

# Laceration/Wound Care for Kids

## Best Practices/Tips Tricks

### Pediatric Laceration/Wound Care

While every site is used to caring for children with lacerations. There are some tips/tricks that could lead to a better experience for your own staff and families. Please keep in mind that CHILD LIFE has done training at each site and set up supplies and stations for successful procedures. If your site would like re-training from CHILD LIFE, just let us know

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#### EVERY WOUND/ EVERY TIME

- **Topical Anesthetics in TRIAGE!**
- **LET GEL** - for simple lacerations to face and scalp - LET GEL is 90% effective in anesthesia. Great on thin skin of extremities in children.
  - LET gel best on open wounds of face and scalp. Can still use on extremities, just be aware of amount/dosing.
  - **STANDING ORDER** - place in triage. SMDO should avoid application to mucous membranes or areas of potential vascular compromise without physical approval.
  - Place 3ml to open wound. Cover with occlusive dressing (Tegaderm)
- **EMLA** - mixture of lidocaine and procaine in a cream base. Takes one hour to take effect. Great for IV starts, blood draws, IM injections and lumbar punctures.
  - **STANDING ORDER** - Apply in triage to potential IV sites when anticipated.
  - Avoid using in kids with G6PD or predisposition to methemoglobinemia. Avoid prolonged exposure (>2-3 hours) in infants less than 3 months
- **CHILD LIFE** Techniques and Supplies - once pain is addressed through medical plan and medications, using techniques can greatly improve experience and success for providers
  - Ensure staff is educated on child development appropriate language and use of child life education dolls and supplies - **see reference PPTs and handouts**
  - Use iPads and iPad stands/cases to assist in distractions
  - Ask for Child life re-training if your site is interested
- **Dos and Don'ts**
  - **No** papoose boards or restraints. Staff and families should be familiar with comfort positioning and holds
  - **No** BRUTANE. Use of intranasal medications should be used often. Can reduce pain and anxiety. If child needs procedural sedation (Ketamine most likely), then should do it, or send to facility more comfortable.
  - **DO** consult specialists and backline ED docs at DCMC if questions. Some procedures are not emergent and specialists may be willing to do in their office the next day (i.e. foreign bodies to ears)

#### Comfort Holds



Have staff review educational materials and reference on child positioning and use of meds/adjuncts to make procedures easier

#### Treatment in Triage/Check In

- LET Gel to all open lacerations in triage
- EMLA for potential IV starts at triage
- Early child life, distraction, explanation of care/plan in child friendly language
- Team to come up with medication plan appropriate for procedure (control pain/anxiety)

# Laceration/ Wound Care Tips & Tricks

## Medications/Supplies



Not all an inclusive list, this table represents the most common medications used in the Pediatric ED for common procedures. Ensure your site and staff are comfortable using all of the following meds and have the correct supplies.

