

# **APPENDICES**

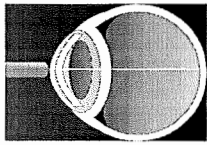
## Appendices

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### Miscellaneous

Optics Manual (printed copy will be provided to PGY-1 residents)

Pediatric Ophthalmology Rotation Files (folder in Public Resident Files in Box)



## A-Scan Biometry

Rhonda G. Waldron, MMSc, COMT, CRA, ROUB, RDMS  
 Diagnostic Echographer, Senior Associate in Ophthalmology  
 Emory Eye Center  
 Atlanta, GA  
 Owner, Eye Scan Consulting

## Accurate Biometry

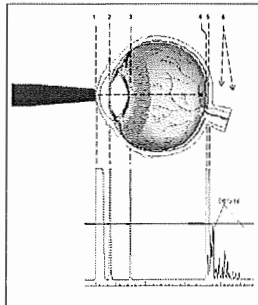
How do I know it's a good scan?

- Understand ultrasound principles to accurately interpret spike patterns
- Use most accurate technique possible
- Avoid common errors
- Study chart to be sure all readings fit patient parameters



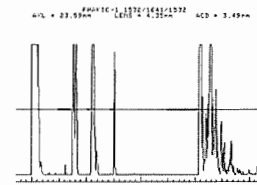
## Interfaces

- As sound beam passes through the eye, each time it strikes an interface part of the sound beam is reflected back into probe
- Referred to as an echo



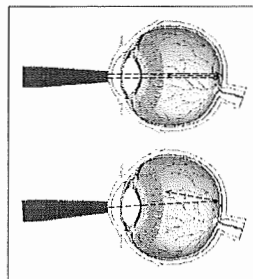
## Why are some spikes taller than others?

- The echoes received are converted to spikes arising from baseline
- The greater the difference at each interface, the higher the spike
- An Amplitude display



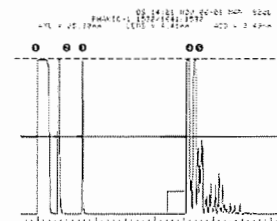
## Reflection and Refraction

Sound is reflected and refracted, just like light rays



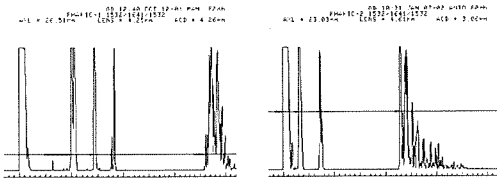
## How do I know I'm perpendicular?

- Five high spikes
- Retinal spike should be steeply rising



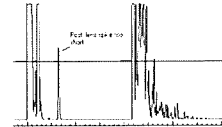
### Perpendicularity Errors: Misaligned along retina

- Bad retinal spike
- Not perpendicular to macular surface



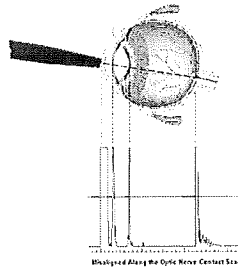
### Perpendicularity Errors: Misaligned through lens

- Lens spike short
- Sound through lens at an angle
- Not on visual axis



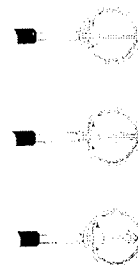
### Perpendicularity Errors: Misaligned along optic nerve

- Sound beam misdirected to optic nerve rather than macula
- No sclera at optic nerve, therefore no scleral spike present on display



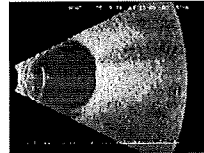
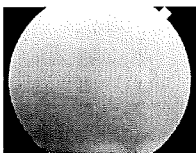
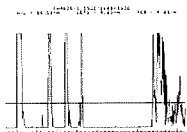
### Reflection and Refraction

- If macular surface is flat, strong echo
- If macular surface irregular, echo poor



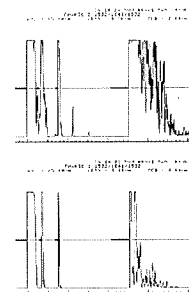
### Macular Pathology

- If unable to get quality retinal spike, review chart for possible macular pathology
- Alert surgeon
- B-scan if poor view of fundus



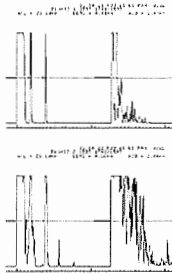
### What is "Gain"?

- Degree of amplification of echoes on display screen
- Adjusting affects sensitivity of display
- Affects resolution
- The "volume"
- Too high, lose resolution
- Too low, difficult to get spikes



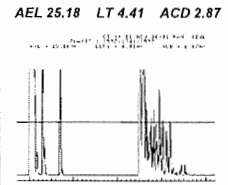
## What's the Proper Gain Setting?

- **Good resolution of retina and sclera-- whatever that takes!**



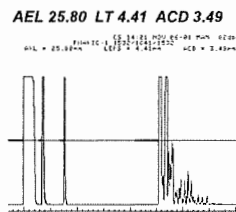
## Sound Velocity

- **Cornea = 1,641 m/sec**
- **Aqueous = 1,532 m/sec**
- **Lens = 1,641 m/sec**
- **Vitreous = 1,532 m/sec**



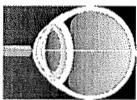
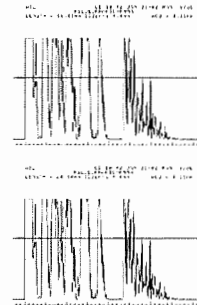
## Gates/Eye Type Settings

- **Calipers on the screen**
- **The actual measuring points**
- **A measurement occurs between each pair of gates**
- **Number of gates on different eye types varies by manufacturer**



## Check Gate Placement!

- **It is extremely important that all gates be positioned properly!**

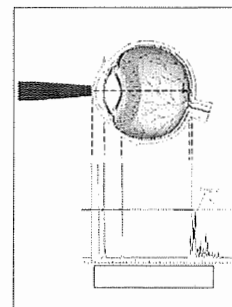


## Contact Technique

- **Probe in contact with cornea**
- **Hand-held or slit-lamp**
- **Least accurate (0.10 mm at best)**
- **Takes longer to do than immersion!**
- **Considered sub-standard care today**
- **"Of historical interest only anymore"**

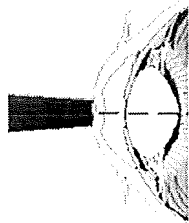
## Contact Technique

- **Corneal compression always a factor**
- **Tech-dependent**
- **IOP dependent**
- **Greater risk of corneal abrasion**
- **Greater variation of readings so must delete then do more**



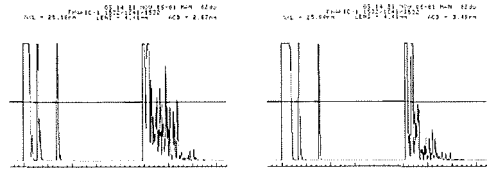
## Errors Inherent with Contact Technique

- Most common error is corneal compression
- Cornea indented by probe touch
- Erroneously short measurement



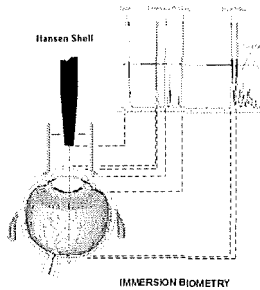
## Errors Inherent with Contact Technique

AEL 25.18 LT 4.41 ACD 2.87      AEL 25.80 LT 4.41 ACD 3.49



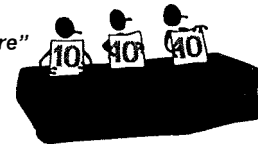
## Immersion Technique

- Probe immersed in shell of saline
- Most accurate/no corneal compression (0.0126 - 0.05 mm depending on manufacturer)



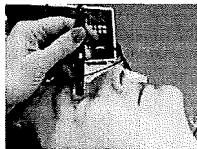
## Immersion Technique

- No tech-dependency
- Less risk for corneal abrasion
- **Faster** technique
- More consistency
- Less repeating
- "Gold Standard of Care"

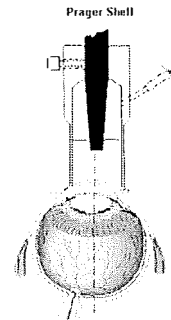


## Hansen Shell

- Place shell on anesthetized limbus
- Fill with contact lens saline
- Immerse probe into fluid and align



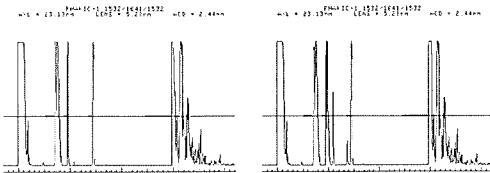
## Prager Shell



## Immersion Biometry

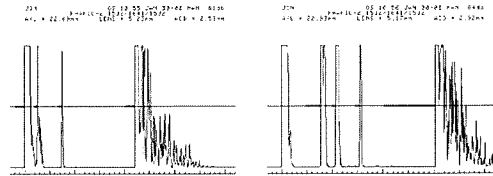
What's different about the corneal spike?

- Now separate from probe spike
- Two peaks representing epithelium and endothelium
- Both should be 100% high or not on corneal vertex



## Contact vs. Immersion

AEL 22.69 LT 5.23 ACD 2.58      AEL 22.93 LT 5.17 ACD 2.92

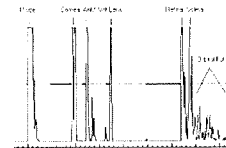


## When is Contact Method Necessary?

- Patients who have had glaucoma surgery with filtering blebs—cannot insert scleral shell flush with the limbus

## It's Simple: Only Accept Perfect Scan Patterns!

- Use immersion only (or in combination with IOL Master if available)
- Only accept perfect scan patterns
- If the pattern doesn't look right, it isn't right!
- Pattern first, number second!



## Use the Best Formula for the Axial Length

- $\leq 22.0$  mm = Hoffer Q
- 22.1 – 25.9 mm = Holladay I
- $\geq 26.0$  mm = SRK/T
- \* If you have access to Holladay II IOL Consultant Program, may use that formula no matter the axial length. Not on any A-scan unit, must purchase from [www.docholladay.com](http://www.docholladay.com) for your pc

## Suspect a Problem if:

- Difference of more than 0.3 mm between the eyes that cannot be explained
- Difference of more than 0.1 mm in same eye
- A's and K's together do not equal pre-cat MR
- Have someone else recheck anything unusual
- "Measure twice, cut once!"

# Canthotomy and Cantholysis: A Sight-Saving Intervention

by Roxana Fu, MD, and Evan Waxman, MD, PhD

## Case

A 77-year-old woman was transferred from an outside hospital after sustaining a ground-level mechanical fall. Her history was significant for anticoagulation with warfarin for her bovine mitral valve replacement and recent hemispheric CVA. She was found to have an intraparenchymal cerebral hemorrhage, right-sided orbital and zygomatic fractures, and a supratherapeutic international normalized ratio of 3.7. She was given two units of fresh frozen plasma and sent to UPMC for further management.

Upon questioning, she endorsed eye pain and decreased vision in her right eye. She was only able to appreciate hand motion in her right eye. Examination of her pupils revealed a right afferent pupillary defect (APD). Measurement of her intraocular pressure (IOP) with a tonopen showed it was elevated in her right eye at 42 and normal in her left eye at 15. The remainder of her exam was significant for severe periorbital ecchymosis, swelling, proptosis, and decreased abduction and adduction of her right eye.

## Questions and Answers

**How is the clinical diagnosis of an optic nerve compromising retrobulbar hemorrhage made?**

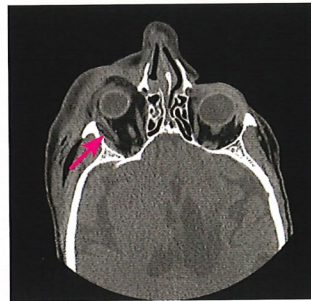
In the setting of trauma, decreased vision, proptosis, and decreased eye movement should raise clinical suspicion for a retrobulbar hemorrhage causing optic neuropathy. The aforementioned signs and symptoms should prompt further examination for an APD and increased IOP. A CT scan demonstrating intraconal or extraconal hemorrhage is helpful (Figures 1 and 2) but not necessary for diagnosis.

