

Instructions: Use one form per trainee. For each competency, allocate a score to the trainee's level of execution of said skill:

Novice (Score = 2), Beginner (Score = 3), Advanced (Score 4), and Competent (Score = 5)

Each skill/competency has notes on what each level should be able to demonstrate.

Please complete this form once at the beginning and once again at the end of their training and email to **Jinexa Rivera**, Jinexa.Rivera@orbis.org

Competency Assessment for Orbis Pediatric Glaucoma Training (Surgical) Based and Modified from Ophthalmic Simulated Surgical Competency Assessment Rubric –Trabeculectomy with MMC (fornix-based flap, releasable sutures)					
Date _____	Novice (score = 2)	Beginner (score = 3)	Advanced Beginner (score = 4)	Competent (score = 5)	Not applicable Done by preceptor (score = 0)
Resident _____					
Evaluator _____					
Goniotomy					
Surgeon's position, pt.'s head position and microscope position	Need to instruct where to sit and how to position the pt.'s head and microscope	Sits temporal to pt.'s head but hesitates to adjust the direction of pt.'s head and position of microscope	Sits temporal to the eye and position pt.'s head away from the surgeon and microscope properly to view nasal angle.	Trainee position correctly during surgery, including the microscope and gives instructions to assistant what to do.	
Handling of instruments	Need to instruct how to hold goniolens to view nasal/temporal angle.	Can hold goniolens but hesitates to move to visualize a different angle.	Able to handle goniolens and to visualize angles correctly.	Able to handle goniolens to visualize angles correctly and able to instruct assistant how to move patient's head and position globe.	
Entrance to AC	Unable to enter AC with 25g needle syringe for paracentesis.	Able to enter AC with 25g needle syringe but with hesitation.	Able to perform paracentesis. Holds the 25g needle bevel up and air free syringe.	Holds the 25g needle and syringe correctly and able to perform paracentesis with ease.	
Identification and approach to angle structures	Unable to identify and approach angle structures	Able to identify but hesitates to approach angle structures	Can identify and approach angle structures. Can perform short sweeps anterior border of trabecular	Can identify and approach angle structures. Can perform short sweeps of needle in one direction with ease.	

			meshwork with 25 g needle in one direction.		
Maintaining AC and withdrawal of 25g needle syringe from AC	Unable to maintain AC and cannot remove/need to instruct how to remove 25g needle in AC	Able to maintain AC but unable to withdraw 25g needle syringe from AC	Maintains AC with viscoelastic gel / water and can withdraw 25g needle syringe properly from AC	Maintains AC with viscoelastic gel / water and can withdraw 25g needle syringe properly from AC with ease. Can handle difficult cases.	
Trabeculotomy					
Scleral flap	Unable to make scleral flap	Able to make scleral flap but with hesitation	Performs scleral flap comfortably	Able to perform scleral flap with ease and can handle difficult cases	
Identification of Schlemm's canal	Unable to identify Schlemm's canal	Need guidance to identify Schlemm's canal	Can easily identify Schlemm's canal	Can easily identify Schlemm's canal and associate other angle structures.	
Use of trabeculotome	Unable to insert and rotate trabeculotome	Able to insert and remove trabeculotome but with hesitation	Can insert and remove trabeculotome with ease. Able to perform trabeculotomy	Can insert and remove trabeculotome with ease. Able to perform trabeculotomy	
Trabeculectomy					
Conjunctival incision & Tenon's dissection	Not able to perform limbal conjunctival incision, clumsy dissection, conjunctival 'buttonholes'	Is able to perform limbal conjunctival incisions, and Tenon's dissection safely, but is inefficient/poor tissue handling.	Is able to efficiently perform limbal conjunctival incision, and Tenon's dissection with good tissue handling.	Is able to efficiently perform limbal conjunctival incision, and Tenon's dissection with good tissue handling. Can identify abnormal findings and handle complicated situations during surgery.	
Haemostasis using bipolar cautery	Unable to efficiently achieve haemostasis and/or very excessive use of cautery.	Is able to achieve haemostasis, but is inefficient/excessive cautery.	Is able to efficiently and precisely achieve haemostasis, with sufficient, but not excessive use of cautery.	Is able to efficiently and precisely achieve haemostasis, with sufficient, but not excessive use of cautery.	

