



INTERNATIONAL JOINT COMMISSION ON ALLIED
HEALTH PERSONNEL IN OPHTHALMOLOGY®



**Celebrating Over 50 Years
as Leaders in Certification
and Education for Allied
Ophthalmic Personnel!**

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Celebrating Over 50 Years of Global Success in CERTIFICATION AND EDUCATION FOR ALLIED OPHTHALMIC PERSONNEL!



“IJCAHPO has successfully grown the number of AOP to more than 40,000 in the profession and more than 31,000 certified individuals.”

FREE CE Credit when you complete the associated online quiz!

Table of Contents

Leadership.....	2	International Relations.....	36
Education.....	12	Public Affairs.....	40
Certification.....	22	Foundation.....	48
Career.....	30	CE Article (0.5 IJCAHPO CE Credit).....	17
		CE Article (0.5 IJCAHPO CE Credit).....	42
		(Combined online quiz for 1 IJCAHPO CE Credit)	

A New Era in Eye Care: IJCAHPO's Continued Legacy

In 1969, more than 50 years ago, representatives of six leading ophthalmology organizations took a bold step: they formed a new nonprofit institution—then known as the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO®)—dedicated to attracting and retaining eye care personnel through groundbreaking education and certification programs. Those innovative leaders didn't know precisely what the future of ophthalmology held, but they were determined to provide excellence in medical education to every member of the eye care team.

Ophthalmic Medical Technicians (2009); adding International to our name, establishing certification for global outreach initiatives (2009); and formally incorporating it (2017).

In addition to ACE, IJCAHPO produces a wide array of educational offerings, all designed to assist eye care team members in expanding and advancing their education and career. In fact, IJCAHPO continues to be the largest and one of the only organizations to provide hands-on learning experiences for AOP, as well as classroom lectures and online education.

I can only imagine how excited JCAHPO's founders were about the new organization's potential for success and growth. They knew providing outstanding patient care depended heavily on having highly-trained technicians, and at that time such training was in short supply. JCAHPO soon filled that void, organizing its first educational event so allied ophthalmic personnel (AOP) could share information on best practices, learn and discuss leading-edge research and techniques, and master the skills required for certification.

We led the way introducing computer-based simulations for technician education and certification, and we continually initiate new courses and revise existing ones to address the comprehensive needs of ophthalmic practices. With the EyeCareCE website and related education programs, we keep eye care teams highly knowledgeable on eye diseases and the latest treatments and technologies available to patients in areas such as telemedicine, artificial intelligence, and state-of-the-art treatments.

The first Annual Continuing Education (ACE) program in 1973 attracted 292 individuals and provided 4 full days of education on 13 single-period courses and 18 multiple-period courses. Five decades later, ACE has grown to provide, on average, over 125 courses to 2,000 attendees annually.

I am honored to have served as IJCAHPO's President during the golden anniversary of ACE. Please join me in celebrating over 50 years of IJCAHPO's Annual Continuing Education program and in continuing to enhance the skills, confidence, and ability of AOP to exceed patient expectations. I see the continued stellar success of IJCAHPO due in part to the combined strength of our many dedicated volunteers, faculty, board members, and staff who guide this great organization.

Thanks in part to ACE and an enhanced international focus, the International Joint Commission on Allied Health Personnel in Ophthalmology (IJCAHPO®) has successfully grown the number of AOP to more than 40,000 in the profession and more than 31,000 certified individuals.

IJCAHPO's rich history and past achievements provide a solid foundation on which to build a bold future that meets the challenges posed by the ever-evolving and changing medical environment.

Significant IJCAHPO achievements contributing to success at ACE over the past 50 years include: introducing computer-based simulation for education and certification exams (2004); achieving recognition from the Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) and O*Net listing of

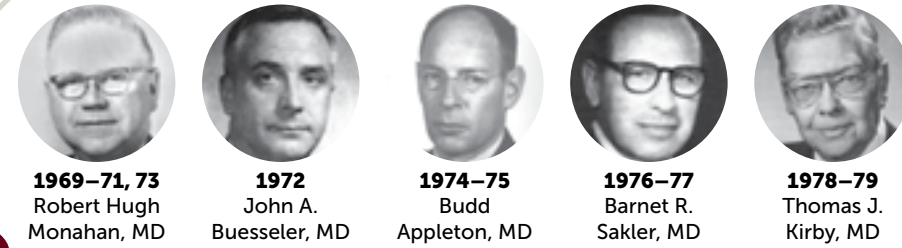
Our next 50 years of success starts today!

JAMES C. TSAI, MD, MBA, FACS

Immediate Past President, IJCAHPO;
President, New York Eye and Ear Infirmary of Mount Sinai;
Chair, Department of Ophthalmology, Icahn School of Medicine
at Mount Sinai / Mount Sinai Health System

IJCAHPO LEADERSHIP THROUGHOUT THE YEARS OF ACE

1970s



1969–71, 73
Robert Hugh Monahan, MD

1972
John A. Buesseler, MD

1974–75
Budd Appleton, MD

1976–77
Barnet R. Sakler, MD

1978–79
Thomas J. Kirby, MD

1980s



1980–81
Peter Y. Evans, MD

1982–83
Bernard R. Blais, MD

1984–85
Robert L. Stamper, MD

1986–87
Harold A. Stein, MD

1988–89
Arthur H. Keeney, MD

Executive Director



1981–98
Alice O. Gelinis

1990s



1990–91
John H. Quigley, MD

1992–93
Thomas D. France, MD

1994–95
Maynard B. Wheeler, MD

1996–97
Melvin I. Freeman, MD

1998–99
Peter C. Donshik, MD

2000s



2000–01
M. Edward Wilson, Jr., MD

2002–03
Mary A. O'Hara, MD

2004–05
Zoraida Fiol-Silva, MD

2005–07
Kenneth E. Woodworth, Jr., COMT, COE

2007–09
William F. Astle, MD, FRCS(C), Dipl. ABO

CEO



1998–Present
Lynn D. Anderson, PhD

2010s



2009–11
William H. Ehlers, MD

2011–13
Tyree Carr, MD

2013–15
Karl Golnik, MD, MED

2015–17
Eydie Miller-Ellis, MD

2017–19
William F. Astle, MD, FRCS(C), Dipl. ABO

2020s



2019–21
Neil Choplin, MD

2021–23
James C. Tsai, MD, MBA, FACS

2023–25
Michael Stewart, MD

LOOKING FORWARD

Welcoming our newest President, Dr. Stewart!

As an expansive organization with global influence, IJCAHPO has never been more relevant for the delivery of eye care or more important for the ophthalmology team than it is today. IJCAHPO's mission is to provide ophthalmic professionals opportunities to learn, teach, mentor, and share top-quality knowledge and skills.

We take this opportunity to welcome Dr. Michael Stewart as IJCAHPO's newest president. Dr. Stewart joined IJCAHPO leadership in 2016 and, before becoming president, served as Secretary of Education, Treasurer, and President-Elect. He looks forward to leading IJCAHPO and furthering its support of Certified Ophthalmic Assistants, Technicians, and Medical Technologists.

"I am honored to lead IJCAHPO as it enhances our technicians' knowledge and skills and increases their productivity in supporting patients and ophthalmologists. I am pleased that we have a strong and highly engaged Board of Directors that focuses on IJCAHPO's objectives of fostering the growth and development of allied ophthalmic personnel. I look forward to continuing this work and advancing our initiatives," said Dr. Stewart.

Changes in ophthalmology—medical, technological, social, and economic—require that we help patients navigate an ever-changing and increasingly complex medical landscape. IJCAHPO and its certificant members are helping shape the medical environment by positively impacting the practices, hospitals, and academic communities for which we work. Our community of professionals and sponsors eagerly and proactively confronts these new challenges and takes advantage of emerging opportunities.

Dr. Stewart says, "I'm proud of our organization's achievements over the past 50 years, particularly



Michael Stewart, MD
IJCAHPO President, 2023–2025

in providing our certificant members and sponsors with professional development and opportunities for meaningful engagement. In the years ahead, we will continue to meet the needs of our members by furthering current initiatives and adding even more virtual and in-person events in collaboration with other ophthalmic organizations."

IJCAHPO thanks you for your continued participation in and enthusiasm for our profession and our sponsors for their support and guidance. 👁️

Our future is here with new initiatives:

- Online Discussion Forum: EYEXchange Connect
- Retina Clinical Reference Manual
- Retina Technician Certification
- Online Certification and Recertification Applications

Dr. Michael W. Stewart is Chairman of the Department of Ophthalmology at the Mayo Clinic in Jacksonville, Florida. He graduated with honors in chemistry from Harvard College in Cambridge, Massachusetts, and from the McGill University Faculty of Medicine in Montreal, Quebec. He completed an internship in internal medicine at Jackson Memorial Hospital in Miami, Florida, and an ophthalmology residency at Emory University in Atlanta, Georgia. Dr. Stewart completed vitreoretinal fellowships at Touro Infirmary in New Orleans, Louisiana and at the University of California, Davis, after which he became a partner at Retina Associates in Jacksonville. Dr. Stewart joined the Mayo Clinic in 1999 and became Chairman of Ophthalmology in 2005, Professor of Ophthalmology in 2014, and he was awarded the Knights Templar Eye Foundation, Inc. Professor of Ophthalmology Chair in 2023. In addition to patient care and publishing, he lectures extensively nationally and internationally.

PRESIDENTIAL PERSPECTIVES

IJCAHPO was founded on the premise that continuing education and certification for ophthalmic assistants translate into the highest quality of patient care and the most efficient clinical practice. Below, three IJCAHPO leaders reflect on organizational achievements that have advanced these goals over the last five decades.



A Global View Eydie Miller-Ellis, MD

Eydie Miller-Ellis, MD, served as IJCAHPO President from 2015 to 2017—the third woman to hold the top leadership position. In addition, she served as IJCAHPO's Treasurer, Secretary of the Certification Committee,

and as faculty at numerous ACE meetings.

All those volunteer hours emphasize her strong support of continuing education and certification for allied ophthalmic personnel (AOP). Not surprisingly, her ophthalmology practice views AOP certification as essential.

"Certification is a confirmation of the knowledge, skills, and competencies that our technicians have achieved," said Miller-Ellis, Professor of Clinical Ophthalmology at the University of Pennsylvania's Perelman School of Medicine and Director of Glaucoma Service at the Scheie Eye Institute in Philadelphia. "The value of working with certified personnel is that you can be confident there is a certain level of standardized knowledge and competency in each employee."

The Scheie Eye Institute requires its technicians to become certified within one year of employment. After passing the certification examination, the employee receives a pay raise.

Along the other employee benefits technicians receive is the opportunity to attend IJCAHPO's ACE meeting on a rotating schedule. Their attendance at ACE also depends upon teaching a course, so that the technicians can share their knowledge and experience with others.

Miller-Ellis had a hand in expanding IJCAHPO's array of online courses and making its AOP educational resources more available on a global basis through training beyond North America. She takes particular pride in helping put the "I" into IJCAHPO.

"During my term as president, we officially changed JCAHPO's name to the International Joint Commission on Allied Health Personnel in Ophthalmology, to represent how IJCAHPO's outreach extends not just to Canada and the U.S., but that we support AOP worldwide," said Miller-Ellis.



Future Forward James C. Tsai, MD, MBA, FACS

New York Eye and Ear Infirmary of Mount Sinai (NYEE) encourages certification for allied ophthalmic personnel (AOP) by providing time for them to attend CE events and get certified.

"We definitely look for certified people when openings exist because they tend to be more knowledgeable, more

efficient, and more understanding of patients," said James C. Tsai, MD, MBA, FACS, president of NYEE and Chair of Ophthalmology at the Icahn School of Medicine at Mount Sinai.

"Some doctors may not see the same value in certification," he continued, "but maybe they haven't had experience with how much a certified technician can add to their practice. Or maybe they're not asking as much of their technicians as they should."

In addition to building knowledge, Tsai observed that certification increases professional growth and career development for AOP—which, in turn, can reduce staff turnover within a practice. "We're trying to prepare our technicians to take greater leadership roles not just within the clinical practice of ophthalmology but also as practice managers or administrators," he said.

AOP's evolving roles and the future of medical practice in general have been predominant themes for Tsai as IJCAHPO's president from 2021 through 2023. He notes that even as IJCAHPO celebrated more than five decades of the ACE meeting recently, its leaders recognize the need to change the educational program in the future as AOP deal with new challenges, new technology, and new demands on their time.

"Allied ophthalmic personnel are so critical to the success of the ophthalmology-led eye care team," Tsai said.

"The entire leadership team at IJCAHPO is committed to helping allied ophthalmic personnel not only learn all the skills and knowledge they need to perform at the COA, COT, or COMT level, but also trying to keep them abreast of new models of practice. Those concepts include telemedicine, artificial intelligence, and the incorporation of lean techniques to make practices more efficient."



Then and Now Robert Stamper, MD

Robert Stamper, MD, served as a volunteer leader almost continuously for 31 years, leading him to joke that he had probably left a permanent impression in one of IJCAHPO's chairs from sitting in it for so long. In truth, he has left lasting

impressions on the categories of certification and how the certification examinations are administered.

Stamper, Professor of Ophthalmology at the University of California, San Francisco (UCSF) School of Medicine and Director of the UCSF Glaucoma Clinic, began his service to what was then known as JCAHPO in 1975. That was just three years after he had moved to California and started his practice.

"In the 1970s, medicine was practiced on a more personal level than today, and it was very difficult for an ophthalmologist to see an appropriate number of patients without assistants," Stamper recalled. "But finding trained ophthalmic assistants was also very difficult, particularly in California. And it was largely on-the-job training, with no standards set for anybody."

Stamper was recruited to help develop a much needed training program for ophthalmic assistants. As a representative of the American Academy of Ophthalmology, Stamper's initial involvement in JCAHPO was overseeing development of a home study course for ophthalmic assistants. "You couldn't take the course unless you already worked for an ophthalmologist, who would sign off on your ability to correctly perform particular tasks such as measuring eye pressure," he explained. After passing a written exam and successfully performing all the practical tasks, the person would be certified as an ophthalmic assistant.

As the number of training programs increased, Stamper led JCAHPO's efforts to establish three major certification categories for allied ophthalmic personnel (AOP). "Many people have ambitions to move up in the world, and being an ophthalmic assistant allows opportunities to do that," said Stamper, who served as JCAHPO's president in 1984 and 1985. "We intentionally built progression into the certification system, so you could start as an ophthalmic assistant, move up to being a technician, and then become an ophthalmic medical technologist through additional training, experience, and exams."