**How would you manage this patient?**

Once the diagnosis is made, an urgent orbital decompression is warranted by performing a lateral canthotomy and cantholysis. Decreasing the intraorbital pressure, and subsequently her IOP, restores normal circulation and prevents further vision loss. Visual recovery is possible if orbital decompression is performed in a timely manner.

**How else may patients with orbital compartment syndrome present?**

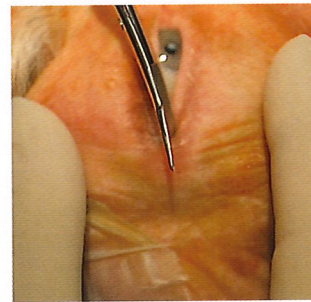
Outside of the setting of trauma, retrobulbar hemorrhage may present spontaneously or iatrogenically after retrobulbar injection of anesthesia and after surgical procedures such as orbital surgery, blepharoplasty, or sinus surgery. Other nonhemorrhagic causes include orbital cellulitis with or without abscess formation and orbital apex syndrome in the setting of acute adjacent inflammatory conditions (such as sinusitis without direct orbital involvement).



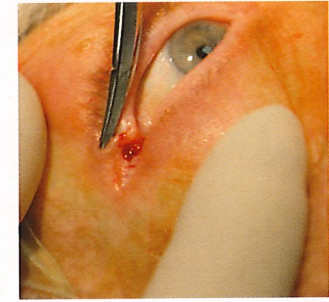
**Figure 1.** Axial CT scan with right extraconal orbital hemorrhage (arrow) and marked proptosis.



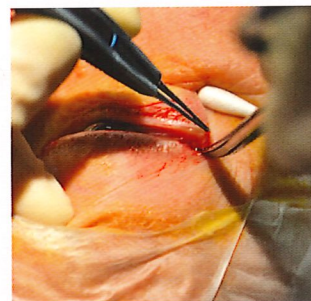
**Figure 2.** Coronal CT scan with right extraconal orbital hemorrhage (arrow) and complete opacification of the maxillary sinus with blood.



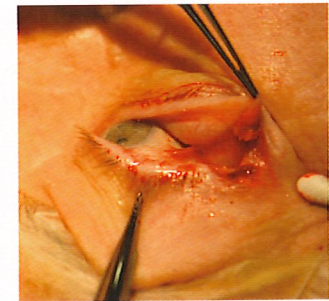
**Figure 3.** Incision to perform a lateral canthotomy: the lateral canthus is cut approximately 1 centimeter.



**Figure 4.** Lateral canthotomy.



**Figure 5.** Incision of the inferior limb of the lateral canthal tendon: holding the lower eyelid anteriorly with forceps, the cantholysis is performed by strumming the scissors along the inferior orbital rim to find the tendon. After palpating the tendon with the scissors, the distinct corded entity is cut.



**Figure 6.** Laxity of the lower eyelid status post-canthotomy and cantholysis.

(Continued on Page 5)



## **LATERAL CANTHOTOMY VIDEOS**

<https://www.youtube.com/watch?v=tgQaKVGynFA>

<https://www.youtube.com/watch?v=r2BZVb687T0>

<https://www.youtube.com/watch?v=MhGQ1ikN93M>

Wills Eye Manual

## Canthotomy and Cantholysis: A Sight-Saving Intervention *(Continued from Page 4)*

### Discussion

Retrobulbar hemorrhage causing acute loss of vision is a rare but serious and potentially blinding condition. Hemorrhage can occur with minor trauma or in a delayed fashion. As ophthalmic consultation may not be always readily available, physicians triaging ocular trauma must familiarize themselves with the needed examination and interventional skills.

Any trauma to the orbit can cause a retrobulbar hemorrhage. Severe hemorrhage can cause orbital compartment syndrome, like any space-occupying lesion. The orbit is enclosed by bony anatomy, and any forward displacement is limited by the eyelid apparatus and tethering of optic nerve to the globe. As intraorbital pressure rises, ocular perfusion pressure decreases, leading to ischemia. Multiple cranial nerves within the orbit may be compromised, including the optic nerve and nerves controlling eye movement. Animal studies have shown signs of ischemia after 100 minutes of central retinal artery occlusion; therefore, prompt reversal of high intraorbital pressure is recommended.

The eyelids are fixated to the lateral rim by the lateral canthal tendon. A lateral canthotomy is performed to expose the inferior limb of the lateral canthal tendon (Figure 3). The inferior portion of the lateral canthal tendon is palpable as a distinct corded entity along the orbital rim, and the tendon is cut to ensure laxity of the lower eyelid (Figure 4). The endpoint of the procedure is to allow for additional forward movement of the intraorbital contents, and less so for actual drainage of the hematoma.

While there are no large published case series guiding when treatment should be initiated, the finding of an APD is diagnostic of optic nerve compromise and should prompt urgent intervention when accompanied by the aforementioned signs and symptoms. In a darkened room, the pupils are examined with a bright light source with the patient fixating at a distant target. The light is repeatedly swung from the unaffected eye to the affected eye. An APD is present if dilation, instead of constriction, is seen in the affected eye in response to light.

While a multitude of adjunctive medical therapy has been described, such as systemic and topical IOP lowering agents and high-dose corticosteroids, these measures should not delay surgical intervention. Some causes of retrobulbar hemorrhage can be medically managed, but this should be reserved for cases with

close collaboration with ophthalmology. Further decompression of the orbit in the operating room may be needed if surgical and medical therapies fail to decrease the patient's IOP.

Our patient underwent a bedside lateral canthotomy and inferior cantholysis within one hour of presentation and ultimately eight hours after injury. Thirty minutes after the procedure, her IOP was 23. Three months after injury, the patient's vision ultimately recovered from hand motions vision to 20/50.

**Roxana Fu is a third-year resident in ophthalmology at the University of Pittsburgh School of Medicine. Evan (Jake) Waxman is associate professor of ophthalmology and director of both the Comprehensive Eye Service and the ophthalmology residency program at UPMC. Contact Dr. Fu at [fur@upmc.edu](mailto:fur@upmc.edu) and Dr. Waxman at [waxmane@upmc.edu](mailto:waxmane@upmc.edu).**

### References

- Bhatnagar A, Mayberry JC, Nirula R. Rib Fracture Fixation for Flail 1. Scott M, Thomson A. Prompt Recognition and Treatment in Traumatic Retro-Orbital Hematoma in Anticoagulated Elderly People Can Save Sight. *Journal of the American Geriatrics Society*. 2009;57(3):568-9.
- Hayreh SS, Jonas JB. Optic Disk and Retinal Nerve Fiber Layer Damage After Transient Central Retinal Artery Occlusion: An Experimental Study in Rhesus Monkeys. *Am J Ophthalmol*. 2000;129(6):786-95.
- Chen YA, Singhal D, Chen YR et al. Management of Acute Traumatic Retrobulbar Haematomas: A 10-year Retrospective Review. *J Plast Reconstr Aesthet Surg*. 2012;65(10):1325-30.
- Goodall KL, Brahma A, Bates A et al. Lateral Canthotomy and Inferior Cantholysis: An Effective Method of Urgent Orbital Decompression for Sight Threatening Acute Retrobulbar Haemorrhage. *Injury*. 1999;30(7):485-90.
- McInnes G, Howes DW. Lateral Canthotomy and Cantholysis: A Simple, Vision-saving Procedure. *Can J Emerg Med*. 2002;(4):49-52.
- Brucoli M, Arcuri F, Giarda M. Surgical Management of Posttraumatic Intraorbital Hematoma. *Journal of Craniofacial Surgery*. 2012;23(1):58-61.

## Surgery Scheduling Checklist

	Select OR date
	Fill out surgery packet
	Add case to shared Outlook calendar
	iMed Web Consent - Phaco, possible vitrectomy. Add all attendings. 60 d
	Review IOLM/Pentacam and select lens
	Staff surgery with attending
	Order the following if not UTD <ul style="list-style-type: none"> <li>• Labs – 90 days</li> <li>• EKG – 6 months</li> </ul>
	Sign eye surgery order set in CPRS
	RTC for post op appointments (at least POD1, POW1)
	RTC for COVID test (TUC SURG COVID TEST) within 7 days of surgery
	COVID test order (Binax Rapid if outpatient, PCR if to be admitted)
	Review preop packet with patient
	Confirm patient has a ride and responsible companion
	SAVAHCS HP – include surgery date, anesthesia type, duration, companion care need, IOL selection, other scheduling notes (ex: Attending case, last case, first case, etc.)
	SAVAHCS HP – additional signers: <ul style="list-style-type: none"> <li>• Yanssel Cota</li> <li>• Katie Greszler, RN (if significant comorbidities)</li> </ul>
	Add IOL order to Teams Excel Sheet (SAVAHCS Cataract Schedule & Lenses)
	File packet in biometry room

### Optional

	RTC for appt to update HP and consent if: <ul style="list-style-type: none"> <li>• SAVAHCS HP &gt;30 days from surgery</li> <li>• Consent &gt; 60 days from surgery</li> </ul>
	Companion care consent and consult
	Preop Anesthesia Clearance Consult
	Toric Calculations
	Email IOL requests if: <7 days for IOLs in consignment. <14 days for special order <ul style="list-style-type: none"> <li>• Cynthia Barrera, Mariah O’Neil</li> </ul>

## Preop History and Examination Checklist

	ADLs are affected
	Patient's activities and hobbies discussed
	Patient is unhappy with BCVA and desires surgery
	Benefit of surgery outweighs potential risk
	Patient had debilitating glare and desires surgery
	History obtained (trauma, myopic or hyperopic LASIK/PRK/RK, ocular surgery or procedures, other ocular pathology, contact lens wear)
	No acute medical problems (recent MI, CVA, etc) and A1C <10.0 and BG stable
	Medications reviewed. Tamsulosin?
	WRx checked
	BCVA checked in both eyes. Monocular?
	MRx checked in both eyes
	Updated glasses would not significantly improve vision to a level acceptable by the patient
	Glare (medium) checked, if VA better than 20/40 and patient's main complaint is glare
	Eye dominance checked
	Anterior segment examined carefully (lids, tear film, corneal surface, AC depth with gonio if needed, iris, AC reaction, iris, dilation size, all layers of lens) in both eyes
	Surface disease treated and tear film optimized
	Patient's VA and vision complaints can be attributed to the cataract (type, density, location of opacity)
	DFE or B scan completed in both eyes
	Posterior segment pathology addressed and clearance received from retina if indicated
	No evidence of prior trauma on exam
	Pentacam and IOL reviewed
	Refractive goal and expectations discussed with patient
	Type of anesthesia discussed
	Social history and considerations discussed, including ride and compliance with drops.

# Surgery Scheduling Notes

## Preop workup:

### a. Cataract candidate

- i. Does the patient have decreased vision from cataract that is affecting ADLs or is there a medical reason for cataract surgery?
- ii. If 2<sup>nd</sup> eye, is there symptomatic glare or decreased vision affecting ADLs or is there significant anisometropia (>2.5-3.0D)?
- iii. Does the patient desire surgery? What time frame?
- iv. Are there acute medical problems that need further evaluation or stabilization prior to booking an elective procedure?
  1. DM, cardiac disease, pulmonary problems, etc

### b. Ocular History

- i. Prior ocular trauma
- ii. Prior ocular surgery or procedures
- iii. Problems with prior cataract surgery

### c. Exam

- i. Refraction in both eyes (ARx and MRx)
  1. Current
  2. Prior to cataract
  3. Glasses/contacts Rx
- ii. Glare testing – low or medium over current Rx
- iii. Eye dominance
- iv. Full dilated eye exam. B scan if no view
- v. Gonio if MIGS or Narrow
- vi. What type of cataract is it? Density?
- vii. Any other exam findings that might impact surgical outcome?
  1. Guttae – get endothelial cell count
  2. PXF
  3. Phacodonesis
  4. Iatrogenic trauma
  5. Narrow Angles
  6. Pupil size, atrophic iris
  7. Intumescent lens
  8. Intraocular inflammation
  9. Pathology of posterior pole
  10. Glaucoma
  11. Surface disease

### d. IOL measurements and selection

- i. Optimized surface for measurements and surgery?

