Wound Management

Clinical Guideline

Urgent Care

Evaluate wound (Annotation A)
Does the wound need to be repaired?

No

Discharge home

- Clean & dress wound
- Follow-up recommendation
- Refer to UC Wound Dressing Resource for dressing options

Yes

Can wound be repaired in Urgent Care (Annotation A)?

No

Urgent Care Repair
***Exclusion* Criteria**

- Wound repair requiring higher level of care
  - Injury affects function of the area
  - Requires internal sutures of forearm, wrist, hand or finger, foot or toe
  - Nail bed injuries with avulsion fractures or removal of the nail is indicated in acute injury
  - Bleeding concerns: Uncontrolled hemostasis, patients with bleeding disorders, pulsatile blood flow
  - Require galea repair or genital repair
  - Requires multiple internal sutures
  - Visible underlying structures:
    - joints, tendons, ligaments, cartilage, nerve, bone, arterial vessels (pulsating blood flow)
  - Full thickness/deep lacerations of:
    - Tongue: > 1 cm in length or extending into muscle layer
    - Forearm, wrist, hand, finger, toe, or foot
  - Cosmetic concerns:
    - Large, irregular wounds
    - Full thickness of eyelids, nose or ears
    - Lip with or without devitalized or loss of tissue
    - Difficult border approximation: vermillion border of lip, any margin of eyelid, ear, or nose
  - Animal bites large, irregular
  - Penetrating wounds or severe crush injuries
  - Contaminated wounds requiring drainage or washout
  - Anesthesia requirement beyond UC resources
    - Patient comfort/anxiety level, provider skill level
    - Digital blocks
    - Procedural sedation

Yes

Urgent Care Repair
Inclusion Criteria

- Wounds with the following:
  - Appropriate hemostasis with applied pressure
  - Injury into the dermis causing bleeding, gaping, infection risk, or cosmetic concern
- Consent from patient/caregiver
  - Share risks/benefits of closure vs not closing
- Cooperative patient
  - Within scope of UC anesthetics options: LET, lidocaine and midazolam
  - Appropriate for comfort holds with staff and use of distraction techniques
    Maintain safety for all during procedure

Proceed to page 2:
Wound Repair in Urgent Care

Refer to emergency room

Repairing Wound in Urgent Care Clinic

Review Urgent Care repair inclusion and exclusion criteria
Review tetanus status and see Tetanus Administration algorithm if needed

Provide anesthesia to the wound & anxiolytic medicine to the patient as needed (Annotation B)

Prior to repair and after wound cleansing: document wound in medical record with measurements & photo

What repair technique & material will you use (Annotation C)?

Repair with Tissue Adhesive

- Small, superficial laceration with **minimal tension** include forehead & cheek
- Deeper laceration after placement of subcutaneous sutures
- Flap lacerations or skin damage over very thin skin
- Finger laceration < 2 cm and lacerations in the webs of toes

Repair with Sutures

- Non-absorbable sutures (Prolene/Ethilon)
  - Simple primary closure of most lacerations
- Absorbable suture (Chromic or Vicryl)
  - Buried/deep closure
    - Close deep space to prevent hematoma formation & reduce infection risk
    - Decrease tension on surface of skin & increases wound strength

Repair with Steri-strips

- Laceration with delayed presentation or other contraindication to sutures
- Small, superficial wounds including eyelid, flap, & finger

Repair with Staples

- Linear lacerations with clean edges
- Usually scalp, consider trunk or extremities

Post repair: document wound repair in medical record with photo

Discharge patient home

- See Annotation D for discharge considerations including prophylactic antibiotics
- Wound care post repair instructions
- Set-up return for removal of sutures/staples visit as needed. See Annotation G

Annotations

A. Evaluation of the wound
   1. History
      a. Mechanism
         1) Consider wound contamination
            a) Soil/dirt
            b) Fresh water, including ponds, lakes, rivers, standing water, untreated wading pools
            c) Ocean, seawater, brackish water
            d) Sewage
            e) Animals present in surrounds (ie pet)
               i. Particularly if patient is not able to be historian or unwitnessed injuries
         2) Review immunization for tetanus status (see annotation F for algorithm)
      b. Ideal timeframe for repair