In addition to helping develop a marketing campaign to promote careers in the field, Stamper championed the idea of using computer simulation for both skills training and evaluation purposes. He noted, "In the early 2000s, as computer technology improved, we looked into whether

(...continued on page 11)

Clinic CE SUBSCRIPTION

Train and Keep Your Entire Eye Care Team Educated

- All staff at one clinic location* receive 24/7 access to over 200 IJCAHPO CE credit courses.
- Courses designed for administrative personnel, technicians, ophthalmic photographers, orthoptists, ophthalmic nurses, and other members of your team.
- Your ophthalmic technicians will gain the knowledge needed to increase efficiency and patient satisfaction.
- Trained technicians will elevate your practice's level of care, quality, and productivity.

*Multi-site discounts available.

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-  World-Renowned Faculty
-  CE Credits Added Directly to IJCAHPO Transcripts
-  Decrease Staff Turnover
-  Improve Patient Satisfaction
-  Increase Productivity



Presidential Perspectives (cont')

we could teach—and test—people on all required steps for a particular task. We ended up moving both the written and oral certification exams to the computer, which was programmed to simulate several different patients and could administer the test on demand."

"You'd also find out where your weaknesses were, in terms of feedback, in case you needed to take the test again," Stamper continued. "Computer simulation really was a breakthrough."

By the time Stamper concluded his volunteer service to IJCAHPO in 2006, he personally saw the success of his efforts to boost certification. When Stamper joined the UCSF faculty in the late 1990s, not one of the ophthalmic assistants or technicians were certified. Now, nearly 75% of them are. 👁

ACE Flashback: Inspirational Speakers

At ACE, I have presented a "Mystery Glaucoma" course that challenges the technicians to think outside the box regarding routine presentation of eye disorders. I ask my residents to present their interesting glaucoma grand rounds cases and incorporate thought-provoking questions for the technicians. The audience enjoys hearing about these masquerading cases.

We have had some incredible speakers and faculty who have spoken about their personal journey with vision loss. They talk about not viewing their vision loss as a disability but as a step to achieve greatness and a rewarding career. These speakers are inspirational as they share their personal journey to overcome adversity.

Eydie Miller-Ellis, MD
Past President, IJCAHPO (2015–2017)

Milestones

1965–1980:

- Six organizations established the **Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO®)** for continuing education and training program accreditation
- First **Annual Continuing Education (ACE)** program conducted during the AAO Annual Meeting
- Multiple-choice and practical oral **examinations developed** to assess ophthalmic personnel
- 39 candidates pass both the written and oral examinations to become the first **certified ophthalmic technicians (COT®)**

1981–1990:

- Criteria established for three core levels of certification: **Certified Ophthalmic Assistant®** (entry level), **Certified Ophthalmic Technician®** (intermediate level), and **Certified Ophthalmic Medical Technologist®** (advanced level)
- The number of certified allied ophthalmic personnel tops **8,000**
- Certifications are **nationally accredited**
- **JCAHPO Education and Research Foundation** is established

1991–2000:

- **International Relations Committee** created
- **Computer-based testing** replaces written examinations for all certification levels

2001–2010:

- Bureau of Labor **SOC classification** awarded
- **College credit** of IJCAHPO certifications awarded
- **Simulation developed** for COT Skill and COMT Performance certifications
- Reflecting its growing global outreach, JCAHPO adds the word **International** to its name

2011–2024:

- World Health Organization's eye care health workers classification of **allied ophthalmic personnel endorsed**
- **AAO Council membership** approved
- **EyeCareCE** online website was launched, and the **Clinic CE** subscription plan was offered to practices
- IJCAHPO celebrated the **50th anniversary** of its founding
- Certified allied ophthalmic personnel reach **31,000 globally**
- IJCAHPO collaborated with World Health Organization on publication of **Eye Care Competency Framework (ECCF)**
- **IMiles** was created to provide a CE subscription plan for certified members

'22-'23

'23-'24

Board of Directors

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Director-at-Large	Vasudha Panday, MD	Sandeep Grover, MD
Director-at-Large	Kent Rose, COMT	Carla Blackburn, COMT, CDOS, ROUB
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CEO	Lynn Anderson, PhD	Lynn Anderson, PhD

Meet IJCAHPO's 2023–2024 Board of Directors



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Michael Stewart, MD



President-Elect*
Richard Allen, MD, PhD, FACS



Secretary*
William Astle, MD, FRCSC, Dipl. ABO



Treasurer*
Prashant Garg, MBBS, MS



Immediate Past President*
James C. Tsai, MD, MBA, FACS



Secretary of Education
William Mieler, MD



Secretary of Certification
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Co-Secretary of International Relations
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Co-Secretary of International Relations
R.V. Paul Chan, MD, MSc, MBA, FACS



Secretary of Public Affairs
Linda Tsai, MD, FACS



Public Advisor
Jeannine Bayard, BSN, MPH



Director-at-Large
Natalie Loyacano, COMT, ROUB, OSA, OCSR



Director-at-Large
April Maa, MD



Director-at-Large
Sandeep Grover, MD



Director-at-Large
Carla Blackburn, COMT, CDOS, ROUB



Foundation President
William Ehlers, MD



Corporate Secretary
Lynn Anderson, PhD

*Executive Committee

IJCAHPO Advisory Council Organizations

Regular Organizational Council Representatives

- American Academy of Ophthalmology
- American Association for Pediatric Ophthalmology and Strabismus
- American Glaucoma Society
- American Ophthalmological Society
- American Society of Cataract & Refractive Surgery with American Society of Ophthalmic Administrators
- American Society of Retina Specialists
- Association of University Professors of Ophthalmology
- Association of Veterans Affairs Ophthalmologists
- Canadian Ophthalmological Society
- Canadian Society of Ophthalmic Medical Personnel
- Consortium of Ophthalmic Training Programs
- Eye and Contact Lens Association
- North American Neuro-Ophthalmology Society
- Society of Military Ophthalmologists

Affiliate Organizational Council Representatives

- American Association of Certified Orthoptists
- American Orthoptic Council
- Ophthalmic Photographers' Society
- The Canadian Orthoptic Society

International Organizational Council Representatives

- Pan-American Association of Ophthalmology
- Philippine Academy of Ophthalmology



IJCAHPO's Mission

To promote global eye health and prevent blindness through training program accreditation, education, and the certification of allied ophthalmic personnel.

IJCAHPO Staff

Amy Anderson	Debbie Mason
Willie Burns	Chelsie McAnelly
Wade Delk	Christine McDonald
Michelle Grunz	Adeline Peterson
Evan Jacobsen	Victoria Reynolds
Dena Johnson	Craig Simms
Matti Koivula	Laurie Timp
Tiffany Love	

ALL ABOUT EDUCATION



Take your career to the next level with IJCAHPO education, training, and Learning Labs. Find out more at jcahpo.org/education.



Continuing Education at IJCAHPO

IJCAHPO has been committed to delivering the highest-quality continuing education opportunities for allied ophthalmic personnel. For over 50 years, IJCAHPO has continued enhancing a broad menu of educational offerings by providing **hands-on opportunities, classroom lectures, and online education**. These programs strive to bring leading-edge education that keeps our eye care team highly knowledgeable on eye diseases and the modern treatments and technologies to care for our patients.

IJCAHPO's educational highlight is the **Annual Continuing Education (ACE) program**. The premier ACE program was held in 1973 in Dallas, Texas where 292 individuals attended a four-day program with 13 single-period courses and 18 multi-period courses at a price of just \$3.00 per

credit hour. By the mid-1990s, ACE was held in various cities across the United States and continued to grow, attracting an average of 2,200 AOP to the in-person program. In 2020, the ACE program reflected the growth and change in the profession as it evolved from only an on-site program to include a **virtual and live-stream broadcast** event for more than 1,000 certificants. This hybrid event has quickly become the new model for the "Premier Event in Eye Care Education".

Starting in the late 2000s, ACE courses and **hands-on workshops** were redesigned to keep pace with the rapid changes in ophthalmology treatments, technologies, and the economic challenges facing ophthalmology practices. World-renowned ophthalmic leaders serving as faculty provide leading-

edge knowledge and skills to keep the eye care team updated on the latest ophthalmic trends, eye diseases, drug treatments, and instruments. IJCAHPO, with its unique training experiences such as Learning Labs, is one of the only providers of hands-on, skill-based training for ophthalmic technicians. This important training modality provides technicians with exposure to equipment and processes while developing and gaining problem solving and critical thinking skills.

Since 1975, IJCAHPO has conducted **Regional Continuing Education (CE) programs** for technicians. In 2001, IJCAHPO expanded the number and locations of its offerings by partnering with state and provincial societies in Canada and the United States. These live sessions primarily focus on comprehensive ophthalmic

Continuing Education (cont')

content, and specialty areas of retina and surgical assisting. By bringing these Regional CE events to local areas, IJCAHPO has offered a convenient and cost-effective way for technicians to gain knowledge that can be immediately applied to their work and to earning CE credits.

In 2007, JCAHPO announced the launch of a new **e-learning web site** offering low-cost, online continuing education courses for AOP. The first website was called "myjcahpo". Now, 15 years later, the new "EyeCareCE" online program helps ophthalmic technicians easily stay committed to lifelong learning and their education with access to more than 300 online continuing education courses. AOP are able to complete courses at their own convenience and interact with simulations to fine-tune their skills and earn credits for certification.

IJCAHPO has remained dedicated to providing diversified **distance education** that meets the unique needs and various learning

preferences of our ophthalmic technicians. In 2001, the JCAHPO online bookstore opened which offered resources to aid in ophthalmic technician education. The bookstore was quickly added to ACE and on-site programs for the first time in Orlando, FL. In 2003, JCAHPO began publishing Refinements modules as its first text-based CE publication. IJCAHPO has continued to expand its line of publications with over 50 high-quality monographs, clinical reference guides, and pocket guides.

In 2009, IJCAHPO launched **on-demand webinars** on current ophthalmic topics. Faculty committed to present weekly live and pre-recorded sessions. Each webinar was capped with a quiz and CE credit.

IJCAHPO's **continuing education credit** is the internationally recognized benchmark for excellence in AOP continuing education. Programs across the country have been accredited by IJCAHPO

since 1970 to promote a level of substance and quality in the training and continuing education of allied ophthalmic personnel. IJCAHPO encourages clinics to hold their own in-service training as a way to build their eye care team's knowledge and skills and offer additional opportunities to earn CE credits.

With its innovative spirit, IJCAHPO is launching the **IJCAHPO University** to offer essential training for AOP around the globe at the basic, intermediate, and advanced levels. IJCAHPO University will offer 100 high-quality online courses leading to a well-trained eye care team earning recognition for their achievements with certificates of completion, digital badges, and certification.

IJCAHPO has evolved significantly from its humble beginning. The organization is dedicated to providing the best ophthalmic education possible for the AOP profession and strives to fulfill its mission and purpose. 🧐



The JCAHPO Education and Research Foundation, the Board of Directors, and the IJCAHPO Council honors the memory of Harold A. Stein, MD with the Harold A. Stein, MD, FRCSC, Endowed Lectureship



Harold A. Stein, MD

Each year, in honor of Harold A. Stein, MD, FRCSC, IJCAHPO hosts a well-known ophthalmologist who presents the Harold A. Stein, MD Keynote Lecture. The JCAHPO Education and Research Foundation established the Harold A. Stein, MD, FRCSC, Endowed Lectureship in 2000.

Dr. Stein was instrumental in organizing the first Plenary (Keynote) Session held in San Francisco, CA, in 1985, and one of the early founding Commissioners of JCAHPO (now IJCAHPO). He served as IJCAHPO's President from 1986–1987, and served as a Commissioner from 1972–1992.

In 1968, Dr. Stein wrote his first textbook, *The Ophthalmic Assistant*, which is in its 11th edition. Dr. Stein's book sale proceeds are generously donated to the Foundation to support technician education and certification.

Dr. Stein was a co-founder of The Bochner Eye Institute in Toronto, Ontario, Canada, where he resided with his wife, Anne. After many years of a prestigious career, Dr. Stein passed away in January 2021.

If you would like to remember Dr. Stein with a contribution to benefit IJCAHPO's programs for technicians, visit the JCAHPO Foundation's website: jcahpo.org/foundation.



It's Here!

IJCAHPO is excited to announce...

EYEXchange Connect

An online discussion board for IJCAHPO Members!

EYEXchange Connect is the place where you, Allied Ophthalmic Personnel, come together to connect with peers, communicate, troubleshoot problems, and discuss solutions.

- BE SOCIAL
- EXCHANGE IDEAS
- ASK QUESTIONS

You are part of a community that will help you learn, grow, have fun, celebrate wins, and understand the challenges you face every day. Although we recommend and promote certification, we welcome everyone to participate, certified, non-certified, and those new to the field; our goal is to strengthen our ophthalmic technician community.



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Scan the QR Code to check it out!

EYEXCHANGE.JCAHPO.ORG



CASE STUDY

STEIN PRIZE WINNING ARTICLE, 2022

Importance of Ocular Examinations: A Case of Familial Iris Flocculi Associated with Aortic Valve Abnormalities

Liam Redden, BSc, COT

ACT NOW! EyeCareCE

Earn CE Credits for this article at: <https://jcahpo.co/50th>

- To access the quiz:
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 - Find quiz under "My Courses" tab

Results are posted within 24 hours. If you have any questions, please contact IJCAHPO at (800) 284-3937

Multiple iris pigment epithelium (IPE) cysts can present at the pupillary margin, both unilaterally and bilaterally, as pigmented globular protuberances and are termed iris flocculi.¹ These lesions are considered benign and seem to rarely cause visual disturbances. There have been case reports indicating a link between iris flocculi and a mutation of smooth muscle alpha-actin 2 (ACTA2) gene and/or the smooth muscle (MYH11) genes.²⁻⁵ This incidence of the ACTA2 mutation in conjunction with iris anomalies does not appear to be frequent.^{6,7} In some rare cases however, these mutations can lead to thoracic aortic aneurysm and dissection (TAAD), even many years after the initial diagnosis of iris flocculi.^{5,8,9} We present a case of a biological brother and sister with bilateral iris flocculi. The female patient was discovered to have the pathogenic ACTA2 mutation as well as a bicuspid aortic valve with fusion of the left and right coronary cusps, increasing the risk of developing dissecting aortic aneurysm. We also demonstrate successful treatment of the iris flocculi using YAG laser.

