The Minnesota Eye Foundation
proudly presents

PERSPECTIVES IN EYE CARE

Monday, May 23, 2022
Radisson Blu Hotel, Mall of America

COPE Activity ID # 123743

PERSPECTIVES IN EYE CARE 2022

MINNESOTA EYE FOUNDATION

On behalf of the Minnesota Eye Foundation, welcome to the 2022 Perspectives in Eye Care and thank you for participating in this interactive and multi-faceted event. It's wonderful to gather in person this year to provide our annual continuing education programming.

I hope you will enjoy learning from our esteemed faculty, connecting with colleagues, and supporting the efforts of the Minnesota Eye Foundation (MEF)'s outreach and mission. The organization was established to enrich the quality of life of our community members through charitable outreach and continuing education in the field of vision care. Later today, you will have the opportunity to hear more about the MEF's work, specifically The Vision Project and Strides 4 Sight.

Please know your continued support, commitment and involvement in the Minnesota Eye Foundation is greatly appreciated.

With gratitude,

Omar E. Awad, MD, F.A.C.S

President, Minnesota Eye Foundation

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COPE CREDITS

We are using the following to verify attendance for this program.

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During each session or presentation, a QR code sheet will be passed around. **Please use ARBO's OE tracker app to scan this QR Code**. If you're unable to scan for any reason, simply write your name, OE tracker # and email on the page behind the QR Code sheet.

COPE SURVEY

As in years past, **you will receive an email following the event asking you to complete our online Post-Event Feedback Survey.** Your feedback is incredibly important to us, so please take a few minutes to complete this.

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ARBO will update your OE Tracker account once these credits have been issued.

QUESTIONS?

Contact us at info@mneyefoundation.com.

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***OE TRACKER®* Mobile App by ARBO**

Instructions for Optometrists Attending CE Courses

(*for iOS and Android*)

Optometrists can use the *OE TRACKER* mobile app to record attendance at continuing education courses and receive instant course credit. You can also review your CE transcript, change your license information, and submit CE certificates for ARBO to add to your account. Not only is it easy, but the *OE TRACKER* mobile app is FREE and can be used by any optometrist with an *OE TRACKER* number. The *OE TRACKER* mobile app is available for iPhones/iPads and Android phones/tablets.

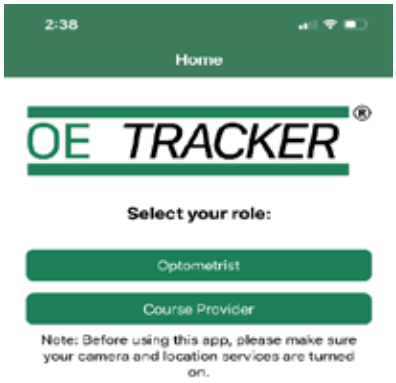
How to Get the *OE TRACKER* App:

iPhone/iPad: Go to the app store on your iPhone or iPad and search for "*OE TRACKER.*" Find the *OE TRACKER* app and touch to download.

Android Phone/tablet: Download the app from Google Play. Go to Google Play on your Android phone/tablet and search for "*OE TRACKER*." Find the *OE TRACKER* app and touch the install button.

How to Use the *OE TRACKER* Mobile App:

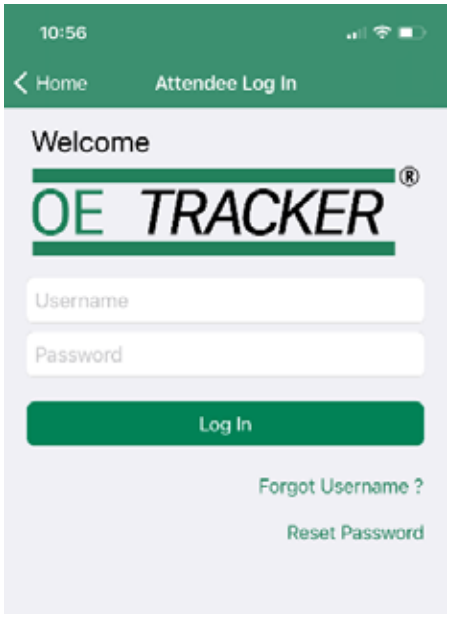
Once you have downloaded the app, you will be asked you to select one of two roles to login: Optometrist or Course Provider.

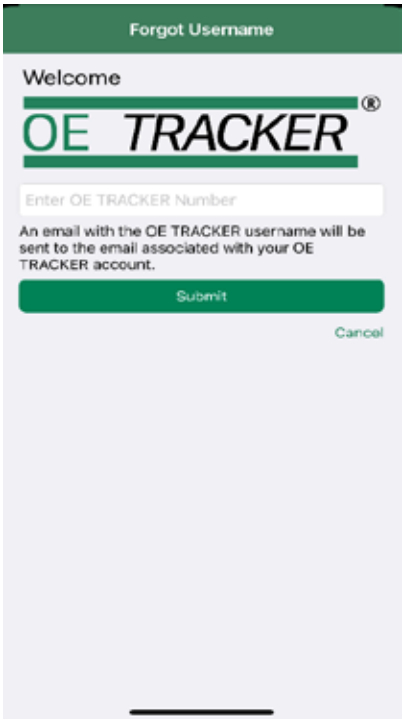


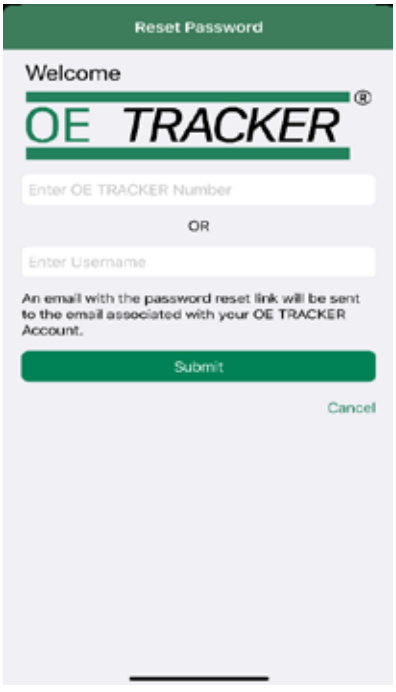
Logging into the *OE TRACKER* mobile app as a Course Attendee:

1. Tap "Optometrist" if you are an optometrist that wants to record and track your CE credits.

   - You will need your *OE TRACKER* username and password. If you don't remember them, touch Forgot Username or Reset Password at the bottom of the screen. If you don't have an *OE TRACKER* account you can go to www.arbo.org to set it up. Here is how: Click on the *OE TRACKER* tab. A drop-down menu will appear. Next, click "Create *OE TRACKER* account" and complete the required form. Once your request is approved, you will receive an email with a link to set your username and password. Please allow 24-48 hours for your request to be approved.







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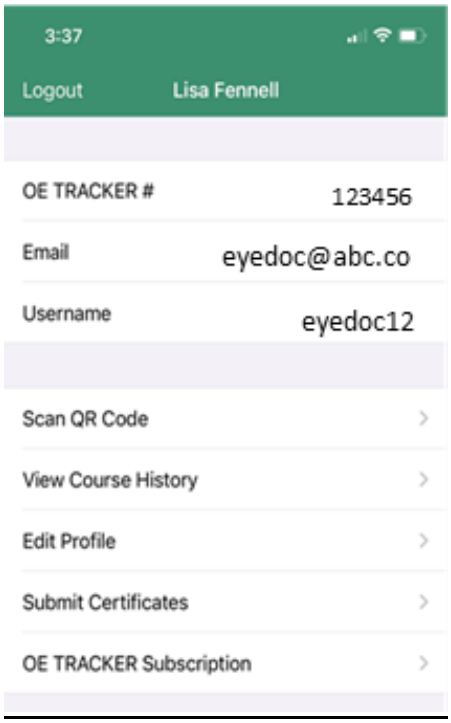
2. After you log in, the screen will display the following options:

- ***OE TRACKER #***
- **Email address**: Please make sure your email address is correct so you receive notifications when courses are added to your account. Tap here to change your email address.
- **Username**: Tap here to change your username.
- **Scan QR Code**: You will use this to record attendance in real time at a CE meeting. If you are unable to use this feature, please make sure you have enabled camera access in your Settings.
- **View Course History**: Tap here to view your CE course history/transcript.
- **Edit Profile:** Tap here to review your personal information, add or change a license or update your address.
- **Submit Certificates**: Tap here to submit credits to ARBO to add to your *OE TRACKER* account.
- ***OE TRACKER* Subscription**: Tap here to review your subscription information or pay for your *OE TRACKER* subscription.

