AKI

Rise Serum Creatinine:

- ≥ 26 micromol/L within 48 hours
- ≥ 50% past 7 days.

Fall Urine Output:

- < 0.5 mL/kg/hour for more than 6 hours

PRE-RENAL

- Hypovolemia
- Sepsis
- Impaired Renal Autoregulation:
  - Nephrotoxic Medications*
- Decreased Cardiac Output
- Decreased Effective Circulation:
  - CCF
  - Liver Failure

RENAL

GLOMERULAR

- Acute Glomerular Nephritis

TUBULES AND INTERSTITUM

ACUTE TUBULAR NECROSIS

Ischaemia:

- Hypoperfusion
- Renal artery stenosis / embolism

Endogenous Toxins

- Haemolysis
- Rhabdomyloysis
- Myeloma
- Intratubular Crystals

Exogenous Toxins

- Nephrotoxic Medications*
- Iodine Contrast

ACUTE INTERSTITIAL NEPHRITIS

- Infection
- Nephrotoxic Medications*

VASCULAR

- Malignant Hypertension
- Renal Artery / Vein Thrombosis
- Vasculitis
- Haemolytic-Uraemic syndrome (HUS)
- Thrombotic Thrombocytopaenic Purpura (TTP)

POST-RENAL

- Urethral Obstruction
- Blocked Catheter
- Hydronephrosis
- Nephrotoxic Medications*
  - Due to crystal build up in ureters causing obstruction

COMMON NEPHROTOXIC MEDICATIONS*

PRE-RENAL

- Diuretics
- ACEI
- ARBs
- NSAIDSs
- Cyclosporine
- Interferon
- Tacrolimus

RENAL

ATN:

- Statins
- Aminoglycosides

AIN:

- Diuretics
- Penicillins
- Cephalosporins
- Sulfonamides
- Tetracyclines
- Fluroquinolones
- Rifampin
- Aciclovir
- Anti-retrovirals
- Allopurinol
- Methotrexate
- Lithium
- Phenytoin
- PPI's

POST-RENAL

- Aciclovir
- Anti-retrovirals
- Sulfonamides

These are not exhaustive lists

AKI STAGES

Stage	Serum Creatinine	Urine Output
1	• 1.5 - 1.9 x baseline • ≥ 26 micromol/L	• <0.5 mL/kg/hr for 6 hours
2	• 2 - 2.9 x baseline	• <0.5 mL/kg/hr for 12 hours
3	• ≥ 3 x baseline	• <0.3 mL/kg/hr for 24 hours • Anuria ≥ 12 hours