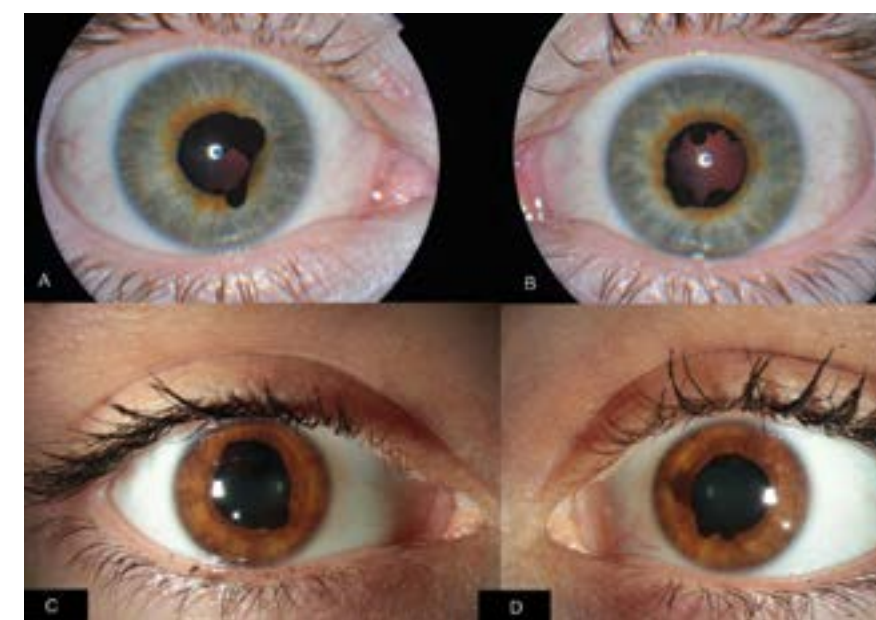


Figure 1. Pretreatment anterior segment photos. A) Patient 1 right eye. B) Patient 1 left eye. C) Patient 2 right eye. D) Patient 2 left eye.

CASE REPORT

A 21-year-old male (patient 1) and a 24-year-old female (patient 2) both presented with significant bilateral iris flocculi. The two patients were biologically related, being brother and sister. They both complained of worsening and darkening of their vision.

Patient 1 had a best corrected distance visual acuity (BCVA) of 20/30-2 in the right eye and 20/25-1 in the left eye. Slit lamp examination showed several large cysts arising from the pupil margin covering the superior half of the pupil in the right eye (Figure 1). In the left eye there were also multiple variable sized cysts arising from the pupil margin.

CASE STUDY CONTINUED

STEIN PRIZE WINNING ARTICLE, 2022

Importance of Ocular Examinations: A Case of Familial Iris Flocculi Associated with Aortic Valve Abnormalities

Liam Redden, BSc, COT

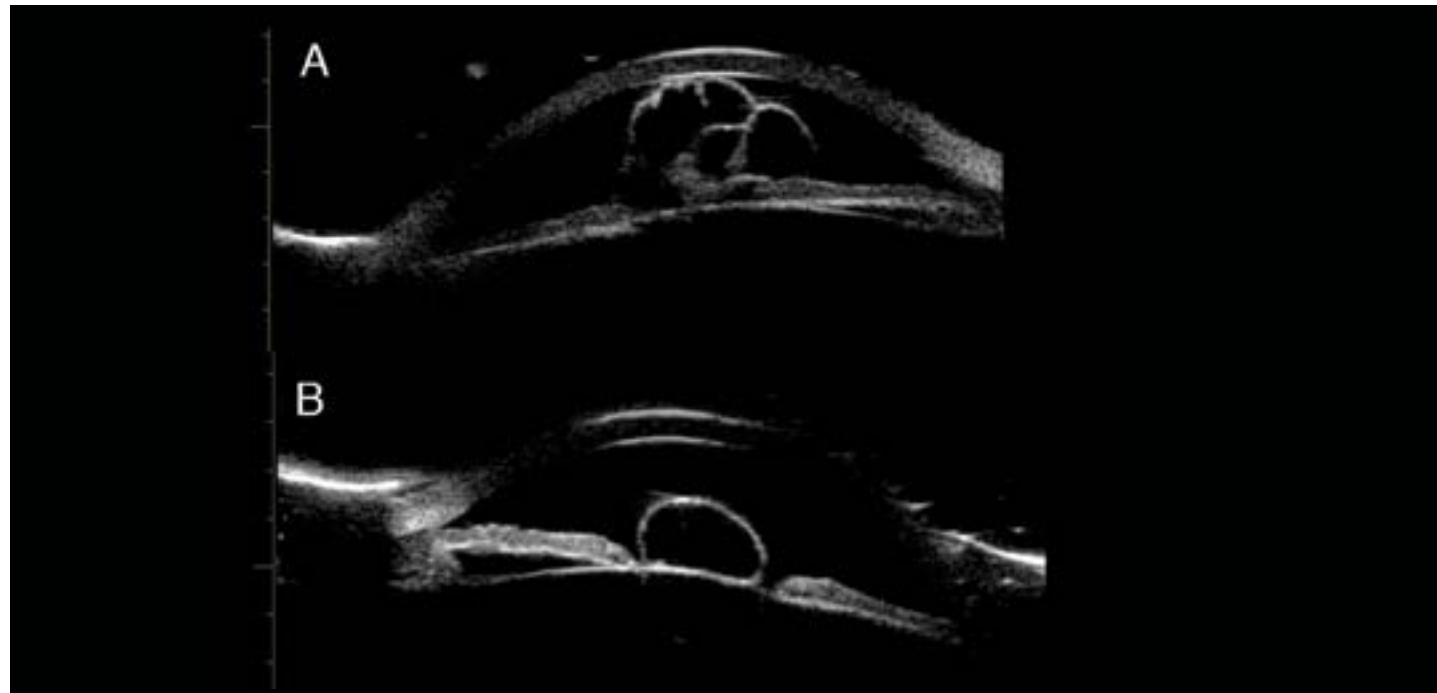


Figure 2. Pretreatment ultrasound biomicroscopy images. A) Patient 1 right eye. B) Patient 2 right eye.

Ultrasound biomicroscopy (UBM) demonstrated large echo-free cysts arising from the iris bilaterally (**Figure 2**). The cysts were larger in the right eye and appeared to be touching the corneal endothelium.

Patient 2 had an BCVA of 20/50-1 in the right eye and 20/25-1 in the left eye. There were several hyperpigmented cysts at the pupil margin bilaterally. There was a larger cyst blocking the pupil in the right eye (**Figure 1**). Similar UBM findings to patient 1 were noted in patient 2.

Because of the significant visual symptoms and possibility of focal corneal edema due to the cyst which was touching the corneal endothelium

(**Figure 2**), YAG laser treatment was performed on the iris flocculi in both patients after informed consent was obtained. The size of the cysts in both patients was reduced after laser treatment and they reported their visual disturbances as less noticeable. BCVA improved in the right eye of patient 2 from 20/50 to 20/25.

Due to the presence of the iris flocculi and the known possible link to the genetic mutation of smooth muscle alpha-actin 2 gene (ACTA2) and/or the smooth muscle gene (MYH11), genetic sequencing of both patient 1 and 2 were ordered. A pathogenic mutation in the ACTA2 gene was identified in patient 2. Transthoracic echocardiography was also ordered for both patients.

Patient 1 was structurally normal in all parameters. Patient 2 demonstrated a bicuspid aortic valve with fusion of the left and right coronary cusps. There was no aortic stenosis; however, there was mild aortic regurgitation. The ascending aorta was mildly dilated measuring 3.4 cm indexed to body surface area. Patient 2 was also noted to have livedo reticularis of the legs which is often observed with this gene mutation.

DISCUSSION

Ocular findings may lead to the discovery of significant systemic disease. It would appear that the presence of iris flocculi are one such example. Patient 2 demonstrates a scenario in which a previously

undocumented bicuspid aortic valve was discovered due to the presence of bilateral iris flocculi. It highlights an important link between the presence of iris flocculi anomalies and the structural integrity of the aortic valve.

Interestingly, only one of the two biological siblings with the same iris anomalies had aortic changes in this case. The true occurrence rate of potential life-threatening aortic manifestation with the presence of iris flocculi is unknown. Although it is possible that the aortic valve finding in patient 2 is coincidental, previously published reports highlight a link to smooth muscle genetic mutations.^{5,8} Based on this, it is certainly recommended that all patients presenting with iris flocculi have careful cardiac assessment. Furthermore, family members of these patients should have ocular and possibly cardiac assessment as well. During the genetic consultation, it was revealed that the patient's mother also has an iris anomaly that had not been previously investigated.

In both of these patients, treatment of the iris flocculi was successful and without complication using YAG laser. The BCVA improved in patient 2, and both described improvement in their symptoms of darkened vision. YAG laser may be considered as a safer alternative to intraocular surgery in patients with visually impairing iris flocculi.

CONCLUSION

These two patients with iris flocculi demonstrate a familial association. The aortic and gene findings in the female patient further adds to the growing literature supporting the genetic ACTA2 mutation affecting the smooth muscle of the iris and aorta. While iris flocculi are typically benign,

only requiring treatment when vision is obscured, anomalies of the aorta cannot be overlooked. Patients and their families should be investigated for potential life threatening cardiac pathology as part of the routine iris flocculi work up.

PATIENT CONSENTS

Consent to publish the case report was obtained verbally from both patients. This report does not contain any personal information that could lead to the identification of the patient.

See [EyeCareCE](#) for references.

Access IJCAHPO Resources



Have you heard about our online job board? Find your next career role or post a job and find your next candidate! Visit careers.ijcahpo.org



Visit our website to explore the many ways one can continue education towards eye care certification. Go to www.ijcahpo.org to learn more.



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LET'S TALK ABOUT THE FIRST ACE PROGRAM!

Fun Facts About The First ACE Program

SEPT 14–20
1973

4 FULL DAYS

IN DALLAS, TEXAS



292
TICKETS SOLD

\$1606 in ticket sales
\$1871 in total expenses
\$3 for 1 period (1 hour)

1973 Program Overview

The program was held Monday through Thursday, from 9:00 a.m. to 5:30 p.m.

It included 13 single-period courses and 18 multiple-period courses.

Faculty included 32 instructors and 64 hours of instruction.

The program featured 6 hours of scientific papers, 1 seminar on contact lenses, and 1 orthoptic symposium.

...50 Years On

The program is now held over a long weekend. The 2022 event was held Friday through Sunday, from 7:30 a.m. to 4:00 p.m.

It included 74 single-period courses and 22 multiple-period courses.

Faculty included 141 instructors and 114 hours of instruction.

The program featured 29 hours of learning labs, 1 off-site experience, and exam prep sessions for COA, COT, COMT, CDOS, and ROUB certifications.

ACE Flashback: Off to a Good Start

In 2001, four of us technicians went to New Orleans for the JCAHPO meeting. Our office paid for the rooms and all the continuing education classes, which I needed to maintain my certification.

This was right after the September 11 terrorist attacks, and a lot of people cancelled that year. I was pretty scared about just getting on the airplane. But getting my credits was the important thing!

I remember the first session I went to was with David Norath. He was a wonderful speaker and very impressive. All the sessions in New Orleans really helped me, especially in providing information about what other departments in the practice did so I could understand everything better.

Rose Marie Chapman, COA (Retired)

Education Fun Facts:

1973 The first annual JCAHPO Continuing Education program was formally held prior to the Academy meeting in Dallas, Texas, in September 1973

1975 Regional continuing education courses were launched for AOP to gain and expand their knowledge and skills

1985 The first plenary session was held at the Annual Meeting in San Francisco, CA, by Harold A. Stein, MD

1992 International educational outreach visit to King Khaled Eye Specialist Hospital in Saudi Arabia

1993 The JCAHPO Foundation began granting scholarships and educational awards

2001 The JCAHPO Bookstore opened online

2003 JCAHPO began publication of the Refinements modules with CE credit

2004 IJCAHPO's Learning Systems modules were launched

2005 IJCAHPO's Contact Lenses Learning Systems modules were developed

2007 The first online educational website, supported with an unrestricted educational grant, *myjcahpo*, was created

2009 IJCAHPO introduced monthly CE webinars and Retina TechTrax lectures

2009 The First Pocket Guide was published

2014 EyeCareCE online website went live, and CE clinic subscription plan offered

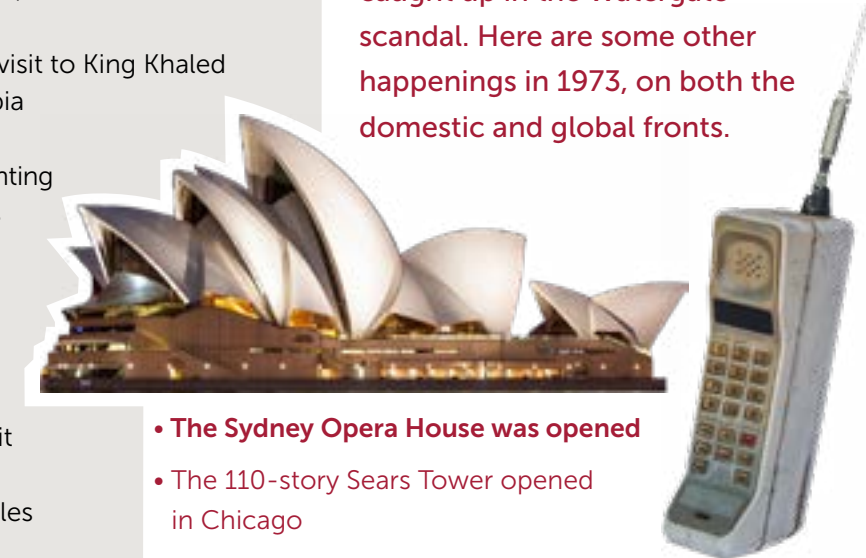
2019 New offerings such as Scribe Pocket Guides became available

2023 IJCAHPO published a new Clinical Reference Manual

2024 IJCAHPO published a new Retina Clinical Reference Manual

1973 Fun Facts:

If you were to time travel to 1973, when the first ACE meeting convened, you'd find President Richard Nixon starting his second term in the White House, ending the United States' engagement in a war in Vietnam, and getting caught up in the Watergate scandal. Here are some other happenings in 1973, on both the domestic and global fronts.



