OPHTHALMIC HOSPITALIST INTEREST GROUP

Volume 2, Number 4 April 2021

OPHTHALMIC HOSPITALIST INTEREST GROUP NEWSLETTER

Donna Kim, MD | Maggie Hymowitz, MD

AAO Annual Meeting

We are working with the AAO to set up an OHIG Meet and Greet at the fall meeting. Hope to see you there! Details to come.

Teleophthalmology Survey Results

Thank you for submitting your responses! We are excited to see a handful of programs utilizing telemedicine for hospital consults. See page 4-5 for survey results and helpful suggestions from fellow OHIG members.

Papilledema Study

Interested in participating in a study looking at the utility of "R/o Papilledema" consults? Contact Donna or Maggie if interested.

Welcome New Members!

Please visit the OHIG website to verify that your information is correct. Thank you!

Articles

Trends and Associations in Hospitalizations Due to Corneal Ulcers in the United States, 2002-2012, Ophthalmic Epidemiology, June 2016

An interesting article from Stanford looking at factors associated with hospitalization for corneal ulcers in the United States.

Contact Lens Related Corneal Ulcers Requiring Hospitaliztion: A 7 Year Retrospective Study in Belgium, Acta Ophthalmol Scand, 2006

An article from Belgium showing trends in the clinical and epidemiological aspects of contact lens related infectious corneal ulcers requiring hospitalization.

Clinical Review of Corneal Ulcers Resulting in Evisceration and Enucleation in Elderly Population, Graefe's Archive for CEO, May 2009

An article looking at factors and characteristics of corneal ulcers resulting in loss of the eye within vulnerable, elderly populations.

B Scan Quick Reference Sheet

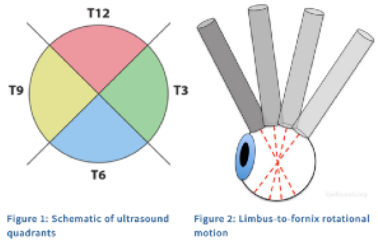


Figure 1: Schematic of ultrasound quadrants

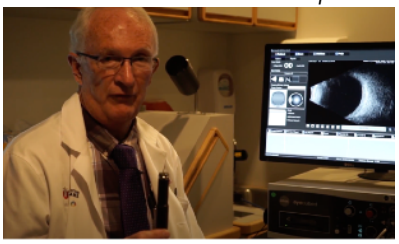
Figure 2: Limbus-to-fornix rotational motion

A helpful tip sheet from Univ of Iowa that can be stored with your portable b-scan. Click here to view

B Scan Instructional Videos

Moran Eye Center

Ultrasound B-Scan Technique



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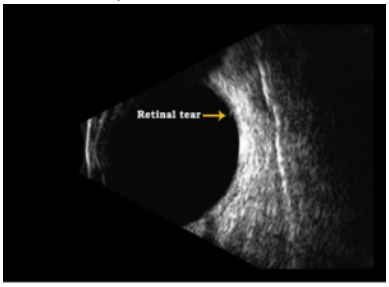
AAO

Ultrasound B-Scan Characteristics and Interpretation of Various Cases



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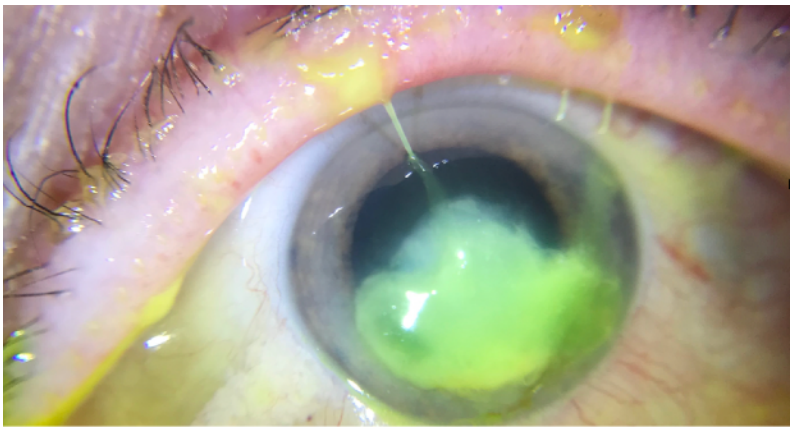
CONSULT ROUNDS



