**CARE OF THERMAL BURNS ≥ 20% TOTAL BODY SURFACE AREA**

### INITIAL ASSESSMENT
- Remove burned clothing, rings/watches and jewelry.
- Cervical spine precautions (if history of blast injury or other significant trauma).
- Keep patient warm and dry (blankets, turn up ambient room temperature, warmed IV fluids, head covering, Bair Hugger™) Begin Temperature monitoring.

### AIRWAY
- Initiate 100% FiO2 by non-rebreathing face mask with noninvasive EtCO2 monitor in place for all burns related to fire (can omit for scald and non-fire related thermal burns).
- Manage airway if indicated (see box to right).

### ESTIMATE TOTAL BODY SURFACE AREA
- Estimate total body surface area (TBSA) with partial and full thickness burns - can use a burn diagram.

### FLUIDS
- Establish IV access (2 large bore IVs for burns ≥ 20% TBSA).
- Initiate Ringer's lactate infusion according to fluid administration recommendations (see box to right).
- Do not bolus (avoid “fluid creep”)
- Insert Foley catheter for urine output monitoring.

### PAIN
- Pain control with IV morphine 0.1 mg/kg/dose (max 10 mg/dose) or IV fentanyl 1-2 mcg/kg/dose (max 200 mcg/dose)

### URINE OUTPUT GOAL (UOP)
- Under age of 15 years (< 50 kg): 1 ml/kg/hr
- Over age of 15 years (> 50 kg): 30 ml/hr

### DRESSINGS
- Dress the burns with dry, sterile gauze or cover patient with a dry sheet if the burns are extensive.

### RESUSCITATION GUIDELINES
- 3 ml x % burn x kg
- 1/2 of total over first 8 hours
- (NO BOLUS THERAPY)

**PITFALLS TO AVOID**
- Hypothermia
- Inappropriate endotracheal intubation
- Over/under resuscitation with fluids

**INDICATIONS FOR EMERGENT AIRWAY MANAGEMENT IN A BURN PATIENT**
- Obtundation with absent airway reflexes (no cough/no gag)
- Hoarse voice or cry, stridor, drooling, difficulty speaking, respiratory distress, obvious swelling of the oropharynx.
- Consider for extensive (≥40%) TBSA burns

**PITFALL TO AVOID**
- Overestimation of TBSA
- Do not calculate 1st degree burns

**PALMAR METHOD**
(Patient’s entire hand)

**URINE OUTPUT**
- Under age of 15 years (< 50 kg):
  - UOP < 1 ml/kg/hr, increase fluids by 10%
  - UOP > 1 ml/kg/hr, decrease fluids by 10%
- Over age of 15 years (> 50 kg):
  - UOP < 30 ml/hr, increase fluids by 10%
  - UOP > 30 ml/hr, decrease fluids by 10%

May apply antibiotic ointment