

 The Transplant Institute METHODIST DALLAS Methodist Dallas Medical Center	Title: Immunosuppression Protocol - Kidney	Effective Date: 02/2012
	Section: Kidney	
Approved by: Richard Dickerman, M.D., Surgical Director Jose Castillo-Lugo, M.D., Medical Director Melody Holder, Director of Transplant Clinical Operations		Revision Date(s): 07/2016; 06/2021; 10/2024 Next review Date: 10/2027

Purpose: To guide decisions regarding management and treatment for kidney and/or pancreas transplant patients. Final decisions are at the discretion of the physician and/or transplant team

Policy:

Deceased Donor & Mismatched Living Donor Kidney Transplants

A) Suggested Induction Therapy (All Patients)

- 1) Standard Immunologic Risk:
 - Basiliximab 20 mg IV intraoperatively and on POD 4
- 2) High Immunologic Risk (PRA>20%, sensitized re-transplants, African-American recipients):
 - Anti-thymocyte Globulin (Rabbit) [rATG] x 3-5 days, prolonged cold ischemic time, pediatric enbloc or at the discretion of the transplant physician

rATG Dose Adjustment:

- a) 1.5 mg/kg if WBC>3,000 and platelet count >80,000
- b) 0.75 mg/kg if WBC 2,000–3,000 and platelets 50,000–80,000
- c) Hold if WBC <2,000 or platelet count <50,000

*Note in patients on rATG: If WBC <3,000, Neupogen 300 mcg SubQ may be used to prevent delay in ATG administration

B) Suggested Maintenance Immunosuppression with Immediate Graft **Function** (Defined as >25% decrease in serum creatinine, UO >1,500 cc/24 hrs in first 36 hours post-transplant)

- 1) Calcineurin Inhibitor
 - a) Tacrolimus (TAC) 0.15 mg/kg q12h starting POD 1 (or)
 - b) Cyclosporine (CsA) 3-5 mg/kg q12h starting POD 1

Target Blood Levels

	Day 1-90	Day 90+
TAC	8-12	6-10
CsA	250-400	100-250

- 2) Mycophenolate (dose to be adjusted as clinically indicated)
 - a) Myfortic 720 mg BID (or)
 - b) Cellcept 1,000 mg BID

- 3) Corticosteroids (methylprednisolone, prednisone)
 - a) POD 0 200 mg IV intraoperatively
 - b) POD 1 160 mg prednisone
 - c) POD 2 120 mg prednisone
 - d) POD 3 80 mg prednisone
 - e) POD 4 40 mg prednisone
 - f) POD 5-30 20 mg prednisone
 - g) POD 31-60 Taper to 5 mg prednisone

*Rapid taper to be considered in low immunologic risk patients

C) Suggested Maintenance Immunosuppression with Delayed Graft Function (Defined as <25% decrease in serum creatinine, UO <1,500 cc/24 hrs in the first 36 hours post-transplant)

- 1) Calcineurin Inhibitor
 - a) Tacrolimus (TAC) 0.15 mg/kg q12h starting POD 3 (or)
 - b) Cyclosporine (CsA) 3-5 mg/kg q12h starting POD 3

Target Blood Levels

	Day 1-90	Day 90+
TAC	8-12	6-10
CsA	250-400	100-250

- 2) Mycophenolate
 - a) Myfortic 720 mg BID (or)
 - b) Cellcept 1,000 mg BID

- 3) Corticosteroids (methylprednisolone, prednisone)
 - a) POD 0 200 mg IV intraoperatively
 - b) POD 1 160 mg prednisone
 - c) POD 2 120 mg prednisone
 - d) POD 3 80 mg prednisone
 - e) POD 4 40 mg prednisone
 - f) POD 5-30 20 mg prednisone
 - g) POD 31-60 Taper to 5 mg prednisone

D) Rapid Steroid Taper

- | | |
|----------------------------|---------------------------|
| a) At Discharge | Prednisone 20 mg PO daily |
| b) 1 Week after Discharge | Prednisone 15 mg PO daily |
| c) 2 Weeks after Discharge | Prednisone 10 mg PO daily |
| d) 3 Weeks after Discharge | Prednisone 5 mg PO daily |

