Immunosuppression for Adult Kidney Transplant Recipients					
		INDUCTION-CHOOSE ONE			
		Consider Simulect if: Hypotension Prior heart/liver/lung transplant Baseline WBC count less than 3 or platelet count less than 50 Active low grade or prior significant malignancy	**Choose ATG by default especially if:** CPRA > 30% Age < 40 2DR MM Prior kidney transplant If not a candidate for CNI Donor A2/ Recipient B	*Always discuss induction with transplant attending	
POD	**Steroids**	**Simulect (basiliximab)**	**Thymoglobulin (r-ATG)**	**Antimetabolite**	**CNI**
0	Methylprednisolone 500 mg IVPB x1 intra-op	20 mg IV x1 *Give in OR at beginning of *No premeds needed *Infuse over 30 mins through central or peripheral line	1.5 mg/kg IV *Confirm preferred dosing weight with attending—IBW vs ABW (round to 25 mg) (max 150 mg) *Give in OR, at beginning of case	Start following case completion: Cellcept (MMF) 1000 mg PO q12h (09:00/21:00) Conversion: IV:PO 1:1 Alternative: Myfortic (MPA) 720 mg PO q12h (09:00/21:00) *In low immunologic risk: Decrease MMF to 500 mg bid or MPA to 360 mg bid, after tacrolimus level is therapeutic, after discussion with renal transplant attending	Typically start POD1 Goal Trough: 8-10 ng/mL for first 3 months Inpatient: Tacrolimus IR 0.05mg/kg Q12H PO (06:00/18:00) Outpatient: *Per transplant attending if covered by insurance If indicated convert to Envarsus XR. Conversion: SL:PO 1:1 *Avoid IV tacrolimus unless approved by transplant attending*
1	Methylprednisolone 200 mg IVPB		Assess CBC first! 1.5 mg/kg IV (round to 25 mg) (max 150 mg)		
2	Methylprednisolone 160 mg IVPB		Assess CBC first! 1.5 mg/kg IV (round to 25 mg) (max 150 mg)		
3	Methylprednisolone 125 mg IVP		Assess CBC first! 1.5 mg/kg IV (round to 25 mg) (max 150 mg)		
4	Prednisone 80 mg PO	20 mg IV x1			
5	Prednisone 40 mg PO				
6	Prednisone 20 mg PO daily				
7 to 14	Prednisone 20mg PO daily				
15 to 21	Prednisone 15mg PO daily				
22 to 28	Prednisone 10mg PO daily				
FROM DAY 29	Prednisone 5mg PO daily				

Thymoglobulin (r-ATG) Dosing Instructions			
FULL DOSE = 1.5 mg/kg IBW (round to 25 mg) (max 150 mg) *For mild infusion-related reactions, slow the infusion rate and consider repeating premeds. If concern for severe reaction-stop infusion and page 8767*	**Thymoglobulin Administration:**		
	- Premedicate doses with scheduled steroid (or at least methylprednisolone 40 mg IV), acetaminophen 650 mg PO, and diphenhydramine 25-50 mg IV/PO 30-60 minutes before starting Thymo infusion - Infuse over 6 hours through a central line using a 0.22-micron filter (max concentration 0.5 mg/mL) - **If only peripheral access, infuse over 12 hours (max concentration 0.25 mg/mL)**		
	Thymoglobulin Dose Adjustments:		
	If WBC 2,000 – 3,000	and/or platelets 50,000 – 75,000	→ consider decreasing dose by 50%
	If WBC < 2,000	and/or platelets < 50,000	→ consider holding dose

