STANDARDIZED PROCEDURE
LACERATION REPAIR

These procedures are intended to describe procedures performed by Nurse Practitioners and/or Certified Nurse Midwives (depending on the clinical privileges granted to the individual practitioner) at UC San Diego Health.

Indication:
Simple or intermediate laceration to the skin after assessment to rule out artery, bone, ligament, nerve, or tendon involvement

Contraindications/Consultation Required:
1. Complex & deep lacerations – consult with physician prior to closure
2. Involvement of artery, bone/joint capsule, ligament, nerve, or tendon – refer to physician.
3. Do not suture infected or contaminated wounds, missile wounds, human or animal bites, without physician consultation.
4. Obtain physician consultation prior to suturing lacerations greater than 6 hours old.

Consideration:
1. Obtain x-ray of wound prior to suturing if suspect foreign body (metal, glass, etc…) or suspected fracture.
2. Consider tetanus history and prophylaxis if needed.
3. Never use local anesthetics with epinephrine to anesthetize wounds on fingers, toes, ears, penis, or tip of nose.
4. Use local anesthetics with epinephrine cautiously in patients with cardiovascular disease, hypertension, hyperthyroidism, diabetes mellitus or narrow angle glaucoma

Procedure:
A. Equipment
1. normal saline sterile solution (irrigation bottle)
2. betadine solution
3. laceration repair suture kit (needle holder, forceps with teeth, iris scissors)
4. 4 x 4 gauze pads
5. sterile towels
6. sterile gloves
7. local anesthetic (lidocaine 1% with or without epinephrine)
8. syringes with 18g and 25g needles
9. appropriate suture material

B. General Guide in Choice of Suture Material
1. Face 6 – 0 nylon
2. Hands 5 – 0 nylon
3. Trunk, extremities, foot, sole 4 – 0 nylon
4. Scalp and knee 3 – 0 nylon
5. Absorbable (Vicryl) for subcutaneous 4 – 0, 3 – 0, 2 – 0
6. Oral cavity beyond mucosal border 5 – 0 chromic gut or Vicryl

C. Procedure
1. position patient with area of laceration easily accessible
2. irrigate wound with normal saline – for average-sized wounds, 100-300mL should be used (greater volumes may be required for larger or heavily contaminated wounds) use 35cc syringe and 18g angiocath for irrigation or irrigate via holes punched with 18g needle through saline irrigation bottle top (25-40psi); irrigation should continue until all visible, loose particulate matter has been removed.
3. betadine prep and sterile drape wound
4. anesthetize wound via direct infiltration of wound edges with local anesthetic – lidocaine 1% with or without epinephrine (check allergy history prior to administration); maximum allowable dose at one time of lidocaine 1% without epinephrine is 4mg/kg (20cc per average adult), with epinephrine is 7 mg/kg.
5. reassess wound for nerve, vessel, and/or tendon injury, joint capsule involvement, foreign body, and extent/depth of wound
6. debride devitalized tissue as needed with iris scissors or #15 blade
7. place sutures using appropriate suture material and suture technique (interrupted, running continuous, vertical mattress, horizontal mattress, buried, subcuticular, flap repair); for deep lacerations, place deep layered sutures with Vicryl or lessen dad space and provide less tension on skin sutures; place skin sutures with good approximation and eversion of wound edges, and with minimal tension
8. may use skin staples to approximate long, linear lacerations involving the scalp or areas of less cosmetic importance (never use staples on the face)
9. apply antibiotic ointment (Bacitracin if not allergic), and dressing if needed
10. write procedure note in patient’s medical record documenting: length of wound, type of laceration – complex or simple, local anesthetic use and amount, amount of saline used for irrigation, type of suture material used, suture techniques used to repair laceration, how the procedure was tolerated and if any complications

D. NP will only repair laceration requiring a single layer and will not repair lacerations proximal to the hairline or over joints.

E. NP must perform 5 successful lacerations repair under the direct supervision of a resident/fellow/attending before performing individually. As well, NP must perform at least 10 successful lacerations repairs per year in order to maintain competency.

F. Document procedure on skill check off sheet.

G. Patient Teaching
1. Keep wound dry for 24 – 48 hours
2. May shower/keep clean with soap and water 48 hours after procedure
3. After 48 hours, observe wounds for signs of infection and return if: fever, redness, pus or odorous drainage, red streaks, swelling, or increased pain.

H. Follow-up
1. Hand injuries, complicated lacerations, and infection-prone wounds should be re-evaluated in 24-48 hours.
2. Return to clinic for suture removal as indicated

Guide For Length Of Time Sutures Should Left In Place

<table>
<thead>
<tr>
<th>Area</th>
<th>Days</th>
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</thead>
<tbody>
<tr>
<td>Face</td>
<td>3 – 4 days</td>
</tr>
<tr>
<td>Neck</td>
<td>5 days</td>
</tr>
<tr>
<td>Scalp</td>
<td>6 – 7 days</td>
</tr>
<tr>
<td>Arms and back of hands</td>
<td>7 days</td>
</tr>
<tr>
<td>Chest and abdomen</td>
<td>7 – 10 days</td>
</tr>
<tr>
<td>Legs and top of feet</td>
<td>10 days</td>
</tr>
<tr>
<td>Back</td>
<td>10 – 12 days</td>
</tr>
<tr>
<td>Palms of hands, soles of feet</td>
<td>14 days</td>
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References


VII. RESPONSIBILITY
Please contact the Advanced Practice Council if you need help. The administrative assistant for the Chief Nursing Officer can direct you. Call; 619-543-3438.

VIII. HISTORY OF PROCEDURE
Revised by the Committee of Interdisciplinary Practices: 2/26/2014, 9/28/2016
Reviewed by the Medical Staff Credentials Committee: 3/5/2014, 10/6/2016
Approved by the Medical Staff Executive Committee: 3/20/2014, 10/7/2016