

Trainee: _____

Evaluator: _____

Date _____

Ophthalmic Simulated Surgical Competency Assessment Rubric – Trabeculectomy with MMC (fornix-based flap, releasable sutures)

		Novice (score = 0)	Advanced Beginner (score = 1)	Competent (score = 2)	Score (Not done score = 0)
1	Globe positioning: corneal traction suture	Unable to perform corneal traction suture placement.	Is able to perform corneal traction suture with hesitation or multiple attempts and is able to tape suture to ensure correct globe positioning.	Is able to perform corneal traction suture placement with ease at one attempt, and is able to tape suture efficiently to ensure correct globe positioning.	
2	Conjunctival incision & Tenon's dissection	Not able to perform limbal conjunctival incision/clumsy dissection/conjunctival 'buttonholes'.	Is able to perform limbal conjunctival incisions, and tenons dissection safely, but is inefficient/poor tissue handling.	Is able to efficiently perform limbal conjunctival incision, and tenons dissection with good tissue handling.	
3	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.	
4	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.	
5	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.	
6	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 hesitant, and not efficient.	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.	

7	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.	
8	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.	
9	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.	
10	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	
11	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.	
12	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.	
13	Final IOP check using digital IOP estimation, sub-conjunctival injection of antibiotic/steroid avoiding sub-conjunctival haemorrhage.	Unable to digitally estimate IOP/recognise hypotony/flat AC. Unable to atraumatically administer sub-conjunctival injection.	Able to estimate IOP digitally, but unable to safely deliver sub-conjunctival injection without risk of significant sub-conjunctival haemorrhage. Or, visa versa.	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 atraumatically.	

	Global Indices				
14	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.	
15	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 too far from the swaged end of the needle.	Loads needle properly for forehand and backhand needle pass but is inefficient and often requires multiple attempts.	Loads needle properly and efficiently for forehand and backhand needle passes.	
16	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 _____