

## ACUTE RENAL FAILURE

- A. Defined as Oliguria (<0.5 cc/h/kg) or Anuria (<500 cc/24hrs) – rule out obstruction (IE – Insert Flush Foley)
- B. Serum Creatine >2.5mcg/dl
- C. Assess volume status (PAC?). If pressors required, norepinephrine +/- vasopressin. Dopamine is not to be used.
- 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<sub>3</sub> add mixture
  - a. D5W + 3amps of HCO<sub>3</sub> at 3ccs/kg/hr. x 1 hr. (1 hr. prior to procedure) then 1cc/kg/1hr. x 6 hrs. after procedure.
  - b. Oral or per tube Acetylcysteine 600mg Q12h on day of contrast and next day

### Reference:

1. Merten et al w/Sodium Bicarbonate. 2004 JAMA 291(19); 2328-2334
2. Kay et al. w/ Acetylcysteine. 2003 JAMA 289; 553-8
3. Moore, Feliciano & Mattox. Fifth Edition Trauma; 1323-1350