• The Sydney Opera House was opened

• The 110-story Sears Tower opened in Chicago

• The first handheld cellular phone call was made in New York City

• Magnetic Resonance Imaging (MRI) was invented

• Secretariat wins the Triple Crown

• The movie, *The Sting*, won the Academy Award for Best Picture

Certification Initiative

History of IJCAHPO's Core and Specialty Certifications



A class of aspiring AOP hold up various charts and instruments at an in-person certification event for AOP Week 2018.

IJCAHPO offers a wide range of certifications for allied ophthalmic personnel, whether they are just starting out their career or are a seasoned professional. IJCAHPO certification validates their knowledge, skills, and abilities in specific content areas as allied ophthalmic personnel (AOP). Our three core levels of certification comprise a solid ladder for progressive career development.

IJCAHPO's Core Certifications include:

- Certified Ophthalmic Assistant (COA®)
- Certified Ophthalmic Technician (COT®)

- Certified Ophthalmic Medical Technologist (COMT®)

IJCAHPO's specialty certifications are:

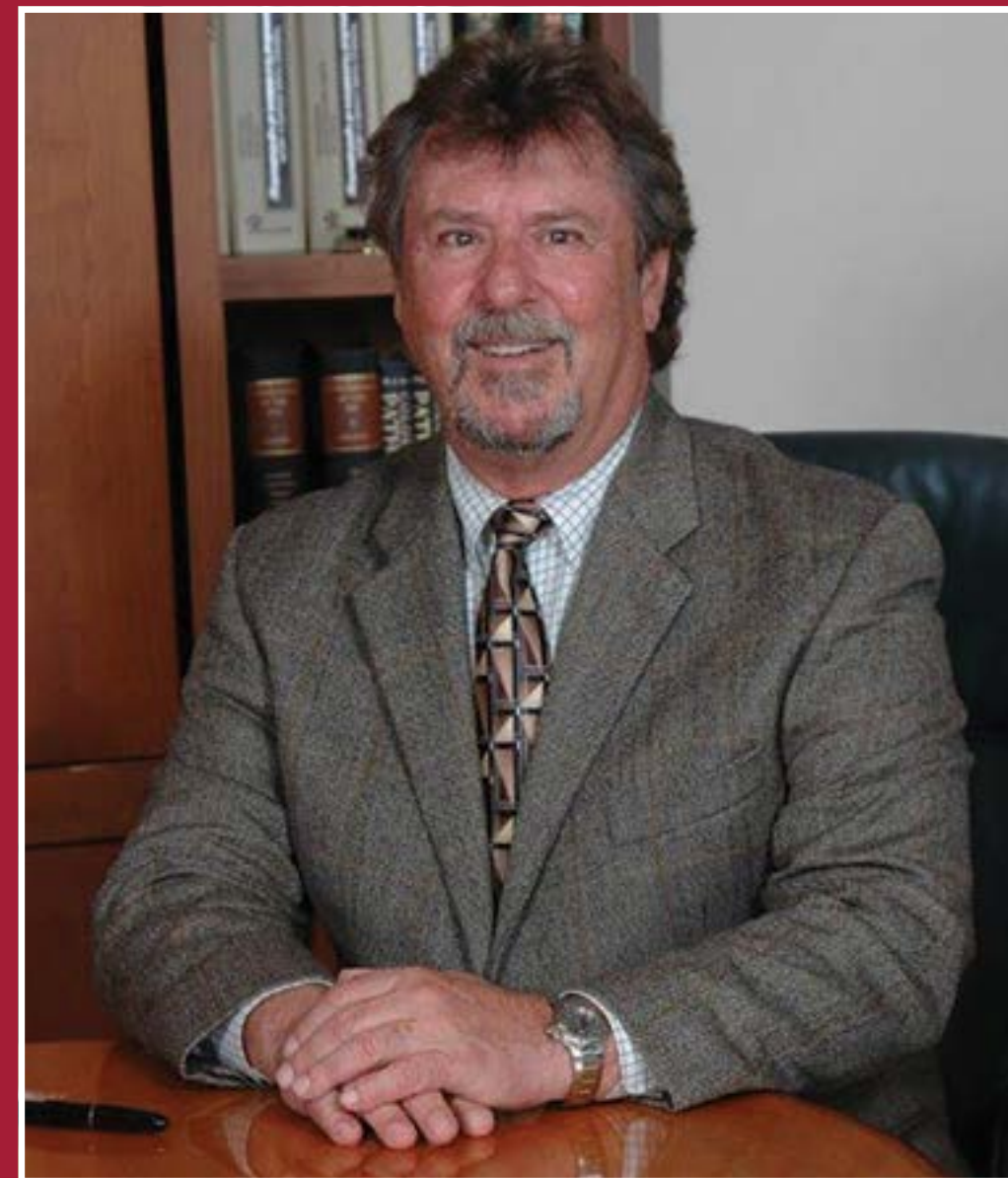
- Ophthalmic Surgical Assisting (OSA®)
- Certified Diagnostic Ophthalmic Sonographer (CDOS®)
- Registered Ophthalmic Ultrasound Biometrist (ROUB®)
- Corporate Certified Ophthalmic Assistant (CCOA®)
- Ophthalmic Scribe Certification (OSC®)

To expand the opportunity for certification even further, IJCAHPO's Certificates of Completion are designed to test AOP knowledge in specific areas. Completing courses

such as Contact Lens, Low Vision, Visual Fields, and Ophthalmic Surgical Processor (OSP®) validate the specific skills and expertise of certificants.

For more than ten years, IJCAHPO has been recognized by the United States Veterans' Administration and participates in its education and certification veterans' benefits program. Military personnel and veterans can apply for reimbursement of their education, continuing education, and certification expenses by approved certification providers.

Being certified demonstrates to employers and patients that the eye technician is dedicated to the profession and has advanced skill sets. 👁️



Jack Muckleroy, COMT, FCLSA, retired practice administrator for the Ophthalmology Associates of San Antonio.

The First ACE Instructor: A Certification Pioneer

In October 1969, a dozen physicians signed the Articles of Incorporation creating the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO®). The ink had barely dried on that document when Jack Muckleroy, COMT, FCLSA, signed JCAHPO's newly adopted Code of Ethics in preparation for taking the first certification examinations in 1970.

At the time, only the COT credential existed, with the COA and COMT still in development. "First,

you took a very long written test that went into every aspect of ophthalmology, including things you might not do every day like pharmacology and optics," said Muckleroy.

While Muckleroy found the written exam hard, the oral-practical exam that followed was downright difficult. "I remember being apprehensive about the oral exam because the doctors could ask whatever they wanted to—there were no testing criteria set yet and no study materials available. And the oral test must have been about four hours long," he noted.

Muckleroy was among the first 39 people to become Certified Ophthalmic Technicians. He attributes his success on those pioneering exams to being employed by the United States Air Force School of Aerospace Medicine and working for Thomas Tredici, MD—one of JCAHPO's founders.

Two other JCAHPO founders represented other branches of the military: Budd Appleton, MD, from the Walter Reed Army Medical Center, and Bernard Blais, MD, a lieutenant commander in the U.S. Navy.

"There was an unspoken but definite competition going on in the military, for which branch would have the most certified technicians. I was well-

Certification Pioneer (cont')

trained because the Air Force basically gave me six months to learn everything I could from our optometrists and ophthalmologists," Muckleroy explained. Two years later, in 1972, he received the COMT designation.

By then, Muckleroy was supervisor of the School of Aerospace Medicine's Ophthalmology and Surgical Technician Course. During his 11 years on active duty with the U.S. Air Force, he worked with flight surgeons and aerospace nurses and evaluated astronauts participating in NASA's Gemini and Apollo programs.

Muckleroy's work often took him to the NASA Space Center in Houston, which had specialized equipment such as altitude chambers and a large human centrifuge. There, the astronauts spent at least two weeks being subjected to a wide range of physical tests and then being examined by medical experts. Three or four of those days were reserved just for the ophthalmology department's tests.

"We did very sophisticated eye exams, including documenting why and when blood starts flowing backwards in the eye when you get up to enough g-forces. The Air Force was not only qualifying the astronauts for the next step but also building a database," said Muckleroy.

Civilian Life

In 1974, Muckleroy followed one of the Air Force ophthalmologists into civilian life and private practice. As the practice administrator for Ophthalmology Associates of San Antonio, Muckleroy initially devoted 90 percent of his workday to technical tasks such as fitting contact lenses and doing visual fields and photography. Over time, the administrative responsibilities grew to 95 percent of his workday.

"Physicians value the administrator who has ophthalmology knowledge, who understands both the front and back of the practice and how they can work together," he noted. "There's always been an emphasis on certification in our practice. Certification is seen as a badge of honor."



Recently retired after decades in ophthalmology, Jack Muckleroy, COMT, enjoys fishing in his spare time near his farm in San Antonio.

Muckleroy served as an instructor for IJCAHPO programs over the course of five decades, including the very first ACE program in 1973. In 2012, IJCAHPO presented Muckleroy with its Statesmanship Award.

Having recently retired from practice, Muckleroy looks forward to spending more time with his wife (and 13 horses) on their farm outside San Antonio—plus fishing, playing some golf, and maybe sailing. He feels fortunate to have served so long as a certified ophthalmic medical technologist.

"Being an ophthalmic technician is a specialized niche, different from being any other kind of technician," he said. "There's a certain amount of detective work that goes on, where you're assessing the situation, sifting the clues, listening to what the patients are telling you, and seeing what the test results are."

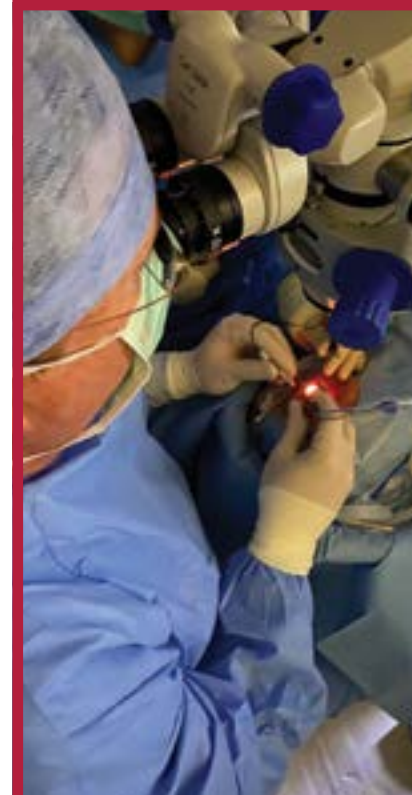
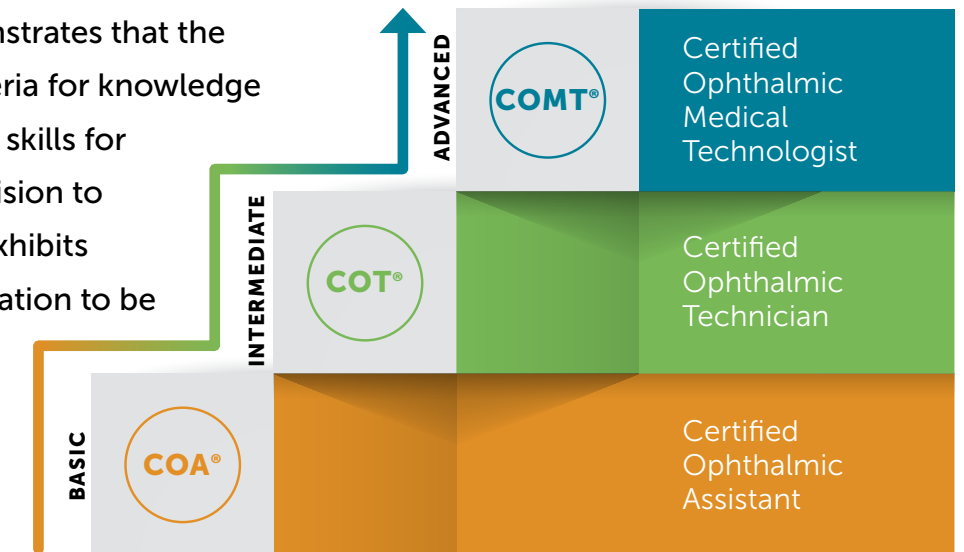
"It gives you a feeling of personal value," Muckleroy continued. "You go home just about every day feeling grateful for the opportunity." 👁



CERTIFICATION

Certification promotes employment advancement, potential higher pay, and recognition.

IJCAHPO certification demonstrates that the individual meets specific criteria for knowledge and masters a broad range of skills for patient examination. The decision to become IJCAHPO certified exhibits pride in the profession, motivation to be recognized for proficiency of the certification content, and a commitment to ophthalmic patient care.



OPHTHALMIC SURGICAL PROCESSOR (OSP) CERTIFICATE OF COMPLETION

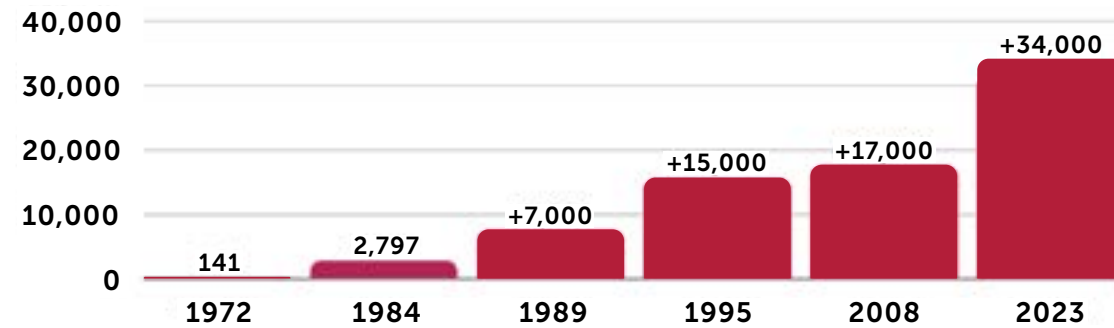
Validate your ophthalmic surgical assisting knowledge by completing the OSP Certificate of Completion.

