gravis: Ptosis Crutch; Course Presentation Date: 08/04/2017

Course Provider Contact Information

Provider Name: Joseph Pruitt Allan (First, Last, Middle)

Provider Mailing Address: Street 11980 Mt Vernon Ave., City Grand Terrace, State CA, Zip 92313

Provider Email Address: pruitjoseph@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 Pruitt Allan (First, Last, Middle)

License Number 13429; License Type TLG

Phone Number (909) 721-7751; Email Address pruitjoseph@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.

Signature of Course Provider

Date 3/13/2017

1 **Ptosis Crutch: Success Treating Myogenic Ptosis Secondary To Myasthenia Gravis**

Joseph A. Pruitt, O.D., M.B.A., FAAO
 Riverside-San Bernardino County Indian Health, Inc.
 San Jacinto, California
 Pauline F. Ilsen, O.D., F.A.A.O
 West Los Angeles VA Healthcare Center
 Los Angeles, California

2 **Case History**

- 60 year old, Caucasian, male, 1st presents to Neurology May 2007
-
- Chief Complaint:
 - “Wants management of Myasthenia Gravis (MG)”
 - Intermittent Diplopia since February 2006
 - Intermittent Bilateral Ptosis since May 2007

3 **Case History**

- Medications
 - Celexa 40 mg p.o. qd
 - Atenolol 50 mg p.o. qd
 - Losartan 50mg p.o. qd
 - Cetirizine 10mg p.o. qd
 - Fish oil 880mg p.o. qd
 - HCTZ to 25 mg p.o. qam
 -
- Medical History
 - Hypertension
 - Hx. of Prostate Cancer s/p radical prostatectomy April 2004
 - Total Knee Replacement March 2004
 -
- Family Medical History
 - Unremarkable
 -

4 **Case History**

- Neurology Exam Findings
 - PERRL
 - Limited gaze in all directions
 - (+) Ptosis @ rest OD only
 -
- Assessment and Plan:
 - Presumed Seronegative Myasthenia Gravis
 - Order anti-MuSK Antibody Titer
 - Prescribed Pyridostigmine (Mestinon) 60mg TID and Azathioprine 50mg po BID for symptomatic treatment
 -
 -
 -

5 **Case History**

- Present to Neurology for Follow-up exam July 2007 (2 moths later)
-
- Exam Findings:

- PERRL
- Right Ptosis @ rest
- limited gaze in all directions bilaterally - ophthalmoparesis
 - Cranial nerves 3,4,6 bilaterally especially upon lateral gaze to the left

6 Case History

- Assessment and Plan
 - Presumed Severe Seronegative Myasthenia Gravis
 - High-dose intravenous human immunoglobulin (IVIg) 400mg/kg x 5 days
 - Increase Mestinon 60 mg from tid to qid
 - Send out to special laboratory for a MUSK antibody titer
 - Continue Azathioprine 50 mg for 3 more weeks, if still no improvement, consider Cellcept.
 - Refer to Optometry/Ophthalmology for Eye Crutches

7 Case Report

- Presents to Optometry August 2007 (3 weeks later)
- Chief Complaint
 - Referred from Neurology
 - Presents for evaluation + refraction prior to consultation c Neuro-Ophthalmology
 - (+) Intermittent diplopia and ptosis OD > OS

8 Case Report

- Optometry Exam Findings:
 - Uncorrected VA @ Distance:
 - OD: 20/50 PHNI
 - OS: 20/40 PHNI
 - Retinoscopy:
 - OD: Pl-0.75x 175
 - OS: +0.25-0.75x 180
 - (+) Ptosis OD + OS noticed during procedure; therefore lids taped during refraction

9 Case Report

- Subjective Refraction:
 - OD: -0.25-0.75x 175 VA @ dist: 20/25 PHNI ADD +2.00 VA @ near RS 20/20-
 - OS: +0.25-0.75x 180 VA @ dist: 20/25 PHNI ADD +2.00 VA @ near RS 20/20-
- Trial Lens Confirmation in Free Space:
 - OD: -0.25-0.75x 175
 - OS: +0.25-0.75x 180
 - ADD: +2.00 OU
 - VA @ distance 20/25+ OD, OS, OU
 - VA @ near RS 20/20- OD, OS, OU
 - Patient accepts

10 Case Report

- Assessment and Plan
 - Presumed Seronegative Myasthenia Gravis
 - Mixed Astigmatism OD, Compound Myopic Astigmatism OS c Presbyopia OU
 - SRx released for full-time wear c ptosis crutch to be mailed directly to patient.

