Transitioning from Dentistry to Maxillofacial Surgery Management of Facial Lacerations

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Overview:
After completion of Dental Foundation Training, many dentists return to secondary care to carry out their Dental Core Training. Oral and Maxillofacial Surgery is a specialty within both medicine and dentistry. The transition from general dental practice to a facial surgery unit is very daunting for many dentists, typically working within the mouth and not on the face.
This poster aims to help shed some light on management of simple facial lacerations for dentists starting work in Maxillofacial surgery.

What do we need to know?

History and Examination:

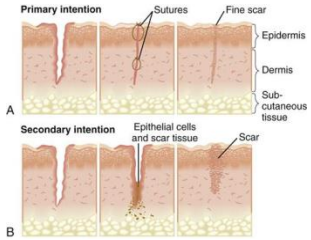
Patient Information – H+C/Contact Details
HPC – Date of injury/exam/Mechanism/LOC/Vomiting/Witnesses
PMH – Including allergies and tetanus history
SH – Smoking/Alcohol/Living arrangements
E/O exam – Facial Bones (don't miss a fracture)/Location of laceration/Parotid involvement/Paraesthesia/Movement
I/O exam – Communication intra-orally/Dentition/Parotid Duct/Bruising/Haematoma
Other Injuries – Second survey - don't miss something elsewhere
Drawing of injury – Good for description of size and shape of laceration
Management Plan – Glue/Steri-strip/Suture/Call a senior

Initial Management

Lighting – Ensure a good quality light is available
Local Anaesthetic – Lidocaine/Articaine with adrenaline. Give through the laceration (less painful). If possible give a block (infra-orbital or mental etc with lidocaine) to avoid tissue distension - very useful with vermillion border.
Clean Thoroughly – Use saline/CHX/prep to help throughly clean the wound. This will help you see better and reduce risk of post op infection.
Remove foreign bodies – Part of your cleaning process, but can cause tattooing within the dermis – a scrub brush works well.
Mark Anatomy – A skin pen can be used to mark reference points to help your closure.
Laceration Assessment – Assess the depth, shape, visible layers, anatomical structures visible, tissue loss – Plan before you start.
Drape Patient – This will keep the field clean as you work.
Suture Selection – Deep layers will require a absorbable suture such as an undyed 4/0 vicryl. For superficial sutures a non-absorbable monofilament suture is needed, such as a 5/0 or 6/0 prolene or ethilon suture.

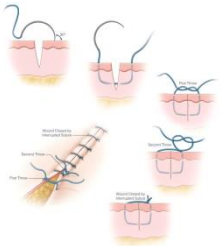
Wound Healing

- Ideally wound healing occurs via primary intention. It typically occurs in four stages: haemostasis, inflammation, proliferation, and remodelling.
- Wounds contract over time. You need to evert wound edges to prevent depressions and widening of scar.
- Your sutures should be tension free for optimal healing.



Suturing

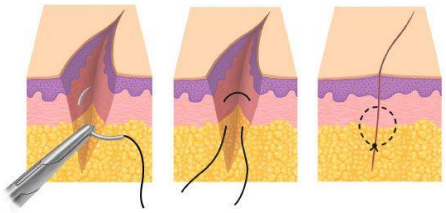
Simple Interrupted (Out to In - In to Out) Key Points –
Enter at 90 degrees roughly 4mm from wound margin. Rotate needle and let it do the work. Take bites of equal depth both sides. Tie surgeons knot (2-1-1) ensuring the knot is flat with each throw. Tie knot to one side of laceration – not over it.



Surgeon's knot: twice round the needle holders on the first throw, once on the second (and subsequent throw/s).

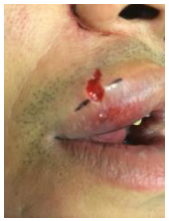
Suturing

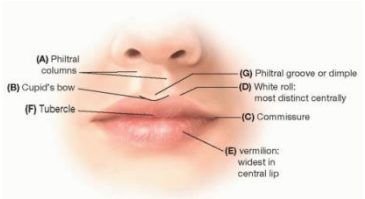
Deep (Buried) Knots (Deep - Superficial – Superficial – Deep)
Used to close tissue layers. Suture enters deep aspect of laceration and comes out superficially on the same side. Enter opposing side superficially and exit tissue deep. When knot is tied it will be buried within the laceration.



Vermillion Border

- Common OMFS referral
- LA block to avoid tissue distension/anatomy loss
- Once cleaned use fine tip marker to mark vermillion border
- Close deep layers to reduce tension on skin
- Take great care to approximate vermillion border – even 1mm off will be noticeable
- Use non-absorbable sutures such as 6/0 prolene
- If patient has facial hair cut the sutures long to ease removal



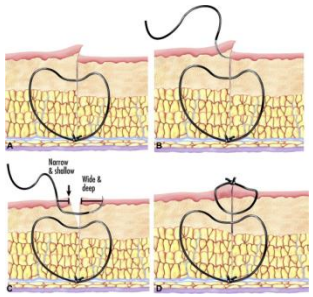


Uneven Edge Heights

The edges of your laceration may be at different heights, or you may have made this artificially when closing your deeper layers.

Management:

- If it is clearly caused by a poor quality suture – just remove it and redo it.
- Take a deeper bite of the lower level and a more superficial bite of the higher level.
- Tie knots to the lower side of the laceration as they will help pull the tissues up.



Post-op Management

Short Term:
- Chloramphenicol Ointment – TDS for 7 days
- Stitches to be removed in 7 days (GP or nurse)
- Keep area clean

Long Term:
- Avoid UV exposure – High SPF/broad hats/avoid peak sun
- Massage – starting at 2 weeks. Bio-oil works well, massage gently in line with the scar initially, firmer as scarring matures.
- Scar maturation can take 18 months.