You are paged about a 73 year old female with a history of HTN, CAD, and dementia who is brought to the ER by a concerned neighbor who noticed a red eye. The patient lives alone and is a limited historian so further history could not be elicited.

On exam the patient is 20/40 OD, HM OS. There is no APD. Her IOP is wnl. The right eye is wnl. Anterior segment exam of the left eye is notable for a large central corneal ulcer with dense stromal infiltrate and overlying epi defect. Views of the posterior pole are limited. B-scan imaging is negative for endophthalmitis.

Due to the severity of clinical findings, frequent alternating q1 hour fortified Vancomycin and Tobramycin are recommended. The patient is unable to self-administer drops at home so hospital admission is requested. She is evaluated daily by ophthalmology with slow clinical progress.

After 3 days of continuous q1hour drops the patient develops severe agitation and confusion due to sleep deprivation. The patient's nurse also mentions that it has been difficult administering such frequent drops while caring for 6 other patients. The medicine service is surprised to hear you anticipate several weeks of treatment and wonders about discharge planning.

How would you navigate this scenario?

Case Comments:

Inpatient corneal ulcers pose several challenges for the on-call ophthalmologist. More often than not, vulnerable populations (homeless, elderly, psychiatric, etc) are involved with challenging circumstances. Frequently dosed medications bring up a number of issues including severe patient sleep deprivation, nursing staff fatigue, and long hospital admissions.

Protocols can help facilitate a standardized and reasonable approach to inpatient corneal ulcers. Below is an example of a protocol that has been used at Casey Eye Institute with good clinical outcomes and successful hospital implementation. It was developed in collaboration with multiple hospital services including internal medicine and nursing.

Severe Corneal Ulcer Protocol (Inpatient/ER)

I. Initial Evaluation
- culture and check corneal sensation in all new corneal ulcers
- if there is suspicion for an atypical infection (acanthamoeba), run by the cornea fellow
- if patients come in already on antibiotics, discuss with the cornea fellow to see if the initial tx should be delayed or stopped for 24 hours to obtain a more accurate culture result
- Obtain B-scan ultrasound

II. Day 1
- Fortified Vancomycin and Tobramycin **q1hour**, spaced 5 minutes apart x **first 24 hours**
- Atropine 1% daily
- Transport to cornea clinic (on weekdays) @ 7:45am to be seen with fellow/staff
- Promptly transport the patient back to the hospital/ER asap to avoid holding up clinic
- Discuss with medicine and nursing regarding regimen updates

