

OPHTHALMIC HOSPITALIST INTEREST GROUP NEWSLETTER

Donna Kim, MD | Maggie Hymowitz, MD

Announcements

Join the Community!

Have a questions or topic about inpatient/ER consults? Share on the [AAO/OHIG community](#)! Log in with your AAO username.

OHIG Zoom Meeting - Call Coverage and Hospital Transfers

Join a virtual OHIG panel discussion on **Thursday June 13 @ 5:00pm-6:00pm PST**. See page 5 for topics/speakers and registration.

OHIG Topic Wishlist

Have a case you would like to feature in an OHIG newsletter? We welcome your ideas and expertise. Email ohig@ohig.org.

Welcome New Members!

Thanks for joining OHIG! Please verify your information on the [OHIG website](#).



Articles

[AI to Detect Papilledema from Ocular Fundus Photographs, NEJM, 2020](#)

A deep learning system using fundus photographs to differentiate between normal optic nerves, papilledema, and nonpapilledema abnormalities. Could you use this in your ED?

[AI for ROP, Curr Opin Ophthalmology, 2020](#)

A review of AI applications for ROP and insight on the challenging and strategies to bring these algorithms to bedside

[Development of a Cloud-Based Decision Support System for Ophthalmology Triage Using Decision Tree AI, Ophthalmology, 2023](#)

Implementation of a clinical decision support systems (CDSS) for triage and referral for on-call ophthalmology consults.

PEARLS



AAO Podcast: AI in Ophthalmology

AI in Ophthalmology: LLMs and ChatGPT



Newly released podcast from the AAO featuring Dr. Amanda Redfern, Dr. John Pete Campbell, and Dr. Travis Redd who discuss important issues pertaining to ChatGPT and AI for clinical practice

[Click here](#) to access.

Mayo Clinic Interview: Using AI in Ophthalmology



An interview from Mayo featuring Dr. Cheryl Khanna who breaks down machine learning vs deep learning and application for clinical practice.

[Click here](#) to access.

CONSULT ROUNDS



ROP consults represent an important part of ophthalmic hospital-based care. It is also a field which has made important strides in telemedicine and AI - both of which have the potential to improve access to care and consult triage in particular for remote locations.



Dr. John P. Campbell, MD, MPH
Associate Professor
Pediatric Retina

We have the pleasure of having Dr. John Pete Campbell, a pediatric retina specialist and clinician-scientist with a research focus on technologies such as imaging and AI share his thoughts on this exciting topic relevant for hospital-based consults.

Q1) How do you envision AI application for ROP screening in the hospital?

We have helped produce a body of evidence showing that AI can add value in the care of patients with ROP, and have started a company to try to bring this technology to patients, but I think the community needs to decide how and where to incorporate it, and what tradeoffs we are willing to make. For screening in particular, in which an AI might look for ROP autonomously, what level of risk is tolerable that it could be wrong? I see it kind of like self-driving cars...even if they may be on average safer than humans driving, when they crash, its going to be a bigger deal. There are other applications, such as assisting clinical diagnosis, where the risk/benefit may be a bit easier to see clinical adoption.

Q2) What benefits and challenges have you encountered for telemedicine and AI in ROP patients?

AI is not yet in clinical practice, and the biggest challenge is going through the process of regulatory approval. For telemedicine, there are 2 big challenges. First, ROP cameras tend to be quite expensive and don't necessarily provide any added revenue stream for hospitals to offset that capital expense. Second, the integration within hospital IT frameworks varies by hospital and thus there has not been an easy out of the box method of implementation.

Q3) What advice would you give individuals who are interested in adapting AI for hospital-based consults?

These are 5 questions to think through as you think about the general question of implementation of AI solutions in clinical care:

Does it solve a meaningful care delivery problem?

Does it work in studies (efficacy)?

Does it work in practice (effectiveness)?

Why hasn't it already been done? What are the barriers?

Who is going to do the work to put it in practice, and why?

There are lots of technologies that work, but don't solve meaningful problems. There are others that could, but don't have a path to market and therefore will never be clinically useful. Its easy to talk about how AI can impact care. It's much harder to make it actually happen.

Special Thanks: We wish to sincerely thank Dr. John Pete Campbell for sharing his insight and expertise on this important topic so relevant for the future of health care delivery in the hospital and beyond.

OHIG Survey Questions

Q1) Do you currently use telemedicine imaging modalities at your institution for ED/inpatient consults? Please select any that apply:

- A) No - there is no departmental/institutional funding for this
- B) No - no buy in or physical space for these devices in our ED/hospital
- C) No - no reliable way of viewing images remotely in a secure fashion
- D) No - too much potential reliability
- E) Yes - we have our ED use a portable fundus camera
- F) Yes - we have our ED use an OCT machine
- G) Yes - we have our ED use a camera attached to a slit lamp
- H) Other:

Q2) What is your comfort level utilizing AI modalities in the future for hospital consults if they were to become available? Select any that apply:

- A) I would continue to see patients clinically since I am hesitant to rely on AI for diagnosis/triage
- B) There is too much liability if I use AI in the hospital/ED
- B) I would consider using AI to remotely triage papilledema rule outs
- C) I would consider using AI to remotely triage retinal detachment rule outs
- D) I would consider using AI to remotely triage painless unilateral vision loss
- E) I would consider using AI to remotely triage ROP
- F) I would consider using AI in places with zero ophthalmology coverage since something is better than nothing
- G) Other:

Please share your responses on the AAO/OHIG Community: <https://aao.mobilize.io/main/groups/47315/lounge>.

OHIG Zoom Discussion: Call Coverage and Hospital Transfers

June 13th @ 5:00pm-6:00pm PST

Topics/Speakers:

1) Community Call Coverage/Hospitalist Models

- Craig Czyz (Oculoplastics, Ohio)
- James Oakman (Comprehensive Ophthalmology, South Carolina)
- Babak Marefat (Comprehensive Ophthalmology, Kansas)

2) Ocular Telehealth for ER Consults

- April Maa (Emory University, Atlanta VA Medical Center)

3) Innovative Models for Community Call Coverage Support:

Pre-Residency Clinical Ophthalmology Fellowship

- Lisa Neavyn (Maine Eye Center)
- Brooke Miller (Maine Eye Center)

4) Multi-Institutional Study on Hospital Consult Volume/Transfer Trends

- Jennifer Yu (University of Washington)
- Shu Feng (University of Washington)

To Register [click here](#). A zoom link will be emailed out 1 week prior to the event.

Look forward to seeing you there!