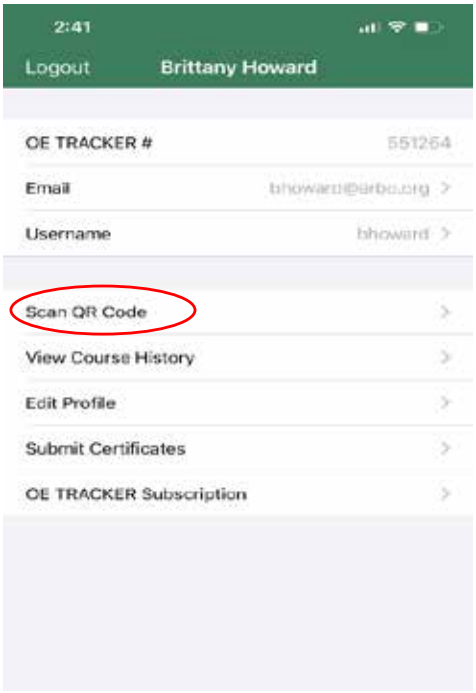


Recording Your Attendance at a CE Course:

PLEASE NOTE: In order to record your attendance using the *OE TRACKER* mobile app, the provider of the CE course must supply a course-specific QR code. After the course has been presented, the provider will post the QR code for attendees to scan. Contact the CE provider prior to attending the course to see if they will be using the *OE TRACKER* app to record attendance.

If you have difficulty using the app you can ask the Course Provider to record your attendance using the *OE TRACKER* app on their device.

1. On the Main screen, after you verify that your personal information is correct, touch "Scan QR Code" located below your e-mail address.



ARBO QR Code

COPE Course 48251-GO
COPE Event 110823

1. Your phone's camera will open and you will see "Scan QR Code" at the top of your screen.

2. Center the QR code on your screen and it will automatically scan **NOTE:** If the code does not scan right away, try backing up your phone a little to make sure the entire QR code fits within the screen.

3. If you have scanned the QR code correctly, the Confirmation screen will appear, informing you that your attendance has been recorded in your *OE TRACKER* account.

4. You will also be sent an e-mail from *OE TRACKER* within the next few minutes advising you that your credit for the course has been entered into your account.

5. Touch "Done" at the top right side of the screen to return to the Main screen.

6. To exit, simply close the app. You will stay logged in to the app to scan another QR code. To log out of the app touch the "Logout" button.

Agenda 2022

Session One

7:55 AM - Welcome & Announcements

8:00 AM - New Updates in Oculoplastics
William J. Lipham, MD, FACS; Jill S. Melicher, MD; Krista J. Stewart, MD

8:50 AM - Healing Our Healers: Provider Burnout & Mental Health
Dr. Francie Broghammer, *Clinical Director of Inpatient Mental Health for the State of Minnesota*

9:40 AM - Break in Exhibit Area

10:00 AM - Ocular Surface Disease Management
Omar E. Awad, MD, FACS; Johnna D. Hobbs, OD;
Mark R. Buboltz, OD, FAAO

10:50 AM - Coding Update - 2022
Leslie Boles – Waud Capital

11:40 AM - Special Announcement
Coming soon to the Twin Cities!

11:55 AM - The Vision Project & Strides 4 Sight
Omar E. Awad, MD, FACS; Chase A. Liaboe, MD;
Maura Mitchell, Minnesota Eye Foundation Administrator

12:05 PM - Lunch in Exhibit Area

Session Two

1:00 PM - Glaucoma: What You Need to Know
Thomas W. Samuelson, MD; Patrick J. Riedel, MD;
Clara M. Choo, MD; Chase A. Liaboe, MD

2:55 PM - Break in Exhibit Area

3:15 PM - Corneal Grand Rounds (Panel Presentation)
Sherman W. Reeves, MD, MPH

Panelists:
David R. Hardten, MD, FACS; Elizabeth A. Davis, MD, FACS;
Omar E. Awad, MD, FACS; Mark S. Hansen, MD

4:05 PM - Hot Topics in Cataract Surgery (Panel Presentation)
Elizabeth A. Davis, MD, FACS

Panelists:
Thomas W. Samuelson, MD; David R. Hardten, MD, FACS;
Patrick J. Riedel, MD; Mark S. Hansen, MD

5:00 PM - Adjourn/Cocktail Reception

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Contents

Presentations

Session One

Session Two

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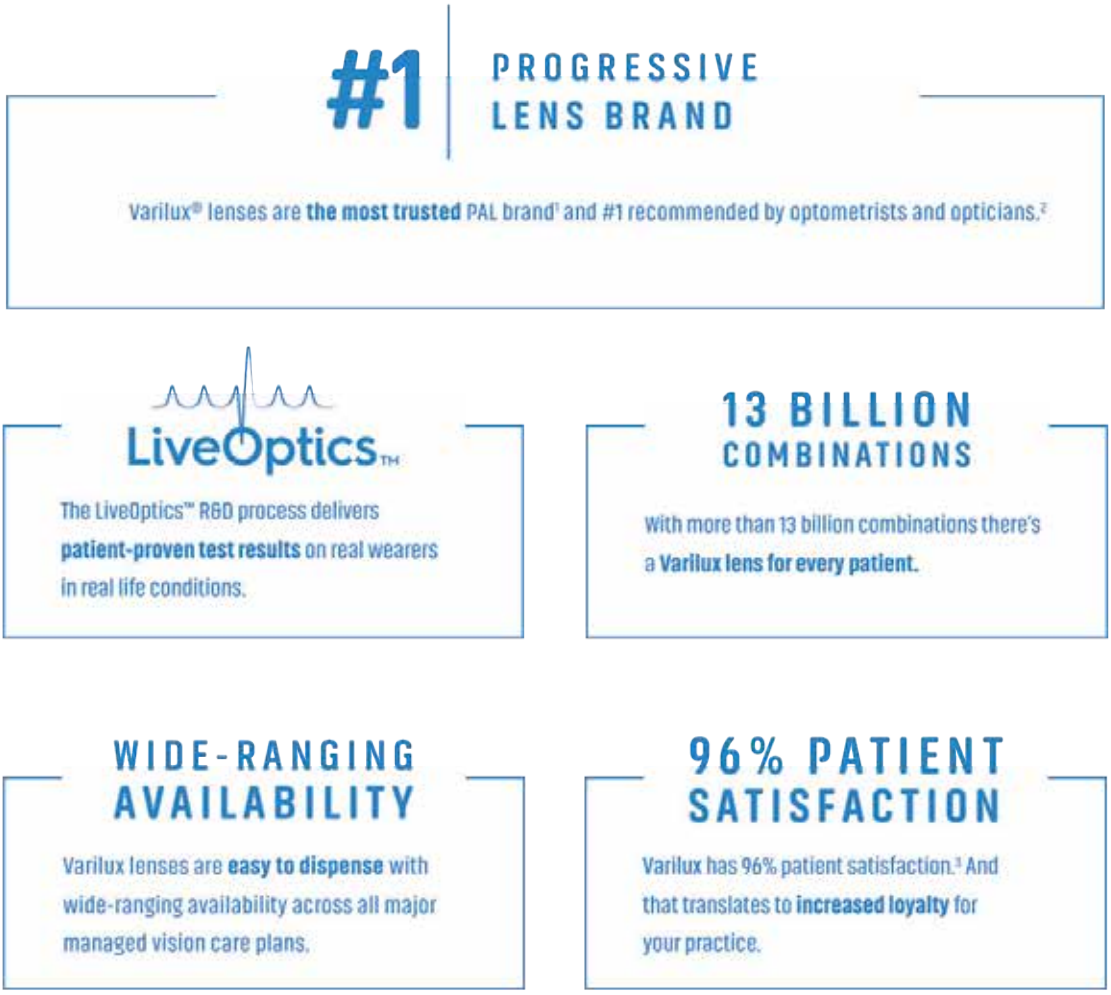

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[1] CSA - Essilor - 1701156 Varilux Claims Test - April 2018. Q02A. "Which brand of progressive lenses do you trust the most?" n = 200
[2] Survey conducted by CSA among a representative sample of 1041 independent ECPs, in 10 countries: FR, SP, GER, IT, UK, US, Canada, Brazil, India, China. Feb-Apr 2018.
[3] Global studies conducted between 2009 and 2017 on 1,903 wearers (n = 18 studies).