Suspect slight reduction in VA (20/25 OD, OS, OU) secondary to unstable tear film; recommend OTC artificial tears QID/PRN.

11 **Case Report**

- Presented to Neurology for follow-up later that day August 2007
 - Pertinent Exam Findings
 - Lab Results:
 - Acetylcholine Receptor Antibody
 - » 0.15 nmol/L → Therefore, Negative
- Assessment and Plan
 - Seronegative Ocular MG
 - Discontinue Azathioprine
 - Initiate Cellcept 1 g p.o. bid
 - Continue mestinon
 - Check MuSK antibodies at next visit
 - Await Ptosis crutch arrival in mail

12 **Myasthenia Gravis**

- Myasthenia Gravis (MG) Defined
 - Auto-Immune Disorder that effects neuromuscular transmission
 - Acetylcholine receptor antibodies attack the post-synaptic membrane of the neuromuscular junction
- Tracing back its Greek and Latin roots means “grave muscular weakness”

13 **Myasthenia Gravis**


- Symptoms
 - Striated muscle weakness that worsens with repeated use and improves with rest
 - Primary ocular manifestations
 - Blurred Vision
 - Diplopia
 - Ptosis
 - Gaze restriction secondary to EOM involvement
 - Slurred or nasal speech and/or alterations in voice
 - Difficulty chewing or swallowing
 - Generalized fatigue
 - Difficulty breathing → Myasthenic Crisis

14 **Myasthenia Gravis**

- When ocular manifestations present, it is said to be Ocular Myasthenia Gravis
 - Estimated ~50-90% of all individuals (+) for MG have ocular involvement
- Differential Diagnosis of Ocular Myasthenia Gravis
 - Gaze palsy
 - Multiple Sclerosis
 - Pupil-sparing CN III, IV, VI palsy
 - Internuclear Ophthalmoplegia (INO)
 - Thyroid Ophthalmopathy
 - Chronic Progressive External Ophthalmoplegia (CPEO)
 - Inflammatory Orbital Pseudotumor
 - Levator Dehiscence

15  **Myasthenia Gravis**

- Diagnostic Tests
 - Tensilon (Gold Standard)
 - Acetylcholine Receptor Antibodies
 - Anti-MuSK Antibodies
 - Thyroid Function
 - Muscle Biopsy
-
- “In-Office” Diagnostic Tests
 - Ice Test
 - Sleep Test
 - Orbicularis Weakness
 - Lid Fatigue

16  **Myasthenia Gravis**

- Diagnostic Tests con’t:
 - Tensilon Test:
 - Intravenous injection of an acetylcholine esterase inhibitor
 - Injection should result in an improvement of the ptosis and/or ophthalmoplegia
 - Acetylcholine Receptor Antibodies
 - Blood titer
 - Normal Results do not rule MG
 - » ~10% positive for MG and ~60% ocular MG will test seronegative
-

17  **Myasthenia Gravis**

- Diagnostic Test con’t:
 - Anti-MuSK Antibodies
 - Blood Titer for a muscle-specific receptor tyrosine kinase (MuSK)
 - Found in ~40% of patients with generalized myasthenia who were found to be negative when tested with acetylcholine receptor antibodies
 - Thyroid Function
 - Hyper or Hypo thyroid disease may be associated with myasthenia
 - Muscle Biopsy
 - Allows quantization of available acetylcholine receptors
-

18  **Myasthenia Gravis**

- Diagnostic Tests con’t:
 - “In-Office”
 - Ice Test
 - Apply an ice pack to ptotic eye for ~2 minutes
 - A positive result is an improvement greater than 2mm
 - Sleep Test
 - Patient rests in a quiet, darkened room for ~30 minutes
 - A positive result is an improvement in ptosis