- 1. Wait period for SCL vs toric SCL vs RGP before measurements
- ii. Quality of measurements, fixation.
- iii. If asymmetry in AL or K, why does this exist? Ex: confirm with old spectacles
- iv. Prior refractive surgery
  - 1. LASIK, PRK, RK
  - 2. Myopic or hyperopic correction
- v. Document patient's vision goals, activities, glasses dependence
- vi. Distance, near, monovision goals should refer to specific activities relevant to the patient
- vii. Is the patient a premium IOL candidate? Do not push or suggest.
- viii. IOLM printout should include 3 piece IOL and anterior segment IOL

**e. Surgical planning**

- i. Trypan – poor red reflex
- ii. Omidria – risk of IFIS (tamsulosin, other alpha blockade)
- iii. CTR – trauma, PXF
- iv. Anesthesia – retrobulbar block, subtenon block, general LMA
- v. Brow and cheek anatomy, ability to lay flat, ability to cooperate
- vi. Other procedures? Synechiolysis, MIGS
- vii. Comorbidities significant? Candidate for bilateral sequential surgery?
- viii. Social
  - 1. Ride to surgery and appointments
  - 2. Ability to use post op drops

**Surgery Scheduler: Yanssel Cota**

Advanced Medical Support Assistant

Department of Ophthalmology

Extension: 1-6237

Also reachable by Microsoft Teams

Yanssel schedules all preop, COVID, and post op appointments. Place RTC for POD1 or POW1. You can put in an RTC for POM1 at the preop or at POD1 or POW1 follow-up. Yanssel will be located near the front desk.

Ophthalmology Surgery Scheduling Phone Tree - In case of surgery scheduler absence, please follow this order:

Order of Contact	Name	Ext	Cell	Email
First POC	Yanssel Cota	1-6237		<a href="mailto:Yanssel.Cota@va.gov">Yanssel.Cota@va.gov</a>
Supervisory MSA	Keith Courtney			<a href="mailto:Keith.courtney@va.gov">Keith.courtney@va.gov</a>
Lead MSA	LaTisha Grant	1-4113	520-481-1528	<a href="mailto:Latisha.Grant@va.gov">Latisha.Grant@va.gov</a>
Supervisor	Josleen Danover	1-2687	951-476-8444	<a href="mailto:JosleenNichole.Danover@va.gov">JosleenNichole.Danover@va.gov</a>

\*\*\*This is subject to change. Can always confirm with LaTisha or Keith for appropriate backup scheduler\*\*\*

**Staffing Cataracts:**

All surgical candidates must be examined by an attending. Clearance may be received for each eye.

Order of preference for staffing preops:

1. Supervising surgeon
2. Other anterior segment surgeon
3. MOD

Monocular and/or complex cases will be attending cases. Based on individual experience, some complex cases may be appropriate for residents. Confirm with surgeon.

Note should list which attending cleared the patient and whether they personally examined the patient.

If second eye is 20/30 or better, requires separate clearance by attending.

**In the SAVAHCS Preop Note, include:**

Surgery Scheduling

Surgery: Cataract extraction with placement of intraocular implant, \_ eye

Surgery Date:

Anesthesia: MAC

Case Duration: \_ min

Companion Care: Y or N

IOL:

Notes:

**Post op Appointments:**

Place RTC for POD1 and POW1

The surgery scheduler will call the patients to schedule post op appointments and COVID testing

**Preop Patient Instructions:**

Please clarify that the time of surgery will be determined at a later time. The post op time is NOT the surgical time. Clarify location of surgery. Patient MUST have a companion who will ride home with them if receiving any MAC or general anesthesia.

**IOL Ordering:**

Implant Coordinators: Mariah O’ Neil and Cynthia Barrera

Backup consignment - 3 of each power

- SN60WF 10.0 – 26.5 D
  - SN6AT 3- 5 10.0 – 26.5 D
  - MA60AC 6.0 – 30.0 D
  - MTA4U0 6.0 – 25.0 D
  - MTA3U0 6.0 – 25.0 D
  - MN60AC – current stock until expired (discontinued by Alcon)
- } x 3 per power
- } x 2 per power

Bausch and Lomb MX60E

- MX60E 10.0-26.5 } x 3 per power

- Implants are ordered for each case, with use of above consignment as backup. Give 2 weeks lead time to order IOL
- Include IOL selection in H/P, under surgery scheduling details. If IOL selection is to be updated, then addend the H/P.



- Physician will enter lens data into the IOL order spreadsheet (SAVAHCS Cataract Schedule & Lenses )
- Prior to surgery, physician will review IOL order on the spreadsheet to confirm correct implant ordered for patient and that it has arrived.
- RN will pull any lenses from the backup consignment and will return all unused lenses
- Use of backup IOL consignment lenses should be minimized
- Please order lenses 1 week in advance.

#### **Case Order and Change of Attending:**

At least 2 days prior to surgery date, please number the cases based on your preferred order. Take into consideration the following: companion care, patient distance, laterality, complexity, and attending preference. To confirm case order, contact Steve Miller at ext: 14115 around 8:00am the day before surgery.

If there is a change in Attending, comment should be added to OR consult order. The surgery scheduler can make this change

#### **OR Documentation:**

- Preop note
- Brief op note completed within 1 hour of case end time
- Dictation of op note within 24 hours
  - If complex, procedure should include complex cataract and reason for complexity (Ex: Complex cataract extraction by phacoemulsification with placement of IOL, complex secondary to poor dilation requiring Malyugin ring)
  - Malyugin removal needs to be dictated. It is not part of the Malyugin template
  - Intracameral moxifloxacin, if used, should be dictated
  - Cataract type must be dictated so diagnosis can be coded correctly: Nuclear sclerosis, combined age-related cataract, senile cortical cataract.
  - Write down dictation confirmation number

### **When to consider PAT Consult**

Place a consult for PAT through CPRS

Orders → Consult → Alphabetical → P → Preop Anesthesia Testing

We are no longer assigning notes to Ana Cardenas and Stephanie Kilroy

#### **Consider consult if:**

1. Myocardial infarction within last year
2. NEW onset chest pain in last 6 months
3. Stroke in last 6 months
4. Aortic stenosis or other valvular disease
5. NEW onset or acute worsening of chronic SOB in last 30 days
6. Pacemaker or AICD
7. Patient with FHx of malignant hyperthermia or pseudocholinesterase deficiency
8. History of difficult intubation
9. History of anesthesia complications
10. Patients on anti-platelet or anti-coagulation therapy requiring cessation (ex: oculoplastics). Also consider alerting anti-coag clinic or surgical clinic pharmacist via CPRS

## Companion Care:

### Key points –

- Only one per day. DIFFICULT TO OBTAIN ON FRIDAYS due to same day post op
- Put in consent and consult
- Confirm the address and phone number with the patient.
- Clearly notate companion care on packet, calendar, and HP.
- The Basics of Companion Care for Ophthalmology Providers

### Purpose:

To provide the Veteran with a responsible adult after a procedure/surgery when anesthesia is administered. The responsible adult will pick up, drive home and stay with the Veteran for up to SIX hours (including drive time) at the Veteran's residence.

1. At the pre-op visit, the provider will determine the need for Companion care.
2. The provider will then enter the **Companion Care Consult**.
3. The provider will also obtain the **I-MED Companion Care Consent** at the pre-op visit.

Shared → Admin → Companion care

4. The provider will inform the Veteran that they will be scheduled as **the FIRST case** of the morning and that the Veteran must provide or set up their own transportation to surgery. (Uber, cab, bus, DAV etc....)
5. **Veterans may be unable to have a same day Post-op visit when utilizing Companion Care.** Veterans must be scheduled for a 1-day post visit the following day.
6. Companion Care is unable to provide care in hotels/motels. It must be the Veteran's residence.
7. If the Veteran has a responsible party at home and just needs transportation.... they do NOT qualify for Companion Care. Companion Care is NOT a "transportation only" service. **It is providing the Veteran with a responsible party due to the use of anesthesia and not just a "ride" home.**
8. **No scooters or electric wheelchairs. The Veteran must be able to self-ambulate from wheelchair to vehicle.**
9. Please verify the patient's physical home address and enter it on the consult. There have been several instances where two addresses are listed in the patient chart.

If Surgery is cancelled or the Veteran no longer requires this service, we must call and cancel the Companion Care ASAP. If the driver from one of the Companion Care providers arrives to the facility and they are not needed...they still get paid from the limited funds allotted to this service. Please utilize Companion Care responsibly.

\*\*\*Must book at least 2 weeks in advance. This has been exceedingly hard to secure for our patients\*\*\*

# CONFIRMING CURRICULUM (New Innovations)

## View Curriculum

- Go to *Schedules > Curriculum*
- Click on the name of a Curriculum to view it.

## Curriculum

New	Curriculum Definitions
	Name
	<a href="#">AMB Curriculum</a>
	<a href="#">CONSULTS Curriculum</a>
	<a href="#">INPT Curriculum</a>
	<a href="#">JIM - Wards 3</a>
	<a href="#">Export to Excel</a>

## Confirm Curriculum

- Go to Home Page
- In the Notifications section, under Curriculum, click **Unconfirmed curriculum for your review**

Notifications
CURRICULUM
<input type="checkbox"/> <a href="#">Unconfirmed curriculum for your review</a>
EVALUATIONS
<input type="checkbox"/> <a href="#">39 evaluations to complete</a>
<input type="checkbox"/> <a href="#">Choose a person or rotation to evaluate</a>

- Click the link in the Curriculum column. For example, click **0 of 1 confirmed**.

## Block Scheduling Views

[Subscribe to My Schedule](#)

### My Rotations

Person: **Sherman, Daria** Academic Year: **2012-2013**

Sherman, Daria - 7/1/2012 to 6/30/2013

Department	Division	Start Date	End Date	Rotation	Primary	Curriculum	Status	PGY	Program	Notes
JGB Internal Medicine		7/1/2012	7/31/2012	<a href="#">JIM:AMB</a>	<input checked="" type="radio"/>	<a href="#">0 of 1 confirmed</a>	PRG 3	3	JGB Internal Med	
Anesthesiology		8/1/2012	8/31/2012	<a href="#">ANES:ANES</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
AKW Department of Medicine	AKW Gastro	9/1/2012	9/30/2012	<a href="#">AKW: DM: GASTRO: GASTRO</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
Pediatrics		10/1/2012	10/31/2012	<a href="#">PED:NEO:NBWORN</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		11/1/2012	11/30/2012	<a href="#">JIM:WARD - 1</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		12/1/2012	12/31/2012	<a href="#">JIM:WARD - 2</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
JAS Surgery		1/1/2013	1/31/2013	<a href="#">JIM:WARD - 3</a>	<input checked="" type="radio"/>	<a href="#">0 of 1 confirmed</a>	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		2/1/2013	2/28/2013	<a href="#">JIM:AMB</a>	<input checked="" type="radio"/>	<a href="#">0 of 1 confirmed</a>	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		3/1/2013	3/31/2013	<a href="#">JIM:CONSULTS</a>	<input checked="" type="radio"/>	<a href="#">0 of 1 confirmed</a>	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		4/1/2013	4/30/2013	<a href="#">JIM:INPT</a>	<input checked="" type="radio"/>	<a href="#">0 of 1 confirmed</a>	PRG 3	3	JGB Internal Med	
JGB Internal Medicine		5/1/2013	5/31/2013	<a href="#">JIM:MICU</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	
Department of Surgery	SURG-General Surgery	6/1/2013	6/30/2013	<a href="#">DS:SURGEN</a>	<input checked="" type="radio"/>	None	PRG 3	3	JGB Internal Med	

[Export to Excel](#)

- Scroll down to the bottom and click on the name of the rotation to review.
- After reviewing, click **Confirm**

### Rotation Information

Rotation Definition: **JIM:INPT**  
 Start Date: **4/1/2013**  
 End Date: **4/30/2013**  
 Program: **JGB Internal Med**  
 Status: **PRG 3**  
 Post Graduate Year: **3**  
 Workload: **100**  
 Compensation Status: **---**  
 Training Location(s): **Alfieri Clinic  
Aultman Hospital**  
 Address:  
 Phone:  
 Email:  
 Comment:  
 Person Pager: **---**  
 Rotation Pager: **---**  
 Notes: **---**

### Curriculum

Curriculum	Uploaded On	Department	Confirmed
<a href="#">INPT Curriculum</a>	2/22/2010 10:56:35 AM	JGB Internal Medicine	<input checked="" type="checkbox"/> <a href="#">Confirm</a>

[Export to Excel](#)

## Curriculum - View/Confirm Mobile

The steps below will help you use your mobile device to view and confirm your curriculum.

