

Ophthalmology Surgical Competency Assessment Rubric (OSCAR)

“Ophthalmology Surgical Competency Assessment Rubrics” (OSCARs) are designed to facilitate assessment and teaching of surgical skill. Surgical procedures are broken down to individual steps and each step is graded on a scale of novice, beginner, advanced beginner and competent. A description of the performance necessary to achieve each grade in each step is given. The assessor simply circles the observed performance description at each step of the procedure. The OSCAR should be completed at the end of the case and immediately discussed with the student to provide timely, structured, specific performance feedback. These tools were developed by panels of international experts and are valid assessments of surgical skill.

OSCAR Instructor Directions

1. Observe resident cataract surgery.
2. Ideally, immediately after the case, circle each rubric description box that you observed. Some people like to let the resident circle the box on their own first. If the case is videotaped, it can be reviewed and scored later but this delays more effective prompt feedback.
3. Record any relevant comments not covered by the rubric.
4. Review the results with the resident.
5. Develop a plan for improvement (e.g. wet lab practice/tips for immediate next case).

Suggestions:

- If previous cases have been done, review OSCAR data to note areas needing improvement.
- If different instructors will be grading the same residents, it would be good that before starting using the tool they grade together several surgeries from recordings, so they make sure they are all grading in the same way.

Ophthalmology Surgical Competency Assessment Rubric: Panretinal Photocoagulation (OSCAR: PRP)

Date _____
 Resident _____
 Evaluator _____

	Nr.	Competencies	Novice (Score* = 2)	Beginner (Score = 3)	Advanced Beginner (Score = 4)	Competent (Score = 5)	Not Applicable / Done by Preceptor (Score = 0)
Laser safety and procedure preparation	1	Laser radiation safety	No safety sign posted or indicator turned on.	Laser radiation safety sign posted or indicator light turned with prompting.	Inconsistently posts laser radiation safety sign or indicator light turned on without prompting.	Consistently posts without prompting laser radiation safety sign or turns on indicator light	
	2	Safety goggle choice	Does not offer goggles to bystanders (observers and assistants)	Offers goggles to observers and assistants, but may need prompting and may not know the appropriate goggle for the specific laser wavelength	Can identify the correct goggle wavelength to use but inconsistently offers goggles to all bystanders (observers and assistants).	Can identify the correct goggle wavelength to use and consistently offers goggles to all bystanders (observers and assistants).	
	3	Lens choice	Cannot choose appropriate lens.	Chooses appropriate lens with prompting or guidance	Is unable to choose other lenses in different circumstances or in mid treatment.	Changes lenses mid treatment depending on circumstances	
	4	Contact lens preparation	Does not choose a coupling agent.	Applies a coupling agent, but will get numerous bubbles in the well.	Can use a variety of coupling agents with minimal bubbles in the well	Places coupling agent in the well with minimal to no bubbles and does not lose any during transfer to the eye.	
Laser procedure	5	Site verification	Shows unawareness of site verification.	Verifies laterality but does not mark the eye.	Verifies correct eye and marks properly most of the time.	Verifies correct eye and marks properly every time.	
	6	Anesthesia	Does not instill anesthetic drop.	Inconsistently instills anesthetic drop or ensures eye is numb if significant time has passed with prompting.	Consistently ensures eye is numb and reapplies anesthetic as needed.	Offers alternatives such as peribulbar or retrobulbar anesthesia or oral medications as needed	
	7	Contact lens placement	Has multiple unsuccessful attempts at positioning contact lens on the eye; often causes corneal abrasions or loses coupling agent.	Places contact lens on eyes with large palpebral fissures or floppy eyelids without difficulty, but may have significant air bubbles; occasionally may cause a corneal abrasion or lose coupling agent.	Places contact lens on eyes in setting of some eyelid squeezing or a moderately small palpebral fissure. Removes air bubbles by tilting lens, massage, or putting pressure on the eye	Does not lose coupling agent during transfer to an eye with strong squeezing reflex or small palpebral fissure	
	8	Laser spot size	Is unsure of lens magnification and does not adjust laser spot size for chosen lens	Aware of varying lens magnifications but needs assistance to adjust laser spot size for chosen lens	Rarely needs assistance to achieve 400- to 500-mcm final spot size with 3-mirror lens (500 mcm) or wide-field lens (200- to 300-mcm setting).	No difficulty adjusting the laser spot size if lens magnification changes mid-treatment	
	9	Power setting	Is unsure of appropriate initial power settings and how or when to adjust. Does not know the unit of power.	Knows the unit of power and starts at 100 mW, but does not know to titrate power in small increments to achieve a grey-white burn.	Knows how to change the energy setting on the laser and starts at 100 mW and slowly titrates up the energy in small increments to achieve a grey-white burn with some hesitation.	Starts at 100 mW and knows how to titrate energy level to achieve a grey-white burn based on clarity of ocular media and fundus pigmentation without hesitation. No difficulty retitrating the laser energy if lens magnification changes mid treatment.	
	10	Exposure setting	Cannot change the laser exposure setting on the laser and does not know unit for exposure.	Can change the laser exposure on the laser and starts between 100 and 200 ms.	Can change the laser exposure and starts between 100 and 200 ms, and knows when to adjust up or down with hesitation.	Starts with 100- to 200-ms laser exposure and increases or decreases without hesitation while adjusting laser power for optimal burn intensity	
	11	Laser testing	Does not know first to test the laser spot size, energy, and duration outside the vessel arcade.	Tests laser spot outside arcade, knowing the correct retina response. Some spots will be too hot and too light and does not know how to adjust based on fundus pigmentation.	Tests laser spot outside arcade, increasing energy by 20-50 mW increments until grey-white burn intensity with hesitation.	Tests laser spot outside arcade, increasing energy by 20-50 mW increments until grey-white burn intensity without hesitation.	
	12	Laser spot placement and distribution	Does not know correct laser spacing or where to place the laser spots. Spots are placed irregularly and shaped elliptically because of poor position of the contact lens.	Irregularly placed spots, may hit blood vessels, and does not spare the ciliary nerves at 3 and 9 o'clock. Most spots are round and not elliptical.	Outlines the major arcade vessels with laser spots one-half burn width apart, avoids the 3- and 9-o'clock ciliary nerves. Does not avoid traction detachments and fibrosis and does not stay 1 to 2 disc diameters away from the optic nerve.	Outlines the major arcade vessels with laser spots one-half burn width apart and avoids 3- and 9-o'clock ciliary nerves. Avoids traction detachments and fibrosis. Stays 1 to 2 disc diameters away from the optic nerve	
	13	Adequate laser spot coverage	Does not know what is adequate coverage or when to stop.	Has random placement of laser scars 360° without proper attention to one hemisphere or area of retina with advanced pathologic features	Treats half of the retina with minimum skip areas and aims for 600 to 1200 spots per hemisphere. Starts with inferior hemisphere first in case of subsequent vitreous hemorrhage	Treats half of the retina evenly distributing 600 to 1200 spots per hemisphere. Treats inferior hemisphere first in case of subsequent vitreous hemorrhage. May have a complete session except for situations of poor media and vitreous hemorrhage.	
Considerations after laser treatment	14	Lens cleaning	Does not know to clean lens.	Cleans lens with prompting.	Inconsistently cleans lenses after use without prompting.	Consistently cleans lenses after use.	
	15	Medications after laser treatment	Does not ask patient about headache or eye pain.	Asks about headache or eye pain, but does not prescribe analgesics	Sometimes prescribes analgesics if patient reports headache or eye pain.	Always asks and prescribes analgesics if patient reports headache or eye pain.	