MEDICATION	DOSING	ACTION	NOTES
<b>LET Gel</b>	<ul style="list-style-type: none"> <li>1 to 3ml to area.</li> <li>Takes 20-30 minutes.</li> <li>Lasts 40 minutes after removal</li> </ul>	<ul style="list-style-type: none"> <li>Topical anesthetic</li> <li>Simple lacerations - often only anesthetic needed</li> <li>Blanching around site sign of effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>Avoid in areas of true end arterial supply</li> <li>Apply to area in triage, cover with Tegaderm.</li> <li>Lower systemic absorption, low risk of lido toxicity for most simple lacerations</li> </ul>
<b>EMLA</b>	<ul style="list-style-type: none"> <li>Cream based mixture of anesthetics</li> <li>Apply to area of procedure and place occlusive dressing</li> </ul>	<ul style="list-style-type: none"> <li>Topical anesthetic</li> <li>Use for intact skin (IVs, blood draw, abscesses)</li> <li>ONE HOUR for peak effect (place early!)</li> </ul>	<ul style="list-style-type: none"> <li>Long onset of action warrants use as standing order in triage</li> <li>Avoid in those with high risk for methemoglobinemia (G6PD, etc)</li> <li>Complications reported mainly in cases of excessive and prolonged application</li> <li><b>LMX</b> similar profile - but onset to numbness is about 30 minutes</li> </ul>
<b>Vapocoolant Spray</b>	<ul style="list-style-type: none"> <li>Spray long enough to cause blanching without freezing</li> <li>Spray 3-9 inches from skin surface</li> <li>Don't apply more than 7 seconds</li> <li>Stop when you see blanching</li> <li>Analgesia last 60 seconds</li> </ul>	<ul style="list-style-type: none"> <li>Use on intact skin immediately prior to IV or venipuncture</li> <li>Best on older children where you can explain the sensation</li> </ul>	<ul style="list-style-type: none"> <li>Explain sensation to older children and let them feel it prior</li> <li>Have supplies ready (60 seconds of analgesia time)</li> <li>Consider when you don't have the time to wait 30 to 60 minute time to effect of LMX/EMLA</li> </ul>
<b>Intranasal Versed</b>	<ul style="list-style-type: none"> <li>Infants &gt;10kg</li> <li>0.2 mg/kg IN, max 10 mg</li> <li>ALWAYS use atomizer</li> </ul>	<ul style="list-style-type: none"> <li>Onset 20 minutes (faster in young kids)</li> <li>Lasts 20-30 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Amnesia, mild anxiolysis</li> <li>Irritating after administration - give sip of sweet drink after admin</li> <li>Safe to use in combo with IN Fentanyl (NOT Procedural Sedation)</li> <li>Split dose per nostril, max dose</li> </ul>
<b>Intranasal Fentanyl</b>	<ul style="list-style-type: none"> <li>Infants &gt;10kg</li> <li>2 mcg/kg, max 100 mcg</li> <li>ALWAYS use atomizer</li> </ul>	<ul style="list-style-type: none"> <li>Onset 10 minutes</li> <li>Duration 20-30 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Pain control, NO amnesia</li> <li>Safe to use in combo with IN Versed</li> </ul>
<b>Ketamine</b>	<ul style="list-style-type: none"> <li>1-1.5mg/kg IV</li> <li>4 mg/kg IM</li> </ul>	<ul style="list-style-type: none"> <li>Onset 30 seconds</li> <li>Side effects: nausea, laryngospasm, unpleasant hallucinations, emergence reaction</li> </ul>	<ul style="list-style-type: none"> <li>FULL procedural sedation</li> <li>Analgesia, amnesia, immobilization</li> <li>IM higher rates of adverse effects, recommend IV over IM</li> <li>No routine need to pre-treat with atropine</li> <li>Suggest Zofran as a pre-med</li> </ul>

# Laceration/ Wound Care Tips & Tricks

## Medications and Supplies

While providers should decide on a case by case basis the best plan for wound repair, the following tips summarize common questions and recommendations from our specialists here at DCMC.

Injury/Wound	Notes
<p><b>Scalp lacerations</b></p>	<ul style="list-style-type: none"> <li>• Staples - preferred closure technique</li> <li>• LET gel should be placed prior to repair with staples</li> <li>• LET alone and distraction may be enough analgesia</li> <li>• Avoid shaving skin, irrigate wound and lubricate combed hair to expose wound</li> <li>• Avoid use of staples in any other part of child's body other than scalp.</li> </ul>
<p><b>Facial lacerations</b></p>	<ul style="list-style-type: none"> <li>• 5-0 to 6-0 preferred size on child's face</li> <li>• LET gel prior to repair on all lacerations</li> <li>• If suture removal will be traumatic consider use of fast-absorbing gut</li> <li>• Avoid use of Chromic gut or Vicryl on face due to longer absorption times</li> </ul>
<p><b>Lip lacerations</b></p>	<ul style="list-style-type: none"> <li>• Those crossing vermilion border need precise approximation</li> <li>• Consider use of LET gel and intranasal meds for minor/ uncomplicated lacerations</li> <li>• Some children may need sedation for precise repair</li> <li>• Often need nonabsorbable suture to close/approximate epidermal vermilion</li> <li>• Balance convenience of absorbable sutures with risk for wound dehiscence if child picks at wound</li> </ul>
<p><b>Nail bed laceration</b></p>	<ul style="list-style-type: none"> <li>• Ensure evaluation for fracture underneath wound</li> <li>• DCMC Plastics happy to discuss closure plan and follow up</li> <li>• Preference to use chromic gut for repair</li> </ul>
<p><b>Animal bite</b></p>	<ul style="list-style-type: none"> <li>• Must balance cosmesis (face) vs high risk for infection</li> <li>• Consult DCMC Plastics early, as they will ensure follow up and sometimes plan for delayed closure</li> <li>• Always prescribe antibiotic prophylaxis</li> <li>• NEVER use Dermabond or other glue</li> </ul>