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Glaukos has partnered with Topcon to offer an advanced topography system so you can put the power of this trusted and essential diagnostic tool into your practice and integrate three pillars of modern KC care:

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The iDetect KC program makes advanced topography more accessible than ever before for a low cost of entry at only $8,990 allowing you and your practice to advance patient care. As part of the program, you are also invited to participate in a scientific data registry to contribute to the advancement of keratoconus care. Don't miss the opportunity to simplify the diagnostic and treatment journey and retain greater control over the patient experience! **Click the buttons below to watch the iDetect KC webinar featuring Mitch Ibach, OD, FAAO; or to get more information.**

WATCH WEBINAR →

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FIRST AND ONLY
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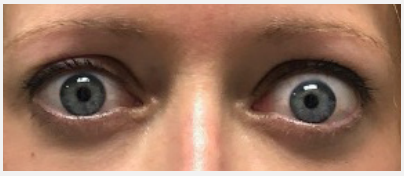
See the TEPEZZA Difference

TEPEZZA decreases proptosis, diplopia, and the signs and symptoms of Thyroid Eye Disease (TED), without concomitant steroids (vs placebo at Week 24)[1-4]

BASELINE	AT WEEK 21
	
Proptosis: **19 mm OD, 20.5 mm OS[5]**	Proptosis: **17 mm OD, 18 mm OS[5]**

Actual Patient. Individual results may vary.

TEPEZZA met its primary endpoint vs placebo in 2 randomized, placebo-controlled trials (P<0.001), defined as proptosis responder rate at Week 24 (percentage of patients with ≥2-mm reduction in proptosis in the study eye from baseline).[1-3]

Photos provided with permission from Raymond Douglas, MD, PhD.

OD, oculus dexter; OS, oculus sinister.

Learn more at TEPEZZAhcp.com

INDICATION

TEPEZZA is indicated for the treatment of Thyroid Eye Disease.

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

Infusion Reactions: TEPEZZA may cause infusion reactions. Infusion reactions have been reported in approximately 4% of patients treated with TEPEZZA. Reported infusion reactions have usually been mild or moderate in severity. Signs and symptoms may include transient increases in blood pressure, feeling hot, tachycardia, dyspnea, headache, and muscular pain. Infusion reactions may occur during an infusion or within 1.5 hours after an infusion. In patients who experience an infusion reaction, consideration should be given to premedicating with an antihistamine, antipyretic, or corticosteroid and/or administering all subsequent infusions at a slower infusion rate.

Preexisting Inflammatory Bowel Disease: TEPEZZA may cause an exacerbation of preexisting inflammatory bowel disease (IBD). Monitor patients with IBD for flare of disease. If IBD exacerbation is suspected, consider discontinuation of TEPEZZA.

Hyperglycemia: Increased blood glucose or hyperglycemia may occur in patients treated with TEPEZZA. In clinical trials, 10% of patients (two-thirds of whom had preexisting diabetes or impaired glucose tolerance) experienced hyperglycemia. Hyperglycemic events should be managed with medications for glycemic control, if necessary. Monitor patients for elevated blood glucose and symptoms of hyperglycemia while on treatment with TEPEZZA. Patients with preexisting diabetes should be under appropriate glycemic control before receiving TEPEZZA.

Adverse Reactions

The most common adverse reactions (incidence ≥5% and greater than placebo) are muscle spasm, nausea, alopecia, diarrhea, fatigue, hyperglycemia, hearing impairment, dysgeusia, headache, and dry skin.

References: 1. TEPEZZA (teprotumumab-trbw) [prescribing information] Horizon. **2.** Douglas RS, Kahaly GJ, Patel A, et al. Teprotumumab for the treatment of active thyroid eye disease. *N Engl J Med.* 2020;382(4):341-352. **3.** Smith TJ, Kahaly GJ, Ezra DG, et al. Teprotumumab for thyroid-associated ophthalmopathy. *N Engl J Med.* 2017;376(18):1748-1761. **4.** Smith TJ, Kahaly GJ, Ezra DG, et al. Teprotumumab for thyroid-associated ophthalmopathy. *N Engl J Med.* 2017;376(18)(suppl):1748-1761. https://www.nejm.org/doi/suppl/10.1056/NEJMoa1614949/suppl_file/nejmoa1614949_appendix.pdf. **5.** Data on File. Horizon, December 2020.

For additional information on TEPEZZA, please see Full Prescribing Information at TEPEZZAhcp.com.

HORIZON

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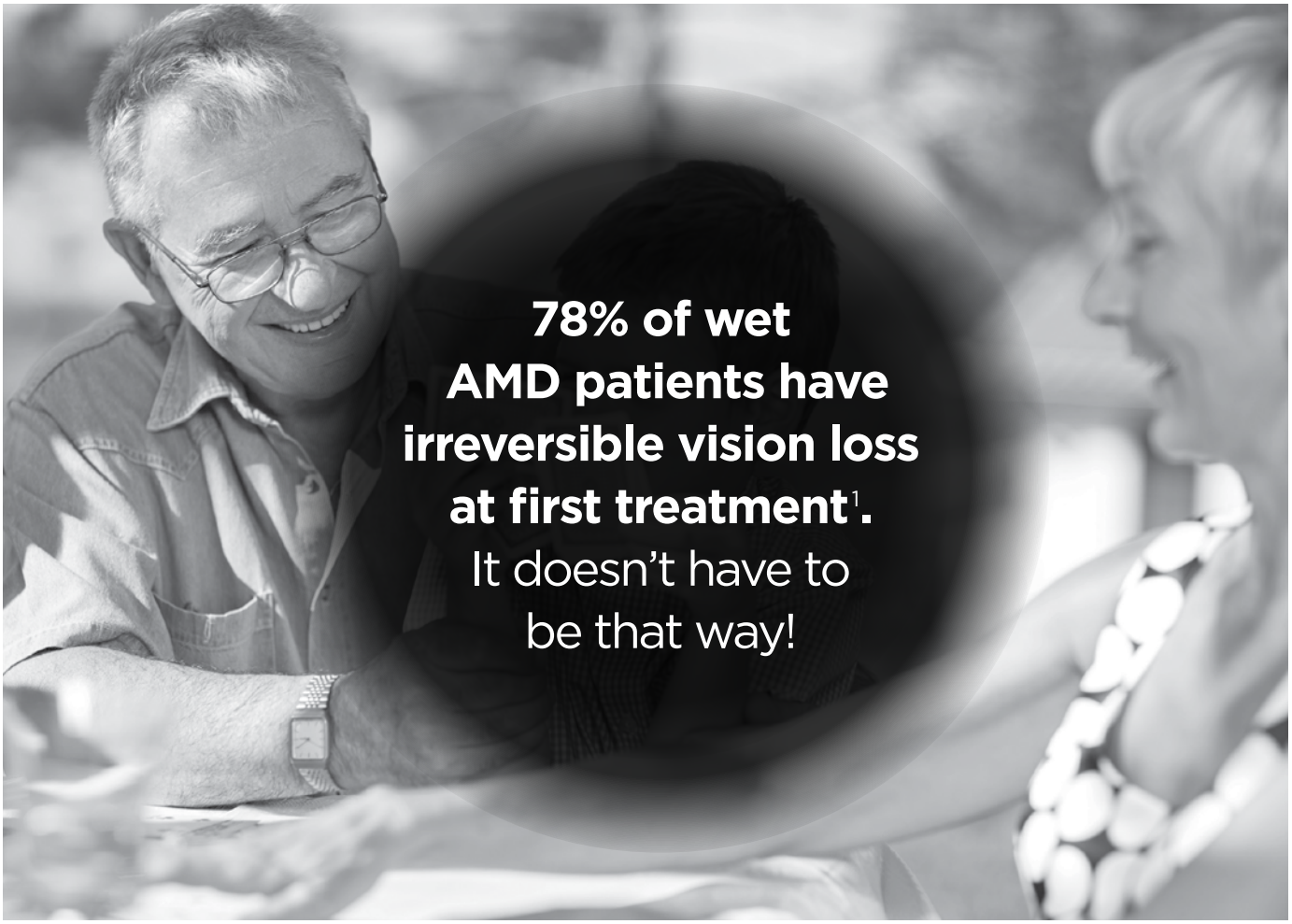

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[1]Olsen TW, Feng X, Kasper TJ, Rath PP, Steuer ER. Fluorescein angiographic lesion type frequency in neovascular age-related macular degeneration. Ophthalmology. 2004;111(2):250-255. doi:10.1016/j.ophtha.2003.05.030.

