

Table

ICO-Ophthalmology Surgical Competency Assessment Rubric: Lateral Tarsal Strip (ICO-OSCAR:LTS)

Date _____ Resident _____ Evaluator _____		Novice (score = 2)	Beginner (score = 3)	Advanced Beginner (score = 4)	Competent (score = 5)	Not applicable. Done by preceptor score= 0
1	Local anesthetic administration: location & volume	Inappropriate amount. Anaesthetic too deep or too superficial (i.e. scraping bone or periosteum or blanching). Wrong location leading to pain later in the procedure.	Excessive amount of anaesthesia, causing chemosis and interfering with dissection or insufficient amount/suboptimal placement.	Appropriate amount of anaesthetic applied in near optimal locations. Does not interfere with completion of case.	Infiltration of local anesthetic (with epinephrine) extending from the lateral canthal angle down to the orbital rim periosteum avoiding larger vessels. Sufficient volume to deliver analgesia and assist hemostasis without inducing chemosis.	
2	Preparation & Draping: clear surgical field	Inadequate drape position. Hair sticking out. Poorly wrapped so unravels during procedure. Drape interfering with surgical access. Sudden, direct focusing of overhead lamp on patient's face	Drapes placed adequately, but exposure is not optimal and drapes become loose during the procedure. Light not angled optimally.	Drapes placed adequately but exposure is not optimal. Light angled appropriately.	Good access to the lateral canthus and lateral orbital rim. Light angled from above patient's head, allowing gradual adjustment to brightness. Face exposed from hairline to below nose to allow comparison of right and left canthal positions during surgery.	
3	Incision: Location, Length, direction, Orientation	Poorly constructed incision. Too short/long or against relaxed skin tension line. Inappropriate depth. Anatomy not appropriately exposed.	Incision is too long with poor respect for relaxed skin tension line.	Incision is small, but surgeon realizes and lengthens it. Incision follows relaxed skin tension line.	Incision extending from the canthal angle approximately 5-10mm laterally along the relaxed skin tension line to expose the orbital rim.	
4	LTS Preparation: Releasing lid attachments	Poor hemostasis throughout procedure complicating dissection view. Inadequate release of inferior crux/failure to adequately identify and expose the tendon. Loss of plane of dissection.	Incomplete release of inferior crux. Has to revise this step later in procedure after being instructed. Some difficulty with hemostasis.	Incomplete release of inferior crux. Realizes mistake without instruction and revises later in procedure. Hemostasis is adequate.	Identification and release of the inferior crux of the lateral canthal tendon with minimal dissection ensuring complete release of the lower lid from orbital periosteum. Hemostasis achieved to ensure visualization of structures.	
5	LTS Preparation: Fashioning the tarsal strip	Poor comprehension of anatomical goals. Strip too short (causing undesirable tension/not reaching periosteum). Poor clearance of conjunctiva/muscle/lashes off strip.	Excessive removal of tissue. Strip is thin, making it difficult to place anchoring sutures.	Strip is thin, but still holds sutures adequately.	Strip size is appropriate with correct clearance of skin and tarsal conjunctiva. Inferior retractors and conjunctiva dissected from the inferior tarsal margin. Grey line split with release of the posterior lamella.	
6	Dissection: Creating access to orbital rim	Periosteum not adequately exposed. Poor dissection technique causing collateral damage to tissue including periosteum. Excessive bleeding.	Orbicularis muscle overlying periosteum. Difficult access to site of fixation. Unable to manage orbital fat prolapsing into surgical field.	Excessive dissection leading to some orbital fat prolapse. Adequately constricts fat with bipolar cautery.	Lateral orbital periosteum exposed around the tendon attachment site. Dissection allows easy access and visualization of the inner aspect of the lateral orbital rim.	