Location	Ideal time for repair
Face and scalp	< 24 hours
Extremities	< 12 hours
Other locations	< 18 hours

   2. Physical Examination
      a. Check injury for underlying anatomy
      b. Assess neurovascular status
      c. Assess function, including range of motion
      d. Consider possibility of underlying fractures
      e. Check for other injuries
      f. Explore wound for foreign bodies or debris
   3. Lacerations **not requiring repair** include
      a. Superficial wounds/abrasions
      b. Most puncture wounds
      c. Most animal bites/human bites except when cosmetically important to close [3]
      d. If wound is contaminated or infected, best to allow secondary closure for full treatment of infection [7]
      e. Many intraoral lacerations (exceptions noted in exclusion criteria on page 1)
   4. Hemostasis Tips
      a. Achieving hemostasis for fingertip injuries and minor avulsions
         1) If holding pressure for 10 minutes is insufficient to achieve hemostasis, or to provide topical anesthesia if the avulsion is so painful that the child does not tolerate pressure, may soak affected digits in lidocaine with epinephrine
         2) Technique: Place appropriate amount of lidocaine 1% with epinephrine in medicine cup or sterile specimen container to cover the injured area. Soak affected digit for 5 minutes
         3) Following soaking in lidocaine with epinephrine, if still oozing then hold firm pressure again for 10 minutes

B. Preparing wound for repair in clinic
   1. Anesthesia
      a. Clinical staff will apply LET gel after provider assessment and prior to wound cleansing and irrigation (LET gel to stay in place for minimum of 20 minutes)
      b. Lidocaine Injection: Provider to order, draw up, administer and document in MAR of medical record and procedure note
         1) Lidocaine 1% with epinephrine: 10 mg lidocaine and 5 mcg epi per 1 mL
         2) Dosing: Cumulative max dose for all lidocaine: 5 mg/kg up to 300 mg (30 mL)

Weight	Cumulative Max Dose of Lidocaine by Weight
5-10 kg	25 mg (2.5 mL)
10-20 kg	50 mg (5mL)
20-30 kg	100 mg (10 mL)
≥ 30 kg	150 mg – 300 mg (15-30 mL) depending on size. Typically, not more than 10 mL is needed for a digit

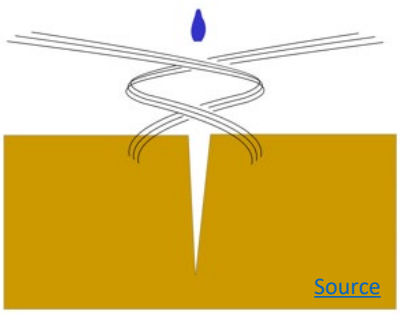
      c. LET (lidocaine, epinephrine, tetracaine), topical
      d. Intranasal midazolam as an anxiolytic [7]
   2. Wound Cleansing and Irrigation
      a. Wounds requiring closure should be cleansed with wound cleanser prior to irrigating with normal saline [5]
      b. See UC Wound Care Resource on Learning Home for further details

Annotations (continued)

