

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**

**≥ 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% FiO2 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 (≥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



### 4

### 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

### **RESUSCITATION GUIDELINES**

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

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### 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 URINEOUTPUTGOAL(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%
- $\cdot$  UOP > 30 ml/hr, decrease fluids by 10%

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### DRESSINGS

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

May apply antibiotic ointment

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**TRANSFER** 

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# OUTPATIENT CARE OF THERMAL BURNS

≤ 20%

# **TOTAL BODY SURFACE AREA**

1

## INITIAL ASSESSMENT

- · Remove anything wet/cold.
- · Cover with a dry dressing.
- · Provide pain medication.



### **PITFALLS TO AVOID**

- Wet/cold can cause vasoconstriction, thus harming the wound bed.
- · Leaving burn open to air increases pain.
- · No oral antibiotics needed.

# CALCULATE TOTAL BODY SURFACE AREA

Use PALMAR METHOD to evaluate



PALMAR METHOD (Patient's entire hand)

No IV fluids needed.



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### WOUND CARE

- · Immediate referral: No need to wash or apply medication.
- Outpatient referral: Wash burn with soap and water if visibly dirty.
  - One wipe is sufficient, no need to debride all loose skin.



- · Non-perfumed soap is best.
- · Blisters can be left intact.

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### DRESSING APPLICATION

- a. Apply antibiotic ointment to a non-adherent dressing.
- b. Place directly on the burn and wrap lightly, maintaining full range of motion.



**NO SILVER SULFADIAZINE** 

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### REFERRAL

- a. Cincinnati Shriners welcomes all referrals.
- b. AMERICAN BURN ASSOCIATION REFERRAL CRITERIA: Recommends all burns meeting the criteria below should be referred:
  - 1. Burns to face, hands, feet, genitals or covering a joint
  - 2. Full-thickness regardless of TBSA
  - 3. Burn greater than 10% TBSA

Once burn has healed, moisturizing and protection from the sun is critical.



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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% FiO2 by non-rebreather mask
- Intubate if there is respiratory distress
  - Obtunded/stridor



Call

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### 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



Shriners Hospitals for Children®— Cincinnati



# 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

# 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