19  **Myasthenia Gravis**

- Diagnostic Test con’t
 - “In-Office” con’t:
 - Orbicularis Weakness
 - Patient squeezes his eyelids shut tightly, then use finger pressure to try and overcome the blepharospasm

- »Lagophthalmos may be present or develop if obicularis weakness is present
- A positive result is a successful attempt in overcoming the blepharospasm

- Lid Fatigue
 - Patient looks in an extreme upgaze for ~1-2 minutes
 - »Assesses for fatigability of the levator muscle
 - A positive result is an increasing ptosis while eyes are in upgaze

20 Myasthenia Gravis

- Treatment:
 - Generalized MG
 - Acetylcholinesterase inhibitors
 - Pyridostigmine Bromide (Mestinon)
 - »Usually first-line therapy
 - Immunosuppressant
 - Prednisolone
 - Cyclosporine
 - Azathioprine
 - Methotrexate
 - Plasmapheresis
 - Removal of antibodies from blood
 - Intravenous Human Immune Globulin Injections
 - Thyroidectomy

21 Myasthenia Gravis

- Treatment:
 - - Ocular MG specifically:
 - Surgical
 - Ptosis Repair (myogenic ptosis)
 - Blepharoplasty (myogenic ptosis)
 - Tutoplast sling: as a frontalis suspension (myogenic ptosis)
 - In between
 - Botox Injection (myogenic ptosis)
 - Non-surgical
 - Prisms (diplopia)
 - Ocular Occlusion (diplopia)
 - Peri-ocular Adhesives (myogenic ptosis)
 - Ptosis Crutch (myogenic ptosis)

22 Our Treatment

- Ptosis Crutch
 - Teflon or Plastic coated stainless steel wire mounted/soldered on spectacle frames formed to contour the patient's need
 - Advantages
 - Effective
 - Cost Efficient (~\$40-\$100)
 - Non-invasive

- Non-permanent

- Disadvantages
 - Possible Dry Eye complications
 - Possible mild physical discomfort


23  **Ptosis Crutch Examples**

24  **Clinical Take-Homes**

- Diagnosis of MG should ultimately be made by a physician or neurologist
- Eye care providers are on the front line and are likely to be the 1st to encounter an undiagnosed patient due to the susceptibility of the ocular muscles to the disease process

- Most common complaints of a potential undiagnosed patient:

- Blurred vision
- Ptosis
 - May manifest unilaterally or bilaterally
 - If bilateral, may even manifest asymmetrically
- Diplopia
 - The key in accurately associating these symptoms with MG is *variability*
 - If these symptoms wax and wane with time, think MG

25  **Clinical Take-Homes (cont.)**

- As eye care providers, the simple aforementioned "in-office" tests, are great ways to solidify a tentative diagnosis in order to effectively/efficiently initiate the appropriate follow-up care
- Ptosis crutch is an inexpensive first-line treatment for a ptotic patient not yet at the point of surgical intervention

26  **If Interested...**


- <http://www.ncbi.nlm.nih.gov/pubmed/?term=pruitt%2C+joseph+a>

27  **References**

- Toyka K. Ptosis in myasthenia gravis: Extended fatigue and recovery bedside test. *Neurology* 2006;67(8):1524
- Reddy A, Backhouse O. "Ice-on-eyes", a simple test for myasthenia gravis presenting with ocular symptoms. *Practical Neurology* 2007;7(2):109-111
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- Golnik K. How to Diagnose and Treat Myasthenia Gravis. *Review of Ophthalmology*. 2002;9(10):Issue 10/15/2002
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- Palace J, Vincnet A, Beeson D. Myasthenia gravis: diagnostic and management dilemmas. *Current Opinion in Neurology* 2001;14:583-589
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- http://eyeglassrepair.net/_wsn/page3.html
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- <http://www.blepharospasm.org>
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Ptosis Crutch: Success Treating Myogenic Ptosis Secondary To Myasthenia Gravis



Joseph A. Piatt, O.D., M.B.A., F.A.O.
 Riverside-San Bernardino County Indian Health, Inc.
 San Jacinto, California
 Pauline F. Iken, O.D., F.A.A.O.
 West Los Angeles VA Healthcare Center
 Los Angeles, California