C. Repairing the wound specifics

1. Suture size [7]

Body Region	Monofilament (non-absorbable)
Scalp	5-0 or 4-0
Face	6-0 or 5-0
Eyebrow	6-0 or 5-0
Trunk	5-0 or 4-0
Extremities	5-0 or 4-0
Hand	5-0
Joint Surface	4-0
Foot sole	4-0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2. Repair considerations by body location [10,11]
   a. Scalp
      1) Most can be closed with sutures or staples
      2) Hair apposition technique (see image): Link [9] and Video [14]
         a) Discuss the need for use of hair with adhesive and potential for difficult in removing adhesive from hair once wound is healed
         b) Small, superficial wounds
         c) Excess adhesive should not run through hair
         d) Keep area dry for ≥ 5 days
      3) Place internal sutures if wound is very deep or gaping
   b. Lip
      1) Small, linear, under low tension
      2) Approximate both sides of the vermillion border
   c. Eyelid
      1) Consider Steri-strips or allow to heal without primary closure for superficial, simple lacerations that are:
         a) Horizontal
         b) Follow skin lines
         c) Involve < 25% of the lid
   d. Intraoral
      1) Most buccal mucosa and gingival lacerations not widely separated can heal rapidly without repair and do not warrant primary closure
      2) Consider Biotene application twice daily
   e. Tongue: Most lacerations of the tongue do not require repair
   f. Hand
      1) Uncomplicated hand lacerations (< 2 cm & < 8 hours old) may heal well with cleansing, irrigation and dressing with close follow up or consider glue or Steri-strips and immobilization of the area [17]
      2) Primary closure best within 8 hours
      3) For most bites injuries (including fist to mouth injury), usually avoid primary closure. Treat with irrigation, cleansing, dressing, and prophylactic antibiotics with close follow up, unless complicated [2]
   g. Finger
      1) Please refer to Wound Care Resource for specifics on appropriate dressings for fingers
      2) Do not discharge home with circumferentially wrapped fingers or hands in non-verbal children
   h. Nail/nail bed injuries
      1) Nail bed injuries or suspected likely need to be transferred to emergency room
         a) Nail bed injuries with associated fracture(s) will need to be treated as an open fracture at emergency room with specialists and prophylactic antibiotics
         b) Acute injury producing a subungual hematoma > 50% of the nail may need nail bed repair
         c) Nail removal in emergency department is often required in these situations:
            i. Injury to the margin of the nail (white part of nail) that creates a subungual hematoma
            ii. Significantly elevated or displaced nail from acute injury
   i. Genital area
      1) For vulvar lacerations, hemostatic superficial lacerations should be left open and do not need to be referred
      2) Most vulvar and vaginal hematomas do not require surgical intervention; ice packs and pain control usually suffice

Annotations (continued)

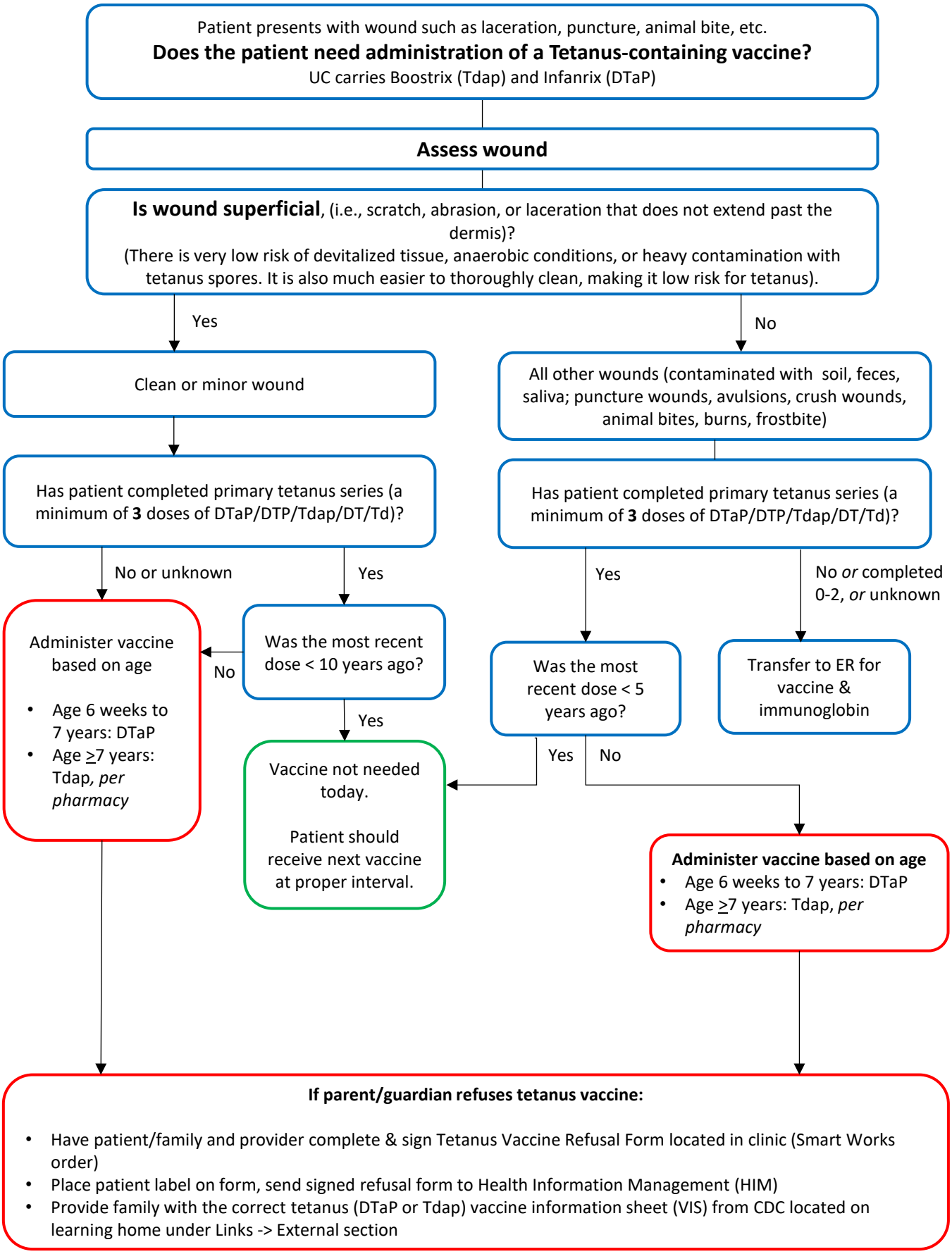
D. Discharge Considerations
   1. Prophylactic Antibiotics[18] (see Antibiotic Table below)
      a. Three-day course sufficient for prophylaxis
      b. Most common organisms that cause wound infections are Staph. aureus, Streptococcus species and sometimes MRSA

