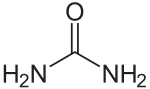
01 Renal Failure

Renal numbers

Size: less than 60 kDa or 10\*-27 kg

Blood flow 180 L/day or 125 ml/min

Blood volume 5L

BUN (Serum Urea Nitrogen) AA 🡪 ammonia 🡪 Urea (50:50 eliminated)

Scr (Serum creatinine) 0.8-1.2 ml/dL muscle breakdown 🡪 90% eliminated

Lab Test

1. Urinalysis
   1. pH
   2. SG
   3. Glucose
   4. Ketones (breakdown of fat) in anorexia
   5. Bilirubin break down of bile
   6. Protein and albumin

Calculations: Cockcroft Gault Equation

**CrCl (ml/min)**= (140-age)(TBW kg) x 0.85 (if female)

72 x Scr

TBW = total body weight

If obese (BMI > 30 kg/m^2) Use Adjusted body Weight

BMI = weight / (height m^2)

Where IBW= 50kg (45 kg in females)+ 2.3 kg (height in inches > 5ft)

Adjusted body weight (ABW)= (TBW - IBW) (0.40) + (IBW)

Calculations: 24 hours urine collection

CrCl (ml/min) = (Ucr \* Uvo)l / (1440 \* Scr)

Use if amputee (less muscle), pregnant (more muscle)