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BURN PATIENT INITIAL RESUSCITATION CHECKLIST

Evidence Based Medicine Guideline

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Summary
Burn patients require specialized resuscitation that should begin in the Trauma Bay. Over-resuscitation must be avoided. Early administration of fresh frozen plasma (FFP) improves burn patient outcome.

First 5 minutes	**Assessment**	☐ Estimate %TBSA burned using "Rule of Nines" or "Rule of Palms"
	Resuscitation	☐ Follow Advanced Trauma Life Support™ (ATLS) protocol for patients with concomitant injuries. ☐ Place 2 large bore peripheral IVs through non-burned skin. Alternatively, place intraosseous catheter or central venous catheter. ☐ **For burns ≥ 20% TBSA, begin Lactated Ringer's (LR) at 500 ml/hour**
First 30 minutes	**Assessment**	☐ Revise %TBSA burned following secondary survey. ☐ If intubated, perform bronchoscopy in Trauma Bay. Take quality pictures of airway and upload securely to EPIC®. Document grade of inhalation injury present. ☐ For patients with facial burns, evidence of ocular injury, singed eyebrows and/or eyelashes, perform Wood's Lamp examination.
	Resuscitation	☐ Adjust initial 24-hour fluid requirement based on revised %TBSA. For < 20% TBSA: Oral fluid resuscitation For ≥ 20% TBSA: Hourly rate = **2 mL x weight (kg) x %TBSA divided by 16** For ≥ 20% TBSA with electrical injuries: Hourly rate = 4 mL x weight (kg) x %TBSA divided by 16 ☐ For ≥ 20% TBSA: Insert urinary catheter and follow hourly urine output (UOP): UOP < 30 mL/hr = increase hourly LR rate by 1/3 UOP 30-50 mL/hr = no change in hourly rate UOP > 50 mL/hr = decrease hourly LR rate by 1/3 ☐ **For 20-39% TBSA: give 1 unit of FFP in the Trauma Bay**. ☐ **For ≥ 40% TBSA: give 2 units of FFP in the Trauma Bay**. ☐ For patients with inhalation injury, place on 100% FiO_2 (by mechanical ventilation or non-breather face mask) for the first 4 hours. ☐ For patients with suspected cyanide toxicity (clinical suspicion, hemodynamic instability [unrelated to another cause], altered mental status, seizure, respiratory or cardiac arrest), give intravenous hydroxycobalamin (Cyanokit®). ☐ Unless contraindicated or received within past 5 years, give tetanus vaccine. ☐ Cover burns with clean, dry sheets until burn debridement is performed.
	Documentation	☐ Description, time, and mechanism of injury ☐ Associated injuries ☐ Any available medical and social history ☐ Fluid volume, any medications, burn care administered prior to arrival
	Laboratory / Radiographic studies	☐ Trauma blood panel, arterial blood gas (if intubated, airway or breathing concerns, suspected inhalation injury), arterial lactate. If electrical injury suspected, add creatine kinase and troponin. ☐ Chest radiograph and 12-lead EKG for all burns ≥ 20% TBSA
ICU / floor	**Resuscitation**	☐ Calculate actual %TBSA following initial debridement using Lund & Browder chart and adjust fluid resuscitation rate accordingly

REFERENCES

- Advanced Life Support Course Provider Manual (2023). American Burn Association, Chicago, Il.
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