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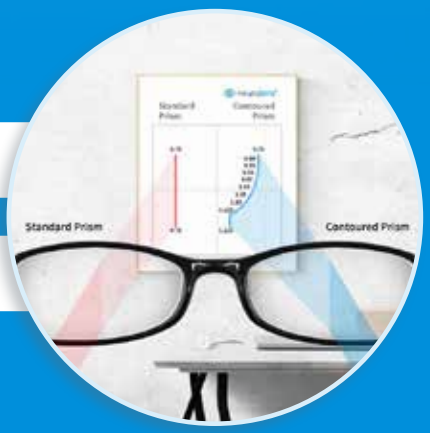

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Session One

William J. Lipham, M.D., F.A.C.S.

Minnesota Eye Consultants
Ophthalmic Plastics, Orbit and Reconstructive Surgery

Oculoplastics Updates: Thyroid Eye Disease Overview & Treatment

COPE Course ID # 77786-SD

Course Description

This lecture will discuss pathophysiology of Thyroid Eye Disease (TED) and go over how Monoclonal Antibody IV infusion therapy medications may be used to treat the inflammatory phase of Thyroid Eye Disease (TED). A discussion and overview of risk factors, signs, symptoms, and management of these patients. We will also discuss complications that patients can face following current treatments.

Course Objective

1. Attendees will learn and understand the pathophysiology of Thyroid Eye Disease (TED).
2. Discuss signs, symptoms, and what treatment options currently available in the early inflammatory phase and how to avoid invasive surgery.
3. We will discuss how to make patients aware of potential risks and complications following current treatment options, what signs to watch out for.

Oculoplastics Updates: Thyroid Eye Disease Overview & Treatment

William J. Lipham, M.D., F.A.C.S.

1. TED Is a Debilitating, Progressive, and Vision-threatening Autoimmune Disease
    a. Patients may experience
    i. Poor ophthalmic clinical outcomes
    ii. Disfigurement
    iii. Vision-threatening complications
    iv. Psychosocial distress
    v. Restrictions in daily activities and ability to work
2. Annual Incidence and Leading Risk Factors for TED
    a. 16 out of 100,000 women
    b. 3 out of 100,000 men
        i. Two peaks of incidence occur in patients at 40-49 and 60-69 years of age
    c. Leading Risk Factors
        i. Smoking increases risk by 8-fold
        ii. Risk of new onset or worsening of TED is ≈20% after RAI treatment
        iii. Women have higher risk but men have elevated risk for more severe TED
        iv. Odds of TED increase by 17% with each decade of age
3. TED is the Most Common Extrathyroidal Manifestation of Graves' Disease
    a. Up to 50% of patients with Graves' Disease will develop TED
        i. TED
            1. Autoimmune disease
            2. 90% of patients with TED have concurrent Graves Disease
            3. Immune cells attack orbital tissue
            4. Not directly related to high serum thyroid hormone concentrations
            5. Treatment of the thyroid gland does not improve TED
        ii. Graves Disease(GD)
            1. Goal of treatment is to inhibit production of thyroid hormones
            2. Autoantibodies against TSHR trigger excessive production of thyroid hormones

Notes

iii. 10% of patients with TED are either hypothyroid or euthyroid
iv. TED may present before, during or after the onset of Graves Disease

4. Recognizing the Signs and Symptoms of TED
   a. Eyelid
      i. Upper eyelid retraction: 91% of patients affected
      ii. Eyelid swelling
      iii. Pain
      iv. Lagophthalmos
   b. Orbital Tissue
      i. Exophthalmos: occurs in 62% of patients
      ii. Pain/deep ache
      iii. Disfigurement
5. Inflammation, Tissue Expansion, and Eye Muscle Changes: Lead to the Clinical Manifestations of TED
   a. Health Eye and orbital tissue
      i. Eye and Orbital Tissue overview
   b. In the Presence of TED
      i. Signs & symptoms of TED
6. Ongoing Inflammation and Expansion of Orbital Tissues Leads to Changes in Physical Appearance
   a. Conjunctiva and Cornea
      i. Chemosis (swelling of the conjunctiva)
      ii. Conjunctival hyperemia (redness)
      iii. Photophobia (light sensitivity)
      iv. Pain
      v. Foreign body sensation (grittiness)
      vi. Exposure keratopathy
      vii. Swollen lacrimal caruncle
      viii. Dry eye and tearing
   b. Extraocular Muscle
      i. Restricted ocular motility: occurs in ~40% of patients
      ii. Strabismus
      iii. Diplopia (double vision)
      iv. Pain
      v. Retro-orbital ache
      vi. Decreased vision and depth perception
7. Baseline Assessment and Routine Monitoring: Can help identify active (progressive) TED
   a. Clinical activity score (CAS) is used to assess disease activity
   b. Most insurance companies require a patient to have a CAS of 4 and above to initiate treatment give its expense

Notes

8. Window of treatment for progressive TED
    a. Once TED is fibrotic, damage from the inflammatory process may be irreversible, even with surgical intervention
9. Current management options for TED
    a. Supportive management for symptom relief
    b. FDA-approved biologic
    c. Off-label biologics
    d. Surgery
10. Sensorineural hearing loss is a serious side effect
    a. Signs and symptoms
11. Identifying progressive TED through routine assessments
    a. Look for early signs and refer to a specialist for a comprehensive exam
        i. Initial assessment
            1. Pain assessment
            2. Visual changes
            3. Changes in appearance
                a. Patient photos
            4. Impact on quality of life
                a. Daily activities
                b. Psychosocial health
            5. Follow up with a specialist
                a. CAS assessment
                b. Eyelid retraction and proptosis measurements
                c. Visual function and optic nerve evaluation
                d. Imaging
                    i. CT scan or MRI
12. Collaborative approach is important for the management of TED
    a. Early signs and symptoms can be confused with other conditions, resulting in misdiagnosis
    b. Conditions often confused with TED
    i. Overview of conditions
13. Questions

Notes

Session One

Krista J. Stewart, M.D.

Minnesota Eye Consultants
Ophthalmic Plastics, Orbit and Reconstructive Surgery

Oculoplastic Updates: It's Not What It Seems

COPE Course ID # 77786-SD

Course Description

Understand and be aware of oculoplastic conditions that can masquerade as common symptoms.

Course Objective

1. Discuss warning signs for orbital disease
2. Understand when to send patients for biopsy
3. Updates for treatment of uncommon orbital conditions

Oculoplastic Updates: It's Not What It Seems

Krista J. Stewart, M.D.

1. Financial Relationship Disclosure
2. It's not what it seems
3. Eyelid swelling caused by orbital disease
    a. Rituximab-induced orbital mass
        i. Treated as allergy for 1-2 years
    b. Frontal bone intraosseus hemangioma
    c. Dacryoadenitis
4. Eyelid tumors masqueraded as chalazia
    a. Invasive squamous cell carcinoma
    b. Lymphoma appearing in the eyelid as a chronic chalazia
5. Ptosis caused by levator masses
    a. Lymphoma invading the levator muscle
6. Questions

Notes

Session One

Jill S. Melicher, M.D.

Minnesota Eye Consultants
Ophthalmic Plastics, Orbit and Reconstructive Surgery

Oculoplastic Case Series

COPE Course ID # 77786-SD

Course Description

Oculoplastic Rapid Fire Case Series. This course will provide a series of Oculoplastic cases that assist the learner to identify common Oculoplastic problems, their most common presentation, differential diagnoses, treatments and outcomes.

Course Objective

1. Assist the learner in identifying differential diagnoses for common Oculoplastic problems
2. Assist the learner in recognizing treatment options for common Oculoplastic problems
3. Assist the learner in identifying a differential diagnosis for conjunctiva and orbital Oculoplastic problems

Oculoplastic Case Series

Jill S. Melicher, M.D.