Routine Prophylactic Medications for Kidney Transplant Recipients			
Indication	**Population**	**Medication & Dose (see below for renal dose adjustments)**	**Duration**
Peri-operative	All patients	Cefazolin 1-2 g IV every 8 hours (wt <60 kg=1 g, wt≥60 kg=2 g)	1st dose 60 min prior to incision through 24 hours post-op x 24 hours
	Alternative if severe B-lactam allergy *If rash w/o other systemic issues or mild B-lactam intolerance, encourage cefazolin	Clindamycin 600 mg IV every 8 hours **AND** Ciprofloxacin 400 mg IV every 12 hours	
Fungal (thrush)	All patients	Fluconazole 100 mg PO daily	1 month
PJP	Preferred (PJP and UTI protection)	Sulfamethoxazole/trimethoprim 400/80 mg 1 tab PO daily for 6 months then 1 tab PO three times weekly thereafter	Lifelong
	If sulfa allergic and NOT G6PD deficient And donor TOXO IgG negative	Dapsone 100 mg PO daily	6 months
	If sulfa allergic and G6PD deficient And donor TOXO IgG negative	Atovaquone 1500 mg PO daily OR Pentamidine 300 mg inhalation once monthly	
Viral	CMV High Risk (D+/R-)	Valganciclovir 900 mg PO daily	6 months
	CMV Mod Risk (R+)	Valganciclovir 900 mg PO daily	3 months
	CMV Low Risk (D-/R-)	Acyclovir 400 mg PO twice daily	3 months
	EBV IgG Recipient Neg	Acyclovir 400 mg PO twice daily	After completion of CMV ppx, up until 1 year post transplant

Renal Dosing for Prophylactic Medications
(Notes: Renal function is often dynamic post-transplant and alternative estimates to CrCl may be needed, monitor dialysis schedule as often for cause rather than scheduled)

Cefazolin (peri-op)

CrCl (mL/min)	Dose
10-29	Redose x 1 at 12 hours
<10 or HD	No need to redose pending dialysis needs

Ciprofloxacin (peri-op)

CrCl (mL/min)	Dose
<30	No need to redose pending dialysis needs

Fluconazole

CrCl (mL/min)	Dose
<15 or HD	100 mg PO three times weekly (after HD)

Valganciclovir

CrCl (mL/min)	Dose
≥ 60	900 mg daily
40 – 59	450 mg daily
25 – 39	450 mg q48 hours (may opt for three times weekly for med adherence)
10 – 24	450 mg twice weekly
< 10 or HD	100 mg three times weekly after HD (use solution)
CRRT	Use IV ganciclovir *contact clinical pharmacist for dosing*

Acyclovir

CrCl (mL/min)	Dose
<15 or HD	400 mg daily (after HD)

Sulfamethoxazole/Trimethoprim 400/80 mg

CrCl (mL/min)	Dose
<15 or HD	1 tab three times weekly (after HD)

Dapsone

CrCl (mL/min)	Dose
<15 or HD	50 mg daily (after HD)

Other Routine Medications	
GI Prophylaxis	Famotidine 20 mg PO twice daily If on PPI prior to transplant: Pantoprazole 40 mg PO once daily, can resume PTA PPI on discharge
Bowel Regimen	Docusate 100 mg PO twice daily
DVT Prophylaxis	Heparin 5000 units subcutaneously every 12 hours for recipients in immediate post op period, till cleared by transplant surgeon