### Log In

1. Enter [www.new-innov.com](http://www.new-innov.com)
2. Enter your institution, username and password
3. Tap **Log In**

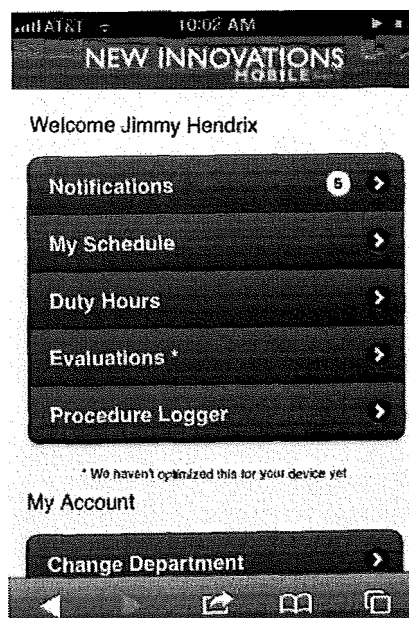


### Notes:

- If this is your first time logging into New Innovations, you'll be prompted to change your password.
- Tap **Remember Password** to have your device remember your password.
- Tap **Forgot Your Password** to reset your password.

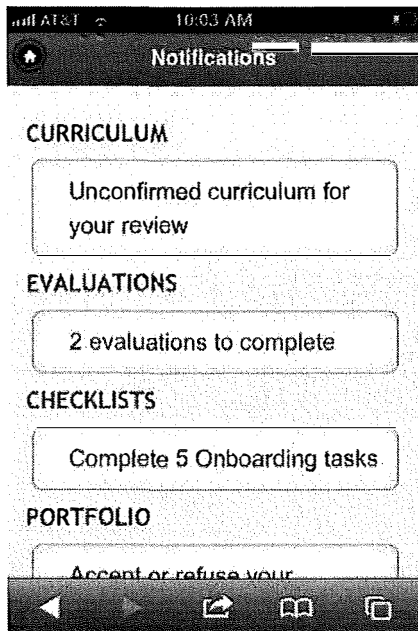
### Menu

The mobile menu will appear on your screen.



## View and Confirm Curriculum

1. Tap **Notifications**
2. Tap **Unconfirmed curriculum for your review**



3. Confirm that you have read the curriculum using one of these two methods:

- Tap the name of the rotation to view the curriculum, then click **Confirm**
- Tap **0 of 1 confirmed** (for example), then tap **Confirm**

Department	Division	Start Date	End Date	Rotation	Primary	Curriculum	Status	PGY	Program
JGB Internal Medicine		7/1/2013	7/31/2013	<a href="#">IM-WARD - 1</a>	●	0 of 1 confirmed	PRG 1	1	JGB Internal Med
JGB Internal Medicine		8/1/2013	8/31/2013	<a href="#">IM-AMB</a>	●	0 of 1 confirmed	PRG 1	1	JGB Internal Med
JGB Internal Medicine		9/1/2013	9/30/2013	<a href="#">IM-WARD - 2</a>	●	None	PRG 1	1	JGB Internal Med
JGB Internal Medicine		10/1/2013	10/31/2013	<a href="#">IM-ICU</a>	●	None	PRG 1	1	JGB Internal Med
JGB Internal Medicine		11/1/2013	11/30/2013	<a href="#">IM-INPT</a>	●	0 of 1 confirmed	PRG 1	1	JGB Internal Med

**CPT CODES**

**OCULOPLASTICS CPT CODES**

Entropion		
Levator Advancement	67904	
Ectropion		
Levator Recession	67903	
Lateral Tarsal Strip	67917	
Wedge	67016	
Suture	67914	
Blepharoplasty		
Upper lid	15822	
Upper lid dermatochalasis	15823	
Lower Lid	15820	
Lower lid with herniated fat	15821	
Electrolysis – lid	67825	
Canthotomy	67715	
Canthoplasty	67950	
Lateral canthopexy	21282	
Medial canthopexy	21280	
Canaliculoplasty	68700	
Ptosis supraciliary approach	67900	
Frontalis Sling	67901	
Gold Weight	67912	
Thyroid Ophthalmopathy (transconj approach with decompression)	67414	

**TUMORS**

Excision eyelid lesion	67840	
Shave lesion		
<0.5cm	11310	
<1cm	11311	
<2cm	11312	
>2cm	11313	
W/,w/o direct closure (not chalazion)	67840	
Eyelid Biopsy-malignant	67810	
Malignant lesion 1.1-2cm	11642	

**RECONSTRUCTION**

Pedicle flap	15576	
Island pedicle flap	15740	
Fullthickness Free graft	15260	
Neovascular pedicle flap	15750	
Adjust tissue transfer/rearrangement <10cm2	14060	
Layered closure 2.6-5cm	12052	
Suture recent wound full thickness	67935	
Complex Repair 1.1x2.5cm	13151	
Auricular Cartilage Graft	15760	

**TRAUMA**

EUA	92019 (limited)	
	92018 (complete)	
Globe perforation repair	92019, 66020, 65280, 65272	
Cornea perf w/ uveal tissue	65285	
Cornea perf w/o uveal	65820	
Medpore implant	65310, 15730, 68320	

**TRAUMA (continued)**

Apply glue to cornea	65286
Evisceration with implant	65093
Nasolacrimal duct	
Probing with irrigation	68810
Crawford tubes	68815
Infraction	30930
Iris laceration	65285
Iridectomy	66625
Anterior Vitrectomy	67010
Inject air into AC	66020
Intravitreal injections	67028

**ANTERIOR SEGMENT**

**STRABISMUS**

Adjust.suture	67335
2 Horizontal	67312
1 horizontal	67311
vertical musc	67316
RIO myectomy	67314

**CORNEA**

PKP	aphakic	65750
	Pseudophakic	65755
	Except aphakia	65730
Pterygium with graft		65426
Prokera		65780
DSAEK		65710
LRI		65772
Post.synechiolysis		65875
Reposition IOL w/incision		66825
Insertion of IOL without CE		66985
IOL exchange		66986
Suture of IRIS		66682

PREOP H&P PRIOR TO CE 0014F (DFE 2020F; H&P 3325F)

PCIOL	PHACO	66984
	Complicated	66982
	Secondary IOL	66982
	YAG capsulotomy	66821
	Chalazion in clinic	67800
	General anesthesia	67801

**GLAUCOMA**

Trab Ab externo	66170
Iridectomy, glaucoma	66625
Trab w/ MMC	66172
Molteno valve	66180
YAG PI	66761
Transcleral CPC	66710

**LASER**

SLT	65855
YAG LPI	66761
Severe AC adhesions	65860
Yag Capsulotomy	66821



RETINA

DILATED RETINAL EYE EXAM WITH INTERPRETATION	2022F
FLUORESCEIN ANGIOGRAPHY WITH INTERPRETATION AND REPORT	92235
FUNDUS PHOTOGRAPHY WITH INTERPRETATION AND REPORT	92250
HUMPHREY VISUAL FIELD EXAMINATION UNI OR BILATERAL	92083

**General Aim and Format**

- A poster is a graphically based approach to presenting research. In presenting your research with a poster, you should aim to use the poster as a means for generating active discussion of the research.
- Limit the text to about one-fourth of the poster space, and use "visuals" (graphs, photographs, schematics, maps, etc.) to tell your "story."

**Design and Layout Specifications**

- The entire poster must be size as required by guidelines (36x56" is size used for ARVO). The poster does not necessarily have to fill the entire working area. The maximum width for the Department's poster printer is 36".
- The board must be oriented in the "landscape" position (long dimension is horizontal).
- A banner displaying your poster title, name, and department (or class, if appropriate) should be positioned at top-center of the board (see Figure 1).
- Make it obvious to the viewer how to progressively view the poster. The poster generally should read from left to right, and top to bottom.
- Leave some open space in the design. An open layout is less tiring to the eye and mind.

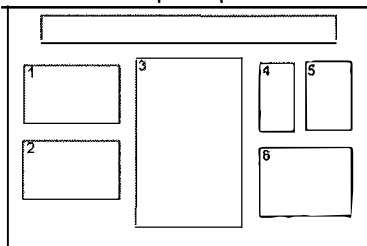


Figure 1: Conventional layouts for a poster. Long panel at top-center is title/author banner. Individual panels can be connected by numbers and arrows. Also, note the use of space between panels to achieve visual appeal. (From CW Connor, 1992, The Poster Session: A Guide for Preparation: US Geological Survey Open-File Report 88-667.)

**Lettering**

- Word-process all text (including captions). Print on plain white paper with a laser printer or inkjet printer.
- Text should be readable from 5' away. Use a *minimum* font size of 20 points.
- Lettering for the title should be large (at least 60-point font). Use all capital letters for the title.

**Visuals**

- Present numerical data in the form of graphs, rather than tables (graphs make trends in the data much more evident). If data must be presented in table-form, KEEP IT SIMPLE.
- Visuals should be simple and bold. Leave out or remove any unnecessary details.
- Make sure that any visual can "stand alone" (i.e., graph axes are properly labeled, maps have north arrows and distance scales, symbols are explained, etc.).
- Use color to enhance comprehension, not to decorate the poster. Neatly coloring black-line illustrations with color pencils is entirely acceptable.
- Make sure that the text and the visuals are integrated. Figures should be numbered consecutively according to the order in which they are first mentioned in the text. Each visual should have a *brief* title (for example: Figure 1-Location of study area).

**Text**

- Keep the text brief. Blocks of text should not exceed three paragraphs (viewers won't bother to read more than that). Use text to (a) introduce the study (what hypothesis was tested or what problem was investigated? why was the study worth doing?), (b) explain visuals and direct viewers attention to significant data trends and relationships portrayed in the visuals, and (c) state and explain the interpretations that follow from the data. In many cases, conclusions can be summarized in a bullet-point list.
- Depending upon the stage or nature of your project, the text could also include sections on future research plans or questions for discussion with viewers.
- Cite and reference any sources of information other than your own, just as you would do with a research paper. Ask your professor about the particular citation system that you should use (every discipline uses slightly different styles). The "References Cited" is placed at the end of the poster.

**Miscellaneous Suggestions**

- SIMPLICITY IS THE KEY. Keep to the point, and don't try to cover too many things. Present only enough data to support your conclusions. On the other hand, make sure that you present sufficient data to support your conclusions.
- When you begin to make your poster, first create a list of the visuals that you would use if you were describing your project with *only the visuals*. Write the text *after* you have created the list of visuals.
- Before the poster session, rehearse a brief summary of your project. Many viewers will be in a hurry and will want a quick "guided tour" of your poster. Don't be afraid to point out uncertainties in your work; this is where you may get useful feedback.

## Sign-Out Tools and Evaluation

Vic Weaver, MD  
Kristi Grall, MD  
Presented with permission by Todd  
Altenbernd, M.D.

