

Renal Transplant Medication - Patient Preparation and Self Administration on 6B

Site Applicability

PHC 6B Nephrology Urology Inpatient Unit

Practice Level

Registered Nurse (RN), Licensed Practical Nurse (LPN) with additional education

Specialized:

- Required additional education in renal transplant and renal transplant medication (e.g. immunosuppressant) applicable to care for renal transplant recipients
- Completion of 6B unit specific orientation

Need to Know

Patients who have received a renal transplant are required to take lifelong transplant medication to prevent rejection. Transplant medication education and patients' adherence to the regimen are crucial for graft survival. Patients' and or families' understanding and competence in self-preparation of their transplant medications is a criterion for safe discharge. Self-preparation of transplant medication ("bedside" medication) while in hospital provides opportunity for the patients to learn and practice in a supported environment with supervision of pharmacists and nurses.

Medications that can be part of the renal transplant self-preparation program include, but are not limited to:

- TACrolimus
- cycloSPORINE
- SIrolimus
- mycophenolate mofetil, mycophenolate sodium EC
- azaTHIOprine
- predniSONE
- valGANciclovir
- sulfamethoxazole-trimethoprim (cotrimoxazole, SEPTRA EQUIV)

Pharmacist responsibilities:

- Assess patients' ability and readiness for self-preparation of medication ([Appendix A](#))



- Identify person who will be responsible for managing medications at home (i.e. patient or caregiver). This person needs to be involved in teaching
- Create and provide to the patient the patient specific transplant medication calendar ([Appendix B](#)) and provide initial and ongoing education as needed regarding renal transplant medication
- Add “bedside” to the order comment in Cerner of each medication that the patient will self-prepare
- Document in a note in Cerner re: start of bedside meds
- Self-preparation medications (“Bedside”) will be prepared and dispensed from the pharmacy:
 - Medication administration directions in patient friendly language (e.g. Take 1 capsule twice daily)
 - 3 days supply will be provided with each refill
 - TACrolimus will only be provided in **1 mg** and **0.5 mg** capsule formulations
 - Mycophenolate mofetil will be provided in a **250 mg** capsule formulation
- Provide an updated patient specific transplant medication calendar and education upon discharge

Nurse responsibilities:

- Reassess patients’ ongoing ability and readiness for self- preparation medication at each medication administration time
- Ensure patient understands the process, and takes self-prepared medication **only after** verification by the nurse
- Document on the MAR as per standard protocol
- Provide ongoing education to the patient and family
- Update the patient specific transplant medication calendar when changes are made to the patient’s transplant medication orders ([Appendix C](#))
- Document any concerns or issues in Cerner regarding the patient’s ability to self-prepare medications, and communicate the same to the responsible pharmacist and provider
- Upon receiving the medications from pharmacy, check that the correct medications have been delivered and place all the self-preparation medications in a zippered plastic bag and store them in the medication delivery cart (MDC)
- Retrieve self-preparation medication bag and provide this to the patient before the scheduled medication administration time (0800H and 2000H) and have patient prepare transplant medication
- Verify patient’s self-prepared medication against MAR , and witness the patient taking the medications
- Document administration of the medication

Equipment and Supplies

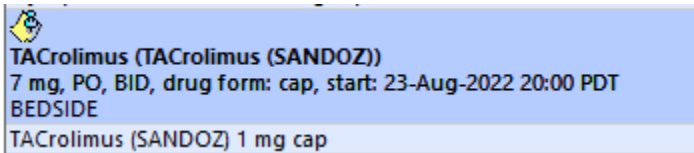
- Medication
- Patient Specific Transplant Medication Calendar
- Container for medication (e.g. denture cup)
- Medication cups

- Alcohol-Based Hand Rub (ABHR)
- Re-usable plastic zip top bag
- Cleaning wipes

Steps

Nurse

1. Review the MAR for medications with the order comment “bedside”



2. Enter a comment in team communication that patient is starting self-preparation of transplant medication
3. Understand who (patient or family member/caregiver) will prepare the transplant medication upon discharge and ensure this is documented in team communication
4. Instruct the patient and/or family to indicate to the nurse that it is time for medication before 0800H and 2000H e.g. by ringing the call bell [\[education\]](#).
5. When the patient indicates that they are ready, bring transplant medication bag to the patient before scheduled time (0800H and 2000H) and have the patient prepare transplant medication
6. If patient is not able to prepare their own, medications are to be prepared and administered by the nurse. Communicate with transplant team and document this.
7. Ensure the patient is aware of how to prepare bedside medication according to the calendar and to wait for their nurse to verify prior to taking the transplant medication.
8. Have the patient review the required dose and select enough capsules to make that dose and place the packages in a container.
9. Before administration, check the medication that patient prepared against MAR
10. Use the Medication Administration Wizard (MAW) to scan and sign for the medications after patient takes the medication
11. Place all unopened the medications into the self-preparation transplant zip top bag, clean it with Accelerated Hydrogen Peroxide (e.g. Accel Intervention wipes) and place it in MDC in the patient's drawer.
12. Reassess patient's ability and readiness to prepare bedside medication [\[Appendix A\]](#) at each medication administration time

Documentation

- Pharmacist to document using narrative note when initial teaching is completed
- Nurse to document on medication administration using the MAW
- Nurse to document using a narrative note if any concerns or issues arise regarding the patient's competency

Patient and Family Education

Using the teach back method:

- Teach patient the role of each transplant medication, the importance of taking them at the same time each day and possible side effects of medications
- Teach patient to prepare bedside medication at appropriate time (standard time is 0800H and 2000H)
- Teach patient that transplant medication doses and frequency are adjusted by the transplant physician or transplant pharmacist according to blood levels of the medications and clinical indication
- Encourage patient to ask questions
- Reinforce the importance of performing hand hygiene before and after handling the medication
- Inform the patient when to call and whom to call with medication problems or questions