Safe use of mitomycin C (MMC)	Unable to perform basic steps of safe use of MMC: not decisive in placing sponge(s), failure to avoid drips, touching conjunctival edges with sponge, failure to time MMC exposure, or failure to remove sponge without touching conjunctival wound edges. Failure to irrigate wound with BSS after MMC sponge removed.	Is able to perform basic MMC placement and removal, but is inefficient and/or occasionally touches conjunctival wound edges and/or failure to time exposure and/or failure to irrigate wound promptly and vigorously.	Is able to efficiently place, and remove MMC sponge, without touching conjunctival edges, accurate timing of exposure, rapid and copious irrigation of wound after removing MMC sponge. No MMC drips on eye.	Is able to efficiently place, and remove MMC sponge, without touching conjunctival edges, accurate timing of exposure, rapid and copious irrigation of wound after removing MMC sponge. No MMC drips on eye. Able to handle complicated situations during surgery.	
Scleral incision and paracentesis (with corneal grooves to allow buried releasable sutures)	Hesitant/multiple attempts required to make scleral partial thickness incision and/or paracentesis. Inaccurate placement /inadequate depth of scleral incision. Damage to iris/lens from paracentesis incision. Corneal grooves inaccurately placed/too deep.	Scleral partial thickness incision and/or paracentesis efficiently performed, though hesitant, in correct position, without inadvertent injury to iris/lens. Inaccurate/inadequate depth of scleral incision. Corneal grooves accurately placed.	Scleral partial thickness incision and/ paracentesis efficiently performed, in correct position, without inadvertent injury to iris/lens. Correct depth of scleral incision. Corneal grooves accurately placed, correct depth.	Scleral partial thickness incision and/ paracentesis efficiently performed, in correct position, without inadvertent injury to iris/lens. Correct depth of scleral incision. Corneal grooves accurately placed, correct depth. Able to handle complicated situations during surgery.	
Formation of scleral flap	Unable to form a scleral flap safely without unintended changes in thickness of flap/risk of overly thin flap/risk of entering AC too posteriorly	Able to form a scleral flap safely without unintended changes in thickness of flap/risk of overly thin flap/risk of entering AC too posteriorly, but	Able to form a scleral flap safely without unintended changes in thickness of flap/risk of overly thin flap/risk of entering AC too posteriorly, efficiently.	Able to form a scleral flap safely without unintended changes in thickness of flap/risk of overly thin flap/risk of entering AC too posteriorly, efficiently. Can	

		hesitant, and not efficient.		handle challenging situations during surgery.	
Full thickness corneal incision into anterior chamber (AC) and formation of sclerostomy with punch	Unable to efficiently enter AC, unable to insert punch to perform sclerostomy.	Able to perform a full-thickness corneal incision, though hesitant, able to use punch to form sclerostomy, though hesitant, with multiple attempts	Able to make full-thickness corneal incision into AC efficiently, and at first attempt. Able to use punch efficiently to form a full-thickness sclerostomy.	Able to make full-thickness corneal incision into AC efficiently, and at first attempt. Able to use punch efficiently to form a full-thickness sclerostomy. Can handle unexpected situation during surgery.	
Peripheral iridectomy	Unable to retract iris and perform full-thickness iridectomy.	Able to retract iris, but unable to complete full-thickness iridectomy	Able to retract iris, perform full-thickness iridectomy efficiently, and first attempt on most occasions.	Able to retract iris, perform full-thickness iridectomy efficiently, and first attempt on most occasions. Can handle difficult surgical cases.	
Placement of (temporary) flap sutures	Is unable to place and tie scleral flap sutures.	Is able to eventually place and tie flap sutures, but inefficient/multiple attempts.Failure to reform AC.	Is able to efficiently place and tie scleral flap sutures. Prompt, efficient reformation of AC via paracentesis, digital estimation of IOP to ensure not too high.	Is able to efficiently place and tie scleral flap sutures. Prompt, efficient reformation of AC via paracentesis, digital estimation of IOP to ensure not too high.Can handle difficult situations during surgery.	
Placement of releasable scleral flap sutures	Is unable to place and tie releasable scleral flap sutures.	Is able to eventually place and tie flap releasable sutures, cut and remove temporary flap sutures, but inefficient/multiple attempts, and corneal loops not buried in cornea.	Is able to efficiently place and tie scleral releasable flap sutures, cut and remove temporary flap sutures, with corneal loops of releasable sutures fully buried in cornea via corneal grooves.	Is able to efficiently place and tie scleral releasable flap sutures, cut and remove temporary flap sutures, with corneal loops of releasable sutures fully buried in cornea via corneal grooves.	

