Telehealth. Is. Health.

September 17-23, 2023

TELEHEALTH WEEK
AWARENESS ™

ata ™

Working Together to Support Telehealth Awareness

ATA Ocular Special Interest Group
The 'Eyes' Have It! Ocular Telehealth Use Cases for Flexible, Convenient, Effective Eye Care

Panelists:

Lauren Daskivich, ATA Ocular SIG Co-chair and Director, Ophthalmic Services and Eye Health Programs, Los Angeles County Department of Health Services (Moderator)

Chad Overman, Chief Operating Officer, 2020Now

Giselle Ricur, Executive Director, Virtual Care, Bascom Palmer Eye Institute, University of Miami Miller School of Medicine

Susy Yu, Director of Business Strategy & Operations Support, Vision Essentials by Kaiser Permanente, Southern California Permanente Medical Group

Wally Lovejoy, ATA Ocular SIG Co-chair and Principal, Lovejoy Eyecare Consulting, LLC

ATA Ocular Special Interest Group

Current Leadership   Lauren P. Daskivich, MD, MSHS & Wallace Lovejoy, JD - Co-chairs

April Maa, MD - Immediate past chair

Executive Committee Members Susy Yu, OD, MBA; Giselle Ricur, MD, MBA; Oana Dumitrascu, MD, MS

Publications   *Practice Guidelines for Ocular Telehealth-Diabetic Retinopathy, 3d Edition*

Refractive Ocular Telehealth: Refraction and Vision Acuity Testing

Telehealth Resources for Eye Care During COVID-19

Ocular Telehealth Assessments and Disease Monitoring:
PART ONE- Elements of a Remote Comprehensive Eye Exam
PART TWO - The Need for and Benefits of Ocular Telemedicine for Primary and Specialty Eye Care

Reference List of Published Peer Review Literature on Ocular Telehealth

Mission: promotes the development and advancement of the use of telemedicine in fields related to Ophthalmology, Optometry, and Optical Engineering

Membership: academia, industry, government, healthcare and related fields (law)

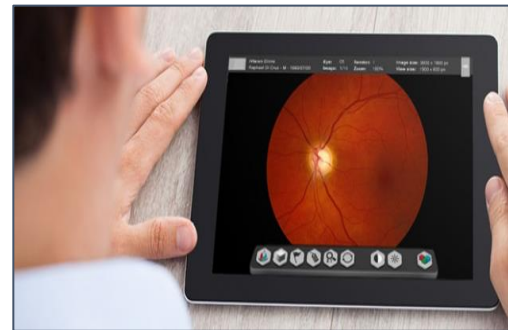**Meetings**: 1st Mondays at 9am PT/12pm ET (in-person at conferences)

Introduction

Telehealth, Telemedicine, Teleophthalmology

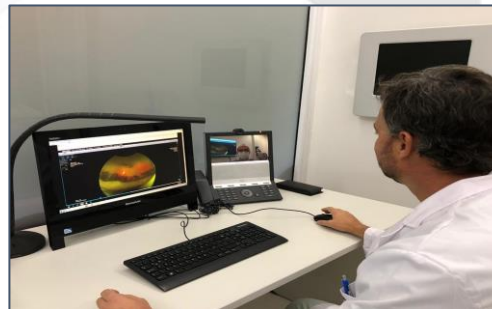### Synchronous

Asynchronous

RPM

Extended Reality

Bridging the gap, between patients and providers, with information and telecommunication technologies in a safe, precise, and compassionate way.