## Aug 5, 2011: New York Times Magazine

- Benefits of duty hour restrictions likely offset by sign-out problems



<http://www.nytimes.com/2011/08/07/magazine/the-phantom-menace-of-sleep-deprived-doctors.html?pagewanted=all#>

## Discussion objectives

- Sign-out = error-prone process
- Consequences of errors for
  - Patients
  - Physicians
- Examples of verbal and written sign-out
- Sign-out evaluation tools
- Giving sign-out feedback

## Definition of Sign-Out?

### Definition of Sign-Out

- Communication that occurs when one physician hands off patient care responsibilities to another physician

### Impact of New ACGME Mandates

- 16 hour shift length for interns
- Increased use of night float

### ACGME Requirement

- Ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety

### How will ACGME regulation affect us?

- Does your program monitor sign-out?
- Is their institutional oversight of monitoring?

### Faculty Development

- Evaluating and monitoring sign-out
  - = new skill set for physician educators
- Ideas for faculty development interventions?

### Role of hospitalists, attendings

- Some sign-out will also be attending to resident or vice versa
- How might this be different?

### Most common root cause of sentinel events per JCAHO?

### Most common cause of sentinel events:

- **#1 Failure in communication**
- #2 Failure in training/orientation
- #3 Failure in patient evaluation

*www.jcaho.org*

### Common sign-out errors?

### Common sign-out errors?

- Clinical condition of patient at time of sign-out omitted
- Recent pertinent clinical events of patient omitted
- No anticipatory guidance for likely/possible clinical events = "if... then..." statements
- "To Do List" or "Checklist" omitted or incomplete

### Sign-out error rates?

### Sign-out error rates?

- 1 error per 13 patients each day
- What were these errors:
  - 18% Near Miss
  - 20% Adverse Event to Patient
  - Remainder were duplicate care

*Arch Intern Med 2008*

### Written sign out

- Good evidence base
- Preferred

### Improving sign-out

- Repeat back or read back
- Time for receiving provider to review data
- Limit interruptions
- Notify nurses of handoff times
- Invite nurse(s) to be at handoff

### Improving sign-out

- Inflections in voice
- Opportunities for questions
- What is the overall plan and working diagnosis?
- Include:
  - Condition
  - Medications
  - Treatments, Services
  - Recent or anticipated changes
- Use dates instead of “2 days ago” or “tomorrow”

### Improving sign-out

- Use baselines
  - Mental status
  - Creatinine
- Code Status
- Family contact info
- PCP or referring physician(s) info
- Consultants on case and their opinions
- How much needs IV?

## Improving sign-out

- Sickest patients first
- Spend more time on sickest
- Label sickest patients on document
- Checklist with if, then and action steps
- A formal handoff policy
- Trainings on proper ways to do handoffs

## SIGNOUT mnemonic

- S - Sick or not sick
- I - Identifying pt info
- G - General hosp course and reason admitted
- N - New events of day
- O - Overall health status, getting better/worse
- U - Upcoming plans with if/then
- T - Tasks to complete overnight

## Curriculum Example

- See next slide

**Sign-out curriculum:**

**Background:** Patient hand-offs are common on general medicine. The most common hand-off is sign-out, which is typically done at home and transition patient care to the night shift team. Developing a well-structured sign-out is critical to ensuring high-quality care overnight. We are excited to try to improve the sign-out process and need your help.

We are asking you to review this information, which we hope will assist you in generating excellent sign-out.

**What should be included in an excellent sign-out?**

An excellent sign-out should include the following information. This information is pulled into sign-out electronically.

**Identifying patient information:** patient name, MR#, date of birth. This information is pulled into sign-out electronically.

**The general hospital course (see General comments):** is a key component of sign-out. The general hospital course summarizes why the patient was admitted, the major current problems, work-up that has been done, and whether the patient is getting better (or worse). The general hospital course should include the most important events of the day, including important laboratory results along with clear directions for care to also include (as well as) other statements. As an example, "The patient started bleeding again, then 40 cc and they will require 2 cc and an emergent EGD."

**The next day (or night):** sign-out should include all tasks to be completed overnight. The tasks list should include a clear description of physician sign-out. "Today's statements such as 'Call radiology for the MRI read' are less helpful than 'today's statements with a well described plan of care. As an example, 'Call radiology for the MRI read. If the MRI shows adenomyosis, please start tamoxifen.'

**All sign-outs should include each status clearly.**

**A useful mnemonic to remember these details are:**

- Sick or not sick, do you need to be admitted?
- Identifying patient information (name, MR #)
- General hospital course (reason for admission)
- New events of the day
- Overall health status-getting better or worse?
- Upcoming plans/when with a plan, response?
- Tasks to complete overnight

**Adapted From: Horvath LL, Mura T, Fisher ML. Development and implementation of an oral sign-out structure. J Gen Intern Med. Oct 2007;22(10):1470-1474**

**Revised: OM, Jacob J, Abate SS, Best JL, EPICU DM. Implementing faculty oversight of team written sign-out. EPICUonline.com**



## Sign out form example 1

- See next slide (one page)

Sign-Out CDK for Internal Medicine  
 Date: \_\_\_\_\_  
 Intern Name: \_\_\_\_\_  
 Attending Name: \_\_\_\_\_

**Please evaluate your intern's sign-out. Please check off whether the following parameters are present.**

	Patient				
	1	2	3	4	5
Code status is present in the correct location?					
The summary includes a brief summary statement that reflects the reason for admission and relevant care to date?					
Major present problems are identified in the sign-out?					
Information in sign-out is up to date?					
The sign-out is well organized so distinct issues are clearly separated, listed, and/or numbered?					
Specific data are used to report events rather than ambiguous term phrases?					
The sign-out is easy to read?					
The sign-out includes anticipatory guidance for predicted patient events? (Have you mentioned other symptoms, if critical, if absent call about health team give back?)					
Links in the to-do list are appropriate?					

**Summary Score Guidelines**  
 Satisfactory Rating = All items checked for each patient  
 Satisfactory Rating = 1-2 items not checked for 1-3 Patients  
 Unsatisfactory Rating = 3 or more items not checked for Most Patients

Summary Score:    1   2   3                      4   5   6                      7   8   9  
 Unsatisfactory                      Satisfactory                      Satisfactory

Please see the back for comments on areas for improvement.

## Sign out form example 2

- See next slide (2 pages)

Faculty Feedback Form for Sign-out Evaluation

**Directions:** We are asking you to fill out an evaluation of whether sign-out for your interns. Please circle your intern's sign-out and provide their direct feedback on how to improve their sign-out. The goal of sign-out is provide guidance for interns and allow us enough care by allowing us to cover their physicians.

Intern name: \_\_\_\_\_

How often is code status present in the correct location?  
 Less than 10%    25%    50%    75%    Greater than 90%

How effectively does the general comments section summarize the reason for admission and relevant medical information?  
 Less than 10%    25%    50%    75%    Greater than 90%

How often is the general comments section typed in brief paragraphs, listed or numbered so that it is easy to distinguish between separate thoughts/issues?  
 Less than 10%    25%    50%    75%    Greater than 90%

How often are specific dates used to describe patient events preferentially than ambiguous time phrases?  
 Less than 10%    25%    50%    75%    Greater than 90%

How easy is the document to read quickly for pertinent information?  
 1    2    3    4    5  
 Difficult to read                      Easy to read                      Very easy to read

How often is the sign-out information adequate for overnight care? (Consider from the perspective of a covering MD.)  
 Less than 10%    25%    50%    75%    Greater than 90%

What percentage of the sign-out is current? Are there important updates to patient care that are not reflected in the document?  
 Less than 10%    25%    50%    75%    Greater than 90%

Does the sign-out include anticipatory guidance for predicted patient events with a high degree of care? These are also called "I/Don't" statements. As an example, "I (Intern) Glibetid admin, then call QI, and they will transfer to ICU for emergent ECG?"  
 1    2    3    4    5  
 No prediction/ No Plan                      No prediction/ No Plan                      No prediction/ No Plan

Overall how would you rate the quality of the sign-out for providing overnight care?  
 1    2    3    4    5  
 Poor quality                      Good quality                      Excellent quality

## Summary

- GMEC membership is now aware of numerous tools, tricks, and techniques for improving quality of sign-out
- Sign-out will take a written form as much as possible
- Producing a good written sign-out as well as the verbal aspects of sign-out are inevitably time-consuming
- GMEC will monitor quality of sign-out (aka transitions or hand-offs) in our institution's residency training programs
- Program directors will do documented training/education of residents in nuances of sign-out
- Program directors will do a documented faculty development activities on sign-out, including reminding faculty to monitor the quality of sign out and set clear expectations

## Questions/comments?

# SURVIVAL GUIDE

## **FACULTY:** (P: 520-446-xxxx)

**Ombudsman:** Cori Jones C: 316-633-2244  
corijones@arizona.edu  
**Todd Altenbernd** C: 520-465-4862 H: 760-2762 P: 4608  
**Michael Belin** C: 518-527-1933  
**Jillian Colson** 859-684-4302  
**Jonathan Holmes** C: 507-271-1539 P: 531-2817  
**Mireille Jabroun** C: 443-301-2627 P: 2838  
**Robert Lindberg** 724-301-9978  
**Joseph Miller** C: 520-661-6524 H: 742-9849  
**Leslie Neems** C: 847-942-2274 P:  
**Lynn Polonski** C: 520-990-4246  
**Thiripurasundari (Thiri) Pugazhendhi** 520-396-8040  
**Jordana Smith** C: 215-531-0236 P: 4610  
**Roy Swanson** C: 520-456-6657 P: 4606  
**Tanu Thomas** 210-823-9814  
**Tomas Tredici** 520-603-9566 P: 531-2480  
**Ovette Villavicencio** 520-991-8161  
**Mingwu Wang** 520-204-0614  
**Le Yu** C: 734-255-0052 P: 4607  
**Xuemin Rosie Zhang** C: 240-753-8924 P: 4605

## **RESIDENTS:**

**Merrylees Dersch** C: 352-804-4466 P: 4615  
**Greggory Gahn** C: 702-266-5708 P: 4614  
**Alex Hansen** C: 402-380-5607 P: 1929  
**Mark McAllister** C: 303-917-6860 P: 1924  
**Ahmed Abdelhady** C: 609-529-3635 P: 1920  
**Spencer Moore** C: 971-998-5022 P: 1948  
**Bryson Tudor** C: 801-368-1788 P: 1947  
**Bohan Xing** C: 801-448-5197 P: 1934  
**Brenna Bullock** C: 248-444-5331 P: 0542  
**Arko Ghosh** C: 817-307-6525 P: 3534  
**Jonathan Han** C: 714-579-5819 P: 0072  
**Kashif Iqbal** C: 818-370-4527 P: 3642  
**Andrew Dieu** C: 713-518-6944 P: 4611  
**Rachel Huynh** C: 385-216-6542 P: 4612  
**Namita Mathew** C: 404-451-0076 P: 4613  
**Elizabeth Noh** C: 347-986-9064 P: 0092

## **Community Faculty:**

**Dr. Calonje** C: 904-1752 H: 760-0624  
**Dr. Christoforidis** C: 614-404-2020  
**Dr. Carrozza** C: 906-3598 H: 722-5504  
**Dr. Duerksen** 751-8030  
Office 5979 E. Grant Road #115, 85712  
OR (Tucson Surgery Center) 1398 N Wilmot Rd  
Ph 713-5500  
**Dr. Fintelmann** C: 480-493-6190  
**Dr. Fishkind** 293-6740; Jenny @ x106 (Refractive surgery rotation) 5599 N Oracle Rd., 85704  
**Dr. Kay** (peds glaucoma) O: 544-4393 C: 904-0714  
**Dr. Kilgore** (413) 884-5760  
**Dr. McColgin** (Cornea Associates) 325-9400  
6422 East Speedway Boulevard Suite 100, Tucson 85710  
**Dr. Tsai** C: 891-1265

**Retina Associates** O: 886-2597  
6561 East Carondelet Drive, Tucson 85710  
**St. Joe's OR front desk** 873-3837

## **Page**

To page @ UMC: 4-5868 (physician resources will page whoever you need)  
To page @ VA: 5555 (in-house); 629-4650 (outside)  
Text page: @epage.umcaz.edu

