


APPENDIX E: FLUID & EQUIPMENT PLANNING CONSIDERATIONS


Assumptions: One patient with a 50% total body surface area (TBSA) burn, weighing 80kg, and requiring 4mL/kg/%TBSA for resuscitation the first day (16L), half that the second day (8L), and half that the third day (4L).

Note: For planning purposes only, the Parkland formula of 4mL/kg/%TBSA provides an estimate for the first 24-hour fluid requirements; however, hourly fluid resuscitation should start with the rule of 10s.


Best:

- Fluids: IV fluid (lactated Ringer's solution or Plasma-Lyte) to provide resuscitation for 72 hours (28L)
 - Equipment: Portable monitor with capnography; lab capability for serum electrolytes, arterial blood gases, and lactate; Foley catheter with graduated collection system; portable ventilator; portable suction; electrocautery or scapel; oxygen or oxygen concentrator; airway management kit to include endotracheal suction catheter
 - Medications: pain medications (refer to *Analgesia, Sedation* CPG)
 - Burn-specific dressings: Hibiclens to clean wounds, Silvadene and/or Sulfamylon cream (two 400g jars per patient per day), or silver nylon (Silverlon) dressings
 - Nonspecific dressings: roller gauze, torso dressings, tape or stapler
 - Hypothermia prevention: sleeping bag or Hypothermia Prevention & Management Kit (HPMK)
 - Monitoring: Portable monitor providing continuous vital-signs display; capnography, if intubated; document vital-signs trends, intake and output, GCS, and pain level on a regular basis; burn-resuscitation flow sheet
 - Push-pack capability: prepackaged additional 24-hour supplies of fluids, dressings for scenarios >24 hours or >1 patient
-  Communications: real-time video telemedicine consultation

Better:

- Fluids: IV fluid (lactated Ringer's solution or Plasma-Lyte) to provide resuscitation for 24 hours (16L); oral electrolyte replacement
 - Equipment: Blood pressure cuff, stethoscope, pulse oximeter, capnometer, portable ventilator, oxygen or oxygen concentrator, airway management kit to include endotracheal suction catheter
 - Graduated container to monitor urine output
 - Pain medications
 - Nonspecific dressings: roller gauze, torso dressings, tape or stapler
 - Hypothermia prevention: sleeping bag/HPMK/ Blizzard Blanket (Blizzard Protection Systems Ltd., <http://www.blizzardsurvival.com/>)
 - Monitoring: Frequent vital signs, examination, fluid input, urine output, flowsheet to document
-  Communications: telephone; e-mail digital photos

Minimum:

- Fluids: Resuscitation with commercial or improvised electrolyte solution (oral, enteral, rectal)
 - Equipment: Blood pressure cuff, stethoscope, pulse oximeter, bag-valve mask with positive end-expiratory pressure (PEEP) valve, airway management kit
 - Graduated or improvised graduated container to monitor urine output
 - Pain medications
 - Clean sheet, any available trauma dressings
 - Hypothermia prevention: sleeping bag/emergency blanket/blankets
 - Monitoring: Frequent vital signs, examination, fluid input, urine output documented on preprinted or improvised flowsheet
-  Communications: Telephone.