The OSP Certificate of Completion is an eligibility pathway for non-ophthalmology trained personnel and ophthalmic personnel who are not certified by IJCAHPO in the areas of surgical assisting and ophthalmic scrub/sterilization to apply for the Ophthalmic Surgical Assisting (OSA) sub-specialty certification.

For more information, visit EyeCareMarketplace.org

Developed by the International Joint Commission on Allied Health Personnel in Ophthalmology (IJCAHPO) and the Outpatient Ophthalmic Surgery Society (OOSS)

Number of IJCAHPO Certified AOP:



Certification Fun Facts:

1969 Certification exams were conducted on an "honor system." Examinations were mailed to the candidate's sponsoring ophthalmologist, who administered the examination to the candidate.

1972 The first separate written examinations for Ophthalmic Assistants and Technicians were administered.

1974 Two categories for Certified Assistant-level were introduced: Categories A and B. Eligibility, prerequisites, and work experience distinguished these categories. "Ophthalmic A Assistants" had to meet the same prerequisites and pass all the remaining modules contained in the AAO Home Study Course. "Ophthalmic B Assistants" had to show evidence of having completed the Home Study Course of the AAO, have one year of on-the-job-experience, and be verified by a sponsoring ophthalmologist.

1980 The first written Ophthalmic Medical Technologist examination was taken by 118 candidates in July 1980. The first Practical Performance test for the Ophthalmic Medical Technologist was given in October 1980.

1981 A three-year recertification cycle was established for JCAHPO certificants.

1992 The Practical Performance Test moved to a permanent testing site in the Twin Cities area. Previously, the examination was held one to two days prior to the Academy's Annual Meeting.

1995 The core credentials, COA, COT, and COMT became registered trademarks.

1996 The first offering of the "Assisting in Low Vision" examination was made available.

1997 Computer-administered testing for all certification examinations continued to be integrated into JCAHPO's process for certification.

2001 JCAHPO began offering study materials to aid AOP in their certification examinations.

2001 A new certification, the Corporate Certified Ophthalmic Assistant (CCOA), was approved for development and first offered in 2003.

2003 The hands-on version of the Skill Evaluation for the COT certification examination was replaced by the computer simulation examination.

2004 A growing number of international certification examinations were delivered in Honduras, Oman, Saudi Arabia, and Zambia.

2007 The development of Spanish and French language translations of the COA examination was initiated.

2008 The ROUB and CDOS certification examinations were launched.

2010 IJCAHPO offered a new COMT Practical Performance Test developed in a computer-based simulation format.

2015 A certification for Scribes was launched.

2018 Certificates of Completion were launched for visual fields, surgical processing, and others.

2020 The COT and COMT practical examinations were offered online with IJCAHPO proctors.

2022 IJCAHPO's COA, COT, and COMT Certifications are accredited by the American Council on Education (ACE).

2024 IJCAHPO's COA and OSA Certifications are accredited by the National Commission for Certifying Agencies (NCCA)



A Chance Encounter: A Choice Career Kenneth E. Woodworth, Jr., COMT, COE

Ken Woodworth, COMT, COE, FASOA, owes his introduction to the world of allied ophthalmic personnel (AOP) from a pick-up basketball game. One of the other players, an ophthalmologist, asked offhandedly if Woodworth knew anyone interested in training as an ophthalmic technician. Woodworth replied, "How about me?"

"I had always been interested in the people aspect of a medical-oriented career," recalled Woodworth. "The profession of ophthalmic technology offered me the opportunity to be involved in medicine but also with people. It was a good match."

He took the job as an ophthalmic technician, moving up the ranks to chief technician, to clinical supervisor, and then taking on more administrative responsibilities as vice president of technical affairs. For 43 years, Woodworth worked for iterations of the practice he originally joined, which grew to include 15 locations.

"As a lifelong learner, I have really enjoyed continuously honing my knowledge, skills, and abilities at ophthalmic meetings and webinars," said Woodworth, who retired in 2014 as his practice's chief operating officer and now serves as a consultant to ophthalmic practices. "I'm still interested in keeping up to date on what's happening in ophthalmology because it's such a dynamic field, with change seeming to happen every nanosecond."

Exam Evolution

Early in Woodworth's ophthalmic career, his employer encouraged him to pursue certification. Woodworth became a COA in 1974 and, three years later, earned his COT credential.

He recalled, "At the time, the written exams were supervised by the employer ophthalmologists. After passing that, I had to pass the oral practical performance test, which was both subjective and objective. The examiners would ask you questions and also ask you to perform technical skills on the spot."

In 1980, Woodworth received the COMT designation. Although Woodworth lived in Kentucky, he traveled to Minnesota to take the exam—and had to finish it an hour early so he could catch a plane that day.

Woodworth's passion for education and certification translated into volunteer leadership roles with IJCAHPO. Over the years, he chaired or served on numerous committees, including those related to task analysis, learning systems, continuing education, performance testing, training, and accreditation.

Woodworth holds the distinction of being the first non-physician to serve as IJCAHPO's president. His tenure as president (2005–07) coincided with the organization's international expansion.

ACE Flashback: A Record Run

I taught every year at the JCAHPO annual meeting for 40 years in a row.

My favorite meeting was 2007 in Las Vegas. As the president, it was my responsibility to select a speaker for a lecture named after Harold Stein, a past president and long-time contributor to JCAHPO. The lecture was presented in the morning, when many people don't look too awake. For the speaker, I selected Bill Lloyd, an MD who is board certified in both ophthalmology and pathology and someone I knew would be both educational and fun.

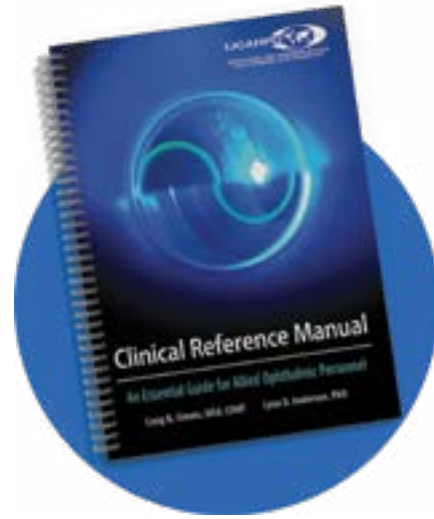
Without telling anyone what we had in mind, Bill and I worked on the presentation. When I introduced him for the Stein lecture and everyone clapped, he didn't show up. I introduced him again, and nothing. Of course, this was all planned. When he finally came on stage, he acted like he had just woken up—and he got a lot of laughs.

The one thing I enjoyed about every ACE meeting was seeing people who I became very close with over the years. I am grateful to have friends in ophthalmology all over the world.

Ken Woodworth Jr., COMT, COE (Retired)

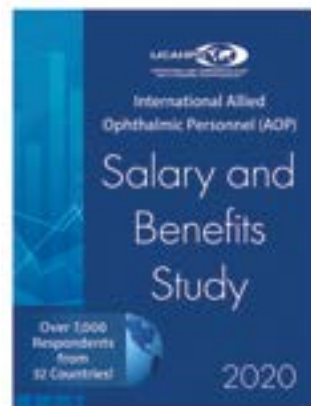
Past President, JCAHPO (2005–07)

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Publications by IJCAHPO

In addition to creating and hosting the ACE Premier Event in Eyecare Education each year, IJCAHPO has worked tirelessly throughout its history to publish a breadth of books, articles, and publications relating to a plethora of ophthalmologic subjects.

Books

- Retina Clinical Reference Manual: An essential retina guide for allied ophthalmic personnel. Eds. Simms CN, Anderson LD. Authors: Ehlers W, McDonald C, Blackburn C, Loyacano N, Rose K, Stewart M, Panday V, Donshik P, Byrd J. 2024.
- Clinical Reference Manual: An essential guide for allied ophthalmic personnel. Eds. Simms CN, Anderson LD. Authors: Ehlers W, McDonald C, Blackburn C, Loyacano N, Rose K, Stewart M, Panday V, Donshik P, Byrd J. 2022.
- IJCAHPO/ATPO Pocket Guide: A clinical skills and reference guide for the ophthalmic technician. 2nd Edition. Eds. Massare J, Anderson L. 2012.
- Pocket Guide: Role of the ophthalmic scribe. 1st Edition. 2019.

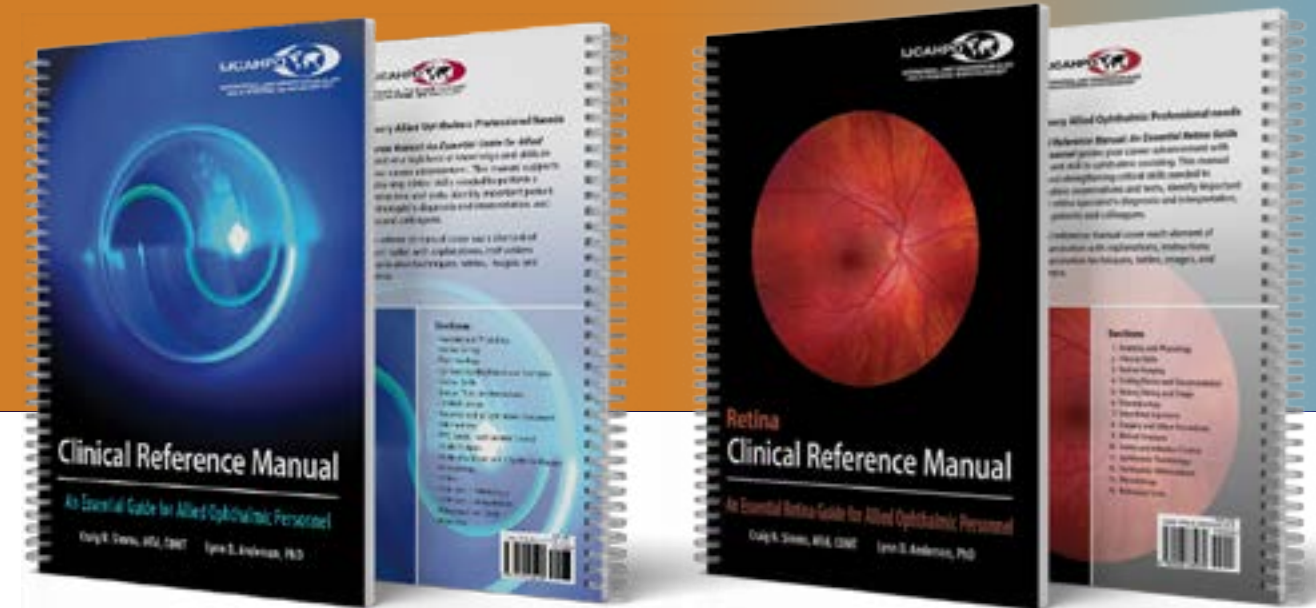
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- Astle W, El-Defrawy S, LaRoche G, Lafontaine M, Anderson L, Dukes M, Anderson I, Weirens N. Survey on allied health personnel in Canadian ophthalmology: The scalpel for change. *Can J Ophthalmol*. 2011;46(1):28-24.
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Publications

- International Joint Commission on Allied Health Personnel in Ophthalmology, Inc. Scope of Practice. June 2020. https://documents.jcahpo.org/documents/Scope_of_practice.pdf
- IJCAHPO. A Framework for Allied Ophthalmic Training Programs: Education, Training, Certification, and Accreditation. 2018.
- International Joint Commission on Allied Health Personnel in Ophthalmology. Criteria for Certification & Recertification. 2020.
- International Core Curriculum for Ophthalmic Assistants. 2009. International Joint Commission on Allied Health Personnel in Ophthalmology, Inc. and the International Council of Ophthalmology. Published with French, Chinese, and Spanish translations.
- International Core Curriculum for Refractive Error. 2011. International Joint Commission on Allied Health Personnel in Ophthalmology and the International Council of Ophthalmology.
- Refinements: a set of 52 monographs.
- Learning aides in each level of certification (Quick Study Cards, Study Guide Booklets, JCAT).

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Essential Guides for Allied
Ophthalmic Personnel**

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Career Development


Since 1969, the evolution and growth of the AOP profession has been supported by IJCAHPO.

In IJCAHPO's formative years, the ophthalmologist leadership set goals to recruit new eye care personnel into the profession and develop educational programs to expand eye care services and primary eye care. The training and development of eye care human resources capacity at this level would become the backbone of the eye care services delivery systems in Canada and the United States.

An essential recruitment strategy by IJCAHPO was to help establish formal training programs with a standardized curriculum and a professional faculty. Today, there are approximately 40 accredited academic training programs across the U.S. and Canada, 10 internationally accredited training programs, and an average of 300 graduates annually. However, there continues to be a need greater than the training programs' ability to produce job candidates.

To augment training programs as one strategy, IJCAHPO created a career development leadership team. They set

an ambitious plan to build awareness of the ophthalmic assisting profession. Over the years, IJCAHPO developed campaigns for private practices to recruit local job candidates and created career videos and brochures to assist employers in their recruitment strategies. IJCAHPO also designed brochures to provide job seekers insights into the eye care profession and to assist military personnel and veterans in their career transition.

In 2007, IJCAHPO released its new career web site, *myeyecareer*, which provided potential ophthalmic candidates with career information on ophthalmic assisting. Today, IJCAHPO's new websites, *Discover Eye Careers* and *Career Center*, have grown to become the premier resource for connecting allied ophthalmic personnel and job seekers with career opportunities. AOP can easily discover new career opportunities, receive job alerts, and get career advice. In 2018, an ophthalmic assisting career video provided insights to becoming an ophthalmic assistant. The video and website demonstrates the typical day for an ophthalmic assistant. 



CELEBRATE AOP WEEK

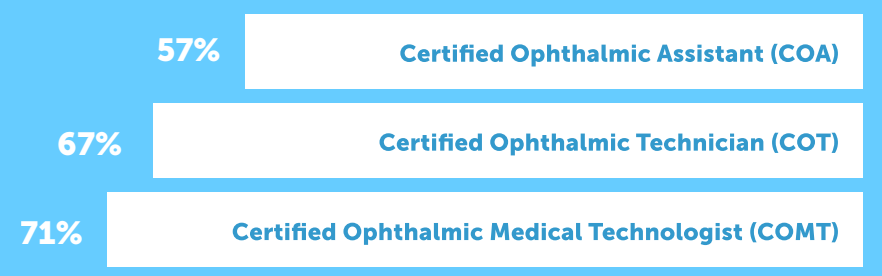


Each Year Following ACE

THANK YOU ALLIED OPHTHALMIC PERSONNEL (AOP) FOR ALL YOU DO!