Post-operative Inpatient Management of the Kidney Transplant Recipient					
	Day 0	**Day 1**	**Day 2**	**Day 3**	**Day 4**
Standing Weight	Daily	Daily	Daily	Daily	Daily
Vital Signs	q15 min x4. Then q30min x2. Then q1Hx12H. Then q2H x4H	Q4H+ *More frequent during Thymo admin	Q4H+	Q4H+	Q4H+
Intake/Output	Q1H	Q4H	Q4H	Q4H	Q4H
Urine Replacements	Q1H	Q1H if clinical status warrants vs stopping	-	-	-
CVP	Q2H	Q4H	-	-	-
CBC, CMP, Mag, Phos	On arrival	Daily while on the floor			
Tacrolimus trough	-	Daily once started			
CXR	Upon arrival to PACU/SICU/Floor if central line placed intraoperatively				
Analgesics	IV	IV/PO	PO	PO	PO
Fluid management	Maintenance IVF@100mL/hr Replacements	Consider stopping replacements	IVF vs diuresis	Consider diuresis	Consider diuresis
Thrombosis prophylaxis	HSQ+SCDs + Mobilize OOB to chair	HSQ+SCDs + Mobilize OOB to chair + Ambulate in hallway			
Lines/Drains				Consider Foley removal	Consider Foley removal DC TLC after last dose of Thymo Document plan for dialysis access removal if any
JP management					Consider removing JPs
Hyperkalemia Management	Consider outpatient Lokelma 10g at noon with lunch at discharge Consider changing from sulfa abx to another drug				
Hypophosphatemia Management	Consider outpatient phos supplements if phos <2 on day of discharge				
Diet	NPO except meds	Clears	ADAT		
Pharmacy	Assist with coordination of intra-operative medications, review initial post-op orders	Medication history, documentation of initial post-transplant note, order meds for discharge	Coordinate any prior authorizations needed, collaborate with transplant SW regarding patient assistance PRN	Prompt medications for delivery Discharge medication reconciliation, discharge medication teaching, documentation of discharge teaching	
Social Work	Social work initial visit/note to address coping, support plan, insurance	Collaborate with pharmacist regarding medications, anticipated cost/copay, assistance programs	Follow up on any issues as needed	SW discharge visit/note to address discharge plan, caregiver plan, transportation, clinic follow up, patient education, insurance/income, letter to donor family (if applicable), handouts and contact info provided	
Nutrition	Nutrition history and initial note	Check on PO intake/nutrition status and start diet education	Complete full diet education	Touch base on any nutrition-related questions prior to discharge	
Nurse Coordinator		Drop off handbook	Initiate teaching	Complete discharge education	
Dispo Planning	Daily on rounds—including pharmacy, nutrition, social work, case management, and nursing Goal for discharge postoperative Day 3 or 4				

Post-transplant Monitoring	
Allosure or Prospera	Monitor at following intervals post transplant: Every month for first 3 months At Six months At Twelve months
DSA Monitoring	If moderate/strong DSA titer present at the time of transplant: Repeat at One month post transplant
BK Monitoring	Urine BK q month for first year after transplant If positive then Blood BK PCR monitoring frequency per clinical significance
UPC Monitoring	If h/o FSGS or Membranous GN UPC ratio every week for first month followed by UPC ratio every month for first year

Belatacept Dosing Guide- If EBV IgG is NEGATIVE Belatacept is CONTRAINDICATED	
De Novo	POD 1, 5, 14: Belatacept 10 mg/kg Week 4, 8, 12: Belatacept 10 mg/kg Week 16: Belatacept 5 mg/kg Q28 Days Belatacept 5 mg/kg indefinitely
Conversion from CNI	Day 1: Belatacept 5 mg/kg Continue CNI at original dose Day 15: Belatacept 5 mg/kg Reduce CNI to 40-60% of original dose Day 22: No infusion Reduce CNI to 20-30% of original dose Day 29: Belatacept 5 mg/kg Discontinue CNI Day 43: Belatacept 5 mg/kg Day 57: Belatacept 5 mg/kg Q28 Days Belatacept 5 mg/kg indefinitely
Conversion from Sirolimus	Day 1: Belatacept 5 mg/kg Continue sirolimus at original dose Day 15: Belatacept 5 mg/kg Reduce sirolimus to 50% of original dose Day 29: Belatacept 5 mg/kg Discontinue sirolimus Day 43: Belatacept 5 mg/kg Day 57: Belatacept 5 mg/kg Q28 Days Belatacept 5 mg/kg indefinitely
Additional Guidelines	Round to nearest 12.5 mg Consider dose adjustment if patient's weight changes by >/= 10% Dosing frequency can vary +/- 3 days from scheduled day of infusion Stop checking levels of CNIs and sirolimus once patient is on belatacept
Pt must enroll in Nulojix Distribution Program and submit medical necessity form to Bristol Myers Squibb. Will need infusion site setup.	
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