## **Remote access**

Remote access to **BUMC**: Portal.bannerhealth.com  
Remote access to **VA**: Citrixaccess.va.gov

## **UMC**

1501 North Campbell Ave, Tucson AZ 85724  
UMC numbers start with 694-

### **Main operator: 4-0111**

Physician resources: 4-5868  
UA IT Help-Desk (NetID/password) 694-HELP,  
Ophthalmology computer issues 626-8721  
ER: 4-7547

Eye cart code: 6093 Hit CS, then 6093, then OK

Portable slit lamps:

1. Tower 1: 9 NS equipment C passcode: 9414
2. Tower 1: 8 NS equipment room passcode: 8425
3. Tower 4: room 5607 (Floor 5) code 0655 (workroom)

**Consent form:** Patient tab --> view images --> sign eforms --> select forms --> 1408-0000: Consent for Surgery/Procedures/Anesthesia/Sedation  
Call room: Tower 4: 5<sup>th</sup> floor 5606 code: 0876  
Main cabinet in ED code: 7-0-7

### **Micro lab: 4-6282**

#### **OR front desk: 4-6120**

OR scheduling: 4-6243  
In-patient pharmacy: 4-6553  
OR holding area: 4-4220  
PACU: 4-7510  
CDU: 4-7520

Vicki Began pgr. 9005 (UMC equipment issues)  
Men's Locker: number 123: code 30-4-38  
Women's Locker: number 272, code: 38-4-30  
Radiology: 4-4923, 5027, pgr:1687;  
Film library: 4-7409

CT scan: 4-6755; MRI/on call: 4-4889, pgr. 1694  
Neurorad: 4-6760

Pediatrics Red Team: 520-694-3086  
Pediatrics Blue Team: 520-694-0717

## **Ophthalmology office:**

655 N. Alvernon Way, Ste 204, 85711  
Pat Broyles: 626-0044 fax: 626-2042  
Codes: 000655 or 000491

## **Alvernon clinic:** 707 N. Alvernon Way, 85711

For patients: 694-1460  
Front desk: 694-1494 (direct line)  
Clinic fax: 694-1464  
Betzabet: 694-1486 (surgery scheduling)  
Aubrey: 694-1426 (surgery scheduling)  
Yvonne: 694-1478 (to make appts for patients)  
Ruben: 694-1497

### **BUMC-South**

2800 E. Ajo Way Tucson, Arizona 85713  
numbers start with 874-  
main: 874-2000  
ER: 874-5600  
Urgent care: 874-5635  
Security: 874-2926  
UPH-K help desk: 874-HELP  
Call room Oph #201, code: 9139  
Psych #557 code:5312  
Men and Women's locker: Ophthalmology locker label,  
no code required

### **SAVAHCS (VA)**

3601 S 6th Ave. Tucson, AZ 85723  
main number: 792-1450-->dial 1-->dial ext  
front desk: 6551  
Cancellation requests: clinic cancellation button on  
home page of intranet, must submit 45 days prior to  
vacation  
Badge office: Room OA1 Basement building 38  
8:30-9am every day

Forgot PIV card: 855-673-4357  
Volunteer services: 15027  
Diane (computer access): 6479  
Wayne (CPRS): 5779  
ED: 6613  
Radiology: 1825 CT: 6024 MRI: 5521  
24/7 radiology: 877-247-9729  
Lab: 1837, 6444  
Pharm: 6648, pgr. 4943  
OR core: 6115  
Pre-Op: 6146  
PACU: 6141  
OR9: 6195  
Monica: 2950  
Yanssel: 6237

Men's locker: 60 combo: 15-27-38  
Women's locker: 85 combo: 31-45-09  
omni-cell room code: 21210#  
break room code: 4531  
Dirty instrument room code: 9999  
Tube No. 124

VA long distance calls: 1+area code + number

### **BUMC dictation: 694-2828**

Employee ID:  
Work Type:  
30 discharge report  
33 transfer summary (to outside facility)  
60 operative report  
Key functions:  
1 rewind to beginning and pause  
2 pause (5min max)  
3 resume recording  
4 rewind 3s and play  
5 forward to end of file and pause  
0 close current job, start next dictation  
# get job ID and length of dictation

### **VA dictation:**

6-1700 (on-site); or 1800-592-6949  
Group ID number: 4617#  
Need to get your own User ID# from Diane  
Work Type:  
21 Discharge Summary  
**23 Op Report**  
Key functions:  
2 Pause  
3 Rewind/ Play  
5 Disconnect  
6 Priority (STAT)  
8 to begin new file  
0 Get job ID and disconnect

### **Banner**

**Benefits:** [benefits@bannerhealth.com](mailto:benefits@bannerhealth.com)  
or 800-827-2464  
**HR:** [cristal.rivera@bannerhealth.com](mailto:cristal.rivera@bannerhealth.com)  
**Retirement:** 602-747-4906  
**Work-Related Injury:** Banner Workman Comp  
Department 602-747-3329

## Key Things to Know for Call and Consults Rotation

### **Corneal Ulcer**

- Place order (non-formulary medication) for Fortified antibiotics Vanc (25 mg/ml) and tobramycin (15 mg/ml) q 1hr or ceftazidime (15 mg/ml) with a comment to separate drops by 5 minutes
- Make sure to give loading doses of Moxifloxacin and check MAR to ensure patients are getting drops!!!
- Call pharmacy about order (694-6553)
- Order corneal culture (gram stain, anaerobic, aerobic cultures) and acanthamoeba culture
- Call micro (694-6282) and go pick up culture plates (micro : first floor tower 4)
- If morgan lens is needed then order medication at same concentration as fortified antibiotics at rate of 10 ml/hr
- If you need a Prokera (amniotic membrane graft) these are found at the OR front desk, you need to fill out a case request and document all information in note: Implant ID, Vendor: Tissue Tech, Prokera style, Expiration, Serial number
- Video on how to insert prokera:  
[https://www.youtube.com/watch?v=8X\\_JJ8nsls](https://www.youtube.com/watch?v=8X_JJ8nsls)

### **How to Book a Surgery (for a Patient in the ED or Inpatient)**

- Consent the patient, Consent form: Patient tab --> view images --> sign eforms --> select forms --> 1408-0000: Consent for Surgery/Procedures/Anesthesia/Sedation
- Make a copy and place in ED cabinet, then have HUC scan original into patient's chart

- After speaking with the senior resident and/or attending call the OR front desk (694-6120) and book time
- If intracameral or subconjunctival medications are needed call the OR pharmacy or Inpatient pharmacy after placing miscellaneous medication order to have these ready

#### **Eyelid Lacerations**

- 7-0 or 6-0 Vicryl/Silk for lid margin and meibomian gland
- 6-0 or 5-0 Vicryl for Tarsus
- 7-0 or 6-0 Vicryl/Silk for lash margin
- If you don't think the patient will follow up then use absorbable suture (Vicryl/Monocryl)
- Eyelid laceration video:  
<https://vimeo.com/123879757>

#### **Yag Laser for LPI (Inpatient)**

- At main campus, it is located by OR
- Get from OR front desk, lenses and key should be included
- Try and have goniosol with you in your call bag

#### **Exam under Sedation in ED**

- Typically this will be used for younger patients
- Just let the ED resident taking care of the patient you would like to do an exam under sedation and they will get everything set up for you
- Make sure you have all the things you need prior to the patient being sedated (needle driver, forceps, sutures, indirect, dilating drops, tonopen, etc.)

#### **Orbital Compartment Syndrome: How to do a lateral canthotomy/cantholysis**

- There are canthotomy cantholysis trays in trauma bay in ED
  - Video:  
<https://webeye.opth.uiowa.edu/eyeforum/tutorials/lateral-canthotomy-cantholysis.htm>
- 1. Sterilize area with betadine
- 2. Anesthetize area 2% lidocaine with epinephrine. Apply hemostate to lateral canthal tendon for 1 minute
- 3. Cut down skin to lateral orbital rim
- 4. Strum inferior canthal tendon. Grasp lower lid with forceps and incise inferior tendon with wescotts
- 5. Check that tendon is incised as lower lid will be able to be moved freely from globe
- 6. If no improvement in IOP consider superior tendonolysis

#### **Open Globe**

- Consent the patient, make sure to dilate other eye, check for apd (directly or by reverse), call senior resident
  - Visual acuity and apd are critical pre-op vitals to document
  - Be very careful putting any pressure on eye (if doing ultrasound or IOP check)
- Most cases will need a CT scan to look for foreign body and assess extent of injury

- NEVER MRI (in case of metallic foreign body)
- Protective eye shield to be worn at all times
- Check tetanus prophylaxis status and update as necessary
- Start Zofran 4mg IV Q6H as needed for nausea
- Start Levaquin 500mg IV
- Check when patient last ate or drank anything, make NPO
- Call Inpatient pharmacy for intraoperative subconjunctival injections of vancomycin 25 mg/0.5mL, ceftazidime 100 mg/mL, and dexamethasone 2 mg/0.5 mL.
- Postoperatively to be started on Moxifloxacin 1 gtt QID, Pred-Forte 1 gtt QID, and Atropine 1 gtt BID to the affected eye.

#### **Orbital Cellulitis**

- Important to differentiate between preseptal and post septal involvement
- First step is to get an orbital CT scan with and without contrast
- Evaluate for abscess that needs to be drained (check Wills for criteria)
- Also evaluate if this could be Mucor/Rhizopus (Diabetic, Ketoacidosis, other immunocompromising state)
  - If so EMERGENT ENT CONSULT for bedside scope
- Will need to be started on broad spectrum antibiotics

## Rotation Specific Guidelines

#### **Dr. Yu (General)**

- *Technician:* Karen Tapia (KT)
- OR days are typically Wednesdays (she will typically order all of her pre-op and day of surgery drops)
  - You need to get to South Campus or Wyatt Surgery Center after Grand Rounds and find the patient, introduce yourself, mark the eye and do the preop H and P
  - She will do the operative note and discharge paperwork
- *Key Topics to Know:* different types of cataracts, corneal abrasions, hydroxychloroquine screening protocol, diabetic screening, anterior uveitis, HSV/VZV, Idiopathic intracranial hypertension, dry eye, blepharitis, meibomian gland dysfunction etc.

#### **Dr. Zhang (Cornea)**

- Stain every patient, evert every upper eyelid
- Write notes and suggest plan, she will edit and correct
- OR Monday mornings

#### **Dr. Altenbernd (Glaucoma/General)**

- *Technician:* Nicole
- Has personal template for physical exam and assessment/plan
- Review OCTs, HVFs, Optic nerve photos
- Typically does laser procedures (SLT and LPs) early before clinic

- *Key Topics to Know:* open and closed angle glaucoma, pigment dispersion glaucoma, pseudoexfoliation glaucoma, glaucoma medications, high yield glaucoma studies (EMGT, OHTS, AGIS, etc.), anterior/intermediate/posterior uveitis

#### **Dr. Smith (Pediatrics)**

- Technicians: Deborah Johnson, Rhonda Cooley
- Surgery days are typically Tuesdays (she will order all pre-op and day of surgery drops)
  - She typically operates at Main campus
  - She gets there super early (1 full hour)
  - Find the patient, mark the eye (don't mark if bilateral symmetric surgery) and do the preop H and P
  - She will usually do the operative note but you may do it as well
- She will have you prep the patient for surgery, she will show you this once, make sure you are paying attention
- Practice hand-tying
- *Key Topics to Know:* all forms of strabismus, nasolacrimal duct obstruction, congenital and juvenile glaucoma, amblyopia management.