Reformation of AC using BSS via paracentesis, titration of IOP to ensure watertight scleral flap, but IOP not excessively high.	Failure to reform AC, because of too loose, poorly placed releasable sutures. Failure to tighten releasable sutures adequately.	AC successfully reformed, but failure to render scleral flap watertight and/or failure to appreciate that IOP too high (via digital IOP estimation), and need to release IOP via paracentesis.	AC efficiently reformed, scleral flap confirmed to be watertight efficiently, IOP not excessive (efficient estimation of IOP via digital pressure), but if so, IOP reduced via efficient release of aqueous via paracentesis.	AC efficiently reformed, scleral flap confirmed to be watertight efficiently, IOP not excessive (efficient estimation of IOP via digital pressure), but if so, IOP reduced via efficient release of aqueous via paracentesis.	
Conjunctival suturing	Unable to use 10-0 nylon to close conjunctiva.	Able to eventually close conjunctiva using 10-0 nylon, but inefficient/multiple attempts/knots not buried and/or suture ends not cut sufficiently short.	Able to close conjunctiva accurately and efficiently, with high likelihood of watertight closure, knots all buried/no protruding suture ends.	Able to close conjunctiva accurately and efficiently, with high likelihood of watertight closure, knots all buried/no protruding suture ends.	
Final IOP check using digital IOP estimation, sub-conjunctival injection of antibiotic/steroid avoiding sub-conjunctival hemorrhage.	Unable to digitally estimate IOP/recognize hypotony/flat AC. Unable to automatically administer sub-conjunctival injection.	Able to estimate IOP digitally, but unable to safely deliver sub-conjunctival injection without risk of significant sub-conjunctival hemorrhage.	Able to efficiently and accurately estimate final IOP digitally, to understand need to adjust releasable sutures if IOP too low, able to administer sub-conjunctival injection automatically.	Able to efficiently and accurately estimate final IOP digitally, to understand need to adjust releasable sutures if IOP too low, able to administer sub-conjunctival injection automatically. Can detect and correct abnormal results during surgery.	
Tube Shunt Implant					
Conjunctival incision	Unable to perform conjunctival incision	Can perform conjunctival incision but with hesitation	Able to perform conjunctival incision with ease.	Can easily perform conjunctival incision properly.	

Expose quadrant	Unable to perform exposure of supero temporal quadrant.	Can perform exposure of supero temporal quadrant but hesitant in dissecting conjunctiva and Tenon's capsule.	Able to perform exposure of supero temporal quadrant with delicate dissection of Tenon's capsule.	Able to perform exposure of supero temporal quadrant with delicate dissection of Tenon's capsule. Can handle complications during surgery.	
Placing of tube shunt implant	Unable to place tube shunt implant.	Can insert but hesitant to place tube shunt implant.	Able to place and secure tube shunt implant with 9-0 nylon suture to globe. Trim tube, bevel-up, and placed correctly.	Able to place and secure tube implant with 9-0 nylon suture to globe. Trim tube, bevel-up and placed correctly. Can handle complications in inserting tube implant.	
Scleral, corneal, pericardium to patch, cover the implant	Unable to suture scleral/corneal/pericardium to cover the implant.	Hesitant to suture sclera/cornea/pericardium to cover implant.	Can suture sclera/cornea/pericardium to cover implant.	Can suture sclera/cornea/pericardium to cover implant. Able to suture difficult cases.	
Occlude tube & closing of conjunctiva	Unable to occlude tube and close conjunctiva.	Able to close the conjunctiva but hesitant to occlude tube.	Able to occlude tube through ligature or stent with 6-0 Vicryl suture and close conjunctiva with 9-0 Vicryl.	Comfortable occlude tube and close conjunctiva easily and properly.	
Global Indices					
Tissue handling	Tissue handling is often unsafe with inadvertent damage, or excessively aggressive or timid.	Tissue handling is safe but sometimes requires multiple attempts to achieve desired manipulation of tissue.	Tissue handling is efficient, fluid and almost always achieves desired tissue manipulation on first attempt.		
Technique of holding suture needle in needle holder	Loads needle in proper direction for a forehand pass but sometimes loads incorrectly for backhand pass. Loads too close or	Loads needle properly for forehand and backhand needle pass but is inefficient and often requires multiple	Loads needle properly and efficiently for forehand and backhand needle passes.		

	too far from the swaged end of the needle.	attempts.			
Technique of surgical knot tying	Require multiple extra hand maneuvers to make first throw lay flat and/or loosens first throw while attempting to perform the second throw.	Is able to tie a flat surgeon's knot first throw but second and third throws are inefficient. Does not inadvertently loosen the first throw.	Is able to efficiently tie a flat, square surgeon's knot.		

Overall Difficulty of Procedure: Simple Intermediate Difficult

Good Points:

Suggestions for development:

Agreed action:

Signature of assessor _____

Signature of trainee _____