Case History

- 60 year old, Caucasian, male, 1st presents to Neurology May 2007
- Chief Complaint:
 - Wants management of Myasthenia Gravis (MG)
 - Intermittent Diplopia since February 2006
 - Intermittent Bilateral Ptosis since May 2007

Case History

- Medications
 - Celecox 40mg p.o. qd
 - Metaxolol 50mg p.o. qd
 - Losartan 50mg p.o. qd
 - Ceftriaxone 1000mg p.o. qd
 - Fish oil 880mg p.o. qd
 - HC127 to 25 mg p.o. qam
- Medical History
 - Hypertension
 - Hx of Prostate Cancer s/p radical prostatectomy April 2004
 - Total Knee Replacement March 2003
- Family Medical History
 - Unremarkable

Case History

- Neurology Exam Findings
 - PERRL
 - Limited gaze in all directions
 - (+) Ptosis *α* test OD only
- Assessment and Plan:
 - Presumed Seronegative Myasthenia Gravis
 - Order anti-MuSK Antibody Titer
 - Prescribed Pyridostigmine (Mestinon) 60mg TID and Azathioprine 50mg po BID for symptomatic treatment

Case History

- Present to Neurology for Follow-up exam July 2007 (2 months later)
- Exam Findings:
 - PERRL
 - Right Ptosis *α* test
 - Limited gaze in all directions bilaterally
 - orthohemiparesis
 - Cranial nerves 3,4,6 bilaterally especially upon lateral gaze to the left

Case History

- Assessment and Plan
 - Presumed **Severe** Seronegative Myasthenia Gravis
 - High-dose intravenous human immunoglobulin (IVIg) 400mg/kg x 5 days
 - Increase Mestinon 60 mg from tid to qid
 - Send out to special laboratory for a MUSK antibody titer
 - Continue Azathioprine 50 mg for 3 more weeks, if still no improvement, consider Cellcept
 - Refer to Optometry/Ophthalmology for Eye Crutches

Case Report

- Presents to Optometry August 2007 (3 weeks later)
- Chief Complaint
 - Referred from Neurology
 - Presents for evaluation + refraction prior to consultation c Neuro-Ophthalmology
 - (+) Intermittent diplopia and ptosis OD~OS

Case Report

- Optometry Exam Findings:
 - Uncorrected VA *α* Distance:
 - OD: 20/50 P1NI
 - OS: 20/40 P1NI
 - Retinoscopy:
 - OD: Pl-0.75x 175
 - OS: +0.25-0.75x 180
- (+) Ptosis OD + OS noticed during procedure, therefore Ibs taped during refraction

Case Report

- Subjective Refraction:
 - OD: -0.25-0.75x 175 VA *α* dist. 20/25 P1NI ADD +2.00
 - VA *α* near RS 20/20-
 - OS: +0.25-0.75x 180 VA *α* dist. 20/25 P1NI ADD +2.00
 - VA *α* near RS 20/20-
- Trial Lens Confirmation in Free Space:
 - OD: -0.25-0.75x 175
 - OS: +0.25-0.75x 180
 - ADD: +2.00 OUI
 - VA *α* distance 20/25 OD, OS, OI
 - VA *α* near RS 20/20 OD, OS, OI
 - Patient accepts

Case Report

- **Assessment and Plan**
 - Presumed Seronegative Myasthenia Gravis
 - Mixed Astigmatism OD, Compound Myopic Astigmatism OS e Presbyopia OU
 - SRs released for full-time wear e ptosis catch to be mailed directly to patient. Suspect slight reduction in VA (20/25 OD, OS, OU) secondary to unstable tear film; recommend OTC artificial tears QID/PRN

Case Report

- Presented to Neurology for follow-up later that day August 2007
 - Pertinent Exam Findings
 - Lab Results:
 - Acetylcholine Receptor Antibody - 0.15 nmol/L -> Therefore Negative
 - **Assessment and Plan**
 - Seronegative Ocular MG
 - Discontinue Azathioprine
 - Initiate Cellcept 1.5 g po bid
 - Continue prednisone
 - Check MuSK antibodies at next visit
 - Visit Ptosis catch arrival in mail

