XXX HOSPITAL

DEPARTMENTAL POLICY

TITLE: TRAUMA: GUIDELINES OF CARE FOR A PATIENT WITH BURNS

Date Adopted: X/XX **Date Revised: XX/XX**
Supersedes: **Date Reviewed: XX/XX**

DISTRIBUTION: Emergency, Trauma

PURPOSE: Provide guidelines of care for a patient with burns

POLICY: Patients with burns will be assessed for injuries and complications of injuries.

PROCEDURE: NURSING MANAGEMENT

1. Thermal Burns
   a. Establish airway and provide Basic Life Support if condition indicates.
   b. Maintain spinal stabilization as indicated.
   c. Inspect upper airway for signs of singed nasal hairs, oral blisters, redness, or soot in mouth and throat (suggests an inhalation injury).
   d. Note any hoarseness, dyspnea, black sputum or hacking cough – also suggests inhalation injury.
   e. Start Humidified O_2 as ordered or assist with endotracheal
   f. intubation as needed.
   g. Start 2 IVs with LR solution with largest bore catheter possible in extremity least affected.
   h. Obtain baseline vital signs – repeat as needed. Monitor temperature closely. Maintain patient core temperature by: increase room temperature, warm blankets, external warming device. Wrap children's heads in towels to prevent heat loss.
   i. Remove clothing from burned areas; remove any constricting jewelry, (i.e. rings).
   j. Apply clean dry dressings
   k. Do not break blisters or debride.
   l. Insert urinary drainage catheter as ordered.
   m. Insert Nasogastric (NG) tube as ordered
   n. Provide pain management.
   o. Provide Tetanus.
   p. Provide fluid resuscitation beginning at time of burn:

Adult Thermal and Chemical Burn
2cc LR x patient's body weight in kg x % second and third degree burn
Pediatric patients (14 years and under and less than 40 kgs)
3cc LR x child's weight in kg x % TBSA second and third degree burns
Adult Patients with high voltage Electrical injuries
4ml LR x patient's weight in kg x % TBSA second and third degree burns

Of this calculated amount, ½ should be infused in the first eight hours post burn. The 24 hour time frame begins from the time of the actual burn, not the time of arrival to the hospital.

The following is an example:

40% total body surface area burn
60 kg patient burn occurred at 10:00 PM
order reads – give 2ml per kg per % TBSA burned

2 x 60 x 40 = 4,800 ml in first 24 hours post burn event
2,400 ml infused by 6:00 am (first eight hours since burn event)
2,400 ml or 150ml/hr infused from 6:00am to 10: PM

q. Determine depth and degree of burn. (see table)

DEPTH AND DEGREE OF BURN

Depth	Degree	Characteristics
Superficial	First	Dry, red, blanches, tender
Partial Thickness • Superficial partial Thickness • Deep partial Thickness	Second	• Hyperemic, moist, bullae, painful • Involves upper dermis • Involves deeper dermis
Full Thickness	Third	• Dry • May be leathery looking or translucent • Color varies from yellow to red to brown or black • Not painful (anesthetic)

r. Determine Total Body Service area (TBSA) burn by using Rule of Nines or a nationally accepted burn diagram

2. Chemical
   a. Determine type of chemical exposure (determine if threat to health care team) and contact poison control.
   b. Remove any jewelry/clothing to stop the burning process and

neurovascular constriction.

c. DO NOT ADD H_2O TO DRY CHEMICALS. CONTACT PHYSICIAN IMMEDIATELY.
d. Brush powdered chemicals from skin surfaces.
e. Flush burned area well with large amounts of H_2O or Saline for at least 10 minutes.

f. EYES
   1) Flush with copious amounts of H2O or Saline for 20-30 minutes
   2) Close lids and cover with dry STERILE DRESSING
   3) CONTACT PHYSICIAN
g. Obtain Material Safety Data Sheet (MSDS) sheet

3. Electrical
   a. Monitor and treat airway, breathing, circulation as needed.
   b. Attach to cardiac monitor – treat any cardiac dysrhythmias with ACLS protocol as needed.
   c. Insert urinary drainage catheter.
   d. Start 2 IVs with largest bore catheter possible.
   e. Initiate IV fluid resuscitation at 2-4 ml/Kg/hr and increase until urinary output of at least 100ml/hr.
   f. Identify history (i.e. voltage, type of current).
   g. Obtain radiology and lab studies as needed
   h. Per physician order obtain baseline EKG.

Transfer Criteria: the American College of Surgeons has developed criteria for patients with burn injury to be transferred to a burn unit:

- Combination of partial thickness and full thickness burns of 10% or more body surface area in patients under 10 or over 50 years of age
- Partial thickness burns > 10% TBSA
- Burns that involve the face, hands, feet, genitalia, perineum, and/or overlying major joints
- Full thickness burns in any age group
- High voltage electrical burns including lightening burns
- Chemical burns
- Inhalation injury
- Pre-existing medical conditions that could complicate management, prolong recovery, or affect mortality
- Concomitant trauma, which poses an increased risk of morbidity or mortality, after having been initially stabilized in a trauma center
- Children with burns seen in hospitals without qualified personnel or equipment necessary to care for such children

- Need for special social, emotional, or long-term rehabilitative support

Documentation

- **Utilize burn documentation form on all burns**
- Burn size, depth, classification and severity
- Peripheral pulses and neurovascular status
- Pain assessment before and after medications
- All treatments / interventions
- Patient and family education and emotional needs
- Take photos as applicable
- Use adult / child body diagrams as applicable

Legal Considerations

1. Report any suspected criminal activity to law enforcement agencies.
2. Contact adult/children protective services as warranted.
3. If the burn injury causes death, contact the Justice of the Peace for a possible autopsy.
4. If criminal activity is suspected, all physical evidence such as weapons, clothing, personal belongings etc. should be given to law enforcement officers.
5. Clothing and other evidence collected should be handled with a minimum of contact and placed in paper bags then placed in plastic bags.
6. Keep complete and accurate documentation of all observations, reports, and interventions.

REFERENCES:

1. American Burn Association, *Advanced Burn Life Support Course*, 2011. Chicago, Illinois
2. Emergency Nurses Association, *Trauma Nurse core Course*, 2014, Seventh Edition, Park Ridge, Illinois.

APPROVAL:

_____ _____
Trauma Program Manager Date

_____ _____
Regional Chief Nurse Executive Date