	16	Check cornea for erosions	Does not check cornea for erosions.	Sometimes checks cornea for erosions.	Always checks cornea for erosions.	Always checks cornea for erosions and manages as needed	
Global indices	17	Maintaining laser focus	Does not adjust focus of laser on the retina or attempt to adjust focus with beam on the fovea.	Moves the laser beam away from the fovea to adjust focus. Can focus easily through a 6-mm pupil and through no media opacities away from the fovea. Loses plane of focus while moving laser to neighboring retina. Will have hot and light burns throughout retina	Can often focus on the retina and focus the aiming beam through a 5-millimeter pupil and a mild cataract away from the fovea. Loses plane of focus while moving laser to neighboring retina but is able to adjust accordingly to keep retina focused. Will have more consistent grey-white burns throughout.	Can always focus the beam through a moderate cataract and a 5-mm pupil away from the fovea. Will have even grey-white burns regardless of media and fundus pigmentation	
	18	Continuous laser settings adjustment	Does not adjust laser settings to accommodate ocular media opacity, fundus pigmentation, peripheral placement, or pain	Sometimes increases laser power to accommodate media opacity or blonde fundus pigmentation. Sometimes decreases laser power for pain or peripheral retina.	Always increases laser power to accommodate media opacity or blonde fundus pigmentation. Always decreases laser power for pain or peripheral retina	Fluidly adjusts spot size, power, and exposure based on status of the patient's lens and fundus pigmentation, peripheral location, and response to pain.	
	19	Continuous contact lens adjustment	Does not recognize when the view is poor because of bubbles on contact lens	Attempts to laser through bubbles on contact lens surface, which prevents good view to the retina	Tilts the lens or massages and puts pressure on the eye to migrate the bubbles to the side	Tilts the lens or massages and puts pressure on the eye to migrate the bubbles to the side. Asks patient to move eye to either side gently and follows with contact lens to increase peripheral view for laser.	
	20	Maintaining fluid movements when moving to next retina section and verification of fovea	Has difficulty moving laser slit lamp and joystick to proceed to next retina section. Cannot verify direction of fovea in relation to current laser region in periphery	Uses large movements when moving to next retina section and has moderate difficulty with making adjustments efficiently. Needs prompting to verify direction of fovea in relation to current laser region in periphery using cardinal directions (north, south, east, west)	Uses smaller movements when moving to next retina section and seems more coordinated with joystick adjustment. Has some difficulty verifying direction of fovea in relation to current laser region in periphery using cardinal directions (north, south, east, west)	Movements coordinated when moving to next retina section and can adjust joystick fluidly to the next retina section. Accurately and consistently verifies direction of fovea in relation to current laser region in periphery using cardinal directions (north, south, east, west)	

* Maximal score: 100 (100% competent)

Source: Law JC, Golnik K, Cherney EF, Arevalo JF. The Ophthalmology Surgical Competency Assessment Rubric for Panretinal Photocoagulation. Ophthalmology Retina. 2017;2(2). doi:10.1016/j.oret.2017.06.002; Reformatted by A. Vurdaft, 07.12.2025