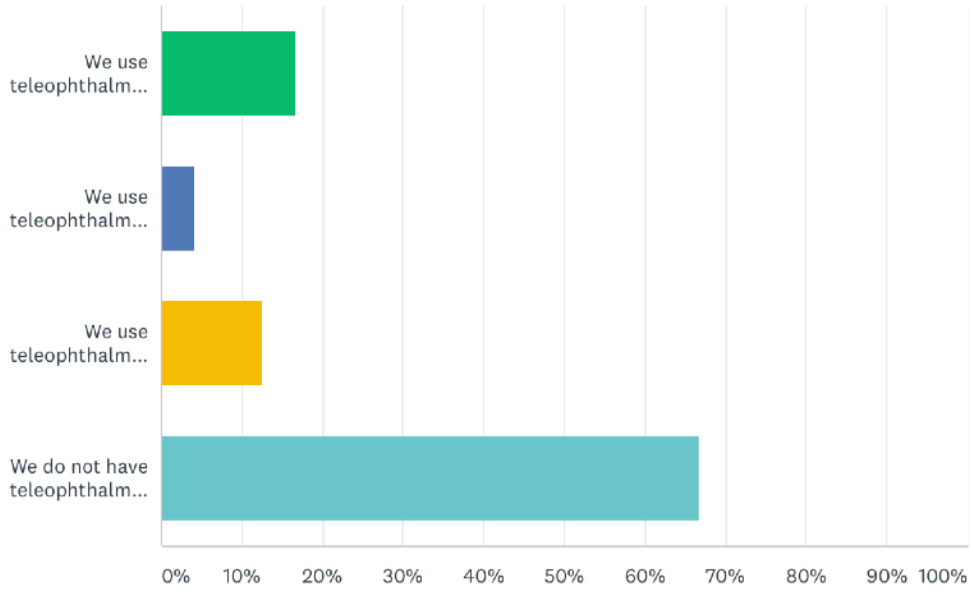
III. Day 2
- Taper Fortified Vancomycin and Tobramycin to **q2hour**, still spaced 5 minutes apart during the day
- To allow patients some rest, switch to **q4hr** dosing between **10pm-6am**.
- Discuss with pharmacy by phone to put this order together in EPIC
- Transport to corneal clinic (on weekdays) @ 7:45am to be seen with fellow/staff

IV. Day 3 and onward
- See daily while admitted to the hospitalist service
- At some point can transition to portable slit lamp exam at bedside
- Cornea fellow/faculty will taper drops going forward or add meds as needed (anti-fungals)
- Request social work or case manager for discharge planning if needed (homeless, SNF placement)
- Request PT/OT consult for patients who are newly blind (bilateral ulcers, monocular patient)
- On-call consult attending can staff bedside exams once cornea division feels infection is improving

Protocol reviewed with Ophthalmology, Internal Medicine, and Nursing Divisions, in September 2020
For Questions please contact Donna Kim, MD at Casey Eye Institute

Do you use teleophthalmology for hospital based consults?

Answered: 24 Skipped: 0



ANSWER CHOICES	RESPONSES	
We use teleophthalmology in the ER	16.67%	4
We use teleophthalmology for inpatient consults	4.17%	1
We use teleophthalmology for both ER and inpatient consults	12.50%	3
We do not have teleophthalmology set up for hospital based consults	66.67%	16
TOTAL		24

We use InTouch Health. The ED places an ophthalmology teleconsult order in Epic. The command center is notified, and they call the on-call ophthalmologist. Then the command center calls in the consulting ED provider. The ophthalmologist logs into the camera that the ED provider tells them to use. It is all a very time consuming process. The live camera is only external, but does have a zoom function.

4/2/2021 11:16 AM View respondent's answers

Resident sees patient and documents findings in EMR including fundus photos if needed. Resident then initiates Facetime video between patient and attending physician who verifies history and exam findings to the extent possible and then attests resident documentation.

3/24/2021 7:35 AM View respondent's answers

Topcon nonmydriatic camera

3/23/2021 8:02 PM View respondent's answers

Marco ION and setting up Optos. Will also have Face to face with an iPad

3/23/2021 7:06 PM View respondent's answers

☐	The ER doc sends us a secure chat through EPIC containing a picture. We verbally discuss and either decide they need to be seen or make a plan which the doc carries out. That might not really be teleoph but that is as close as we come.	
	3/23/2021 11:11 AM	View respondent's answers
☐	photos from iphone with adaptor	
	3/23/2021 10:35 AM	View respondent's answers
☐	Photos uploaded by consultant. We determine if we need to see or ritual is adequate	
	3/23/2021 9:07 AM	View respondent's answers
☐	mainly for COVID+ patients - external photographs/videos sent to us to cut down on our exposure time.	
	3/23/2021 9:06 AM	View respondent's answers