

Post Renal Transplant Care Guide

April 2020



CALIFORNIA CORRECTIONAL
HEALTH CARE SERVICES

SUMMARY

GOALS

- ✓ Effectively monitor patients post-renal transplant to avoid re-hospitalization and surgery complications.
- ✓ Appropriately utilize immunosuppressant and other common post-renal transplant medications with the Transplant Team.
- ✓ Understand graft dysfunction and monitor for acute and chronic rejection to allow for prompt treatment.
- ✓ Improve care and manage post-renal transplant complications.

ALERTS

- Notify the Loma Linda University Transplant Team (LLUTT) of signs and symptoms of medication issues and graft dysfunction or rejection: extreme diarrhea, inability to retain meds due to nausea/vomiting, medication refusals, fevers, pain at the graft site, fever, flu-like symptoms, malaise, creatinine (CREAT) fails to drop or rises, decreased urine output (UO), and proteinuria.
- Notify the LLUTT if UO drops below 1 L/day or unanticipated acute drop from usual.

EVALUATION

History:

Review operative report and discharge summary (note graft kidney quality). General state of being, malaise, pain, swelling noted, bowel status, weight gain, how long on dialysis (longer = decreased graft and patient survival), comorbid conditions, substance use disorder (SUD), mental health (MH), what type of kidney? (i.e., donor or deceased, high kidney donor profile index [KDPI] or high risk [high KDPI is a lower quality kidney and have worse graft outcomes]), any problems peri-operatively?

Physical Examination:

Temp and other vitals, consider UO a vital sign, 24 hour UO should be > 1 L/day, Foley, Jackson-Pratt (JP) or other drain volumes, color and trends. Heart, lungs, abdomen, extremities, extremity edema, incision site, drain attachment site, organ site/retroperitoneal edema, redness or heat. Many will have a ureteral stent, some will have peritoneal or hemodialysis (HD) catheter. Note: working arteriovenous fistula (AVF)/arteriovenous graft (AVG) should have functionality sustained after transplant

Labs:

CREAT, spot urinary protein to CREAT ratio (Spot UPCR), and immunosuppressant troughs.

Ensure patient/care team members are all familiar with plan, labs, and visit intervals, etc.

TREATMENT

Patient Education: See patient education pages for detailed information on: infection risks and prevention, understanding medications, understanding immunosuppression, diet (especially hyperkalemia and glucose intolerance), rejection, daily life after transplant, empowering patients, and self-care. Patients will have had a detailed medication session with LLUTT before discharge.

Encourage the patient's use of the "purple book" from LLUTT for recording fluid intake and output for at least 2-3 weeks.

The patient must understand doses of medications and their Medical Action Plan from LLUTT and understand they may be altered frequently to ensure effective treatment of comorbid conditions such as diabetes or hypertension (HTN).

IMMUNOSUPPRESSANT INDUCTION (high dose immediately after surgery), generally to be tapered to a maintenance dose by 1 month post-op. Doses usually decrease over time. Most will use a combo of the top three listed below.

Immunosuppressant: Calcineurin Inhibitors (CNI)

California Correctional Health Care Services

Post Renal Transplant Care Guide Summary

Page 2

Indication:

- 92% use tacrolimus (Prograf® or FK506®), the rest use cyclosporine–(Neoral®, Gengraf®, Sandimmune®)
- Action: Suppress T cells and T cell-dependent B cell activation (inhibits interleukin-2)

Immunosuppressant: Glucocorticoids

Indication:

- Nearly all use prednisone
- Action: Profound suppression of lymphocyte proliferation, inhibits antigen presentation and cytokines.

Immunosuppressant: Anti-Metabolite Agents

Indication:

- Most use mycophenolate mofetil (MMF or CellCept®), enteric-coated mycophenolate sodium (EC-MPS®) or azathioprine (Imuran®)
- Action: Inhibit proliferation of B and T cells

Immunosuppressant: Mammalian Target of Rapamycin (mTOR) Inhibitor

Indication:

- Sirolimus/rapamycin (Rapamune®) and everolimus (Zortress®, Afinitor®)
- Second tier alternative if unable to take tacrolimus or cyclosporine
- Action: Suppress T cells and T cell-dependent B cell activation (inhibits interleukin-2)

Immunosuppressant: Category-Belatacept (Nulojix®)

Indication:

- Second tier alternative if unable to take tacrolimus or cyclosporine
- Action: Humanized antibody that inhibits T cell co-stimulation

Immunosuppressant: Anti-Lymphocyte-Depleting Agents

Indication:

- Anti-thymocyte globulin (ATG) rabbit (r-ATG®), and horse (h-ATG®) (Thymoglobulin®), ATGAM®, basiliximab (Simulect®), alemtuzumab (Campath-1H®), and rituximab
- Proposed Action: Anti-monoclonal antibodies that inhibit pathway to development of Human Leukocyte Antigen (HLA)–and ABO blood type–incompatibility antibodies via inhibitory effect on hematopoietic stem and progenitor lymphocyte cells, reduces certain specific B cells types

MONITORING

Monitor:

- Labs (See pages 9-11)
- Vaccines (See page 12)
- MH status: Nonadherence, depression, and other psychological issues (See page 13)
- Delayed graft dysfunction, rejection and other complications (See pages 14-20)
- Infection (See pages 21-23)