Antibiotic Table		
Indications for Antibiotic Prophylaxis	**Species**	**Prophylaxis (3 days)** Consider tetanus vaccination for all contaminated wounds
Wounds contaminated by soil (not water)	Gram negative organisms Clostridium species	Amoxicillin-clavulanate 25 mg/kg/dose (amoxicillin component) BID (max 875 mg/dose) Suspension: 400 mg – 57 mg/5 ml Tablets: Augmentin 875 mg – 125 mg PCN allergic: Levofloxacin 10 mg/kg/day once Daily, increase to 20 mg/kg/day divided BID if < 5 years old (max 375 mg/dose) **AND** Metronidazole 10 mg/kg/dose TID (max 500 mg/dose)
Animal bites if • Closed/repaired • Most bites on face, hands, or genitals. • If immunocompromised or asplenic. • **Any cat or human bite even if not closed**	Usually, polymicrobial with aerobic and anaerobic bacteria	Amoxicillin-clavulanate 25 mg/kg/dose (amoxicillin component) BID (max 875 mg/dose) Suspension: 400 mg – 57 mg/5 ml Tablets: 875mg –125 mg PCN allergic: Clindamycin 10 mg/kg/dose TID (max 450 mg/dose) **AND** TMP/SMX 4-6 mg/kg/dose (trimethoprim component) BID (max 160mg/dose)
Significant wounds occurring in lakes, ponds, rivers, standing water (excludes well maintained swimming pools): • Lacerations • Punctures • Embedded fishhooks • Bites from aquatic animals • Requiring closure • Crush injuries • Hands, feet, face, genitals, joint • Immunocompromised • Area of vascular or lymphatic compromise If also contaminated by soil or sewage, see wounds exposed to water containing soil or sewage below.		Levofloxacin 10 mg/kg/day once Daily, increase to 20 mg/kg/day divided BID if < 5 years old (max 375 mg/dose) Consider tetanus vaccine, see annotation Tetanus Workflow
Wounds exposed to ocean water/brackish water/salt water	Vibrio vulnificus	Levofloxacin 10 mg/kg/day once Daily (max 375 mg/dose) If < 5 years old increase to 20 mg/kg/day divided BID (max 375 mg/dose)
Wounds exposed to water containing soil or sewage	Anaerobes	Levofloxacin 10 mg/kg/day once Daily (max 375 mg/dose) If < 5 years old increase to 20 mg/kg/day divided BID (max 375 mg/dose) **AND** Metronidazole 10 mg/kg/dose TID (max 500 mg/dose)

