ION PLAN FOR BURNS

MISSISSIPPI BURN, HAND & RECONSTRUCTION CENTER

ASSESS Step 1: Determine the details of the injury



patient

Follow ATLS or ABLS protocol Check for other injuries -TREAT TRAUMAS FIRST **Complete your Patient Surveys: Primary Survey - Your ABCDEs**

Remove anything hot, burning or contaminated from the patient

- A Airway
- D Disability
- B Breathing
- E Exposure
- C Circulation

Secondary Survey – Patient details

• Complete physical exam

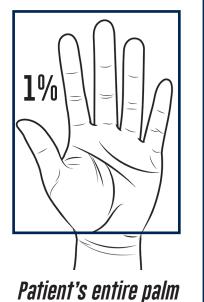
Labs

Patient history

- What happened?
- When did it happen?
- Where did it happen?
- Was the area open or closed? Remember, closed areas may increase chances of an inhalation injury.
- How did it happen?
 - Method:
 - Thermal
 - Electrical
 - Inhalation
- Treatment so far
- Associated symptoms
- Immunization (tetanus)
- Past medical history
- Chemical
 - Radiation
 - Frostbite
 - Medications and allergies
 - Is the patient a smoker?
 - Most recent meal

Size of injury – Total Body Surface Area (TBSA)

Rule of Nines AGES 0-9 9% 9% 18%



surface is equal to approximately 1% TBSA

Method considerations

- THERMAL BURNS
- Temperature
- Duration of contact Dermal thickness
- ELECTRICAL BURNS
- Voltage source Amperage of
- current' • Tissue resistance
- Duration of
- Duration of
- Pathway of current
- CHEMICAL BURNS
- contact
- Concentration of chemical

contact

For each year over 1, subtract 1% from the head and add 0.5% to each leg

- Quantity of chemical
- Temperature of chemical

Location of injury

- Identify contact points
- Concerns specific to locations:
 - Extremity considerations
 - Compartment syndrome
 - Loss of function/ feeling
- Neck/Chest
- Compartment syndrome
 - Swelling could affect airway

SECOND DEGREE DEGREE DEGREE BURN BURN **BURN EPIDERMIS DERMIS HYPODERMIS**

Depth of injury

- SUPERFICIAL (First Degree)
- Dry, red, easily blanching, sometimes painful
- Example: Sunburn
- NOT counted in calculations of total burn surface area (TBSA)
- SUPERFICIAL PARTIAL THICKNESS (Second Degree)
- Moist, red, blanching, blisters, very painful
- Counted in calculations of total burn surface area (TBSA)
- DEEP PARTIAL THICKNESS (Second Degree)
- Drier, more pale, less blanching, less pain
- Counted in calculations of total burn surface area (TBSA)
- FULL THICKNESS (Third Degree)
- Dry, leathery texture, variable color (white, brown, black), loss of pin-prick sensation
- Counted in calculations of total burn surface area (TBSA)

Step 2: Initiate treatment of the patient

Fluid resuscitation — Parkland Formula Always check with the burn team if you have fluid questions.

- The formula
- 2-4 cc of Lactated Ringers x %TBSA x weight (kg)
- How much?
 - Adults 2 cc/kg/hr
 - Children < 14 3 cc/kg/hr • Electrical - 4 cc/kg/hr
- Urine output goals

 - Adults = 0.5-0.7 cc/kg/hr • Children = 0.7-1.4 cc/kg/hr

Pre-Hospital fluid protocol

- ≤ 5 years 125 cc/hr
- 6-13 years 250 cc/hr
- > 13 years 500 cc/hr

Calculate fluid from the time of injury

- The schedule First 24 hours

 - Give first half in first 8 hours.
 - Titrate to achieve goal urine output. (Chart below)
 - Then, give the remainder over the next 16 hours.

TITRATION LEVELS Adult > 30-50 cc/hr

Child > 1 cc/kg/hr Electrical > 75-100 cc/hr

SOURCE: AMERICAN BURN ASSOCIATION'S ADVANCED BURN LIFE SUPPORT COURSE PROVIDER MANUAL

Other considerations

- Remove all clothing & jewelry
- Keep patient covered

• Maintain patient's temperature

- Warm room

skin and can receive a more severe injury Warm IV fluids Injury site preparation and treatment

- First, cool the wound
- Clean the wound of soot, debris, etc.
- Avoid use of silver sulfadiazine
- Cover wound with Xeroform or polysporin/nonstick dressing prior to

Do not wrap with a dry dressing

• Compartment syndrome

• Do not use ice or cold water soaks

• Young or elderly patients have thinner

Scan this

add us as

a contact

Step 3: Send the patient for specialized care if:

Note: These guidelines are based on criteria established by the American Burn Association. They are intented to be used to aid in clinical decision making.

- 1. Partial thickness burns >= 20% Total Body Surface Area (TBSA) in patients
- aged 10 50 years old. 2. Partial thickness burns >=10% TBSA in children under 10 or adults over 50 years old.

5. Patients with high-voltage electrical injuries, including lightning injuries.

Full-thickness burns >= 5% TBSA in patients of any age. Patients with partial or full-thickness burns of the hands, feet, face, eyes,

ears, perineum, and/or major joints.

6. Patients with significant burns from caustic chemicals.

8. Patients with burns who suffer inhalation injury.

- 7. Patients with burns complicated by multiple trauma in which the burn injury poses the greatest risk of morbidity or mortality. In such cases, if the trauma poses the greater immediate risk, the patient may be treated initially in a trauma center until stable before being transferred to a burn center. Physician judgment will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols.
- 9. Patients with significant ongoing medical disorders that could complicate management, prolong recovery, or affect mortality.

transfer

10. Hospitals without qualified personnel or equipment for the care of children should transfer children with burns to a burn center with these capabilities. 11. Burn Injury in patients who will require special social/emotional and /or

abuse, substance abuse, etc. WHEN IN DOUBT, REMEMBER: WE ARE A PHONE CALL AWAY!

long-term rehabilitative support, including cases involving suspected child



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