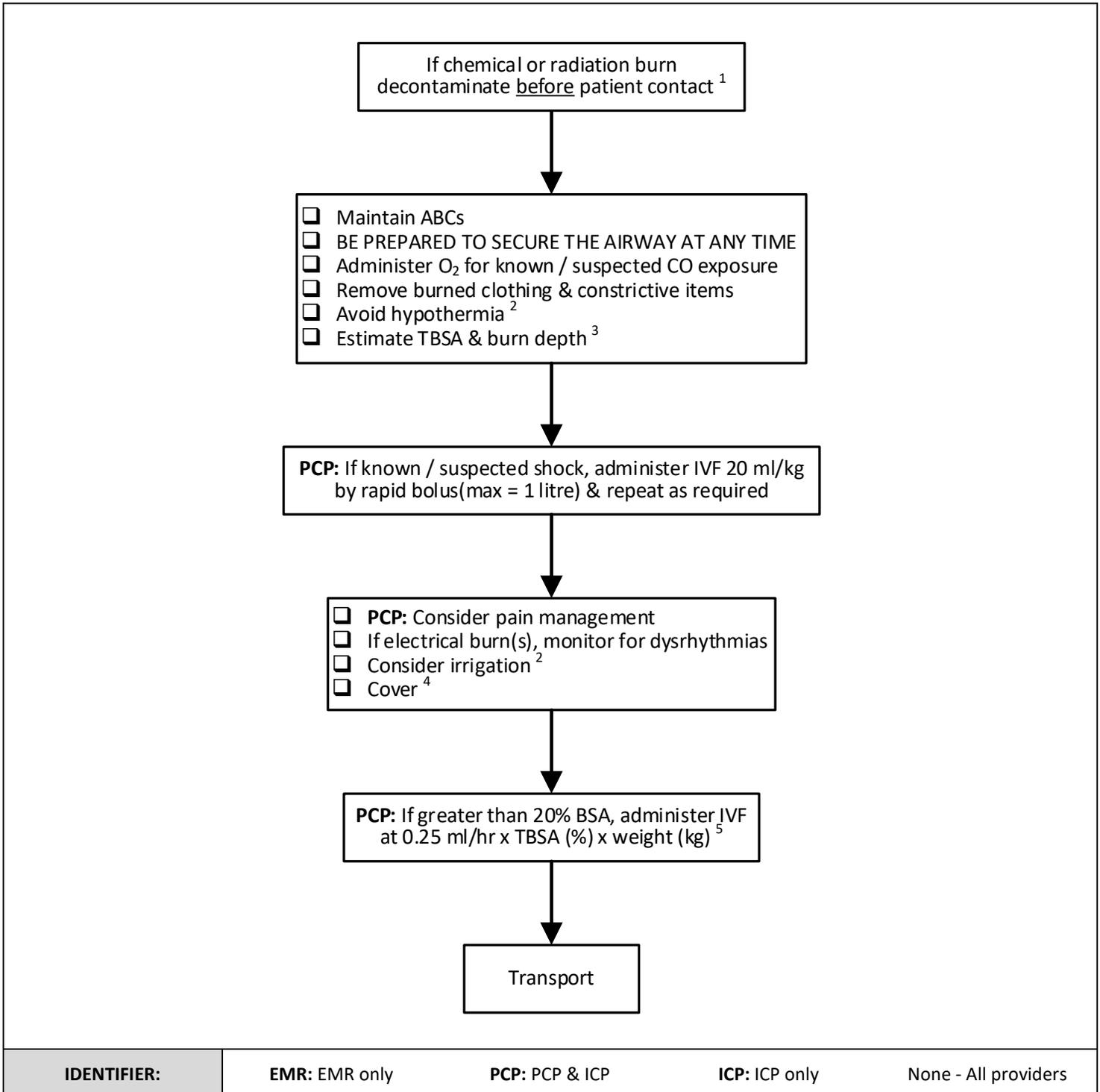


	F03 - MAJOR BURNS	
	All ages	TRAUMA
Version date: 2023-08-06		Effective Date: 2023-12-19 (0700)



INDICATIONS
<ul style="list-style-type: none"> Thermal, chemical, electrical and radiation burns

CONTRAINDICATIONS
<ul style="list-style-type: none"> Not applicable

NOTES
<ol style="list-style-type: none"> Other agencies or services may be required to remove the patient from danger before EMS can initiate assessment and treatment. Local technical personnel may be able to provide information for the safe handling of contaminated persons. Manitoba Conservation – Environmental Operations: Dangerous Goods Emergency Response (1-204-944-4888) is available 24 hours every day to provide appropriate information, resources, and personnel. Hypothermia can rapidly occur from prolonged or large-area irrigation, as well as from exposure, or the administration of ambient temperature IV fluids or oxygen. Second degree (partial thickness) and third degree (full thickness) burns greater than 20% burn surface area (BSA) are potentially life-threatening injuries (appendix B). Burns should be covered with clean dry dressings, sheets, or commercial burn dressings. Do not break blisters. After correcting for shock, patients with second degree (partial thickness) and third degree (full thickness) burns greater than 20% body surface area (BSA) should intravenous fluid (IVF) administered according to the <i>Parkland Formula</i> (appendix A) with frequent reassessment of ongoing needs.

LINKS
<ul style="list-style-type: none"> Not applicable

APPROVED BY	
	
EMS Medical Director	EMS Associate Medical Director

VERSION CHANGES (refer to X06 for change tracking)

- Identifier legend at bottom of flow chart replaces work scope statement in header

APPENDIX A: PARKLAND FORMULA FOR ESTIMATING FLUID REQUIREMENTS

Daily fluid requirements = 4 ml X total burn surface area (%) X bodyweight (kg)

- This volume is in addition to any losses from hemorrhage or pre-existing hypovolemia.
- The daily requirement begins from the time of injury, not the time of treatment.
- The first half of the volume is given over 8 hours (0.25 ml/hr x TBSA x weight). The second half is given over 16 hours.

NOTE: This is only an initial estimate and can be affected by other factors such as age, comorbidities, presence of airway or pulmonary burns, and concomitant traumatic injuries. Adjustments may be needed based upon the patient's response.

EXAMPLE: A 90 kg patient sustained 35% burns 3 hours prior to EMS arrival. The initial estimate of his daily fluid requirement is 12.5 litres. Half must be given in the first 8 hours (800 ml/hr) and the other half over the next 16 hours (400 ml/hr). However, he is already 3 hours behind, so this volume should be administered in the next 21 hours (900 ml/hr x 7 hr, then 450 ml/hr x 14 hr). However, all these numbers are only an estimate and continuous reevaluation is required.

APPENDIX B: ESTIMATING TOTAL BURN SURFACE AREA - TBSA (RULE-OF-NINES)