



**Shriners Hospitals**  
for Children®—Cincinnati

Call Cincinnati Shriners at 866-947-7840  
and ask to speak with the Charge Nurse.

**866-947-7840**

CINCINNATI SHRINERS HOSPITAL REFERRAL NUMBER 24/7

## CARE OF THERMAL BURNS $\geq 20\%$ TOTAL BODY SURFACE AREA

### 1 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.**

#### PITFALLS TO AVOID

- Hypothermia
- Inappropriate endotracheal intubation
- Over/under resuscitation with fluids

### 2 AIRWAY

- Initiate 100% FiO<sub>2</sub> by non-rebreathing face mask.
- Manage airway if indicated (*see box to right*)

#### 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 ( $\geq 40\%$ ) TBSA burns

### 3 ESTIMATE TOTAL BODY SURFACE AREA

- Estimate total body surface area (TBSA) with partial and full thickness burns - can use a burn diagram.

#### PITFALL TO AVOID

- Overestimation of TBSA
- Do not calculate 1st degree burns

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



### 4 FLUIDS

- Establish IV access (2 large bore IVs for burns  $\geq 20\%$  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

#### RESUSCITATION GUIDELINES

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

### 5 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)

Avoid IM administration  
due to erratic absorption.

### 6 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

#### 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%

### 7 DRESSINGS

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

May apply antibiotic ointment

### 8 TRANSFER

**866-947-7840**





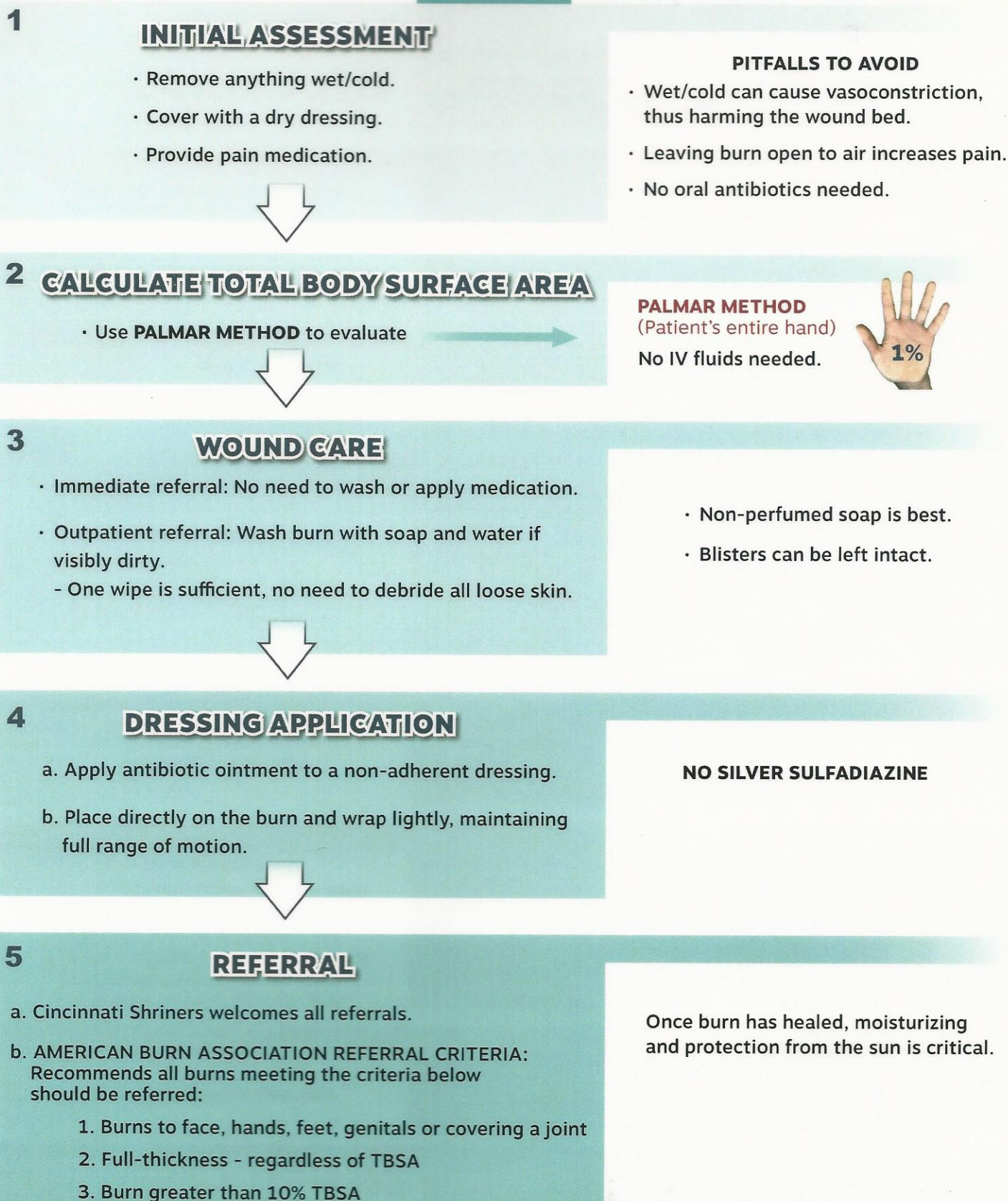
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## OUTPATIENT CARE OF THERMAL BURNS $\leq 20\%$ TOTAL BODY SURFACE AREA







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## PRE-HOSPITAL TRIAGE



### *Stop the burning process*

- Remove all affected clothing
- Cool with water for 3 to 5 minutes
  - Never use ice



### *Prevent hypothermia*

- Cover burn with dry dressing
- Cover the patient with warm blankets
- Warm fluids/increase ambient temp



### *Airway management*

- 100% FiO<sub>2</sub> by non-rebreather mask
- Intubate if there is respiratory distress
  - Obtunded/stridor



### *IV access*

- 2 large bore IVs if burn >20%
- Lactated Ringers
  - >5 years: 125 ml/hr
  - 6-13 years: 250 ml/hr
  - 14 years: 500 ml/hr



### *Transport*



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# **Acute Burn Care & Emergency Services**

for Children up to age 18

## **TRANSFER A PATIENT**

- **CALL** Shriners Hospitals for Children – Cincinnati 24/7:  
**866-947-7840**
- **Keep patient warm and dry**

If you know a child we can help, call or go to:

***[shrinershospitalcincinnati.org](http://shrinershospitalcincinnati.org)***

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### ***American Burn Association Referral Criteria***

- Partial thickness (2nd degree) burns greater than 10% total body surface area (TBSA)
- Burns that involve the face, hands, feet, genitalia, perineum or major joints
- Full thickness (3rd degree) burns in any age group
- Electrical burns including lightning injury
- Chemical burns
- Burned children in hospitals without qualified personnel or equipment for the care of children
- Burn injury in patients who will require special social, emotional, or long-term rehabilitative intervention