

Michigan TRAUMA AND ENVIRONMENTAL BURNS

Burns

General Treatment:

- 1. Follow General Pre-hospital Care Protocol.
- 2. If evidence of possible airway burn, consider aggressive airway management per **Emergency Airway Procedure.**
- 3. Administer 100% O2 to all patients rescued from a confined space fire (i.e., building, automobile) regardless of pulse oximetry reading.
- 4. Determine burn extent & severity (rule of nines or palm = 1%).
- 5. Keep patient warm and avoid hypothermia.
- 6. If possibility of cyanide poisoning, refer to Cyanide Exposure Protocol.

THERMAL BURNS:

- 1. Stop the burning process. Remove smoldering and non-adherent clothing. Irrigate with sterile water or saline, if available.
- 2. Consider potential for secondary contamination (i.e., methamphetamine).
- 3. Assess and treat associated trauma.
- 4. Remove any constricting items.
- 5. If burn is
 - a. Less than 15% of total body surface area (TBSA), consider covering with wet dressings for comfort.
 - b. More than 15% of total body surface area (TBSA), cover wounds with dry clean dressings to avoid hypothermia.

CHEMICAL BURNS:

- 1. Protect personnel from contamination.
- 2. Remove all clothing and constricting items.
- 3. Decontaminate patient prior to transport, brushing off dry chemicals prior to irrigation.
- 4. Assess and treat for associated injuries.
- 5. Evaluate for systemic symptoms, which might be caused by chemical contamination.
- 6. Notify receiving hospital of possible chemical contamination.
- 7. Cover burned area in clean, dry dressing for transport.

ELECTRICAL INJURY:

- 1. Protect rescuers from live electric wires.
- 2. When energy source is removed, remove patient from electrical source.
- 3. Treat associated injuries provide spinal precautions per **Spinal Injury Assessment Protocol** and **Spinal Precautions Procedure** when indicated.
- 4. Assess and treat contact wound(s).
- r 5. Monitor patient ECG for possible arrhythmias. Treat as per specific arrhythmia protocol.

FOR ALL TYPES OF BURNS:

-) 1. Obtain vascular access if indicated for pain management or fluid therapy.
- 2. Administer NS IV/IO fluid bolus up to 1 liter wide open for hypotension or burn greater than 15% TBSA. Repeat as indicated. <a>[20] (20 ml/kg for pediatrics)





) Transport:

- 4. Follow local MCA Transport Protocol.
- 5. Special Transport Considerations
 - a. The most appropriate facility may be a trauma center when there is airway or respiratory involvement, or when multi-trauma or blast injury is suspected.
 - b. Consider transport directly to burn center if BSA > 20% partial thickness, BSA > 10% full thickness, involvement of hands/feet, genitalia, face; circumferential burns
 - c. Consider air ambulance transportation for long transport times, pain control requiring deep sedation, and airway concerns that might necessitate advanced airway management.



Thermal Burns and Electrical Injury:

- 1. Transport directly to burn center per MCA destination protocol or medical control direction.
- 2. Additional NS IV/IO fluid bolus, up to 2 liters, wide open.
- 3. For severe burns, consider:
 - a. Additional fluid needs
 - b. Airway support



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