ACUTE RENAL FAILURE

A. Defined as Oliguria (<30 cc/h/kg) or Anuria (<500 cc/24hrs) – rule out obstruction (IE – Insert Flush Foley)
B. Serum Creatine >2.5mcg/dl
C. Assess volume statis (PAC?)
D. Adjust dosing or stop Renal Toxic Drugs!
E. Define etiology (Prerenal, Renal, Post-Renal)
    a. Renal Failure Index = (urine Na x serum Cr)/ (urine Cr)
        i. Prerenal <1, Renal >1
    b. Fractional Excretion of Na = (urine Na x serum Cr)/ (serum Na x urine CR) x 100
        i. Prerenal <1, Renal >1
    c. Fractional Excretion of Urea = (urine urea x serum Cr)/ (BUN x urine CR) x 100
        i. Prerenal 0.2-0.3, Renal >0.4-0.7
    d. Creatine Clearance (ml/min) = (140-age) (Wt kg)/72 x serum CR (mg/dl)
    e. Urine Na: Prerenal <10, Renal >20
F. Indications for Renal Consult & Hemodialysis
    a. Volume overload
    b. High K
    c. Acidosis
    d. Drug Overdose
    e. Uremia
G. When ordering contrasted studies provide hydration and HCO_3 add mixture
    a. D5W + 3amps of HCO_3 at 3ccs/kg/hr. x 1 hr. (1 hr. prior to procedure) then 1cc/kg/1hr. x 6 hrs. after procedure.

Reference:
Merten et al. Prevention of Contrast-Induced Nephropathy w/Sodium *Bicarbonate.* 2004 JAMA 291(19); 2328-2334
Moore, Feliciano & Mattox. Fifth Edition Trauma 1323-1350