5

New Hybrid Models

In-Person
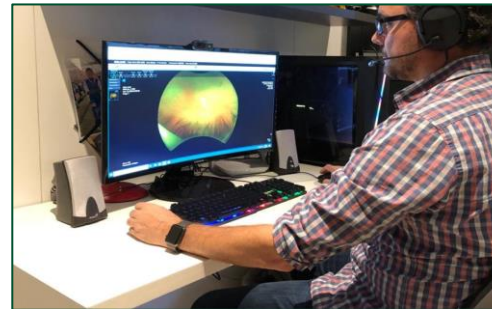
Testing /Workup

Remote

Evaluation and Assessment

Healthcare Setting

Asynchronously

Synchronously

Healthcare Setting

Home Setting

Use Cases

Bascom Palmer Eye Institute Virtual Eye Care

Virtual Triage	Screening	Specialty Care	RPM	Education

- **Virtual Care** initiated in 2020: ~20,618 completed virtual visits.
- **Conducted via secure EMR platform**: EPIC/Zoom or EPIC/Doximity.
- **Rapid Virtual Eye Care**: flagship program with ~8,916 completed virtual triage visits since 2021, and average lead time of 1.7 days.
- **Tele specialty care**: Starting to use the Hybrid Model with separate testing dates and tele wrap-ups.
- **Virtual Reality devices** have been onboarded for VF, VA, Contrast Sensitivity, Color Tests, Pupillometry, and EOM.
- **RPM:** Post Op pediatric glaucoma patients are being monitored at home, ~35 patients (including some adults).
- **BPEI's digital twin:** created in 2023, and ~ 100 2nd year medical students have had class in the metaverse.

Kalavar, Meghanaa; Hua, Hong-Uyenb; Sridhar, Jayantha. Teleophthalmology: an essential tool in the era of the novel coronavirus 2019. Current Opinion in Ophthalmology 31(5):p 366-373, September 2020. | DOI: 10.1097/ICU.0000000000000689

DeBuc DC. The Role of Retinal Imaging and Portable Screening Devices in Tele-ophthalmology Applications for Diabetic Retinopathy Management. Curr Diab Rep. 2016 Dec;16(12):132. doi: 10.1007/s11892-016-0827-2. PMID: 27841011.

Ricur G, Reyes J, Alfonso E, Marino RG. Surfing the COVID-19 Tsunami with Teleophthalmology: the Advent of New Models of Eye Care. Curr Ophthalmol Rep. 2023;11(1):1-12. doi: 10.1007/s40135-023-00308-9. Epub 2023 Jan 28. PMID: 36743397; PMCID: PMC9883823.

Diego A, Abou Shousha M. Portable Anterior Eye Segment Imaging System for Teleophthalmology. Transl Vis Sci Technol. 2023 Jan 3;12(1):11. doi: 10.1167/tvst.12.1.11. PMID: 36607624; PMCID: PMC9836007.

Los Angeles County Department of Health Services
Ocular Telehealth Programs

eConsult
Access to information. Access to care.

- Secure, web-based platform allowing providers to consult electronically with LAC DHS ophthalmologists for timely, coordinated eye care services

- Serves both internal LAC DHS providers and external Community Partner providers (stand alone system and interfaces with LAC DHS EHR)

- Initiated in 2012, ~1600 eConsults for eye care submitted monthly

Retina

- Teleretinal Diabetic Retinopathy Screening Program
  - Primary care-based, store and forward (asynch) telemedicine
  - 17 sites, ~2000 screened monthly (over 155,000 total)
  - 90% reduction in wait times, 25-30% increase in screening rate

- TelePlaquenil Screening
  - Eye clinic-based, store and forward protocol
  - 50% reduction in wait times, 40-50% increase in screening rate

Glaucoma

- Developing AI algorithms for screening and triage of glaucoma and narrow angle suspects

- 1st tier primary care-based, 2nd tier eye clinic-based

Barnett ML, Yee HF Jr, Mehrotra A, Giboney P. Los Angeles Safety-Net Program eConsult System Was Rapidly Adopted And Decreased Wait Times To See Specialists. Health Aff (Millwood). 2017 Mar 1;36(3):492-499.

Daskivich LP, Vasquez C, Martinez C Jr, Tseng CH, Mangione CM. Implementation and Evaluation of a Large-Scale Teleretinal Diabetic Retinopathy Screening Program in the Los Angeles County Department of Health Services. JAMA Intern Med. 2017 May 1;177(5):642-649.

Situ BA, Hua HU, Kaakour AH, Daskivich LP, Savvas S, Toy BC. Implementation of a pilot teleretinal screening protocol for hydroxychloroquine retinopathy in a Los Angeles County safety net clinic. J Telemed Telecare. 2023 Sep;29(8):648-656.