SALARY SATISFACTION BY CERTIFICATION LEVEL*



Follow our social media during AOP Week each year where we champion the profession and host contests and giveaways to participating AOP like YOU!

*Information from IJCAHPO International Allied Ophthalmic Personnel (AOP) Salary and Benefits Study 2020. Over, 7,000 respondents from 32 countries.



Christine McDonald, COE, COA, ROUB, OSC, with her mother, Rose Marie Chapman, COA (retired), and daughter, Lauren McDonald-Mueller.

Family Ties

A chance conversation with her children's babysitter prompted Christine McDonald to check out an open position at an ophthalmology practice in 1987. She ended up staying 10 years.

"I went in for the interview, found it really interesting, and ended up turning into one of the biggest eye geeks on the planet," explained McDonald, who holds COE, COA, and ROUB credentials. "I started at the front desk, then took over all the billing and surgery scheduling because you wear a lot of hats in a small practice."

After joining a larger practice with 10 employees and four locations, McDonald took on some direct patient care duties. "As the business manager, I wanted to have a better understanding of what the

techs went through on a daily basis and how I could help them be successful," said McDonald. "I went the tech route as well and ended up loving it. Being able to see patients was a bonus for me."

McDonald's employer noted she "was very pro-education for all staff, but especially the technical staff." Seeking to increase its level of patient care, the practice introduced a requirement for all technical staff to become certified. "Whenever patients would ask about the letters after our names, we'd talk about certification and you'd see the light bulb go on for them—that we really knew what we were doing," she added.

Since 2015, McDonald has served as director of billing and operations for a large retina practice in

St. Louis. In addition to overseeing operations and most of the billing for the 15-location practice, she still sees patients on occasion.

"The patient care doesn't stop when that person leaves the office. For example, one of my departments helps patients apply for grant money and co-pay assistance to help with the costs of high-priced injections," said McDonald. "It's awesome to help someone see again. You can save someone's life that way."

“When you go to the ACE meeting, you're learning from the best of the best. In addition to that education, it's also a wonderful place to network.”

Three Generations, One Profession

A few years after McDonald entered the ophthalmology field, her mother saw a job listing for a contact lens technician. "I didn't have any qualifications. But I knew Chris was really happy with her job, and she said they'd train me," recalled Rose Marie Chapman. She not only landed the job but stayed for 14 years.


Chapman will never forget the day of the three-hour written exam in 1993. Not only had significant flooding closed many highways in St. Louis, but it was also the day one of Chapman's daughters gave birth to twins and the day before her son's wedding. "It all happened at once! It was unreal. I just kept telling myself to keep calm and concentrate," she recalled. The strategy worked and Chapman passed the exam.

Neither Chapman nor McDonald had any inkling their granddaughter and daughter, respectively, would follow in their footsteps. Yet when Lauren McDonald-Mueller decided to change careers, ophthalmology was her field of choice.

"I was ready for a career in a field where I felt I

wouldn't just get something out of it but would also be able to give something in return," McDonald-Mueller explained. "I went to my mom and asked, 'Where do I start?'"

Within one family, three generations found that attending ACE meetings contributed significantly to their careers. McDonald-Mueller used ACE as an educational starting point. For Chapman and McDonald, the meeting offered opportunities to maintain their certifications while expanding their knowledge base.

"When you go to the ACE meeting, you're learning from the best of the best. In addition to that education, it's a wonderful place to network," said McDonald, who has served on the IJCAHPO Board of Directors since 2010. "Many of the other technicians I've met at the meetings have become very good friends. It's a big community, and we all help each other out." 

ACE Flashback: Making the Case

In the 1970s, there was no formal training for ophthalmic assistants. It was largely on-the-job training, provided by an ophthalmologist who, between patients, would show the assistants what to do.

IJCAHPO had to appeal directly to doctors to sell the benefits of a continuing education program like ACE for ophthalmic medical personnel. Doctors had to be assured that well-trained assistants could be instrumental in providing better service to patients and increasing the revenue stream by making the doctors more efficient.

Over the years, technology has radically changed our ability to care for people. We now have machines that measure your refraction, machines that measure your visual field, machines that take photographs or laser scans of the back of your eye, machines that automatically read glasses—and all of those are within the purview of the ophthalmic assistant, who has to know how to use all those machines.

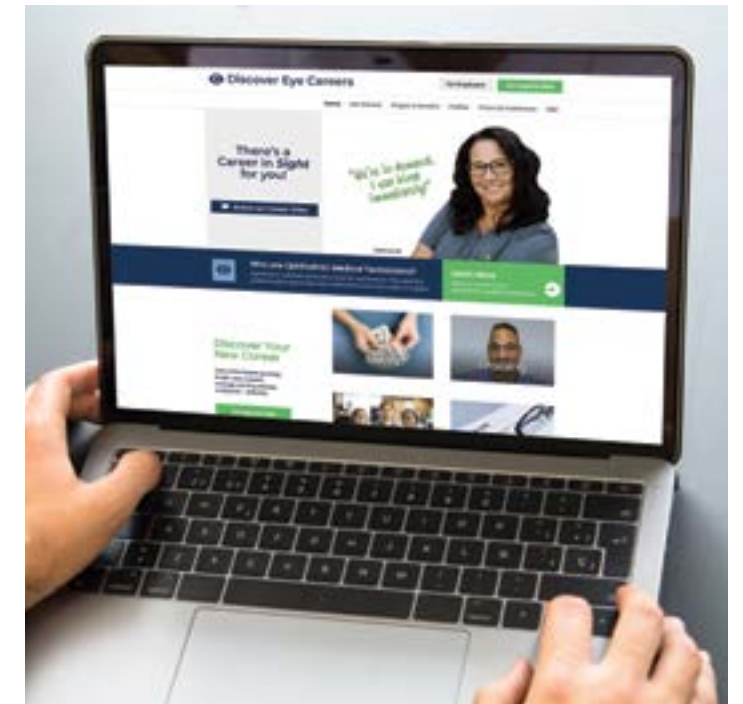
Neil Choplin, MD

Past President, IJCAHPO (2019–21)

IJCAHPO offers unique resources for employers, current job seekers, and potential job seekers.

For employers, IJCAHPO offers assistance for recruiting candidates with a special section on our website. Specific resources include job advertisements and descriptions, a job board to publish job openings, a salary study, employee recruiting ideas, and nationwide recruitment options. IJCAHPO continues to support employers after they hire ophthalmic assistants with our "New Hire Modules". These modules provide new employees with vetted materials delivered by experts in the field to start the new hires off right on the education and certification career path.

For current job seekers, IJCAHPO provides sample resumes, a salary study, and a job board to assist in their search. For potential job seekers, IJCAHPO provides career orientation modules on ophthalmology and ophthalmic assisting, a career video that walks through a day in the life of a technician, and additional resources to recruit new AOP. Watch the video on our Discover Eye Careers homepage, www.discovereyecareers.org.



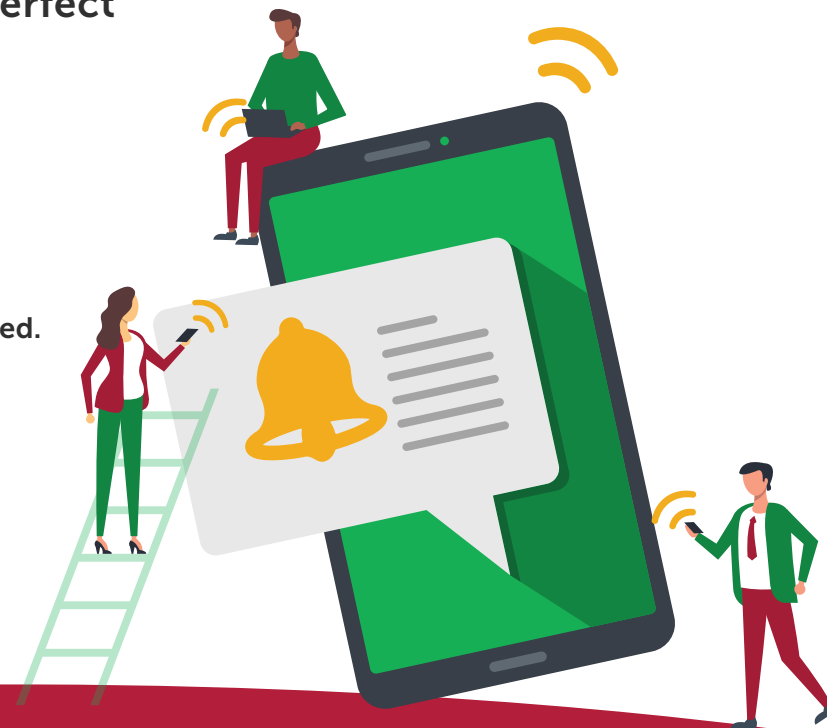

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International Relations

International AOP education and certification are championed by IJCAHPO. We are proud to support allied ophthalmic personnel across the globe!

In the 1960s, IJCAHPO began to address the need for allied ophthalmic personnel (AOP) in the United States and Canada. After 30 years of service to the ophthalmic community in North America, IJCAHPO's achievements were noticed internationally. Multiple organizations contacted IJCAHPO

in the early 1990s to help establish AOP in their countries. It has since become clear to the world that well-trained, certified AOP are necessary for modern, up-to-date ophthalmic practices. Still, efforts to increase the number of ophthalmologists worldwide fall short in addressing vision care needs.

Systemic change can be made by recognizing and implementing an appropriate human resources capacity building strategy to deliver vision care worldwide. IJCAHPO is committed to working tirelessly with its global allies to deliver quality eye care to the international community.

Singapore



JB. Thiyagarajan, C. Wai Sue Lea, C. Ong Geok Hong, and I. Yeo Yew San of the Singapore National Eye Center, with W. Astle, E. Miller-Ellis, and L. Anderson.

1992

IJCAHPO formed an International Relations Committee and held a special meeting, inviting representatives of international and foreign national societies interested in establishing or currently utilizing AOP. These included the International Eye Foundation, Helen Keller International, Combat Blindness Foundation, Vision Care International, the Instituto Nacional de Oftalmologia of Peru, the Pan-American Ophthalmological Association, Project Orbis, and the Academy Committee on International Ophthalmology. That year, a small leadership group from IJCAHPO visited the King Khaled Eye Specialist Hospital (KKESH) in Riyadh, Saudi Arabia, to support the development of an ophthalmic assisting and continuing education program.

Saudi Arabia



Students at the King Khaled Eye Specialist Hospital in Saudi Arabia taking their certification exams.

Throughout the decade, IJCAHPO saw a growing interest in international AOP education and certification. IJCAHPO participated in the international

ophthalmology annual meetings by giving presentations at international congresses in Germany, Amsterdam, Brazil, Canada, Ecuador, and Mexico.

Fiji



The first IJCAHPO-accredited class of AOP at the Pacific Eye Institute in Suva, Fiji.

2000

International Relations expanded from conversations and support for training AOP to include certification of AOP internationally. KKESH invited IJCAHPO leadership to implement IJCAHPO's certification examinations as a capstone for its training program. IJCAHPO presented at the Royal College of London regarding establishing an AOP organization. In 2004–2006, IJCAHPO's international outreach included working with the Philippine Academy of Ophthalmology (PAO) in Manila, which resulted in PAO being the first international organization to join IJCAHPO. A symposium was presented on AOP training and certification at the ICO World Congress in Brazil.

Cambridge



S. Gilbert, L. Anderson, K. Miller, E. Miller-Ellis, W. Astle, K. Golnik, B. Qureshi, and P. Garg in Cambridge.

2008

IJCAHPO continued building international alliances and outreach to support the development of

Yemen



S. Dolupta, T. Cimustibus, S. Maion, C. Estist, and W. Astle in Yemen.

AOP education and certification. IJCAHPO joined the International Ophthalmology Council (ICO) and partnered to develop International Curriculum for Ophthalmic Assisting and Refractive Error. IJCAHPO

presented at the ICO World Congresses in Abu Dhabi, Barcelona, Berlin, Guadalajara, Hong Kong, and Tokyo, including the new ICO virtual Congresses.

2010

This decade began an era in IJCAHPO that strengthened and expanded AOP education, training program accreditation, and international certification. As formal training programs were developed, they reached out to IJCAHPO for support with its standardized curriculum and AOP assessment that IJCAHPO's international accreditation program provided.

2020–Present

IJCAHPO's outreach and partnerships include ophthalmology organizations that span the globe. Memorandum of Agreements with organizations in China, Pakistan, Singapore, and others provide an outreach to educate and certify AOP. Global accredited

AOP training programs include the Community Ophthalmic Technician Program sponsored by the Ogun State College of Health Technology/ Eye Foundation Centre in Nigeria, EICO/PET at Magrabi Foundation and Hospital in Egypt, the Fred Hollows Foundation for the Pacific Eye Institute in Fiji, LV Prasad Eye Institute in India, PICO at Hayatabad Medical Complex in Pakistan, and Ophthalmology and Visual Sciences Academic Clinical Program, Singapore National Eye Center.

Certification globally has grown to include examinations of AOP in 29 countries. These countries span the regions of Africa, Asia, the Caribbean, Central America, Europe, Melanesia, Micronesia, Polynesia, and South America.

In 2022, the World Health Organization developed an Eye Care Competency Framework (ECCF) as a tool that provides a set of comprehensive global competencies and activities for the entire eye care team. IJCAHPO and LV Prasad Eye Institute participated in the WHO pilot project to demonstrate the implementation of the ECCF for allied ophthalmic personnel.

IJCAHPO has made significant strides to provide accessible, high-quality eye care education and certification around the globe. 👁️

Learn how your program can apply for international accreditation. Visit our website: [ijcahpo.org/international/accreditation](https://www.ijcahpo.org/international/accreditation)

ACE Flashback: A Call to Volunteer

When I was at the 2004 ACE meeting in New Orleans, William White, MD, and Deborah McDonald, COT, CRA, did a session on volunteering in developing countries. They talked about their experiences volunteering in Haiti and told us, "We really need technicians, because you do all the things we don't."

I was sold! But I had only a month to pull together the funds to pay for my medical mission trip. Many of my friends helped with donations to make it possible.