1. Case 1
    a. 82 year old female presents with a small notch in her upper eyelid with a region of misdirected eyelashes (photo)
    b. HPI
        i. Slowly progressive overtime.
        ii. POHx cataracts
        iii. Denies PMHx
    c. Family Hx non-contributory
    d. Surgical, Social, Medication histories otherwise non-contributory
    e. Exam
    f. Slit Lamp Exam: Photo
    g. Differential Diagnoses
        1. Infectious
        2. Inflammatory/Autoimmune
        3. Neoplasia
    h. Diagnosis: Sebaceous Gland Carcinoma
    i. Review of Sebaceous Gland Carcinoma
    j. Work-up:
        i. Mapping biopsies
        ii. PET review
    k. Treatment:
        i. Surgical principles for excision and reconstruction
        ii. Topical chemotherapeutic options

2. Case 2
    a. 60 something year old female with 1 year history ptosis
    b. HPI
        i. Progressive onset of recurrent ptosis
        ii. History of right upper eyelid lesion excision with resulting notching in the upper eyelid
        iii. Since that time has noted ocular irritation on the right
    c. Exam:
        i. Mild right upper eyelid ptosis (photo)
        ii. Mild decrease in levator function (11 mm vs. 14 mm)
        iii. No fatigability, no Cogan's eyelid twitch
        iv. Dilated vasculature of the upper eyelid margin (photo)

Notes

v. Small notch in the upper eyelid margin, corresponding to area of staining on the cornea

d. Differential diagnosis:
   i. Involutional vs. Mechanical ptosis
e. The plot thickens….
   i. Palpation of the upper eyelid reveals an orbital mass (photo)
   ii. Eversion of the upper eyelid reveals conjunctival lesion (photo)
f. Diagnosis: Squamous cell carcinoma of the conjunctiva
g. Review of Squamous cell carcinoma of the eyelid/conjunctiva
h. Work-up:
   i. Mapping biopsies
   ii. Excision with reconstruction
   iii. Proton Beam radiation
   iv. Topical chemotherapeutic options

3. Case 3
   a. 75 year old female with 2 year history of papillomatous lesion left eye
   b. HPI:
      i. Progressive onset of lesion of the conjunctiva on the left
      ii. The patient was first evaluated in 2018 for a chronic red left eye, biopsy recommended, patient refused therapy at that time
      iii. Presents 3 years later with painless progressive redness on the left (photos)
   c. Differential Diagnosis:
      i. Squamous papilloma
      ii. CIN
      iii. Squamous cell carcinoma
   d. Diagnosis: CIN Invasive Squamous Cell Carcinoma
   e. Review of CIN Invasive Squamous Cell Carcinoma
   f. Work-up
      i. Conjunctival biopsy
      ii. MRI
      iii. PET scan
      iv. Tumor surveillance
   g. Treatment options:
      i. Excision with ocular surface reconstruction
      ii. Proton Beam

Notes

iii. Consideration for orbital exenteration (photo)
iv. Tumor surveillance

4. Case 4
   a. 6 year old female with sudden onset of red eye and periorbital edema
   b. HPI:
      i. Fairly sudden onset of symptoms (photo)
      ii. Recent URI
      iii. Now with diplopia, mild decrease in vision and profound decrease in extraocular motility
   c. PMHx:
      i. No history of similar symptoms
      ii. History of intermittent redness in the eye
   d. Imaging: Photo
      i. Review of orbital imaging
   e. Differential Diagnosis:
      i. Infiltrative neoplasm
      ii. Inflammatory neoplasm
   f. Diagnosis: Lymphangioma with chocolate cyst
   g. Review of Lymphangioma
   h. Work-up:
      i. MRI vs. CT (photo)
      ii. Formal angiography
   i. Treatment Options:
      i. Bedrest
      ii. Oral vs. IV steroid
      iii. Surgical intervention (photo)
      iv. Sclerosing therapy

Notes

Session One

Francie Broghammer, M.D.

Clinical Director of Inpatient Mental Health for the State of Minnesota

Healing Our Healers: Provider Burnout & Mental Health

COPE Course ID # 77317-PB

Course Description

The pandemic has asked more of our healers than most had to give. In 2021, 61% of physicians experienced burnout with symptoms ranging from anxiety and depression to anger and addiction. This presentation will explore the phenomenology of burnout and layout an evidenced-based path forward.

Course Objective

1. Outline the causes and symptoms of physician burnout.
2. Identify how physician burnout impacts the delivery of healthcare and patient outcomes.
3. Explore applicable solutions to burnout from an individual and systems level.

Healing Our Healers: Provider Burnout & Mental Health

Francie Broghammer, M.D.

1. Overview of flourishing & happiness (positive psychology):
    a. 4 pillars of human flourishing:
        i. Do you have family you love, and who love you?
        ii. Do you have friends your trust and confide in?
        iii. Do you have work that benefits others?
        iv. Do you have a worldview that can make sense of suffering and death?
    b. These are not simply objective, but instead there is a strong subjective component to each- what you perceive matters
    c. "Happiness": 45% genetic, 45% perceived environment, 10% objective environment
2. The other end of the spectrum- phenomenology of burnout
    a. Burnout is a long-term stress reaction marked by emotional exhaustion, depersonalization, and lack of sense of personal accomplishment
    b. Cynical or negative attitudes towards patients & lack of empathy
    c. Now a billable condition in ICD-10 Z73.0: "state of vital exhaustion"
3. Incidence & Prevalence
    a. 61% of physicians in 2021 reported burnout
        i. 40% in 2018
        ii. Ophthalmology: 37% overall; 43% of female ophthalmologists
    b. Healthcare workers during COVID: Mayo study 41% of physicians screen positive for depression
        i. 14% sought medical attention for mental health problems
        ii. 20% know a physician who has considered, attempted, or died by suicide
        iii. Physician suicide rate 2x that of general population
    c. Women > Men; W2 > Contractors; Inpatient > Outpatient; PCP > Specialist; Residents > Attendings (slightly)

Notes

d. 37% of Physicians with restored sense of purpose during pandemic; 50% felt valued by their organizations (waned over time)

4. Impact
   a. Patient outcomes
   b. Available workforce/access to care
   c. Mental health & substance abuse
   d. Physical health outcomes for physicians
5. Causes
   a. Family Responsibilities
   b. Time Pressure (esp direct patient facing)
   c. Chaotic Environment/Low control of pace
   d. EHR
      i. Ironically, EHR was created to reduce stress in workplace
   e. COVID, moral injury
6. A path forward
   a. MEMO Study findings:
      i. Flex schedules
      ii. Work home balance
      iii. Burnout inventory scales
      iv. Smaller panels, more time with patients
         1. Esp. flexibility to spend more time if need be
      v. EHR entry methods
   b. Organizations- Assess individual organizations situation (culture)
      i. 20% of individual action/80% organization action
   c. 4 T's:
      i. Teamwork
         1. Full time clerical support reduced self-reported burnout from 43% to 14%
      ii. Time
         1. Restricting working hours
         2. Adjusting work schedules
         3. Time bank system
         4. Decreasing actual time worked not as effective because physicians felt pressure to do the same amount of work in less time
      iii. Transitions
         1. Handoffs
         2. Med recs (QI projects)
         3. QI projects- targeted interventions that were physician identified and led
         4. Opportunities to grow and excel

Notes

iv. Technology
    1. Improvements in EMR had sig improvement in burnout

d. Individuals
    i. Exercise
    ii. Limits/boundaries
    iii. Connections w colleagues
        1. Storytelling
    iv. Read non-medical material
    v. Positive Psychology
        1. Gratitude as a means to find meaning in work
            a. Rewrite job description
            b. Reintroduce play at work!
    i. Creativity, productivity, outcomes, and job satisfaction all improve
        2. Power of perception

7. Call to action

Sources (abridged):

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Notes

Session One

Omar E. Awad, M.D., F.A.C.S.

Minnesota Eye Consultants
Cornea, Glaucoma, Cataract & Refractive Specialist

Johnna D. Hobbs, O.D.

Minnesota Eye Consultants
Dry Eye & Primary Eye Care Specialist

Mark R. Buboltz, O.D., FAAO

Minnesota Eye Consultants
Dry Eye, Primary Eye Care & Specialty Contact Lens Specialist

Ocular Surface Disease: More Than Just Dry Eye

COPE Course ID # 77596-TD

Course Description

This course will discuss the components of the history and physical examination, testing, and therapeutic options for patients with ocular surface disease. Specific disease entities will be presented in case format, with discussion of the diagnostic and treatment modalities.

Course Objective

1. Describe the approach to the history and physical examination for ocular surface disease patients.
2. Describe the specialty adjunctive testing used in managing ocular surface disease.
3. Discuss the medical treatment options and in-office procedures used in treating ocular surface disease.
4. Discuss surgical treatment options used in treating ocular surface disease.
5. Review case presentations with discussion of patient management options.