Myasthenia Gravis

- **Myasthenia Gravis (MG) Defined**
 - Auto-Immune Disorder that affects neuromuscular transmission
 - Acetylcholine receptor antibodies attack the post-synaptic membrane of the neuromuscular junction
- Tracing back its Greek and Latin roots means "grave muscular weakness"

Myasthenia Gravis

- **Symptoms**
 - Striated muscle weakness that worsens with repeated use and improves with rest
 - Primary ocular manifestations
 - Blurred Vision
 - Diplopia
 - Gaze deviation secondary to EOM involvement
 - Strab and/or nasal speech and/or alterations in voice
 - Difficulty chewing or swallowing
 - Generalized fatigue
 - Difficulty breathing -> Myasthenic Crisis

Myasthenia Gravis

- When ocular manifestations present, it is said to be **Ocular Myasthenia Gravis**
 - Estimated ~50% of all individuals (+) for MG have ocular involvement
- **Differential Diagnosis of Ocular Myasthenia Gravis**
 - Gaze palsy
 - Multiple Sclerosis
 - Pupil-sparing CN III, IV, VI palsy
 - Intermittent Ophthalmoplegia (INO)
 - Thyroid Ophthalmopathy
 - Chronic Progressive External Ophthalmoplegia (CPEO)
 - Inflammatory Orbital Pseudotumor
 - Leuker Deltacence

Myasthenia Gravis

- **Diagnostic Tests**
 - Tensilon (Edrophonium) Standardly
 - Acetylcholine Receptor Antibodies
 - Anti-MuSK Antibodies
 - Thyroid Function
 - Muscle Biopsy
- **"In-Office" Diagnostic Tests**
 - Ice Test
 - Sleep Test
 - Ocularis Weakness
 - Lid Fatigue

Myasthenia Gravis

- **Diagnostic Tests con't:**
 - Tensilon Test
 - Intravenous injection of an acetylcholine esterase inhibitor
 - Injection should result in an improvement of the ptosis and/or ophthalmoplegia
 - Acetylcholine Receptor Antibodies
 - Blood test
 - Normal Results do not rule MG
 - 10% positive for MG and 60% positive for MG w/ test seronegative

Myasthenia Gravis

- **Diagnostic Test con't:**
 - Anti-MuSK Antibodies
 - Blood Titer for a muscle-specific receptor tyrosine kinase (MuSK)
 - Found in ~10% of patients with generalized myasthenia who were found to be negative when tested with acetylcholine receptor antibodies
 - Thyroid Function
 - Hyper or Hypo thyroid disease may be associated with myasthenia
 - Muscle Biopsy
 - Allows quantization of available acetylcholine receptors

Myasthenia Gravis

- **Diagnostic Tests con't:**
 - "In-Office"
 - Ice Test
 - Apply an ice pack to ptotic eye for ~2 minutes
 - A positive result is an improvement greater than 2mm
 - Sleep Test
 - Patient rests in a quiet, darkened room for ~30 minutes
 - A positive result is an improvement in ptosis

Myasthenia Gravis

- Diagnostic Test con't
- "In-Office" con't:
 - Ocularis Weakness
 - Patient squires. In eyelids shut tightly, then use finger pressure to try and overcome the hyperextension
 - If aophthalmalmus may be present or develop if ocularis weakness is present
 - A positive result is a successful attempt in overcoming the hyperextension
 - Lid Fatigue
 - Patient looks in an extreme upgaze for 1-2 minutes
 - Assesses for fatigability of the levator muscle
 - A positive result is an increasing ptosis while eyes are in upgaze

Myasthenia Gravis

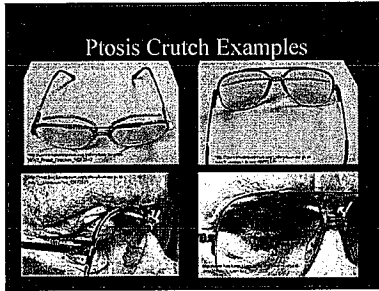
- Treatment:
 - Generalized MG
 - Acetylcholinesterase Inhibitors
 - Pyridostigmine Bromide (Mestinon)
 - Usually first-line therapy
 - Immunosuppressant
 - Pyridostigmine
 - Cyclosporine
 - Corticosteroids
 - Methylprednisolone
 - Plasmapheresis
 - Removal of antibodies from blood
 - Intravenous Human Immune Globulin Injections
 - Thymectomy