- 1) If patient develops acute rejection, restart Prednisone 20 mg PO daily after rejection treatment then begin slow taper
- 2) Mycophenolate dose can be reduced after the first month if patient does not experience rejection

- 3) Prograf level goals for patients receiving rapid steroid taper:

	Month 1	Months 2-3	>3 Months
TAC	10	8	5

Two Haplotype Living Donor Kidney Transplants

A) Suggested Induction Therapy

Basiliximab 20 mg IV intraoperatively and on POD 4

B) Suggested Maintenance Immunosuppression

1) Calcineurin Inhibitor

- a) Tacrolimus (TAC) 0.15 mg/kg q12h starting POD 1 (or)
- b) Cyclosporine (CsA) 3-5 mg/kg q12h starting POD 1

Target Blood Levels

	Day 1- 90	Day 90+
TAC	8-12	6-10
CsA	250-400	100-250

2) Mycophenolate

- a) Myfortic 720 mg BID (or)
- b) Cellcept 1,000 mg BID

3. Corticosteroids (methylprednisolone, prednisone)

- a) POD 0 200 mg IV intraoperatively
- b) POD 1 160 mg prednisone
- c) POD 2 120 mg prednisone
- d) POD 3 80 mg prednisone
- e) POD 4 40 mg prednisone
- f) POD 5-30 20 mg prednisone
- g) POD 31-60 Taper to 5 mg prednisone

Combined Kidney-Pancreas Transplants & Pancreas Alone Transplants

A) Suggested Induction Therapy

- 1) Anti-thymocyte Globulin (Rabbit) [rATG] x 3-5 days

2) rATG Dose Adjustment:

- a) 1.5 mg/kg if WBC > 3,000 and platelet count > 80,000
- b) 0.75 mg/kg if WBC 2,000–3,000 and platelets 50,000–80,000
- c) Hold if WBC < 2,000 or platelet count < 50,000

*Note in patients on rATG: If WBC < 3,000, Neupogen 300 mcg SubQ may be used to prevent delay in ATG administration

- B) Suggested Maintenance Immunosuppression with Immediate Graft Function (Defined as >25% decrease in serum creatinine, UO > 1,500 cc/24 hrs in first 36 hours post-transplant)

1) Calcineurin Inhibitor

- a) Tacrolimus (TAC) 0.15 mg/kg q12h starting day 1 (or)
- b) Cyclosporine (CsA) 3-5 mg/kg q12h starting day 1

Target Blood Levels

	Day 1-90	Day 90+
TAC	8-12	6-10
CsA	250-400	100-250

2) Mycophenolate

- a.) Myfortic 720 mg BID (or)
- b) Cellcept 1,000 mg BID

3) Corticosteroids (methylprednisolone, prednisone)

- a) POD 0 200 mg IV intraoperatively
- b) POD 1 160 mg prednisone
- c) POD 2 120 mg prednisone
- d) POD 3 80 mg prednisone
- e) POD 4 40 mg prednisone
- f) POD 5-30 20 mg prednisone
- g) POD 31-60 Taper to 5 mg prednisone

C) Suggested Maintenance Immunosuppression with Delayed Graft Function (Defined as <25% decrease in serum creatinine, UO <1,500 cc/24 hrs in the first 36 hours post-transplant)

1) Calcineurin Inhibitor

- a) Tacrolimus (TAC) 0.15 mg/kg q12h starting day 3
- b) Cyclosporine (CsA) 3-5 mg/kg q12h starting day 3 (or)

Target Blood Levels

	Day 1-90	Day 90+
TAC	8-12	6-10
CsA	250-400	100-250

2) Mycophenolate

- a) Myfortic 720 mg BID (or)
- b) Cellcept 1,000 mg BID

3) Corticosteroids (methylprednisolone, prednisone)

- a) POD 0 200 mg IV intraoperatively
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