MINNESOTA EYE FOUNDATION

Ocular Surface Disease: More Than Just Dry Eye

Omar E. Awad, MD, FACS
Johnna D. Hobbs, OD
Mark R. Buboltz, OD, FAAO

1. Introduction to dry eye disease, prevalence
2. Terminology
    a. Non visually significant ocular surface disease (NVS-OSD)
    b. Visually significant ocular surface disease (VS-OSD)
3. Introduction to testing and treatments
    a. Non-invasive objective testing
    b. In-office treatments
    c. At home treatments
        i. Heat masks – Tear Restore, Bruder, DIY/ home-made
4. Obtaining a history in OSD evaluation
    a. Key factors to elicit
    b. Patient questionnaires
5. Physical examination in OSD evaluation
    a. External / adnexa examination
    b. Slit lamp pearls
    c. Vital stains
6. Non-invasive objective testing
    a. For refractive and IOL measurements
    b. For objective signs of OSD
        i. Tear osmolarity
        ii. Matrix metalloprotein-9 (MMP-9)
7. Optional/additional non-invasive Objective OSD tests and when to use
    a. Meibomian gland imaging
    b. Lipid layer thickness (LLT)
    c. Non-invasive tear break-up time (TBUT)
    d. Ocular Scatter Index (OSI) -
    e. Tear Meniscus Height (TMH)
    f. Sjogren's Disease Antibody testing
8. Treatments
    a. At-home treatments
    b. In-office therapeutic procedures
        i. Thermal Pulsation/Expression:
            1. Tear Care, LipiFlow,
        ii. Meibomian gland inflammation treatment
            1. IPL
        iii. Punctal plugs

Notes

iv. Scleral lenses
c. Prescription Medications and Biologics
i. Cyclosporine/Lifitegrast
ii. Tyrvaya
iii. Autologous serum
iv. Sutures and sutureless amniotic membrane grafts
v. Amniotic membrane drops
d. Surgical procedures
i. Ocular surface smoothing (PTK, lamellar keratectomy)
ii. Conjunctivoplasty
iii. Eyelid procedures

9. Case presentations
a. Conjunctivochalasis
i. History and exam
ii. Treatment options
1. Medical
2. Surgical
b. Anterior Basement Membrane Dystrophy / Salzmann
i. History and exam
ii. Treatment options
c. Medicamentosa / Toxic keratitis from glaucoma medications
i. History and exam
ii. Treatment options
d. Meibomian gland dysfunction with evaporative dry eye disease
i. History and examination
ii. Treatment options
e. Superior limbic keratoconjunctivitis (SLK)
i. History and examination
ii. Treatment options
f. Vernal and atopic keratoconjunctivitis
i. History and examination
ii. Treatment options
g. Post-refractive anterior corneal scarring
i. History and examination
ii. Treatment options

Notes

Session One

Leslie V. Boles, CCS, CPC, CPMA, CHC, CPC-I, CRC

Director of Compliance Audit, Waud Capital Partners Healthcare

2022 CPT Code Updates and Coding Compliance Education – Ophthalmology and Optometry

COPE Course ID # 77372-PM

Course Description

This coding compliance course will provide an overview of all 2022 CPT code updates in the specialties of ophthalmology and optometry. It also will include a brief overview of 2021 evaluation & management (E/M) coding updates.

Course Objective

1. Attendees will be updated on all 2022 CPT, HCPCS and ICD-10 ophthalmology coding changes.
2. Attendees will learn compliant coding/billing practices for ophthalmology procedural coding.
3. Attendees will learn the new methodology for evaluation and management (E/M) coding that was implemented in 2021.

2022 CPT Code Updates and Coding Compliance Education – Ophthalmology and Optometry

Leslie V. Boles, CCS, CPC, CPMA, CHC, CPC-I, CRC

1. 2022 CPT/HCPCS Coding Changes
2. Optometry Coding
3. Ophthalmology Coding
4. Modifiers
5. 2021 E/M Coding Changes
6. Medicare Updates
7. Recent Enforcement Activity
8. Questions

1. False Claims Act
    a. Prohibits the submission of false or fraudulent claims to the Government
2. 2022 CPT/HCPCS Coding Changes: OPTOMETRY Coding
    a. 2022 CPT Coding Updates
3. OPTHAMOLOGY Coding
    a. 2022 CPT Code Updates: New CPT Codes
        i. New Combination Codes for cataract/ IOL and Minimally Invasive Glaucoma Surgery (MIGS) device insertion
            1. CPT code 66989
            2. CPT code 66991
            3. CPT code 68841
4. Deleted CPT Codes
    a. 0191T
    b. 0376T
5. ICD-10 CODING CHANGES
6. Modifiers
    a. Modifiers are added to CPT codes to inform the payer that the procedure performed has been altered by a distinct factor or circumstance. Modifiers can increase or decrease reimbursement.
7. Modifier -25
    a. Significant, separately identifiable evaluation and management service by the same physician or other qualified healthcare professional on the same day of the procedure or other service.

Notes

b. Both the medically necessary E/M service and the procedure must be appropriately and sufficiently documented by the physician or qualified NPP in the patient's medical record to support the need for Modifier -25 on the claim for these services, even though the documentation is not required to be submitted with the claim.

8. Modifier – 59
   a. Distinct procedural service. Under certain circumstances, it may be necessary to indicate that a procedure or service was distinct or independent from other non-E/M services performed on the same day.
   b. Modifier 59 is used to identify procedures/services, other than E/M services, that are not normally reported together, but are appropriate under the circumstances. Documentation must support a different session, different procedure or surgery, different site or organ system, separate incision/excision, separate lesion, or separate injury (or area of injury in extensive injuries) not ordinarily encountered or performed on the same day by the same individual. However, when another already established modifier is appropriate, it should be used rather than modifier 59. Only if no more descriptive modifier is available, and the use of modifier 59 best explains the circumstances, should modifier 59 be used.
9. 2021 E/M Coding Changes
   a. Recommended Internal Review/Audit Tips
   b. Recent Changes
10. Medicare Updates
    a. 2022 Payment Changes
    b. Split/Shared Guidelines
    c. MACRA/MIPS Changes
    d. Risk Adjustment Coding & Value-Based Care Payment Models
11. Recent Enforcement Activity
12. Questions?

Notes

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Our Doctors

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Golden Valley

Mehdi Roozbahani, M.D.
Medical Retina
Golden Valley, Bloomington

Tara Schaab, M.D.
Medical Retina
Golden Valley, Bloomington

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- Inflammatory eye disease
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Session Two

Clara M. Choo, M.D.

Minnesota Eye Consultants
Glaucoma & Cataract Specialist

Chase A. Liaboe, M.D.

Minnesota Eye Consultants
Cataract & Glaucoma Specialist

Patrick J. Riedel, M.D.

Minnesota Eye Consultants
Glaucoma, Cataract and Refractive Specialist

Thomas W. Samuelson, M.D.

Minnesota Eye Consultants
Glaucoma, Cataract and Refractive Specialist

Glaucoma: New Options, New Decisions

COPE Course ID # 77632-GL

Course Description

This course will outline ways telemedicine ideas and workflows are being applied to the world of glaucoma, both screening and evaluating for glaucoma. Attendees will learn more about options and decisions for treatment. We will also discuss the history of glaucoma, and its role in the surgical management past, present & future. This course will help you understand the differences in standards of treatment for ocular hypertension associated with pigment dispersion syndrome (PDS) or pigmentary glaucoma (PG).

Course Objective

1. Outline the current world of tele-glaucoma, identify ways glaucoma could be diagnosed, managed, and monitored and highlight challenges and opportunities in extending glaucoma care.
2. Attendees will understand the patient population that commonly presents with pigment dispersion syndrome (PDS) or pigmentary glaucoma (PG).
3. Attendees will learn how the trabeculectomy procedure is performed as well as understanding the advances in the procedure.
4. Surgical and non-surgical considerations will be discussed, along with detailed case studies.

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Glaucoma 1: Telemedicine History and Importance

Clara M. Choo, M.D.

