

Clinical Practice Guideline (CPG) Burn Management

**Physician clinical judgement
supersedes this guideline**

**Initial ED Evaluation
Burn Identified
& Trauma Activation per Guideline**

****Fluid Resuscitation****
 <20% TBSA: Maintenance IVF only until taking PO
 >20% TBSA: 2-4 mL/kg/hr LR in 1st 24 hrs
 Adults: 2 mL/kg/hr
 Children (<14 yo): 3 mL/kg/hr
 Electrical burns: 4 mL/kg/hr
 Give ½ in first 8 hours, ½ over next 16 hours
 After initial IVF resuscitation, titrate to UOP:
 Adults: 0.5 mL/kg/hr
 Children: 1 mL/kg/hr (add D5LR or D5-½NS)

Warm room
 Evaluate for blunt/blast injury
 (standard trauma workup)
 Expose patient to determine extent
 of burn (TBSA%)
 Assess burn depth

****Antimicrobial Administration****

1. Tetanus ppx if indicated
2. No routine antibiotic ppx unless delayed presentation/evidence of infection

Superficial partial thickness burn

1. Pain control
2. Bacitracin ointment
3. Place referral for outpatient follow-up in 1-2 weeks in Trauma Clinic or with Englehart, Riha or Merriman (dependent on availability)

Deep partial thickness burn

1. Pain control
2. Initiate IV fluid resuscitation if indicated as above
3. Trauma activation/consult at discretion of ED physician
 - Consult for any anticipated surgical need
4. If >20% TBSA or >10% TBSA in age <5 or >50, initiate contact with burn center
5. If burns involving face, hands, feet, perineum/genitalia or crossing joints, initiate contact with burn center
6. If local admission required, consult Trauma
7. If meets discharge criteria:
 - Daily dressing changes with bacitracin/Xeroform/gauze
 - Refer for outpatient follow-up within 1 week in Trauma Clinic or with Englehart, Riha or Merriman (dependent on availability)

Full thickness burn

1. Pain control
2. Initiate IV fluid resuscitation if indicated as above
3. Trauma activation or consult
4. If >20% TBSA, initiate contact with burn center
5. Decision to transfer made between ED physician, trauma surgeon and burn center physician

****Inhalation Injury****

1. Consider intubation prior to transfer for:
 - a. Extensive head/neck/face burns
 - b. TBSA >40%
 - c. Stridor, wheezing, hoarseness, dyspnea
 - d. CoHgb >30% + obtunded
 - i. Consider cyanide poisoning and use Cyanokit for persistent lactic acidosis

****Indications for Escharotomy****

1. Full thickness circumferential extremity burns w/evidence of compartment syndrome
2. Full thickness chest burns with restriction of respiratory excursion

Decided in conjunction w/burn center physician

References:

Vercruyse GA, Alam HB, Martin MJ, et al. Western Trauma Association critical decisions in trauma: Preferred triage and initial management of the burned patient. *The Journal of Trauma and Acute Care Surgery*. 2019;87(5):1239-1243. doi:10.1097/TA.0000000000002348