On my first trip in early 2005, everything for the eye care clinic was makeshift and borrowed. Now, there is a free-standing i-Team clinic in St. Louis du Nord, which is in the northwest part of Haiti. It's an entire building devoted to eye care that is staffed at least once a year by a big team from the United States. Once a month, a Haitian ophthalmologist comes to the clinic to see patients.

I've made four awesome mission trips to Haiti as a volunteer with the Haiti i-Team and worked in between trips to procure equipment donations from U.S. practices—all because of one ACE session.

Christine McDonald, COE, COA, ROUB, OSC, CTC, OCS

India



W. Astle with leaders from the LV Prasad Eye Institute in India.

PUBLIC AFFAIRS

IJCAHPO supports the allied ophthalmic profession at the federal and state level. Actions and results of our efforts are many, highlighted here!



IJCAHPO Washington, D.C. delegation to achieve Bureau of Labor Standard Occupational Classification (SOC) listing.

Pictured from left to right:
Lynn D. Anderson, PhD, IJCAHPO CEO,
Congressman (Now Senator) John Boozman (AR),
William H. Ehlers, MD, IJCAHPO Past President,
Elbert H. Magoon, MD, FACS, IJCAHPO Past Board Member



Bureau of Labor Statistics New Classification

In 2009, IJCAHPO drafted a position paper and made application to the Bureau of Labor seeking approval for recognition of Ophthalmic Medical Technicians as an occupation. Previously, our profession was classified under Medical Assistants. With great support from Congressional Representatives and associations, IJCAHPO received notification that we had achieved recognition in the Standard Occupational Classification (SOC) listing with the Bureau of Labor Statistics (BLS) for Ophthalmic Medical Technicians as a unique occupation worthy of its own classification.



State Surgical Tech Legislation

Defended the ability of IJCAHPO Certified Ophthalmic Surgical Assistants to continue to practice their profession against legislation that may have prohibited them from supporting the ophthalmologist in the surgical setting.

2013



New York Eye Drop Legislation

Supported legislation in New York State (that became law) that allows an ophthalmologist or optometrist to delegate to AOP the instilling of mydriatic or cycloplegic eye drops.

2020



Oregon Legislation

Sought and achieved the specific listing of IJCAHPO's Certified Ophthalmic Surgical Assisting in Oregon Law as an approved surgical technologist sub-specialty.

2022

Additionally, IJCAHPO is a council member for the American Academy of Ophthalmology (AAO). As a member, IJCAHPO has submitted AAO Council Advisory Recommendations (CARs) to support AOP and their scope of practice, including:

WORKFORCE SHORTAGE

Requested the support of AAO to develop a workforce needs assessment survey to better understand AOP workforce shortage.

APPRENTICESHIP

Sought the support and guidance of the AAO, its Council, and ophthalmology leaders to foster partnerships and endorse IJCAHPO's development of an apprenticeship program to train AOP to meet ophthalmology's workforce needs.

PROTECTING AOP

Requested a task force be created that is composed of AAO, IJCAHPO, and State Society representatives to respond to any legislative efforts that will restrict or prevent ophthalmologists from using AOP to the full scope of their training.

CASE STUDY

STEIN PRIZE WINNING ARTICLE, 2013

Acquired Myasthenia Gravis After Orbital Trauma in a 23-Month-Old Girl

Alex Christoff, BS, CO, COT

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Myasthenia Gravis (MG) is characterized by extraocular muscle weakness, including weakness of the levator palpebrae superioris. The clinical hallmarks are variability of extraocular motility and fatigable ptosis. The ptosis may be unilateral or bilateral and when bilateral, may be symmetric or asymmetric. MG can be congenital or acquired. The acquired form can occur at any age, although onset in early childhood is uncommon.^{1,2} In the pediatric population, it affects females more commonly than males by a factor of greater than 2:1.^{3,4}

We present the case of a 23-month-old African-American female whom we suspected of having MG based on the development of new-onset strabismus and ptosis following minor trauma. The examination was significant for vertical strabismus and a variable, bilateral, asymmetric ptosis. Subsequent immunological testing revealed elevated acetylcholine receptor (AChR) blocking antibody titers. The patient was placed on oral pyridostigmine with improvement in her symptoms and signs.

CASE REPORT

A 23-month-old African-American girl presented with a history of her left eye drifting up intermittently for three weeks. Her parents reported that two weeks prior to noticing the vertical misalignment, she had a stye on her left upper lid that resolved spontaneously. Since that time, both eyelids appeared droopy. This was particularly noticeable during a family photograph session. Four weeks prior to the appointment, the child fell down the stairs at home on a toy scooter and hit her head on the banister. There was no loss of consciousness or symptoms of concussion, although there was minor ecchymosis and edema localized around the left eye.

The swelling and bruising eventually resolved spontaneously.

The patient was the product of a full-term pregnancy and an uncomplicated delivery. Her mother was healthy. The child weighed 6 pounds 11 ounces at birth. She subsequently had met all of her developmental milestones and had all of her vaccines on time. Upon examination, she appeared healthy looking and in no distress. Speech was appropriate for her age, and she smiled freely during examination. Her parents denied ever seeing any strabismus or ptosis in the months prior to the initial onset of symptoms. The family history was negative for

strabismus, amblyopia, or autoimmune disease. Her father has sarcoidosis.

The child's visual acuity measured central, steady and was maintained with a base-down prism over each eye. She had no objection to occlusion of either eye but would not cooperate with any other sensory testing. There was an 18-prism diopter (PD) right hypodeviation in the primary gaze position. This increased slightly to 25 PD in upgaze but remained comitant in lateral gaze positions. She did not cooperate with head tilts or for assessment in downgaze. She was unable to elevate the right eye past the midline in primary position, nor was

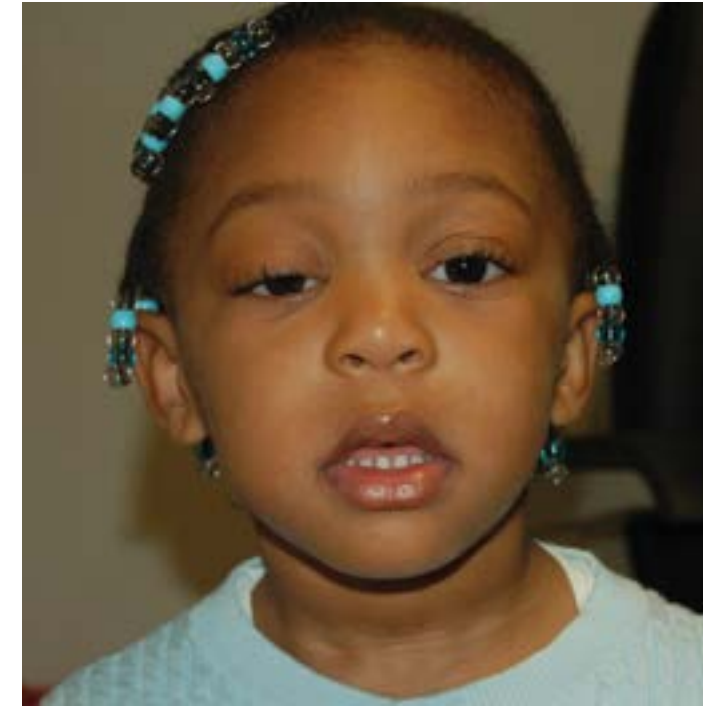


Figure 1a. Appearance of the patient with bilateral, asymmetric ptosis at initial presentation.



Figure 1b. Note the variability of the ptosis in this photograph, shot just a few seconds after Figure 1a.

she able to do so in adduction or abduction. Her left eye had full ductions.

External examination revealed a chin-up head posture with a small left head turn of no more than 5 degrees. There was a brow lift bilaterally. Lid margin to corneal reflex distance was 0.5mm in the right eye and 1.5mm in the left (**Figure 1**).

There was no evidence of jaw-winking or aberrant regeneration. Pupils were equal, round and normally reactive to light and near stimulation, with no relative afferent defect in either eye. Cycloplegic refraction was -1.00 sphere bilaterally and dilated fundus examination revealed no abnormalities in either eye.

Magnetic resonance imaging (MRI) of the brain and orbits revealed no evidence of orbital fracture or entrapment and no evidence of mass effect or brain stem abnormality.

The asymmetry and variability of the child's bilateral ptosis was suggestive

of myasthenia gravis. Accordingly, serology was ordered, including AChR binding and blocking antibodies, striational total antibodies, thyroid stimulating hormone, and smooth muscle total autoantibodies. All were normal except for striational total autoantibodies that were positive at 1:80 (normal < 1:40).

The child was referred to a pediatric neurologist who evaluated her one week later, at which time her eye movements were significantly different from those observed by us during her initial examination. The neurologist observed a generalized ophthalmoplegia rather than the unilateral elevation deficit that we had noted; he also detected a Cogan lid twitch. There was no evidence of other muscle weakness. Serology was repeated and this time the AChR blocking antibody titer was elevated at 0.56 nmol/L (normal, <0.30 nmol/L). Antinuclear antibody titers were 1:40 with a speckled pattern but other screening tests for rheumatologic disease were negative. Repetitive motor

nerve stimulation electromyography of the right and left orbicularis oculi muscles showed no decrement. A diagnosis of autoimmune MG was made based on the clinical presentation and results of serology.

The patient was started on pyridostigmine (Mestinon) in a dose of 1cc 1–3 times per day and initially saw significant improvement in her ptosis; however, within several months, she became resistant to treatment. The dose of pyridostigmine, therefore, was increased incrementally to 3cc three times per day, resulting in subsequent improvement in her ocular signs. At 42 months of age, just over one year from initial diagnosis, the child's vision was equivalent in both eyes, with visual acuity measuring 20/25 in each eye using crowded Allen symbols. The ptosis had improved as well, with symmetrical margin-to-reflex distances of 3 millimeters in each eye. Ductions and versions had improved from her initial presentation, and were now full. She has never experienced a myasthenic crisis.

CASE STUDY CONTINUED

STEIN PRIZE WINNING ARTICLE, 2013

Acquired Myasthenia Gravis After Orbital Trauma in a 23-Month-Old Girl

Alex Christoff, BS, CO, COT

DISCUSSION

The differential diagnosis of limitation of elevation and bilateral ptosis in a 23-month-old child includes congenital fibrosis of the extraocular muscles (CFEOM), a nuclear third-nerve paresis (with involvement of the central caudal nucleus), chronic progressive, external ophthalmoplegia (CPEO), monocular elevation deficit, (also known as double elevator palsy) and myasthenia gravis. We excluded an orbital floor fracture, as this injury would not be expected to present with a variable, bilateral asymmetric ptosis. CFEOM was ruled out by the history, as the parents, neither of whom exhibited any signs of ptosis, were certain there was no strabismus or lid dysfunction prior to the recent onset of symptoms given in their history. This was verified by several earlier photographs provided by the family (**Figure 2**). A nuclear third nerve paresis was unlikely based on the relatively intact ocular versions, lack of an exotropia, preserved pupil reactivity, and lack of any other neurologic deficits consistent with a lesion of the midbrain. Mitochondrial myopathies, specifically CPEO or the related Kearns-Sayre Syndrome (KSS), were eliminated from consideration because symptoms of CPEO/KSS tend to begin in young adulthood, rather than early childhood. Ptosis is typically the first clinical sign, although it is usually bilateral and symmetrical, and in contrast to patients with MG, patients with CPEO usually report little to no



Figure 2. An earlier photo of the patient documenting absence of ptosis in either eye.

variability in their ptosis. Furthermore, the ophthalmoplegia in CPEO may not become apparent for months or years. In addition, this patient had no cardiac conduction dysfunction or pigmentary retinopathy that characterizes KSS. Monocular elevation deficit, also known as double elevator palsy, is a unilateral inability to elevate the eye to a position above the midline in either abduction or adduction. It is typically characterized by a hypotropia in primary position that worsens in attempted upgaze, similar to that we observed in our patient, and a pseudo-ptosis that resolves when the unaffected eye is occluded and the affected eye attempts to elevate and fixate. In a third of cases, it is associated with the Marcus Gunn jaw-winking phenomenon,⁵ a form of synkinetic ptosis due to abnormal innervation of the levator muscle. Although the patient did have a

unilateral hypotropia, her ptosis did not resolve when she fixated with the hypotropic eye.

In the pediatric population, myasthenia gravis can be classified into three main groups based on their pathogenesis: a transient neonatal form, the congenital myasthenic syndromes (CMS), and juvenile myasthenia gravis (JMG).⁶

Transient neonatal forms of MG result from transplacental transfer of maternal AChR antibodies,⁷ and although up to 15% of affected infants exhibit systemic and ocular involvement, they usually recover spontaneously within the first few months of life.⁸

The hallmark of the CMS is early-onset of myasthenic symptoms, the existence of an affected relative, and stability of the disease, without

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4 OUT OF 5

practices say that
certified AOP make
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fluctuations or remissions.⁹ The frequency of CMS has been reported to be from 8% to 13%, although it is higher in offspring of consanguineous marriages.⁹ The etiology of the CMS is structural or functional pre-synaptic or post-synaptic abnormalities.¹⁰ In a comparison of major series of pediatric MG,^{4,11-14} the mean age of onset averaged 8.9 years, ranging from 5.6 years to 13 years of age. Because an autoimmune process is not responsible for the CMS, anti-AChR antibody assay is a valuable diagnostic tool and a requisite for differentiating between the CMS and autoimmune JMG.

Juvenile MG typically presents in the first and second decades of life, with a large range from several months of age to the mid-teens.^{8,15} Ocular symptoms are more common in this age group, as is a lack of associated thymomas and a relatively benign course.¹¹ Overlap does exist, however, with the CMS, and an early-onset form can occur, generally between the ages of one and two years.⁸ Both purely ocular and systemic forms of the disease exist, with a higher incidence of the ocular form found in Asian children.¹² Conversion to the systemic form occurs in up to 50% of affected children within two years of diagnosis and 75% within four years.¹⁶

Ancillary testing for MG in adults is typically accomplished by an intravenous injection of edrophonium chloride (Tensilon) or an intramuscular injection of neostigmine (Prostigmine). Both drugs block the action of acetylcholinesterase and the breakdown of acetylcholine. The end result is a temporary increase in the level of acetylcholine at the neuromuscular junction, resulting in a transient improvement in measured strabismus or ptosis. Unfortunately, the pharmacologic tests used routinely in

EDUCATION

adults to confirm the diagnosis of MG may not be tolerated in the pediatric population, and in some instances may even be unsafe as edrophonium can cause cardiac arrhythmias in young infants.¹⁷ Intramuscular neostigmine is a safer alternative with fewer cardiogenic side effects. The clinical application of ice to the eyelids has also been described as a way to improve ptosis, through the effects of muscle cooling, ptosis in suspected cases of MG¹⁸; however, this "ice test" may be difficult to administer to a young child.