1. Telemedicine History and Importance
    a. From the early 1960s, telemedicine allows for communication between patients and providers
    b. Technology has moved forward to allow for easier video-based communication as well as increased messaging communication
    c. COVID 19 pandemic has highlighted the need for telemedicine access:
        i. Up to 77% of eye clinics had telemedicine services (majority of which did not have this prior to the pandemic)
2. Telemedicine Types
    a. Synchronous: Real time conferencing between patient and provider
        i. Limited physical exam
    b. Asynchronous: Acquisition of data
        i. provider review
            1. Examples:
                a. Slit lamp photos
                b. OCTs
                c. Visual Fields
    c. Combination: Data acquisition
        i. Provider review
        ii. Patient-provider interaction to get more history, discuss results, etc.
3. Tele-glaucoma for screening
    a. Benefits:
        i. Increase access to specialists in remote locations
        ii. Reduce unnecessary referrals
        iii. Cost effective for healthcare systems
4. Tele-glaucoma for management
    a. Benefits:
        i. Increase access to specialist management
        ii. Decrease in person time in clinic
    b. Disadvantages:
        i. Missed opportunities to increase level of care
        ii. Disagreement of management decisions amongst providers
5. Tele-glaucoma for education
    a. Teaching tool for students and residents
    b. Images of less common pathologies

Notes

    c. International outreach to local clinics/eye doctors
6. Considerations to incorporate Tele-glaucoma in practice
    a. Well trained team is needed to obtain quality test results (VF, OCT, disc photos) and in person measurement of IOP
    b. Homebased testing is also a consideration:
        i. iCare Home, tablet or virtual reality based visual fields
    c. Establish workflow to ensure images or studies are reviewed in a timely fashion and then results communicated back to patient
    d. Next steps of coordination of care or follow up need to be defined
    e. Legal implications:
        i. Informed patient consent
            1. Patients must understand the limitations of tele-glaucoma
        ii. HIPAA
        iii. Regulations
            1. Doctors to be licensed in the state that the patient is located (temporarily on hold with COVID 19)
        iv. Liability of missed diagnosis or poor management due to incomplete information
7. Care model examples in other settings
    a. Tele-glaucoma at a Veterans Affairs Hospital
    b. Tele-glaucoma in Canada
    c. Tele-glaucoma in a developing country

Notes

Glaucoma 2: Pigment Dispersion Syndrome (PDS)

Chase A. Liaboe, M.D.

1. Pigment dispersion syndrome (PDS)
    a. Etiology
2. Pathophysiology
    a. Sex predilection
    b. Age
    c. Myope vs. hyperope
    d. Lens status
3. Exam findings
    a. Cornea
    b. Angle
    c. Iris
    d. Lens
    e. Optic nerve
    f. Retina
4. When PDS becomes pigmentary glaucoma (PG)
    a. Treatment options
        i. Topical medications
        ii. SLT- cause for concern
        iii. Role of LPI
        iv. Surgical options

Notes

Glaucoma 3: Trabeculectomy: Back to the Future

Patrick J. Riedel, M.D.

1. Trabeculectomy: Back to the Future
    a. General description of the surgery
    b. History of it's role in Glaucoma management
        i. Antimetabolites- (5-FU and Mitomycin C)
        ii. Bleb morphology
        iii. Post-operative management
    c. Video: Current surgical technique
    d. The Good:
        i. Effective IOP lowering, perhaps the best of all surgeries
        ii. Long lasting
        iii. Can be utilized in nearly all glaucoma sub-types
    e. The Bad:
        i. Failure
        ii. Hypotony
        iii. Bleb dysesthesia
        iv. Infection/blebitis
        v. Tedious surgical procedure and post-op management
2. Trabeculectomy versus…
    a. Trab versus things with similar mechanism of action
        i. Trab versus Xen
        ii. Trab versus Tube
            1. TVT
            2. PTVT
        iii. Trab versus Microshunt (Preserflo)
    b. Trab versus things with different mechanism of action
        i. Trab versus MIGS
3. Trabeculectomy post-op management
    a. Early post-op: Day 1 to week 2
    b. Mid post-op: Week 2 to week 4
    c. Late post-op: 1 month to 3 months
4. Why is trabeculectomy still important?
    a. Well understood surgery
    b. Very effective at lowering IOP
    c. Can be minimally invasive
5. As MIGS has found its niche, so has Trabeculectomy

Notes

Glaucoma 4: New Options, New Decisions

Thomas W. Samuelson, M.D.

1. New Options, New Decision
   a. Topical medical therapy
   b. Laser trabeculoplasty
      i. LiGHT trial: Data supporting SLT as initial treatment. SLT has become the recommended initial glaucoma treatment
      ii. COAST trial: Further delineation of the optimum laser dosing profile and role of repeat SLT treatments
   c. Depot delivery medical therapy
      i. Intracameral bimatroprost- currently only FDA approved depot glaucoma medication
         1. Strengths
         2. Limitations
      ii. Future considerations
2. Surgical Considerations
   a. Phakic patient without surgical cataract
      i. General strategy is to treat such patients with medications and laser until patient develops surgical cataract
      ii. For phakic eyes that cannot be controlled with drugs and lasers, surgery may be required
   b. Canal based surgery- preferred if damage is mild to moderate and IOP not extreme, or if chronic steroid is required
      i. Incisional/excisional canal procedures
      ii. Viscodilation of canal (canaloplasty)
      iii. Canal stenting procedures- generally not available with phakic eyes for stand-alone surgery due to FDA labeling, but likely will be an option in the future
   c. Transscleral bleb forming procedures- generally applicable if damage is severe, IOP extreme, or if chronic steroid is required
      i. Transscleral surgery with gel stent device
      ii. Traditional trabeculectomy

Notes

d. Tube procedures
    i. Phakic patient with surgical cataract
        1. Canal surgeries- the majority of glaucoma procedures are performed as part of combined cataract and glaucoma surgery, most often involving a canal based MIGS procedure
            a. Incisional/excisional canal surgery
                i. Trabeculectomy
                ii. GATT (gonioscopic assisted transluminal trabeculectomy)
                iii. Goniotomy
            b. Viscodilation of the canal (canaloplasty)
    ii. Canal stenting procedures
        1. Transscleral bleb forming procedures- far less common than combined canal specific phaco + MIGS procedures and generally reserved for severe disease
e. Tube procedures- generally reserved for severe disease and those not candidates for trabeculectomy or transscleral gel stent
    i. Non-pharmacologic, non-surgical option
        1. Theoretical considerations
        2. FDA Pivotal trial results

Notes

Session Two

Sherman W. Reeves, M.D., M.P.H.

Minnesota Eye Consultants
Cornea, Cataract
& Refractive Specialist

David R. Hardten, M.D., F.A.C.S.

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Mark S. Hansen, M.D.

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Cornea, Glaucoma, Cataract
& Refractive Specialist

Corneal Grand Rounds

COPE Course ID # 77599-TD

Course Description

This course will present a variety of corneal diagnostic and therapeutic problems in a case-based, panel discussion format.

Course Objective

Case-based diagnosis of corneal and conjunctival edema, dystrophies, inflammatory and infectious keratitis will be presented. The therapeutic and management options of these conditions will be discussed.

MINNESOTA EYE FOUNDATION

Corneal Grand Rounds

Sherman W. Reeves, M.D., M.P.H.

Co-Instructors:

David R. Hardten, M.D., F.A.C.S.
Elizabeth A. Davis, M.D., F.A.C.S.
Omar E. Awad, M.D., F.A.C.S.
Mark S. Hansen, M.D.

1. Cornea Grand Rounds
    a. Faculty Disclosures
    b. Overview
2. Corneal Edema
    a. Case #1: Acute bilateral corneal edema
        i. Presentation: 62 year-old male with 2 week history of worsening blurry vision, worse in the morning than the evening, sudden onset
        ii. DDX Corneal endothelial edema: Endothelial dystrophy, trauma / post-surgical, inflammatory (iritis), infectious (viral), hypoxia, toxic/medication
        iii. Workup: Complete exam, pachymetry, specular microscopy
        iv. Treatment: Varies by etiology of edema, endothelial replacement for primary endothelial failure, treatment of inflammation sources, removal of toxic agents
3. Endothelial dystrophy
    a. Case #2: Guttata without edema
        i. Presentations: 62-year-old female "Vision not clear OD, no morning blur"
        ii. DDX: Fuchs, PPMD, Hassall-Henle bodies, pigment dispersion, keratic precipitates, pseudogutatta, endothelial blebs, endothelial denudation, ICE syndrome
        iii. Workup: Complete exam, pachymetry, specular microscopy, BAT test
        iv. Treatment: DMEK / DSEK preferred strategy. Hyperosmotics as temporizing measure if edema develops.
    b. Diabetic Endothelial Keratoplasty Study (DEKS)
        1. NEI sponsored, randomized prospective trial
        2. Comparing DMEK graft survival from donors with diabetes to those without