Annotations (Continued)

E. Tetanus considerations

Tetanus Administration



If parent/guardian refuses tetanus vaccine:

- Have patient/family and provider complete & sign Tetanus Vaccine Refusal Form located in clinic (Smart Works order)
- Place patient label on form, send signed refusal form to Health Information Management (HIM)
- Provide family with the correct tetanus (DTaP or Tdap) vaccine information sheet (VIS) from CDC located on learning home under Links -> External section

Continue on next page

Annotations (Continued)

F. Rabies Considerations
1. Determining prophylaxis: Seek guidance through the Wisconsin Department of Health website algorithm: https://www.dhs.wisconsin.gov/rabies/algorithm/index.htm#_blank
2. Referral to emergency room is needed for administration of vaccine and immunoglobins. Please place Epic referral and best to speak with Mission Control Provider prior to transfer.

G. Family/patient education
1. Include discharge instruction applicable to type of wound repair performed – AVS or Digital Care
2. Keep the wound clean and dry, prevention of scab build-up – AVS or Digital Care
   a. Application of ointments to prevent scab build up
      1. Avoid Neosporin and other ointments containing neomycin as it can cause allergic reaction
      2. Polysporin or Bacitracin are preferred to minimize irritation
      3. Do not apply antibacterial ointments to skin adhesives, unless it is beyond timeframe for adhesive to have fallen off. Application of liquid or ointment medication will weaken the structure of the glue and may cause premature skin edge separation.
3. Suture removal timeframe by body region [7]
   a. There is no charge for a suture/staple removal at follow up CW UC visit when we placed the suture/staple.

Location	Duration (days)
Extremity Upper Lower	 10-14 days 8-10 days
Face	3-5 days (closer to 5)
Foot	10-12 days
Hands/fingers	8-10 days
Joint surface	10-14 days
Scalp	7-10 days
Torso	8-14 days
Trunk	5-7 days (closer to 7)

H. Removal methods tips
1. Sutures[19]
   a) Prepare: Review the wound closure note for number and type of sutures placed.
   b) Gather supplies: Sterile scissors, forceps, antiseptic wipes, gauze, and non-sterile gloves.
   c) Position the child: Keep them calm.
   d) Clean the area: Use antiseptic (optional) to reduce infection risk
   e) Inspect: Check for redness, swelling, or discharge.
   f) Loosen suture: Grab the knot with forceps and move in both directions for motion of the suture.
   g) Remove: Cut the suture along one side of the knot, then gently pull the knot with forceps to remove the suture.
   h) Confirm sutures removed = sutures placed minus sutures that may have fallen out on their own
   i) Monitor: Watch for bleeding; apply a sterile gauze if needed.
   j) Bandage: Cover the area with a clean dressing.
2. Tissue Adhesive: Soften the Bond (Petroleum Jelly Method)[6,19]
   a) Apply: Liberally apply petroleum jelly (e.g., Vaseline) or an antibiotic ointment over the adhesive.
   b) Wait: Allow it to sit for 30 to 60 minutes to penetrate and soften the bond.
   c) Remove: Gently massage or rub the softened adhesive off with a gauze pad/cotton tipped applicator/gloved finger.
   d) Avoid: Acetone or nail polish remover. These may dissolve the adhesive, but these solvents are highly irritating to intact skin or mucous membranes and should be avoided on open wounds or mucous membranes. Never use sharp instruments or aggressive mechanical debridement, as these methods can cause pain and injury to the surrounding skin.

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19. *Removal methods and tips also provided by Amy Romashko, MD, Medical Director, Urgent Care, Children's Wisconsin (personal communication, May 2026).*

Please contact clinicalguidelines@childrenswi.org for questions or comments.

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Approved by: Urgent Care Quality and Safety Education Core Team on 3/2026 and Amy Romashko, Urgent Care Medical Director 5/2026

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