

Enhancing Medication Adherence in Kidney Transplant Recipients: The Impact of Quarterly Pharmacist Counseling

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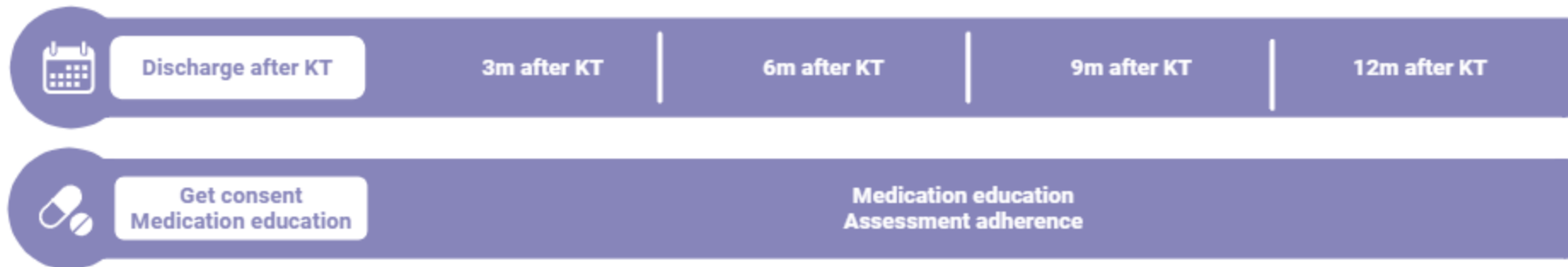
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Introduction and Background

- **Medication nonadherence** is a leading cause of **long-term graft failure** in kidney transplantation
- Despite advancements in immunosuppressants, adherence remains a significant challenge
- The role of pharmacists in improving adherence through counseling is under-researched

Methods

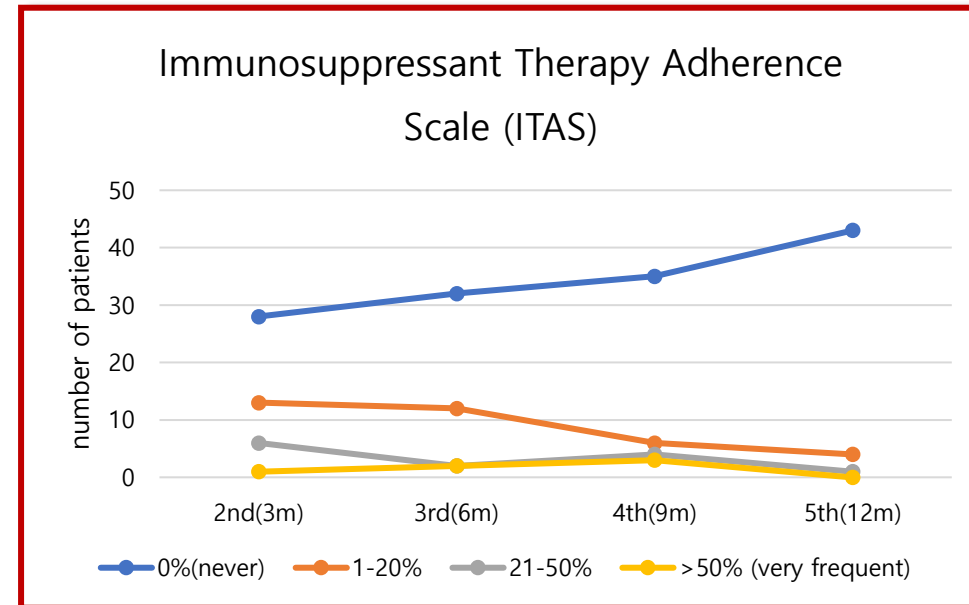
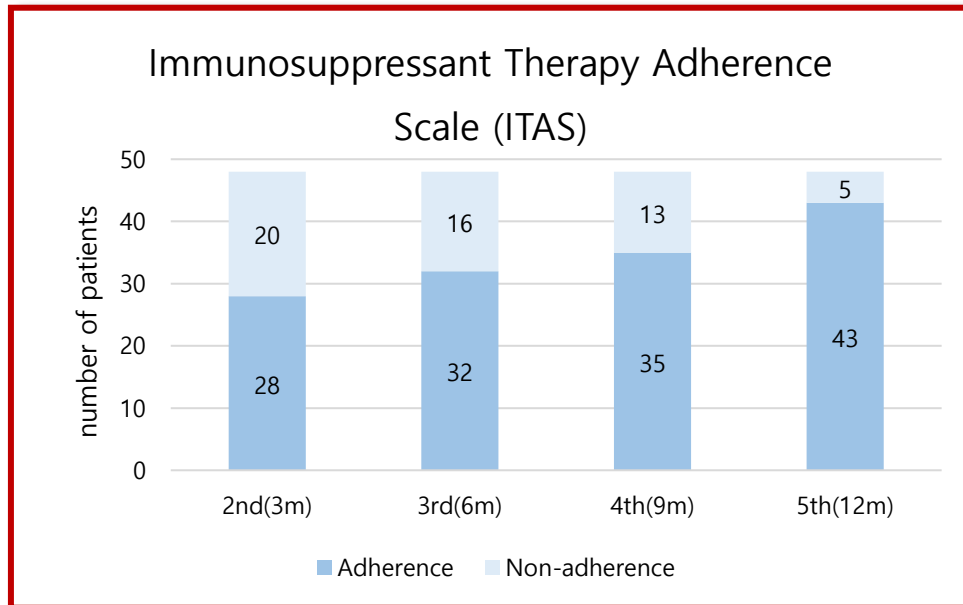
- **Study Design:** Single-center prospective study
- **Population:** 51 kidney transplant recipients (3 excluded due to mortality)
- **Time frame:** November 2020 – April 2021
- **Intervention:** Quarterly pharmacist counseling sessions