#### **Dr. Jabroun**

- Very detailed and particular.
- Surgery on Tuesdays at main for children and south for adults, get there early, mark patient, do H&P

#### **Dr. Holmes**

- You shadow him throughout clinic
- Surgery on Tuesdays at south campus, show up at least 30 minutes early, do H&P, mark patient (mark both sides if bilateral), write EOM/PACT/DMR on whiteboard in OR
- *Key topics to know:* Harada-ito, Faden/posterior fixation sutures, Thyroid Eye Disease, dragged-fovea diplopia

#### **Dr. Polonski (Plastics)**

- Surgery days are every other Wednesday
  - You need to do pre-op H and P and discharge orders/instructions. He does op-note immediately.
- Need to practice suturing/operating with surgical loops prior to operating
- *Key Topics to Know:* enucleation vs evisceration vs exenteration, orbital lymphoma, squamous cell carcinoma, blind painful eye, nasolacrimal duct obstructions, orbital cellulitis with abscess

#### **Dr. Mingwu Wang (Cornea)**

- Typically just has 1 pm clinic every other week
- Very fast paced clinic (anterior segment exams only), you need to do all of the notes
- *Key Topics to Know:* VZV/HSV, corneal ulcer, corneal abrasion, corneal dystrophies, keratoconus, Conjunctival intraepithelial neoplasia, dry eye syndrome, neurotrophic cornea, Peripheral

ulcerative keratitis, staphylococcus marginal keratitis, blepharitis

#### **Dr. Thomas (VA Retina)**

- Pretty busy clinic, you will get your laser and intravitreal injection numbers this rotation
- OR days are Thursdays
  - Please be prepared you are a very big help in these surgeries as you will be helping with lubrication and scleral depression
- *Key Topics to Know:* diabetic retinopathy, ARMD, CSCR, juxtafoveal telangiectasia, pathologic and degenerative myopia, low vision aids

### AEC (Arizona Eye Consultants)

#### Glaucoma

Dr. Jason Levine (cell: 520-349-3222); Dr. Khin Kilgore (cell: 413-884-5760)

OR days: Tuesdays (for both), sometimes Dr. Kilgore has add-on cases on Thursdays at noon. Mostly cataracts (some with MIGS) but often they will have a few glaucoma procedures at the end.

#### **West Office**

395 N. Silverbell Rd. Suite 255  
Tucson, AZ 85745

#### **East Office**

6422 E Speedway Blvd. Suite 100  
Tucson, AZ 85710

#### **Northwest Office**

2177 W. Orange Grove  
Tucson, AZ 85741

#### **Foothills Surgery Center**

2220 W Orange Grove Rd, Tucson, AZ 85741

#### **Camp Lowell Surgery Center**

4620 E Camp Lowell Dr, Tucson, AZ 85712

#### OR information:

- Camp Lowell surgery center and Foothills surgery center
- You will need to call the surgery centers to figure out which cases are running and where each physician will be. I usually picked the location/physician with more glaucoma cases. Sometimes you can discuss it with whichever physician you are with earlier that week.
- Make sure you filled out the paperwork before arriving at either surgery center. They both use the same paperwork, and both require copies of your immunizations before stepping foot in the OR.
- Office Days and Locations: Hours are 8-5 PM. They have multiple offices and rotate between the offices on different days. Usually, you can join one of them and bounce between the two physicians if they are in the same office depending on which one has more interesting glaucoma patients that day. The exact addresses will be below:
  - Mondays: Both are in the East office.
  - Tuesdays: OR day
  - Wednesdays: Both are in the West office.

- Thursdays: Dr. Levine is in the West office; Dr. Kilgore is in the Northwest office
- Friday afternoons: Dr. Kilgore is in the east office; Dr. Levine is not in the office.
- These days/locations are variable and sometimes they will be in different offices, so it is important to text Dr. Levine and/or Dr. Kilgore the day (or weekend) prior to working with them to get an idea of where they will be and update them that you will be joining them.

- Key Topics to know: Primary open angle glaucoma (obviously), secondary glaucoma, different IOP drops (helpful to know brand names and color of tops), OCT RNFL interpretation, visual field interpretation, gonioscopy, Ahmed glaucoma valve, Trabeculectomy, Xen gel stents, MIGS, CPC, LPIs, SLTs

Tips:

- Rotation is shadowing; you do not have access to the charts/EMR and will not be writing notes.
- **Make sure to text Dr. Levine and Dr. Kilgore the weekend before you start** working with them to get an idea of what your week will look like and which OR you will be in that week.
- They are incredibly fast-paced and will see dozens of patients in a half-day. They have 1-2 scribes each and will most often be running multiple rooms. This may make it daunting to ask questions, but they are happy to answer questions and are very nice. Another good time to ask questions is in the OR during the cases or in-between cases.
- Your involvement will mainly be a quick anterior exam, possible gonioscopy and possible 90D exam at the slit lamp after they are done with their exam and if there is interesting pathology. It was helpful to write down some of the exam aspects stated to the scribe (i.e. C/D ratio, gonioscopy findings) and try to make sure I get similar exam findings when I examine the patient.

### Cornea Associates Typical Schedule

6422 East Speedway Boulevard Suite 100, Tucson

*Monday:* clinic all day

*Tuesday:* surgery in am, clinic with Dr. Wang at Alvernon in pm

*Wednesday:* clinic in am then surgery in pm

*Thursday:* surgery in am

*Friday:* clinic in pm

### Retina Associates Typical Schedule

*Monday:* clinic with Dr. Walsh

*Tuesday:* am – OR with Dr. Walsh, Tuesday pm – clinic with Dr. Javiid

*Wednesday:* am – clinic with Dr. Harris, Wednesday pm – OR with Dr. Javiid

*Thursday:* clinic with Dr. Saevaedra or Stevenson

## 3<sup>RD</sup> YEAR VA ROTATIONS

### Retina Rotation

	AM	PM
<i>Monday</i>	Retina	Retina
<i>Tuesday</i>	OR (until 3pm)	Post 3 (starting at 3pm)
<i>Wednesday</i>	Retina Laser	Post 1
<i>Thursday</i>	Pre-Op 1	General
<i>Friday</i>		General

Retina Clinic: assist with working up patients, giving injections, performing laser procedures. Similar to retina rotations in 1<sup>st</sup>/2<sup>nd</sup> years. See patients and staff with Dr. Thomas.

### Cornea Rotation

	AM	PM
<i>Monday</i>	Cornea	Cornea/General
<i>Tuesday</i>	General	Pre-Op 1
<i>Wednesday</i>	OR (Belin) – late start due to grand rounds (~10am-3pm)	Post 2 (starting at 3pm)
<i>Thursday</i>	OR (Villavicencio)	Anterior Segment Laser
<i>Friday</i>		Post 2

Cornea Clinic: see all cornea patients, staff necessary patients with Belin (consider staffing all patients in the beginning, then can decide if a patient needs to be staffed, eg if they have been seen for dry eye and are doing well on their current regimen Belin may not have to see them)

- Jamie (pharmacist) is super helpful on this rotation if you need to order drops for CIN, etc. Save her as a contact in your Skype chat.

Anterior Segment Laser Clinic: you will have mostly Yag Caps with some LPIs in this clinic

- Check IOPs pre-procedure
- Yag Cap: use capsulotomy lens from omnicel. dilate patients, perform the laser, check IOP 15-20 minutes later
- LPIs: use LPI lens from the omnicel. pilo + apraclonidine, perform the laser, check IOP 15-20 minutes later

### Glaucoma Rotation

	AM	PM
<i>Monday</i>	OR (Pugazhendhi)	Glaucoma
<i>Tuesday</i>	Post 1	General
<i>Wednesday</i>	Glaucoma	Glaucoma Laser
<i>Thursday</i>	General	Pre-Op 1
<i>Friday</i>	OR (Wang)	Post 1

Glaucoma Clinic: after patients have been worked up by the tech, see patients and staff with Dr. Pugazhendhi. I would often try to alternate seeing patients with her. May need to help work up patients if there is no tech.

- Jamie (pharmacist) is super helpful on this rotation if you need to order drops like Rhopressa, etc. Save her as a contact in your Skype chat.

Glaucoma Laser Clinic: you will have LPIs and SLTs in this clinic

- Check IOPs pre-procedure
- LPIs: use LPI lens from the omnicel. pilo + apraclonidine, perform the laser, check IOP 15-20 minutes later
- SLTs: use single mirror disposable lens from the omnicel. pilo + apraclonidine (if you can see the TM well, you don't really need to wait until the drops work before performing the laser), perform laser, check IOP 15-20 minutes later

## Notes on Other Clinics

### Pre-Op Clinic

- You will start with a cap of 3 patients per clinic in the beginning of the year, this will increase to 5
- These patients should be ready to be signed up for cataract surgery – have been seen by optometry, continuity, or gen and are interested and meet criteria for surgery
- They see Monica first for IOL calcs and vitals
- Monica then puts their paperwork on your door
- Always refract every patient (especially when staffing with Belin – even if the patient was refracted last week!)
- Dilate patient and perform complete eye exam
- Remember to look at medical history: diabetics (what was their most recent HgbA1c, should you repeat this before surgery? Do they need an OCT mac?)
- Staff patient with the MOD
- Pick surgery date – put patient's last name and last 4 on the surgery calendar in outlook on the date that you agreed upon. If you do not have access to the surgery calendar you will need to request this asap.
- Sign consent, fill out surgery packet
- See Christianne's pre-op check list for more details

### OR Days

- We operate in OR 9, the 1<sup>st</sup> case starts at 7:45am except where noted above
- Show up 45min-1hour before your first case to prepare for the day
- Get all IOLs to be used for the day
  - Standard SN60WF (and normal power torics) located in the storage room across from OR 9
  - Torics and special order IOLs located in Evon's office

- Mark the patient, fill out and sign pre-op form at the bedside
- Pre-write all pre-op notes
- Let OR staff know if you will need anything for the case likeomidria, malyugin, etc
- After surgery, fill out and sign post op instructions in the PACU
- It is helpful to know when the patient's post op appointment is so you can write it on their post op instructions as well
- Go out to the waiting room to let the family know how the case went
- See the next patient – mark them, do paperwork
- Put in brief op note for the previous case and pre-op note for the next case

### General Clinics

- Essentially continuity 2 clinic

### Post Clinics

- You will see POD0, POD1, and POW1s in these clinics
- You see all of the attending post ops as well
- You will also pre-op second eyes in these clinics – at this point they've already been staffed with an attending and really only need to do paperwork and sign consent form

### Pre-op Clinic Checklist

1. *Does the patient want surgery?* (if no then don't waste their time or your time doing a full preop)
2. If DM2: is A1C <9, if borderline have a thorough risk discussion with pt about post op complications with poorly controlled DM. Consider having them return in 6 months to get A1C down.
3. Has the patient had a major heart or CVA events in the last 6 months. If new cardiac issues or pulm issues, pt may not be safe for anesthesia and you should CC **Ana Cardenas** to your pre-op note if you want to sign them up to make sure you get cards or pulm clearance.
4. Check VA with HRx
5. Check MRx
  - a. Is MRx worse than or equal to 20/40?
    - i. If no, then do a BAT glare test with either trial frames or HRx on.
      1. Is the BAT worse than 20/40? If not discuss with pt that CE may not help them and offer to see them back in 6 months for cataract eval.
      - ii. If yes, and you already have IOL calcs/ pentacam from Monica, dilate OU
      - iii. If yes, and you don't have IOL calcs/ pentacam yet, send to Monica and ask her to dilate once she gets calcs done.
    - b. DFE, then document the **type of cataract** and **pupil size...** trauma, PXF, retinal pathology?
6. Have pt **sign consent for Cat phaco and Retina vitrectomy** (all attendings), pick an OR day and



- add it to the calendar... for #7: Qualified Practitioners, including residents, may also be performing important tasks related to the surgery based on their skill set and under the supervision of the responsible Primary Surgeon.
7. Fill out surgery packet – give pt blue, green and yellow sheets. If Vicki is available, she can go over the instructions with the patients. If Vicki is not available, you will need to go over the instructions with them yourself.
  8. Confirm pt has a ride to and from surgery:
    - a. If they do not, sign them up for companion care: sign **consent** for companion care, and you must place *companion care consult: Consult* → standard → not seen → companion care – ophthalmology in CPRS
    - b. Notes about companion care patients: they are usually scheduled as one of the first cases of the day and they have to have a POD1 visit (not POD0), therefore cannot schedule companion care on Fridays
  9. RTC order for POD0/1 visit
  10. Staff with attending! Look at pentacam and calcs and choose lens
  11. Order Eye Drops (Tube #215): Add new order → Ophthalmology → Pre-op cataract right or left
  12. If you are doing a lens <10, >25, toric lens, or multifocal, complete your calcs and make sure you order the lens by **emailing Evon Miller and Lauri Granger** with your VA email with the date of surgery, patient name, and lens needed... and encrypt it
  13. Put completed paperwork in Monica's room; for H&P, identify additional signers: Bracken, Marcia and Granillo, Monica

### **VERGE for Event Reporting**

1. Click on the "Online Event Reporting" link on the Banner Homepage
2. Choose the appropriate category for your event and click either the icon or the event category name.
3. Page one of the event report will load automatically
  - a. Answer all of the basic information questions
  - b. The description of what happened should be clear and concise
  - c. Click "next" to go to page two
4. Answer the event specific questions on page 2.
5. Click Next
6. Click Save and Submit

Where to find work-related injury forms

Creation Date: 3/10/2015

Last Modified Date: 3/10/2015

Staff Work Related Injury Forms can be located under the BUMCTS employee website. Search for Departments and either the Risk Management or Human Resources/Employee Health Department link for the Work Related Injuries, Illnesses and Exposure forms:

Staff Work Related Injury Accident Report form

Supervisor Accident Investigation form

Report of a Significant Work Exposure to Bodily Fluid form.

