EXCELLENCE IN EMERGENCY MEDICINE

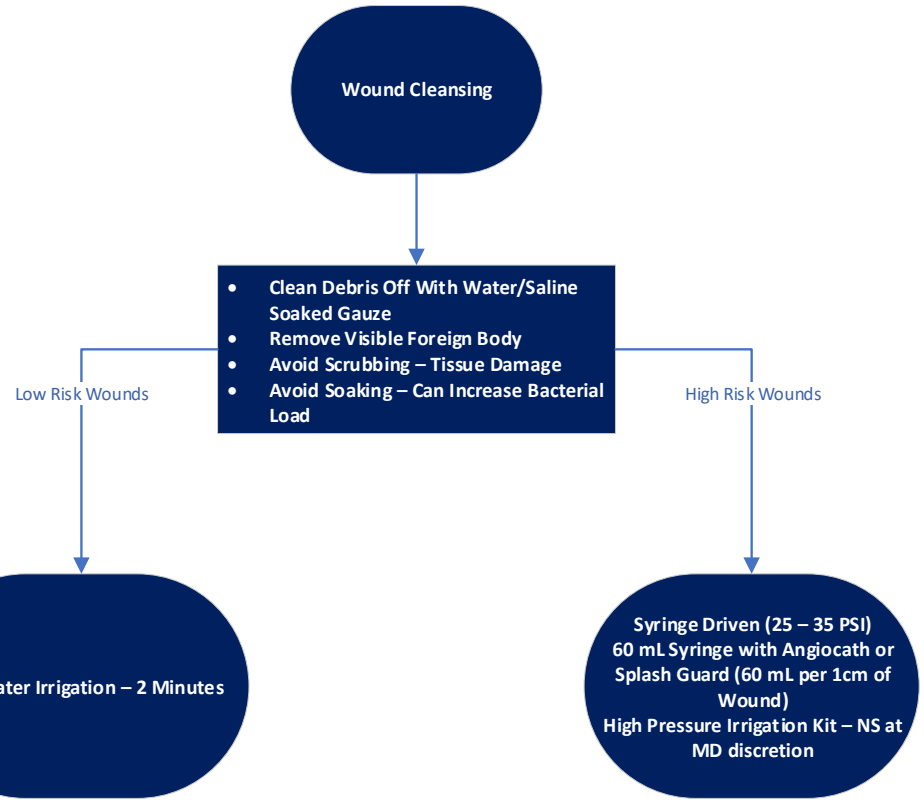
EPPA Clinical Guidelines ISSUED: OCTOBER 2019

MANAGEMENT OF Wound Care

This EPPA Clinical Guideline is intended to guide most, but not all, encounters involving wound care and should not replace clinical judgment; deviate from or adapt this guideline to meet the individual patient's needs.

Anesthesia

- Intradermal: 1% is 10mg/mL
- Lidocaine: 1 – 1.5 hours duration; 0.4 mL/kg of 1%, 0.2 mL/kg of 2% concentration, max 300mg or 30mL
- Lidocaine with Epinephrine: 2 – 6 hours; 1%, 0.7 mL/kg max of 500mg, or 50 mL of 1% with epi
- Bupivacaine: 4 – 8 hours duration; 0.8 mL/kg max, or 0.5% 0.4 mL/kg max 175mg
- Less painful: Stimulate skin proximally, warm to body temperature, small gage needle 25g and buffered 1mL of NaBicarb to 9mL Lidocaine



Antibiotic Prophylaxis

Consider if one or more high risk variable

	High Risk	Low Risk
Wound Type	Puncture, Contusions, Crush, Bites, Contamination, Deep	Straight Stab
Wound Location	High Concentration of Flora-Oral, Genitals, Armpits Poor Vascularized – Hand, Foot, Lower leg	Well Vascularized – Head, Neck, Scalp
Patient Characteristics	Over 65 Years Old Immunocompromised, Steroids, Splenectomy, HIV, Immunosuppressed Agents Vascular Disease Diabetes	Under 65 Years Old

MANAGEMENT OF **Wound Care**

References:

- Edlich R, et al. Revolutionary Advances in the Management of Traumatic Wounds in the Emergency Department During the Last 40 Years: Part I and II. *Journal of Emergency Medicine.* 2010; 38 (2): 201 – 207.
- DeLemos, David. Closure of minor skin wounds with sutures. *UpToDate.* Waltham, MA. 2018.
- Lammers, RL. Methods of wound closure. *Clinical Procedures in Emergency Medicine.* 2010; 5.
- Mankowitz, Scott. Laceration Management. *Journal of Emergency Medicine.* 2017; 53 (3): 369 – 382.
- Nicks B, et al. Acute wound management: revisiting the approach to assessment, irrigation, and closure considerations. *Int J Emerg Med.* 2010: 3 (4): 399 – 407. doi:10.1007/s12245-010-0217-5
- Tintinalli JE, Stapczynski J, Ma O, Cline DM, Cydulka R, Meckler G eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 7e* New York, NY: McGraw-Hill; 20111

Antibiotic Selection

- Non-Bite - Cover staph and strep (ex. Cephalexin)
- Human and mammalian bites – Cover Pasteurella and Eikenella (ex. amoxicillin clavulanic acid)
- Contaminated by fresh water or puncture through sole of athletic shoe – Cover Pseudomonas (ex. Fluoroquinolone)

Tetanus

	Clean, Minor Wound		All Other Wounds	
Vaccination History	Td	TIG	Td	TIG
Unk or < 3 Doses	Yes	No	Yes	Yes
3 or More	Yes if > 10 Years	No	Yes if > 5 Years	No

- Wounds greater than 6 hours old; contaminated with soil/dirt, saliva, feces; puncture or crush wounds; avulsions; wounds from missiles, burns or frostbite

Suture Selection

Location	Size	Duration
Face	5-0 to 6-0	4 – 5 Days
Scalp	3-0 to 5-0	5 – 7 Days
Chest, Back, Abdomen	3-0 to 4-0	7 – 10 Days
Extremities	4-0 to 5-0	10 – 14 Days
Joints	3-0 to 4-0	10 – 14 Days
Oral	3-0 to 5-0	N/A

- Close wounds up to 18 hours; if on face or scalp up to 24 hours
- Delayed primary closure – Follow up with plastic surgery
- Loose closure never recommended

Sutures

Brand Names	Uses	Reactivity	Tensile Strength	Duration
Fast Gut	Facial Lacerations, Nail Bed Injuries	Medium Reactivity	5 – 7 Days	14 – 28 Days
Vicryl	Muscle, Dermal	Low	28 Days	60 – 90 Days
Vicryl Rapide	Oral Mucosa, Under Splints	Low	7 – 10 Days	35 Days
Ethilon / Nylon	Soft Tissue and Skin Approximation	Minimal	Months	N/A
Prolene / Polypropylene	Soft Tissue and Skin Approximation	Least	Years	N/A

Cyanoacrylate (Dermabond)

- Nonmucosal facial and low-tension extremity wounds (wounds not located over joints)
- Nail bed laceration
- Wound requiring a 5-0 or smaller suture
- The glue can be removed with a petroleum-based product (ophthalmic bacitracin, erythromycin ointment, or mineral oil)

- Follow up in 48 hours for repeat examination for lacerations on hands, bites, or possible retained foreign body possibility
- Consider tooth imbedded in laceration, x-ray if lost tooth to rule out