- **Evaluation Tool:** Immunosuppressive Therapy Adherence Scale (ITAS)
- **Key Metrics:** Creatinine levels, eGFR, acute rejection rates

Results

- Initial non-adherence in **20 patients reduced to 5** by 12 months



Results

Variable	Non-adherent group (n=5)	Adherent group (n=16)	P-value
Age at KT	57.8 ± 6.8	53.1 ± 12.0	0.293
Sex (%)			1.000
Male	4 (80.0)	12 (75.0)	
Female	1 (20.0)	4 (25.0)	
Education (%)			0.085
Less than or High School	5 (100.0)	8 (50.0)	
More than College	0 (0.0)	8 (50.0)	
Currently Employed (%)	2 (40.0)	7 (43.8)	1.000
Need Financial Support (%)	1 (20.0)	4 (25.0)	1.000
Living with Family (%)	5 (100.0)	11 (68.8)	0.278
Patient Death (%)	0 (0.0)	2 (12.5)	1.000

No significant differences in age or sex across groups

Results

Variable		Non-adherent group (n=5)	Adherent group (n=16)	P-value
Biopsy Proven Acute Rejection (%)		2 (40.0)	2 (12.5)	0.228
Serum Creatinine (mg/dL)	at discharge	1.6 ± 0.9	1.3 ± 0.5	0.581
	3m after KT	1.5 ± 0.3	1.3 ± 0.3	0.209
	6m after KT	1.5 ± 0.3	1.3 ± 0.3	0.272
	9m after KT	1.5 ± 0.5	1.2 ± 0.3	0.209
	12m after KT	1.6 ± 0.5	1.2 ± 0.2	0.143
eGFR	3m after KT	38.6 ± 7.9	49.6 ± 15.3	0.053
	6m after KT	40.2 ± 8.0	49.1 ± 12.3	0.087
	9m after KT	40.7 ± 12.4	53.9 ± 13.7	0.079
	12m after KT	37.9 ± 10.0	52.3 ± 8.5	0.027

The 'non->non' group showed more considerable ***fluctuations*** in **creatinine** and **eGFR**,
 with a ***higher*** rate of acute rejection



Conclusion and Implication

- Quarterly pharmacist counseling appears to **improve medication adherence** in KT recipients
- **Better adherence** potentially leads to **improved graft outcomes**
- Continued education and personalized management are critical for long-term transplant success