Myasthenia Gravis

- Treatment:
 - Ocular MG specifically:
 - Surgical
 - Ptosis Repair (myogenic ptosis)
 - Refractive/Plastic (myogenic ptosis)
 - Tenectomy/Slings, ex: a botulinus suspension (myogenic ptosis)
 - In between
 - Botox Injection (myogenic ptosis)
 - Non-surgical
 - Prism (ophthalmic)
 - Ocular Occlusion (ophthalmic)
 - Periocular Adhesives (myogenic ptosis)
 - Plastic Crutch (myogenic ptosis)

Our Treatment

- Ptosis Crutch
 - Teflon or Plastic coated stainless steel wire mounted/soldered on spectacle frames formed to contour the patient's need
 - Advantages
 - Effective
 - Cost Efficient (~ \$40-\$100)
 - Non-invasive
 - Non-permanent
 - Disadvantages
 - Possible Dry Eye complications
 - Possible mild physical discomfort



Clinical Take-Homes

- Diagnosis of MG should ultimately be made by a physician or neurologist
- Eye care providers are on the front line and are likely to be the 1st to encounter an undiagnosed patient due to the susceptibility of the ocular muscles to the disease process
- Most common complaints of a potential undiagnosed patient:
 - Diplopia
 - May manifest unilaterally or bilaterally
 - Bilateral, non-symmetrical astigmatism
 - Exotropia
 - May be bilaterally associated with weakness and MG susceptibility
 - Bilateral exotropia is a red flag indicator, check this

Clinical Take-Homes (cont.)

- As eye care providers, the simple aforementioned "in-office" tests, are great ways to solidify a tentative diagnosis in order to effectively/efficiently initiate the appropriate follow-up care
- Ptosis crutch is an inexpensive first-line treatment for a ptotic patient not yet at the point of surgical intervention

If Interested...

References

- 1. [Illegible reference text]
- 2. [Illegible reference text]
- 3. [Illegible reference text]
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- 16. [Illegible reference text]
- 17. [Illegible reference text]
- 18. [Illegible reference text]
- 19. [Illegible reference text]
- 20. [Illegible reference text]

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

Objective:

Education:

Nova Southeastern University, Fort Lauderdale-Davie, Florida Master of Business Administration, 2011	2008-2011
West Los Angeles Veteran Affairs Healthcare Center, Los Angeles, California Residency Certificate, Geriatric/Primary Care, 2008	2007-2008
Illinois College of Optometry, Chicago, Illinois Doctor of Optometry, 2007	2003-2007
California State Polytechnic University, Pomona, California Bachelor of Science, Biology, 2003	2000-2003
University of Memphis, Memphis, Tennessee Major in Biology	1999-2000

Licenses:

Tennessee #2753 • Active • Injectable Certification • Therapeutic Certification	Date of Issue: July 10, 2007
California #13429T • Active • Therapeutic and Pharmaceutical Agent + Lacrimal Irrigation and Dilation + Glaucoma (TLG) Certified	Date of Issue: Sept. 28, 2007
Georgia #OPT002454 • Active • Diagnostic and Therapeutic Pharmaceutical Agent Certified	Date of Issue: June 12, 2008
Minnesota #3130 • Active • Diagnostic Pharmaceutical Agent (DPA) Certified • Therapeutic Pharmaceutical Agent (TPA) Certified	Date of Issue: June 17, 2008

Board Certification:

American Board of Certification in Medical Optometry • Board certified	Date of recertification: Feb 2018
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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 • Certification Number: 20060406002	Date of Issue/Completion: April 6, 2006

Paragon Corneal Refractive Therapy (CRT)
• Certification Number: 161000

Date of Issue/Completion: Dec. 28, 2007

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 Secondary 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