



Portage County EMS Patient Care Guidelines



Burns

Note:

- Loosen and remove any clothing and jewelry that can become constricting when tissue swells.
- In cases of cardiac arrest due to electrical contact or burns, aggressive resuscitation should be attempted, as survival rates are good.
- Burns over 10% BSA should not be cooled with water due to possibility of causing hypothermia.
- Unless associated with other major traumatic injuries, patients with burns should be transported to the closest appropriate hospital for initial care and subsequent referral to a burn center.
- In the presence of major trauma (in addition to the burn), stabilizing life-threatening injuries takes precedence over the care of the burn.
- Pain management should be aggressive. Burn patients may require much higher doses for pain control. See *Pain Management Guidelines*.
- Remember that carbon monoxide poisoning is a common complication of burns suffered in a structure fire.

Priorities	Assessment Findings
Chief Complaint	Burns, pain, burning sensation; electrical/lightning injury; chemical (caustic) exposure
LOPQRST	Identify cause of burn, exposure time and time of burn
AS/PN	Respiratory distress, ulcerous skin may be present in chemical burns, entrance and/or exit wounds with possible cardiac changes in electrical injuries
AMPL	Note previous medical conditions that may affect survival
Initial Exam	Scene safety, ABC's support as necessary
Detailed Focused Exam	Vitals: Estimate BSA (partial and full thickness burns) with "rule of nines", BP, HR, RR, Temp, SpO ₂ , SPCO General Appearance: Varies depending on burn; may show signs of extreme pain Skin: Depending on the degree on the burn, erythema, blisters, pale leathery appearance, charring, sloughing HEENT: Pupils, check nose & mouth for signs of burns (e.g. soot, edema, redness) Lungs: Signs of respiratory distress, stridor, diminished or absent lung sounds? Heart: Rate and rhythm? Especially in electrical burns Neuro: Loss of movement and/or sensation in extremities, focal deficits?
Data	BSA estimate, cardiac monitor, SpO ₂ .
Goals of Therapy	Stop the burn; airway management; fluid resuscitation; pain control; management of associated injuries; (Decontamination in hazmat incidents)
Monitoring	Watch for cardiac dysrhythmias, increasing respiratory distress and signs of shock

EMERGENCY MEDICAL RESPONDER/ EMERGENCY MEDICAL TECHNICIAN

- Routine Medical Care/Routine Trauma Care.
- If in cardiac arrest due to electrical injury, perform CPR in the usual fashion (See *Cardiac Arrest Guidelines*).

- Stop the burning process. Get the patient away from the heat source. Remove burned, hot, warm, and/or contaminated clothing.
- Administer oxygen 2 – 4 LPM per nasal cannula if SpO2 < 94%. Increase flow and consider non-rebreather mask to keep SpO2 > 94%
 - 100% oxygen via non-rebreather for suspected carbon monoxide or other toxic gas exposure
- Remove rings, bracelets, and other constricting items as soon as possible
 - Remove contact lenses if possible
- Dress burns with dry dressings or clean sheets
- Consider non-visualized airway
 - Non-visualized airways may be contraindicated if airway burns are evident:
 - carbonaceous sputum
 - singeing of nasal hairs
 - swelling of the lips, tongue or pharynx due to burns
 - hoarse voice or stridor
- Keep the patient warm with dry blankets
- Chemical burns
 - Remove clothing
 - If dry powder is present, brush away before irrigating
 - Flush with copious warm water on scene and continue irrigation enroute to receiving facility
 - Chemical injuries to eyes are an EMERGENCY. Remove contact lenses if possible and irrigate continuously with normal saline for duration of transport.
 - Avoid hypothermia

Give a status report to the ambulance crew by radio ASAP.

ADVANCED EMERGENCY MEDICAL TECHNICIAN

- IV lactated Ringer's or normal saline.
 - Unburned sites are preferred, but burned sites are acceptable
 - ADULTS – 500 ml bolus
 - PEDS – 250 ml bolus
 - INFANTS – 125 ml bolus
 - Repeat bolus as needed for hypotension
- Monitor ABC's and vitals closely

Contact Medical Control for the following:

- Additional fluid orders

INTERMEDIATE

- Establish 2nd IV
- Pain management, refer to *Pain Management Guidelines*.

Contact Medical Control for the following:

- Additional orders

PARAMEDIC

- Continue pain control, refer to *Pain Management Guidelines*.
- Consider rapid sequence intubation. See *RSI/RSA procedure*[1]
 - If the patient remains alert or has an intact gag reflex AND there is carbonaceous sputum, singeing of nasal hairs, swelling of the lips, tongue or pharynx due to burns, a hoarse voice or stridor, or other signs of respiratory distress.

Contact Medical Control for the following:

- Additional orders

FOOTNOTES:

[1] RSI/RSA requires 2 qualified paramedics at the patient's side

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