7	Suturing: Tarsal strip sutured to periosteum on inner orbital rim	Poorly placed sutures on strip failing to anchor strip adequately. Failure to secure two firm bites, bites not parallel/in the same plane resulting in asymmetrical tension/rotation of strip. Great difficulty in anchoring periosteal suture - needle bent or tissue torn.	Sutures are placed adequately after multiple attempts with inadequate purchase of orbital periosteum.	Sutures are passed on the second attempt. Adequate periosteal fixation.	Uses appropriate suture material. Suture passed through tarsal strip so as to ensure good apposition to the periosteum once plicated. Suture placed inside the orbital rim periosteum to ensure good apposition to the globe.	
8	Suturing: Lid height & position	Asymmetry of the two lateral canthi and/or failure to account for contralateral canthal height. Over tightening/poorly secured lateral periosteal suture resulting in medialization/drag of lateral canthus. Lateral canthus placed/reformed too low at same or lower height than medial canthus.	Mild asymmetry of canthal height or inaccurate estimation of required canthal height. Excessive/insufficient tension.	Accurate estimation of required canthal height. Excessive/insufficient tension.	Desired lid height and position are achieved. Strip reattached securely to the periosteum with sufficient tension. Suture tied in such a position to avoid palpable knot at the orbital rim postoperatively.	
9	Suturing: canthus, muscle & skin closure	Failure to reform lateral canthus. Poor suture technique and or result - difficulty mounting sutures, multiple attempts at placement, alignment of sutures poor.	Canthal angle is misaligned. Inadequate wound closure or inappropriate orbicularis excision.	Canthal angle is roughly in place but not perfectly aligned. Realizes mistake and corrects it.	Lateral canthal angle reformed with or without an absorbable suture. Orbicularis preserved and plicated superiorly to the orbital rim periosteum to support the lower lid. Excess skin trimmed and skin closed without undue tension on the wound.	
	Global Indices					
10	Maintaining haemostasis	Poor anatomical knowledge of vasculature. Incorrect settings or usage of electrocautery resulting in burns, collateral damage or failure to adequately achieve haemostasis.	Has trouble identifying source of bleeding. Cautery is applied to the area instead of the point of bleeding.	Hemostasis is good overall, but has trouble managing larger bleeders.	Electrocautery used effectively to achieve hemostasis during each step of the procedure allowing for clear visualization of anatomy.	
11	Adequate tissue visualization	Failure to adhere to surgical planes. Failure to expose tissue appropriately during dissection.	Unable to consistently attain good surgical exposure. Corrects mistake(s) with instruction.	Reasonable surgical exposure but not respecting surgical planes consistently. Realizes mistakes and attempts to correct.	Sufficient incision size, hemostasis and retraction to allow for consistently good tissue exposure.	
12	Respect of tissue/tissue handling	Repeated unnecessary handling of tissue. Crush injuries through inappropriate use of forceps. Damage to tissue by repeated placement of sutures.	Some unnecessary tissue handling and mild tissue damage occurs.	Minimal unnecessary tissue handling without tissue damage.	Good knowledge of the regional anatomy with efficient manipulation of tissues and minimal dissection required to create and plicate the strip. Demonstrated spatial awareness within the surgical field.	
13	Knowledge of instruments	Poor or no knowledge of instruments. Inappropriate combinations of suture	Occasionally uses inappropriate instrument and doesn't realize it.	Occasionally uses an inappropriate instrument but	Appropriate instruments used throughout case.	

		holders, scissors and forceps resulting in unsafe surgery or collateral damage.		realizes mistake and corrects it.		
14	Suture needle mounting technique	Great difficulty in mounting suture requiring multiple attempts. Suture needle not placed in the correct position on the needle holder. Damage to needle/blunting of tip/needle bent.	Able to mount suture but at incorrect location. Poor needle stability within the needle holder.	Able to mount and position needle on the needle holder but still allows for rotation and instability of the needle.	Semi-circular needle mounted two thirds along its length on the needle holder allowing for a firm grasp of the needle without allowing for needle rotation whilst held.	
15	Speed & efficiency of movements	Repeated unnecessary movements. Slow and hesitant. Multiple attempts at same maneuver. Poorly positioned hands and/or body posture to aid with procedure.	Several inefficient movements requiring instruction.	Minimal unnecessary movements but some hesitation.	Purposeful and efficient dissection and suturing. Surgical time of less than 45 minutes per side.	
16	Overall flow of procedure	Poor forward planning. Lacking in fluency. Hesitant. Multiple repeated tasks.	Stops & starts throughout procedure.	Reasonable flow but occasionally indecisive or hesitant.	Structured and logical sequence to the procedure with decisive movements and no hesitation.	
17	Communication with patient & surgical team	Unsure or uncommunicative with either patient or surgical team resulting in poor responsiveness to surgical needs.	Inconsistent communication with patient or surgical team.	Communicates with the patient and surgical team consistently but not always clear or unambiguous.	Clear and unambiguous communication with the patient and staff during the procedure to ensure a coordinated and efficient procedure.	

Comments