Yuen J, Xu B, Song BJ, Daskivich LP, Rodman J, Wong BJ. Effectiveness of Glaucoma Screening and Factors Associated with Follow-up Adherence among Glaucoma Suspects in a Safety-Net Teleretinal Screening Program. Ophthalmol Glaucoma. 2023 May-Jun;6(3):247-254.

Kaiser Permanente
Eye Monitoring Program

Diabetes

Monitoring program for diabetic patients with minimal or no retinopathy

Retinal interventions are rarely required in the 2 years after retinal evaluation in patients with minimal (1 in 3924 patients per year) or no baseline retinopathy (1 in 3165 patients per year).

Moderate Diabetic Retinopathy screening program expansion is in progress

Modjtahedi BS, Theophanous C, Chiu S, Luong TQ, Nguyen N, Fong DS. Two-Year Incidence of Retinal Intervention in Patients With Minimal or No Diabetic Retinopathy on Telemedicine Screening. JAMA Ophthalmol.2019;137(4):445−448. doi:10.1001/jamaophthalmol.20

Glaucoma

Monitoring program for low-risk glaucoma suspects

Over 90% of patients enrolled attended their follow up visits. Significant disease progression was rare and required referral back to clinic setting.

Bobeck S Modjtahedi, Katherine Chu, Tiffany Q Luong, Chunyi Hsu, Cynthia Mattox, Paul P Lee, Mamdouh L Nakla & Donald S Fong (2018) Two-year outcomes of a pilot glaucoma suspect telemedicine monitoring program, Clinical Ophthalmology, 12:, 2095-2102, DOI: 10.2147/OPTH.S171263

Macular Degeneration

Monitoring program for non-exudative AMD patients who do not require Anti-VEGF injections

Program includes monthly reminder calls to check Amsler Grid

Plaquenil

Monitoring program for patients on long term Plaquenil

Annual screening with baseline visit at 5 years

20/20NOW
In-Office Tele-Optometry Eye Exams

In-Office Pre-Testing

ARK, Lensometer: Measure baseline refractive error and current eyewear

NCT: Determine IOP to assess Glaucoma risk

Visual Field: Measure Peripheral Vision

Manual Assessments: Pupil Function, Color Vision, Ocular Alignment and Motility

HD Digital Technology

Digital Slit Lamp: HD Photos and Videos of Anterior Segment. Including Eyelids, Cataract, Cornea, Angles, Blepharitis, Tear Film

Wide Angle Fundus Photo: Examine Retina, Macular, Optic Nerve, Diabetic Retinopathy, High Blood Pressure.
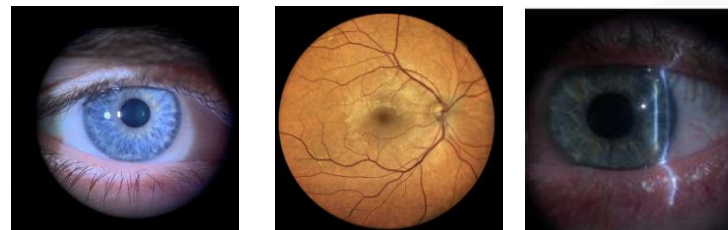
Remote Refractions

Performed by JCAHPO certified COT and COMT Remote Technicians.

Using Digital Phoropter with 20/20NOW Proprietary Refracting Software

Remake rate below 2%

Remote Eye Doctor

Licensed in the state Patient is seen.

Review Eye Health Data Remotely in EMR.

Remote into Exam Lane to review health with patient and answer questions.

Share Retina Photos on screen while discussing with patients.

Norms & Regulations

Key Regulatory Considerations

- Doctor licensing or registration should occur in the state where the patient is located.

- Document the patient's informed consent, including noting any risks or limitations with telemedicine.

- Meet the same community standard of care for the patient as if in-person.

- Confirm that state law permits general (remote) supervision for delegation to trained assistants.

- Use the same process as in-person to make and document referrals & recommendations for follow-up.

- Address state and federal requirements re patient privacy, information security, and recordkeeping.

Closing

- Address any follow up questions to the Ocular SIG via info@americantelemed.org

- To become a member of the Ocular SIG, join ATA. See https://www.americantelemed.org/membership/ or email info@americantelemed.org

QUESTIONS & COMMENTS

Submit via Q&A