Notes

4. Conjunctival edema
    a. Case #3: Chronic conjunctival chemosis
        i. Presentation: 49 year-old female, several month history of red, swollen eyes, no improvement with artificial tears or steroids
        ii. DDX: allergic, viral, trauma toxic, lymphatic blockage, orbital apex syndrome/cavernous sinus, thyroid
        iii. Workup: Complete exam, medical history, allergies, orbital imagining if suspicious for apex syndrome or thyroid EOM hypertrophy, labs (BMP/renal, thyroid, liver)
        iv. Treatment: Treat underlying cause / removed irritant. Idiopathic cases may take months to resolve. Ocular surface support, lubrication. Resection or sclerosis methods for redundant chemotic conjunctiva
5. Infectious keratitis
    a. Case #4: Acute Corneal Ulceration
        i. Presentation: 26 year-old contact lens wearer, woke up with eye pain and blurry vision
        ii. DDX: contact lens overwear/hypoxia, bacterial keratitis, fungal keratitis, acanthamoeba, corneal erosion, viral keratitis
        iii. Workup: corneal cultures
        iv. Treatment: Intensive broad spectrum topical antibiotics, +/- antifungal, +/-anti- acanthamoebals depending on clinical suspicion until culture results guide treatment and/ or clinical improvement. Topical steroid after initial control. RGP for scarring, PK may be required.
6. Inflammatory Keratitis
    a. 26 year-old female, had LASIK surgery yesterday, feels everything is great and seeing well.
    b. DDX: perfect routine postop from MEC(!), superficial punctate keratitis, meibomian debris under flap, diffuse lamellar keratitis, infectious keratitis, corneal edema due to elevated IOP, central toxic keratopathy
    c. Workup: UCVA, BCVA/MRX if UCVA not as expected, No IOP check first day (unless suspicion for elevated IOP), slit lamp exam
    d. TX: notify surgeon if non-routine, intensive topical steroids for DLK (hourly prednisolone acetate) and recheck on POD 3, culture/intensive ABX if suspicion for infectious keratitis
7. Audience Questions

Notes

Session Two

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Hot Topics in Cataract Surgery

COPE Course ID # 77600-PO

Course Description

This course will be a series of case presentations in cataract surgery and panel discussions. Discussion topics will include preoperative assessment and preparation of patients for cataract surgery, IOL selection in eyes with ocular disorders, preoperative counseling, and postoperative management.

Course Objective

1. The audience will learn proper preoperative testing and examination of patients prior to cataract surgery.
2. Specific conditions that require pretreatment for optimal outcomes, how to determine which IOL(s) are appropriate in a variety of ocular disorders and diseases.
3. The panel will discuss treatment approaches they would consider for each case and why they recommend that treatment.

MINNESOTA EYE FOUNDATION

Hot Topics in Cataract Surgery

Elizabeth A. Davis, M.D., F.A.C.S.

Panelists:
Thomas W. Samuelson, M.D.
David R. Hardten, M.D., F.A.C.S.
Patrick J. Riedel, M.D.
Mark S. Hansen, M.D.

1. Financial disclosures
2. Case 1
   a. A family brings in their 85 year old mother who has dementia. The patient has no visual complaints. The family says she doesn't drive and doesn't read much since the onset of her dementia 7 years ago. Her vision is hard for them to assess but she seems more withdrawn and less engaged with others for the past 1-2 years. They were told by her optometrist that she had cataracts.
   b. exam
      i. Vcc OD 20/40 OS 20/70
      ii. MR
   c. OD -1.50+0.50x138 20/40+1
   d. OS -2.00+0.75x92 20/60
   e. SLE 3+ NS OU, 2+ CS OU
   f. Fundus: normal
3. What do you advise the family?
   a. Obvious evidence based visual benefits of cataract surgery:
      i. Better optically corrected vision
      ii. Better uncorrected vision with reduced glasses dependence
      iii. Reduced night glare
      iv. Improved ability to function in dim light
      v. Improved depth perception by achievement of good functional acuity in both eyes and elimination of anisometropia
      vi. Improved color vision
      vii. Improved peripheral vision
   b. Evidence based -Benefits of cataract surgery
      i. Physical Function
      ii. Improvement in sleep (Asplund et al. Archives of Gerontology and Geriatrics 2004)

Notes

iii. Improvement in vision and mobility based tasks after 2nd eye surgery (Lee et al. Ophthalmology 2013)
iv. Improvement in general vision and function (night driving, reading small print, reading road signs, recognizing people) (Klein et al. Ophthalmology 2006.)
v. Reduction in falls, hip fracture
1. Harwood et al. Br J Ophthalmol 2004.
2. Foss et al. Age and Ageing 2006.
3. Ivers et al. Am J Epidemiol 2000.
4. Cummings et al. N Engl J Med 1995.
5. Tseng et al. JAMA 2012.
6. To et al. Clin Interventions in Ageing 2014.

c. Physical Function
1. Improvement in driving performance, reductions in crashes
2. Owsley et al. Arch Ophthalmol 2001.
3. Subzwari et al. Injury Prevention 2008
4. Wood et al. Br J Ophthalol 2006.
5. Owsley et al. J Gerontology 1999.
6. Owsley et al. JAMA 2002.
7. Meuleners et al. Ophthalmic Epidemiology 2012.

d. Improved survival, lower mortality
1. Fong et al. Ophthalmology 2013.
2. Fong et al. Am J Ophthalol 2014.
3. Song et al. PLoS ONE 2014.

e. Economic outcomes, household income, social status
i. Essue et al. Ophthalmology 2014
ii. Finger et al. PLoS ONE 2012.

f. Mental Health and Emotional Well Being
i. Improvement in cognitive impairment and depressive mental status (Ishii et al. Am J Ophthalmol 2008)
ii. Reduction in dementia (Lee et al. JAMA 2021).
1. Control group undergoing glaucoma surgery had no reduction

4. Case 2
a. Would you consider a:
i. Multifocal IOL
ii. Extended Depth of Focus (EDOF) IOL
iii. Both
iv. Neither

b. Presbyopic IOL or not?

Notes

i. Diabetes but no retinopathy
ii. Mild drusen or mild RPE changes
iii. Peripheral ABMD with no significant impact on topography
iv. Small pterygium with no significant impact on topography
v. Prior LASIK/PRK (myopic, hyperopic, level of correction)
vi. Prior RK
vii. Monofocal IOL in other eye
viii. No cataract in other eye
ix. PXF on lens capsule with no phacodonesis

5. Case 3
6. When would you obtain a retina consult prior to cataract surgery if your exam revealed…
   a. ERM
   b. Diabetes
   c. Foveal ABNORMALITIES
   d. ARMD
7. Case 4
   a. 64 YO African American woman
      i. Past ocular history: none
      ii. Medical history: high blood pressure
      iii. Underwent bilateral consecutive uncomplication cataract surgery with monofocal IOLs 2 weeks apart.
      iv. 1 month after completing eye drop regimen for 2nd eye, returned with complaints of redness, photophobia, and mild blurring in both eyes
      v. Exam revealed good VA, ciliary flush, and trace cells OU. Funduscopic exam was unremarkable. Pred forte bid was begun and the patient instructed to f/u in 2 weeks.
      vi. Pt returned 2 weeks later with improved comfort and redness and no AC cell. IOP was 29 and 32 mm Hg (OD and OS).
         1. Combigan bid OU was started as was a steroid taper of Pred forte qd x 2 weeks and then discontinue.
         2. Upon return, IOP was within normal limits but AC inflammation and symptoms had returned
      vii. Steroids were re-introduced QID (while maintaining Combigan) with recontrol of the inflammation, followed by a slow taper. (reduction by 1 drop every 2 weeks). This time the eyes remained quiet for 2 months

Notes

after the taper, but then the mild iritis recurred yet again.

b. What is going on?
c. What treatment approach would you now consider?
    i. Idiopathic persistent iritis after cataract surgery (IPICS)
    ii. IPICS
    iii. IPICS
d. Treatment
    i. Topical steroid with very slow taper
    ii. If unable to wean off, consider
        1. Meloxicam 7.5-15mg qd (Mobic)--NSAID
        2. If no improvement, then Methotrexate 7.5-25 mg/week--need to monitor bloodwork
        3. Above done in conjunction with rheumatologist

8. Case 5
9. Quick fire questions:
    a. How do you introduce IOL options to your patients?
    b. How early will you do a YAG?
    c. Do you perform more frequent YAGs in MFIOLs?
    d. In what cases would you use extended steroid/NSAID use for cataract surgery?
10. Future iols
    a. Trifocal iols
        i. EnVista Trifocal (Bausch and Lomb)
        ii. AT LISA Trifocal (Zeiss)
        iii. RayOne Trifocal (Rayner)
    b. Small aperture IOL
        i. AcuFocus IC-8
    c. Accommodative iols
        i. Juvene (LensGen)
        ii. FluidVision (Alcon/PowerVision)
        iii. JelliSee (JelliSee Ophthalmics)
    d. Modifiable iol
        i. Perfect Lens
        ii. (Perfect Lens LLC)
11. Questions?
12. Thank you!

Notes

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