I. Burn Resuscitation Protocol
   A. Document patient’s TBSA burn using Lund-Browder diagram (Rule of Nines Diagram). Include only partial and full-thickness burns.
   B. Obtain weight or close estimate.

II. First 24 Hours Post Burn
   A. TBSA < 20%
      Maintenance IVF only until taking adequate oral intake.
   B. TBSA > 20% and Weight > 30kg
      1. Calculate estimated fluid needs:
         a) 2-4cc of LR X kg of body weight X %TBSA burned:
            - administer half of calculated amount over the first 8 hours post burn
            - administer half of calculated amount over next 16 hours
         b) If urine output < ½ cc/kg/hour (goal is 30-50 cc/hour):
            - increase LR infusion by 1/3 of the hourly calculated fluid requirement
         c) If urine output > 70 cc/hour:
            - dip urine to exclude glucosuria
            - decrease LR infusion by 1/3 of the hourly calculated fluid requirement
   C. TBSA > 20% and Weight < 30kg
      1. Calculate estimated fluid needs:
         a) 3-4 cc of LR** X kg of body weight X % TBSA burned
            - administer half of calculated amount over the first 8 hours post burn
            - administer half of calculated amount over next 16 hours
         b) In addition to burn fluid requirements, also infuse maintenance IVF (calculated total for 24 hours):
            - 100 cc X first 10 kg of body weight
            - 50 cc X next 10 kg of body weight
            - 20 cc X next 10 kg of body weight
         c) If urine output < 1 cc/kg/hour:
            - increase LR infusion by 1/3 of the hourly calculated fluid requirement
         d) If urine output >> 1 cc/kg/hour:
            - decrease LR infusion y 1/3 of the hourly calculated fluid requirement
            (**use D5LR if patient < 1 year old)
   D. Place enteral feeding tube as soon as possible for all burns > 20% TBSA.
   E. Consider Swan-Ganz placement for intubated patients with TBSA > 30%, age > 50 years and/or inhalational injury.

III. Treatment of Low Urine Output
   A. In adult patients with continued low urine output despite increased fluid rates:
      1. place Swan-Ganz catheter for monitoring
         a) if central pressures normal to high with low urine output:
            - start low dose Dobutamine @ 5 mcg/kg/min
            - titrate to effect
         b) if central pressures are low with low urine output:
            - continue fluid resuscitation at increased rate

IV. After 24 Hours Post Burn
   A. Serum Na⁺ and K⁺ should be checked at least BID on the second burn day.
   B. Adjust type of fluid by the serum Na⁺ level.
   C. After 24 hours of crystalloid, if fluid requirements high, consider 5% albumin infusion (discuss with attending).
   D. Goal is to decrease IVF rate to one half of rate infused over the previous 16 hours.
      1. If patient >30 kg, urine output goal of ½ cc/kg/hour (maximum 50cc/hour)
      2. If patient ≤30 kg, urine output goal of 1 cc/kg/hour