Serology is perhaps the best first option for confirming the diagnosis of suspected autoimmune JMG, as it can be performed by a simple blood test to identify various antibodies directed against the acetylcholine receptor. Anti-striational antibodies are rarely found in AChR-negative MG¹⁹ and are thought to be predictive of an unsatisfactory outcome after thymectomy.²⁰ The elevated anti-striational antibody titer in our patient may thus have portended that this was indeed a case of AChR-positive MG. Seropositivity to AChR antibodies can, however, vary widely, from 53% to 80%.²¹ Sanders and coworkers found seropositivity to AChR binding and blocking antibodies to be lower in the pediatric population than in older patients.²² In our case, the first AChR antibody titer was negative, but a second assay, performed just a few weeks later, revealed elevated titers of AChR blocking antibodies. Anti-MuSK MG tends to be a more severe form of the condition, often with significant life threatening craniobulbar complications.²³ Elevated serum anti-MuSK IgG has been advocated by Bartoccioni and coworkers as a valuable biological marker of the disease.²⁴ An assay for anti-MuSK titers was performed in our patient and was negative.

CERTIFICATION

Neurophysiologic testing is often useful in confirming a clinical diagnosis of MG. Patients with MG usually have muscle fibers that fatigue easily and are much less responsive to repetitive stimulus than those of healthy individuals. Repetitive motor nerve stimulation can be used to confirm the diagnosis in 95% of patients,²⁵ although in our patient, the test gave normal results even though the orbicularis oculi was clearly involved in the process. We have no explanation for this result. The sensitivity of single-fiber electromyography is high, especially in the frontalis muscle, and found to be positive in detecting characteristic muscle 'jitter' in 88% to 99% of individuals with myasthenia gravis.²⁵ An experienced electrophysiologist is required, however, to accurately perform the testing, especially where pediatric patients are involved.

CONCLUSION

Acquired myasthenia gravis is uncommon in very young children, and although clinical signs are not overly difficult to interpret, traditional testing used to confirm the diagnosis in adults is often not applicable to the pediatric population. Repeated serological testing is recommended in conjunction with immediate evaluation by an experienced pediatric neurologist, ideally one who specializes in neuromuscular disorders, to help with diagnosis, treatment and in identification of this potentially life-threatening condition.

PATIENT CONSENT

Consent to publish the case report was obtained from the patient's guardians. This report does not contain any personal information that could lead to the identification of the patient.

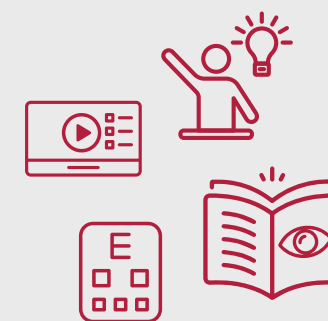
See EyeCareCE for references.

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APRIL Y. MA, MD
Professor of Ophthalmology
Emory Eye Center

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Since its inception in 1990, the JCAHPO Education and Research Foundation has supported the expansion of training programs and on-the-job trained allied ophthalmic personnel (AOP) through scholarships, development of certification in sub-specialties, and continued research into assessment and simulation of critical tasks to ensure valid and reliable certification examinations. The Foundation's current leadership is Peter C. Donshik, MD, FACS, Co-Chair; Michelle Pett Herrin, COMT, Co-Chair; and William H. Ehlers, MD, President.

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Tyree Carr, MD, Judith Hall, COT, and Alan Samuels were three important leaders in the Foundation's and IJCAHPO's history. They left their legacy through volunteering countless hours to advance the allied ophthalmic profession, championing our organizations' initiatives, and making significant financial gifts to the Foundation to support AOP starting their careers and advancing their certification.



Tyree Carr, MD



Judith Hall, COT



Alan Samuels

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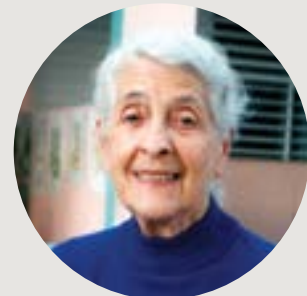
The JCAHPO Education and Research Foundation supports AOP in many ways including but not limited to:

- **Disaster Relief Funds**
- **Mission Trips**
- **Certification Scholarships**
- **Staff Scholarships**
- **CE Bundles and Discounts**
- **Many Free Online Resources**

JCAHPO FOUNDATION ACHIEVEMENT AWARDS

Virginia S. Boyce Humanitarian Award

Virginia S. Boyce was the CEO of Prevent Blindness from 1972–1982 and gave eighteen combined years of devoted volunteer service to IJCAHPO and the Foundation. An award was established in her name to recognize an AOP who demonstrates leadership and a commitment to volunteerism and public service, going above and beyond their technical daily duties. This award is presented at the Foundation’s Annual Meeting during ACE and has been awarded to 18 AOP since 2001.



Virginia S. Boyce, Foundation Board Leader 1990–2000

Harold A. Stein, MD, FRCSC Prize for Best Scientific Paper

Harold A. Stein, MD, FRCSC, IJCAHPO Past President from 1986–1987, authored numerous publications. An award was established in his name to recognize AOP who demonstrate exemplary research and authorship and is presented to the winner. Since its inception, the Stein Prize has been awarded to 13 AOP.



Harold A. Stein, MD, FRCSC, IJCAHPO President 1986–1987



Sonia Zhu, COMT, receiving award from Peter C. Donshik, MD, FACS



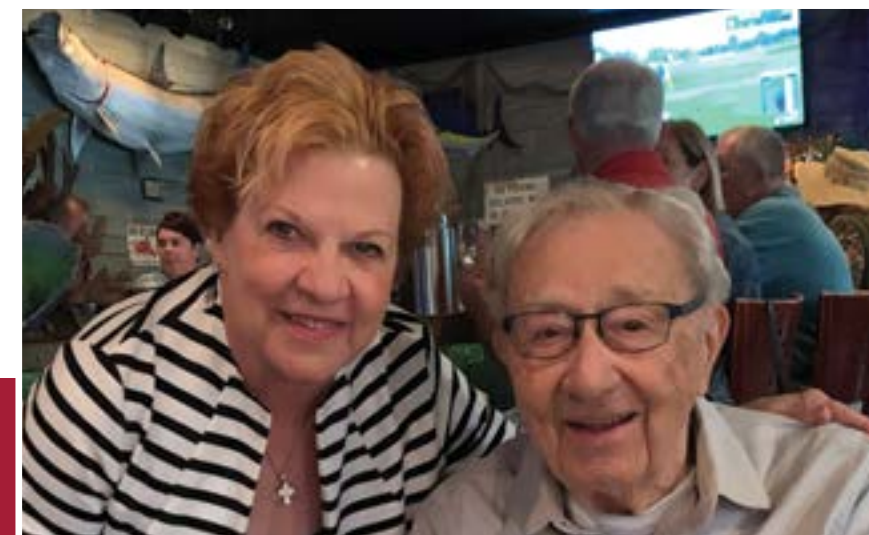
Craig Simms, BSc, COMT, CDOS, ROUB, receiving award from Melvin I. Freeman, MD, FACS

JCAHPO Foundation Recipients

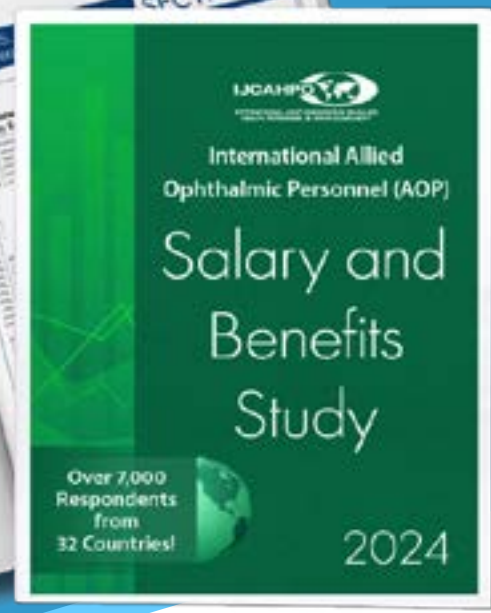
“I felt so humbled and blessed to have received the Virginia S. Boyce Humanitarian Award in 2002. It was the most unexpected highlight of my career that will always bring fond memories of working with passionate ophthalmic teams beyond the comfort zones of our clinic walls.”

-Deborah McDonald, COT, CRA

Deborah McDonald, COT, CRA, receiving second Virginia S. Boyce Award from Mary A. O’Hara, MD



Michelle Pett Herrin, CO, COMT, Co-Chair of JCAHPO Foundation, pictured with original JCAHPO founding member Alfonse Cinotti, MD, 2022.

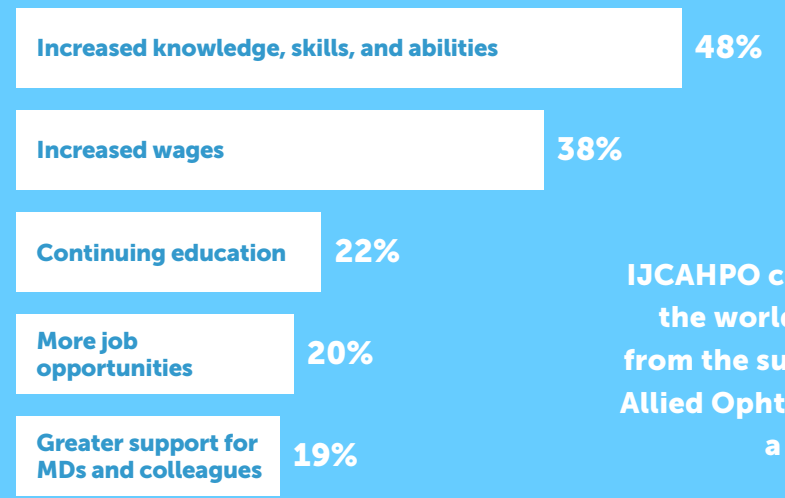


**IJCAHPO'S
AOP SALARY
AND BENEFITS
STUDY 2024**

**2024 Survey Results
COMING SOON**

**THANK YOU TO ALL ALLIED
OPHTHALMIC PERSONNEL
(AOP) WHO PARTICIPATED!**

**TOP FIVE REASONS FOR BECOMING
CERTIFIED FOR ALL RESPONDENTS*:**



**WHAT IS THE SALARY
AND BENEFITS STUDY?**

IJCAHPO conducts a salary survey of AOP from around the world every few years. The information gathered from the survey is then compiled into the International Allied Ophthalmic Personnel Salary and Benefits Study, a useful tool for clinics and technicians alike!

*Information from IJCAHPO International Allied Ophthalmic Personnel (AOP) Salary and Benefits Study 2020. Over, 7,000 respondents from 32 countries.



The JCAHPO Education and Research Foundation, the Board of Directors, and the IJCAHPO Council honors the recipients of the 2024 Statesmanship Awards and Virginia S. Boyce Humanitarian Award:



**Pamela D. Lichtenstein,
COMT, (F)ATPO, OSA
Statesmanship Award**



**Michelle D. Willis,
COMT, OSC, (F)ATPO
Statesmanship Award**



**Carla Blackburn,
COMT, CDOS, ROUB
Virginia S. Boyce
Humanitarian Award**

The Statesmanship Award is presented to an individual who has manifested leadership through the support, training and use of Allied Ophthalmic Personnel, and whose career has demonstrated dedication to the finest ethics and ideals of our profession. The Virginia S. Boyce Humanitarian Award is one of several ways the Foundation provides much needed recognition and assistance to the ophthalmic medical assisting community. We are proud to offer these other important awards, grants and scholarships:

- Jennie B. Busch Memorial Education and Certification Scholarships
- Harold A. Stein, MD, FRCSC Prize for Best Scientific Paper
- Continuing Education Grant
- Training Program Scholarships
- American Glaucoma Society Grant
- Roger P. Harrie, MD, Education Scholarship
- Phil H. Weber Memorial Scholarships
- Barbara Cassin Memorial Scholarship
- Tyree Carr, MD, Certification Scholarships

View the full details of each award, grant, and scholarship on our website at icahpo.org/foundation.

IJCAHPO Honors It's Techs

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Recognizing AOP who successfully achieved and have maintained their certification credentials since passing their initial exams between 1974 and 1980.

COA

Ruth Franks Broyles, COT
 Marie Dolores Byrne, COT
 Steven A. Fitzpatrick, COT
 Sergina Maria Flaherty, COMT
 Christy M. Little, COA
 Lenard Lee Muroff, COA
 Geralyn S. Neal, COT
 Tracey Hamburg Rubinstein, COT
 Ann P. Smith, COT
 Deborah K. Smith, COMT
 Bernard Vaughn Stewart, COA
 Cindy Ann Stormberg, COT
 Mary Catherine Thomas, COA
 Karen R. Todd, COT
 Margaret Mary Tuttle, COT

COT

Cynthia L. Brumm, COT
 Eileen Buroff, COT
 Monique Marie Colpaert-Kopriva, COMT
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Theresa M. Klein, COMT
 Michael Dell Laney, COMT
 Donna Lynn Leef, COMT
 Pamela D. Lichtenstein, COMT
 Nancy L. McGee, COT
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 Kevin F. Nicholson, COMT
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 Viviana Pinilla, COT
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 Karen L. Rondot, COT
 Gloria Jean Shuster, COT
 Rhonda Mullen, COMT

COMT

Janet Meehan Aucoin, COMT
 Clara Capehart Baker, COA
 Leslie Mary Belz, COMT
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 Joan Elizabeth Parkinson, COMT
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 their current employer and in
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*2020 IJCAHPO Salary & Benefits Study



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IJCAHPO CELEBRATES OVER FIVE DECADES OF LEADERSHIP IN CERTIFICATION AND EDUCATION FOR ALLIED OPHTHALMIC PERSONNEL

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Future ACE Dates & Locations:

2025 | Orlando
October 17–19

2026 | New Orleans
October 9–11

jcahpo.org/ACE



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