

Kidney Transplant Cheat Sheet

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Setup Checklist

- "Transplant box" – methylprednisone, mannitol gtt, furosemide
- Thymoglobulin
- Heparin bolus

- NS carrier
- Phenylephrine gtt and bolus
- IV in-line filter x2

- 2nd IV setup

Pre-Op

- T/S
- Assess K+, volume status
Dialysis < 24 hours from surgery
↑ risk delayed graft function
- +/- H2-blocker
Gastroparesis

Access

- PIV x2
- +/- art line
Not required, for normal indications
- CVC only for inadequate peripheral access

Position

Pad fistula

Induction

- Consider RSI (gastroparesis)
- Paralytic: judicious rocuronium vs. cisatracurium

Immunosuppression

- Post-induction*
- 15 min later
- 1 Methylpred 500 – 1,000 mg
 - 2 Thymoglobulin (1.5 mg/kg over 6 h)*
- *requires filter and dedicated IV*

Pre-Reperfusion

- Volume Expansion
- 1.5– 2 L crystalloid
 - Half LR, half NS*

Post-Reperfusion

- SBP > 130 mm Hg
Transplanted kidney can't auto-regulate
- +/- furosemide
- +/- mannitol 12.5-25 g

Analgesia

Fentanyl
No renal metabolites

Thymoglobulin

Mechanism: purified rabbit anti-thymocyte immune globulin

Administration:

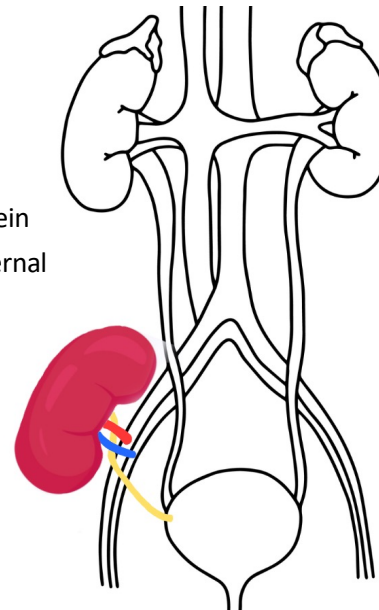
- Requires filter (for residual particulate following re-constitution)
- Requires dedicated IV (for constant rate)

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