

# BSUH Paediatric Clinical Practice Guideline

## L.A.T (Lignocaine, Adrenaline & Tetracaine Gel) application

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### Background

Skin lacerations requiring cleaning and suturing in children are not suitable for the application of the standard topical anaesthetic agents (Emla or Ametop). These cannot be applied to open wounds because they may result in systemic toxicity.

The injection of a local anaesthetic has the disadvantage in that it is painful on infiltration and there is a fear associated with the use of an injection among children.

LAT gel is a topical anaesthetic gel that can be applied to open wounds. It also reduces the need to inject local anaesthetic when cleaning and suturing open wounds.

### Assessment

- For use in children 1 year and older who have a simple laceration of the head, neck, limbs or trunk.
- For use in wounds less than 5cms in length
- LAT gel must not be used in children who are allergic to amide anaesthetics.
- LAT gel must not be used if there is gross contamination of the wound
- LAT gel must not be used if there is involvement of mucous membranes, digits, genitalia, ear or nose.
- LAT gel must not be used for wounds resulting from a bite (human & animal) or from a crush injury or result in a flap wound.
- LAT gel must not be used in which the depth cannot be determined or has gone past the subcutaneous layer.



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## Management

- Assess wound for suitability for LAT gel application
- Application should be performed at initial nurse assessment or as soon after as is possible.
- Time of application should be documented on the ED card.
- Dosage is 0.5 ml to 1 ml per cm of wound length up to a maximum of:
  - 2ml for those aged 1-3 years
  - 3ml for those over 3 years
  - Maximum wound length: 5cm
- Place half of the dose of LAT gel onto the open wound and cover with occlusive dressing (e.g. sterile gauze) onto which the remaining half is applied.
- Firmly press over the dressing for 30 minutes with either tape or the parent's gloved hand.
- After removing the gauze, test the effectiveness of the anaesthesia by touching with a sterile needle.
- Wound cleaning and suturing should be completed within 15 minutes of removal of the gel.
- Each bottle contains 3 mls of LAT gel and is for use on one patient only and should be discarded within 24 hours of opening.
- Repeated dose of LAT gel is contraindicated.

## Notes

### References:

Ernst AA et al (1997) Lidocaine Adrenaline Tetracaine (LAT Gel) versus injectable buffered lidocaine for local anesthesia in laceration repair. West J Med, 167(2): 79-81.

Ferguson C, Loryman B (2005) Topical anaesthetic versus lidocaine infiltration to allow closure of skin wounds in children. Emergency Medicine Journal, 22: 507-509.