

Kidney Transplant Cheat Sheet

Setup Checklist

- ☐ "Transplant box"
 - Methylprednisone
 - Mannitol gtt
 - Furosemide
- ☐ Thymoglobulin
- ☐ Heparin IV
- ☐ NS carrier
- ☐ Phenylephrine gtt
- ☐ IV in-line filter x2
- ☐ 2nd IV setup

Preop	☐ T/S Check potassium level, assess volume status <i>*dialysis < 24 hours from surgery ↑ risk delayed graft function</i>
Access	PIV x2 (second for dedicated thymoglobulin infusion) <i>Arterial line and central line not required, only for normal indications</i>
Induction	<i>Consider RSI (uremic gastroparesis)</i> Judicious rocuronium vs cisatracurium
Immunosuppression	15 min later  1 Post-induction methylprednisone 500 – 1,000 mg 2 Thymoglobulin infusion (1.5 mg/kg over 6 hours)* <i>*requires in-line filter</i>
Pre-Reperfusion	Volume expansion with 1.5 – 2.0 L crystalloid
Post-Reperfusion	• SBP > 130 mm Hg (transplanted kidney cannot auto-regulate) • +/- furosemide • +/- mannitol
Analgesia	Avoid meds with renally cleared metabolites (morphine)

Thymoglobulin

Mechanism: purified rabbit anti-thymocyte immune globulin

Administration:

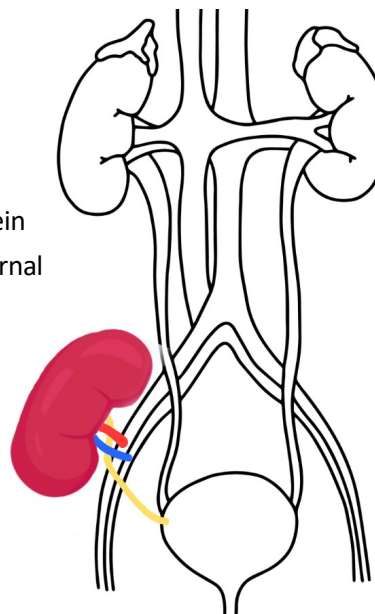
- Requires filter (for residual particulate following re-constitution)
- Requires dedicated IV (for constant rate)

Adverse effects:

- ANAPHYLAXIS – mitigate risk by giving steroid bolus before thymoglobulin
- Hypotension – improve by slowing infusion rate

Surgical Steps

1. Lower quadrant incision
2. Iliac vein and artery exposure
3. Renal vein anastomosis to iliac vein
4. Renal artery anastomosis to external iliac artery (*reperfusion*)
5. Ureter to bladder anastomosis



Post-Operative Considerations

Improved urine output indicates graft function

Replace outputs to maintain euvolemia and renal perfusion

Post-op complications

- Delayed graft function
Dialysis within 7 days post-op
- Renal artery thrombosis
- Renal vein thrombosis
- Hematoma
- Ureteric leak