**Treatment for Injured Staff Members/Volunteers**

Injured staff members should be referred to Banner UMC Tucson or South Employee Health Department by the supervisor as soon as possible after the accident. The Employee Health nurse will assess the injury and refer the staff member to the designated occupational physician, if necessary. The occupational physician will determine the staff member's work status.

If the staff member's accident occurs after Banner - University Medical Center Employee Health hours (Monday to Friday, 7:30 a.m. - 4:00 p.m.), or South Employee Health hours (Monday to Friday, 8:00 a.m. – 4:30 p.m.), staff members must report to Employee Health the next day that Employee Health is open for normal hours of operation.

Because Banner Health Workers' Compensation program is self-insured, the Arizona Workers' Compensation Employers' statute restricts the injured employee the right to choose his or her own physician if medical services are provided by the employer. If the staff member fails to follow through with the medical services made available by Banner UMCTS, the staff member may be personally responsible for any cost of unauthorized medical care outside of the services made available by Banner Health.

**Main Contact Information** Name: Anna Llamas

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Department: Worker's Comp



<b>TITLE: System Dress Code Policy</b>			
<b>Number: 9512</b>		<b>Version: 9512.3</b>	
<b>Type: Administrative</b>		<b>Author: HR Employee Handbook/Policy Team; Brenda Dietrich, Zsaber Gere</b>	
<b>Effective Date:</b> 2/1/2016	<b>Original Date:</b> 9/18/2008	<b>Approval Date:</b> 9/15/2015	<b>Deactivation Date:</b>
<b>Facility: System</b>			
<b>Population (Define): All Employees</b>			
<b>Replaces:</b>			
<b>Approved by: Administrative Policy Committee, Senior Operations Team</b>			

## Overview

### Purpose

1. To provide dress and grooming standards appropriate to the work environment.
2. To enhance the customers' image of the organization by establishing consistent guidelines for the personal/professional appearance of Staff Members.
3. To communicate to Staff Members that personal appearance and appropriate dress are regarded as important aspects of a Staff Member's overall effectiveness.

### Definitions

Medical Clogs: are clogs with skid-proof bottoms, easily cleaned, and have a strap or safety lip in the back.

Personal Hygiene: Refers to cleanliness, including but not limited to,

- bathing/showering,
- shaving,
- combing of hair, and
- trimming/cleaning of fingernails

Staff Members: Refers to employees, volunteers, students, and contracted staff members.

- Direct Care Givers: Fifty percent (50%) or greater direct patient care responsibilities, **regardless of job title**. Responsibilities include patient centered activities in the presence of the patient and activities that occur away from the patient that are patient related. Examples:
  - Medication administration
  - Treatments

*Continued on next page*

## Overview, Continued

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### Definitions, (continued)

- Rounds
  - Admission, transfer, discharge activities
  - Patient teaching
  - Patient communication
  - Coordination of patient care
  - Documentation time
  - Treatment planning
- Indirect Care Givers: Refers to staff members not delivering direct care to patients (see above).
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## Policy

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### General Policy Statements

1. All Banner Health Staff Members represent the organization through their appearance and actions. It is the responsibility of each Staff Member to be neat, clean, and appropriately attired in the workplace.
  2. It is the responsibility of management to ensure that their Staff Members present a professional appearance that reflects Banner Health's Core Behaviors.
  3. Department and certain job classifications may have more specific dress code requirements for legitimate safety, regulatory and public contact reasons.
  4. Those working in areas with no designated uniform must dress in a professional manner appropriate for their work area.
    - Articles of clothing
      - with Banner's logo may be permitted
      - that advertise or denote logos from healthcare facilities other than Banner are not permitted
  5. Staff Members who wear business attire should comply with the same high standards as those who wear uniforms.
    - Clothing should be neat and clean, and appropriate to the work assignment.
    - Business attire may be worn by Staff Members in designated work units, subject to approval by the unit manager.
    - Business attire for men and women includes, but is not limited to:
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## Policy, Continued

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**General Policy  
Statements,  
(continued)**

- suits,
  - dresses or skirts for women,
  - dress or casual slacks for men and women,
  - blouses for women,
  - shirts with or without ties for men,
  - polo shirts, and
  - shirts with collars for men
6. Staff Members who wear scrubs must comply with Banner's appearance standards listed below.
- Scrubs must be kept neat, clean, free of holes, and are required to be changed when wet or soiled by blood and/or bodily fluid.
  - If a Staff Member's personal scrubs become soiled and need to be changed before the Staff Member's shift is complete, hospital issued scrubs may be obtained from and returned to the linen department.
  - Staff Members who work in an area requiring them to change into hospital issued scrubs are expected to dress appropriately and be aware of their appearance when entering and leaving the facility campus.
7. The facility issued ID badge must be worn on the upper part of the body at all times while on the campus.
- For safety concerns, the use of lanyards is discouraged.
  - The face of the ID badge must remain visible for identification and safety reasons and must not be defaced with stickers, ribbons, or pins so that the face or identifying words are covered.
8. If a Staff Member reports to work improperly dressed or groomed, his/her supervisor may instruct the Staff Member to return home to make appropriate changes.
- Time away to correct their dress/grooming is not considered worked time and may result in counseling or further corrective action in accordance with the Corrective Action policy.
9. Proposed changes by management to the Uniform and Dress Standards must be reviewed in advance by the Operations Integration Council (OIC) by submitting a request through the portal on the Banner Health [employee website](#).

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## Policy, Continued

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**General Policy Statements,**  
(continued)

10. Exceptions to this policy may be made based on a Staff Member's religious beliefs, disability, medical condition, or other compelling reason requiring an exception.
    - For example, a Staff Member undergoing chemotherapy may be permitted to wear a bandana, or a Staff Member with a broken foot may be excused from wearing a shoe.
    - If an exception is requested, the facility HR representative will evaluate.
    - Unless required by law, the facility HR representative shall have no obligation to grant an exception to this policy.
  11. This policy may be suspended on a facility or departmental basis for special events with the approval of the facility CEO.
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## Dress Code/Professional Appearance Standards

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**Uniforms**

1. Staff Members are required to wear the designated uniforms for their areas.
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**Business Attire**

1. Business Attire must fit so that inappropriate exposure does not occur during normal work activities. The following are prohibited:
    - miniskirts,
    - shorts,
    - tank tops/spaghetti straps
      - Tank tops and spaghetti straps are allowed if a coat or jacket is worn over them as the outer garment.
    - spandex,
    - midriff shirts,
    - low slacks
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**Shoes**

1. Shoes are to be worn at all times by all Staff Members.
  2. Shoes must be clean, in good repair, and professional in appearance and appropriate for the work area.
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## Dress Code/Professional Appearance Standards, Continued

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**Shoes,**  
(continued)

3. All Direct Care Givers must wear close-toed shoes with a closed heel or heel strap.
    - Slippers, toe shoes, flip-flops are prohibited.
    - Departments may designate specific safety shoes.
    - Direct Care Givers may wear Medical Clogs.
      - Direct Care Givers may wear athletic shoes, as long as they are clean, and in good repair.
    - Indirect Care Givers are permitted to wear open-toed or sling back shoes provided they are business professional in appearance.
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**Body and Hair**

1. Body and hair cleanliness is mandatory.
  2. Body odor and bad breath which are offensive to others, or which may interfere with the health of a patient are not permitted. This includes heavily scented
    - colognes,
    - perfumes,
    - body lotions, and
    - cigarette smoke odor
  3. Tattoos must not convey a message that is contrary to Banner's ethical standards and must not pose a potential customer relations issue.
    - Visible tattoos that are obscene, lewd, crude, or portray or represent nudity, vice or crime or contain profanity are strictly forbidden.
    - Staff Members are required to cover such tattoos.
  4. Hair must be clean, combed, and neatly trimmed or arranged to conform to the safety requirements of the specific work area.
    - Shaggy, disheveled hair is not permitted regardless of length.
    - Sideburns, moustaches, and beards must be neatly trimmed; a beard hood may be required in certain areas.
    - In keeping with the professionally appropriate attire, eccentric styles of hair and/or unnatural hair colors (yellow, green, pink, purple, etc.) are not permitted.
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## Dress Code/Professional Appearance Standards, Continued

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|-------------------------------|---|
| <b>Jewelry</b>                | <ol style="list-style-type: none"><li>1. Jewelry should not interfere with work performance, the use of appropriate personal protective equipment, or present a safety hazard.<ul style="list-style-type: none"><li>• Direct Care Givers may not wear earrings which dangle more than one inch from the ear lobe. Barbells or chains that stretch between holes and gauges larger than 6 (4.1 mm) are not permitted.</li><li>• Piercings determined to be an infection prevention issue or pose a potential customer relations issue, must be removed or covered.</li></ul></li></ol> |
| <hr/>                         |   |
| <b>Fingernails</b>            | <ol style="list-style-type: none"><li>1. Long or artificial fingernails are prohibited for those Direct Care Givers providing direct patient care or those preparing products for patients. (See Hand Hygiene, Antisepsis, and Artificial Fingernails Policy)</li></ol>   |
| <hr/>                         |   |
| <b>Portable Music Devices</b> | <ol style="list-style-type: none"><li>1. Portable music devices or headsets, unless required to perform the job, are prohibited in Banner hospitals, outpatient clinics, and other clinical settings for Staff Members in the work area during the work shift.</li><li>2. This includes any area where the Staff Member is performing the work tasks.</li><li>3. Staff Members may use these devices during their breaks and meal period.</li></ol>   |
| <hr/>                         |   |
| <b>Headgear</b>               | <ol style="list-style-type: none"><li>1. Bandanas, hats, and caps are prohibited, except where required and/or necessary for completion of job activities.</li></ol>  |
| <hr/>                         |   |
| <b>Meetings</b>               | <ol style="list-style-type: none"><li>1. Staff Members must wear clothing appropriate for the work setting when attending mandatory meetings, classes, and/or in-services for which they are being compensated to attend as described in General Policy Statement #4.</li></ol>   |

## Other Information

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|----------------------|--|
| <b>Documentation</b> | <ol style="list-style-type: none"><li>1. Department Uniform Responsibility Agreement may be required for certain areas.</li><li>2. Who Wears What Document (located on the <a href="#">AZ Region Uniform Program and Dress Code</a> webpage)</li></ol> |
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## Other Information, Continued

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- Other Related Policies / Procedures**
1. Banner Health Core Behaviors
  2. Hand Hygiene, Antisepsis, and Artificial Fingernails (#12584)
  3. Corrective Action Policy (#7647)
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**Keywords**

Professional Appearance  
Dress  
Clothing  
Safety  
Professional Conduct  
Staff Expectation  
HRPolicies

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