References

BC Transplant. (2021, May). *Medication guidelines for solid organ transplants*. Retrieved from <http://www.transplant.bc.ca/Documents/Health%20Professionals/Clinical%20guidelines/Clinical%20Guidelines%20for%20Transplant%20Medications.pdf>

Elsevier. (2022). *Medication self- preparation education - CE*. Retrieved from https://point-of-care.elsevierperformancemanager.com/skills/428/extended-text?skillId=GN_42_6&virtualname=providencehealthcare-canada#scrollToTop

Appendices

- [Appendix A: Criteria for starting self-preparation of renal transplant medication](#)
- [Appendix B: Example of a Patient Specific Medication Calendar](#)
- [Appendix C: Updating the Patient Specific Medication Calendar](#)

Appendix A: Criteria for starting self-preparation of renal transplant medication

If patient does not meet criteria, nursing continue to be responsible for medication preparation

Patient is alert and oriented
Patient is willing to learn and able to pay attention. Consider presence of pain, nausea and fatigue.
Patient understands and speaks English well enough to comprehend what is being taught. If not, interpreter is available (including virtual)
Patient is able to demonstrate sorting medications
Family member is available to participate in education if they will be preparing the medications after discharge

Appendix B: Example of Patient Specific Medication Calendar

ST. PAUL'S HOSPITAL
PATIENT MEDICATION PROFILE FOR
 DD/MMM/YYYY



ALLERGIES:
ST. PAUL'S OUTPATIENT PHARMACY: 604-806-8151

Open: Mon/Thurs/Fri 7AM – 4:30PM, Tues/Wed 7AM – 7:30PM




COMMUNITY PHARMACY: _____ **PHONE:** _____

TRANSPLANT PHARMACISTS: ☐ Name (XXX) - XXX-XXXX ☐ Name (XXX)-XXXX



The following is a list of the medications presently prescribed for you. Present this profile to your healthcare providers to ensure that they are aware of all the medications you take, and can make recommendations accordingly. If you are not sure if you should be taking a medication that you have at home - CHECK WITH YOUR DOCTOR! Update this list by making handwritten corrections whenever your medication list changes or if the dose or administration frequency changes.

DRUG NAME	DOSE	FREQUENCY	WHEN TO TAKE				HOW TO TAKE	REASON FOR USE
			BREAKFAST	LUNCH	DINNER	BEDTIME		
#TACROLIMUS 1MG (SANDOZ-Tacrolimus) **white capsules** 	CAPSULES	EVERY 12 HOURS	8AM			8PM	AVOID GRAPE-FRUIT	TO PREVENT KIDNEY REJECTION
#TACROLIMUS 0.5MG (SANDOZ-Tacrolimus) ** yellow capsules ** 	CAPSULE	EVERY 12 HOURS	8AM			8PM	AVOID GRAPE-FRUIT	TO PREVENT KIDNEY REJECTION

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MYCOPHENOLATE MOFETIL 250MG **blue/orange capsules** 	4 CAPSULES	TWICE DAILY	8AM			8PM	DO NOT CRUSH OR CHEW. WASH HANDS AFTER HANDLING WITH FOOD	TO PREVENT KIDNEY REJECTION
#PREDNISONE TABLET	1 X 50MG TABLET 2 x 5MG TABLET (=60MG TOTAL) ON		8AM				WITH FOOD	TO PREVENT KIDNEY REJECTION
#PREDNISONE 50 MG TABLET	1 X 50MG TABLET ON		8AM				WITH FOOD	TO PREVENT KIDNEY REJECTION
#PREDNISONE 5MG TABLET	8 TABLETS (40MG)	ON	9AM				WITH FOOD	TO PREVENT KIDNEY REJECTION
#PREDNISONE 5MG TABLET	6 TABLETS (30MG)	ON	9AM				WITH FOOD	TO PREVENT KIDNEY REJECTION
#PREDNISONE 5MG TABLET 	4 TABLETS (20MG)	ONCE DAILY, starting	9AM				WITH FOOD	TO PREVENT KIDNEY REJECTION
#VALGANCICLOVIR 450MG (VALCYTE) ** pink oblong tablets ** 	2 TABLETS	ONCE DAILY	8AM				WITH FOOD FOR 3 MONTHS	TO PREVENT VIRAL INFECTION

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PANTOPRAZOLE 40MG TABLET (TECTA) 	1 TABLET	ONCE DAILY	8AM					TO PROTECT STOMACH
COTRIMOXAZOLE SINGLE STRENGTH (400-80MG) (SEPTRA, APO-SULFATRIM, NOVO-TRIMEL) ** white round tablets ** 	1 TABLET	ONCE DAILY	8AM				LIFELONG DURATION	TO PREVENT INFECTION

Stop:

Apply a broad spectrum sunscreen with SPF of at least 60 liberally to sun exposed area(s) to prevent skin cancer.

Influenza vaccination every fall.

Pneumococcal vaccination (Pneumovax 23) every 5 years for 2 doses. Last dose _____ Next dose due _____

Appendix C: Updating the Patient Specific Transplant Medication Calendar**Steps**

1. Nurse to confirm medication change in orders in Cerner
2. Nurse to update medication calendar (cross out the previous order with a single line) and write the new order within the same row on patient medication calendar. Initial next to the old and new entry
3. Nurse to explain the change to the patient or family and ensure patient's or family's understanding using teach back methods

Persons/Groups Consulted:

Clinical Pharmacist, Renal Transplant Program

Pharmacy Dispensary Lead

Medication Safety Pharmacist

Medication Safety/Medication Management Nurse Educators

Developed By:

Nurse Educator Renal Inpatient Unit

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