

# ASSESSING INTERVENTIONS TO IMPROVE PATIENT CARE CONDUCTED BY PHARMACISTS AT AN OUTPATIENT RENAL TRANSPLANT CLINIC WITHIN A COLLABORATIVE PHARMACY PRACTICE AGREEMENT

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## BACKGROUND

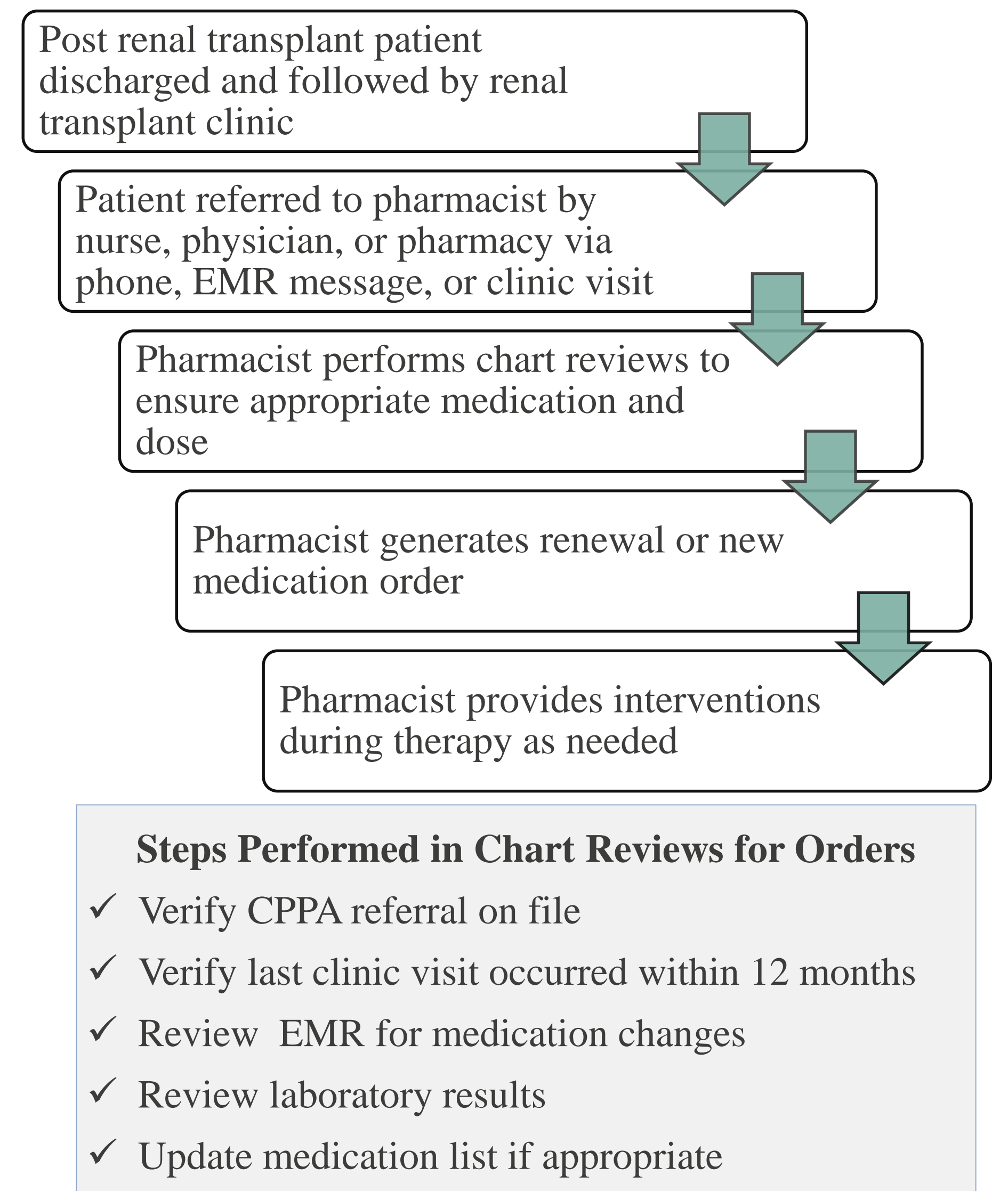
- Collaborative pharmacy practice agreements (CPPA) permit pharmacists to perform clinical services under a supervising physicians without direct intervention.
- The Vanderbilt Renal Transplant Clinic implemented a CPPA in March 2017.

**Figure 1. Pharmacist Responsibilities**

- Medication changes\***
  - Taper and discontinue medications per protocols
  - Renew and generate orders for non-controlled medications
- Patient education**
  - Medication counseling for post-transplant patients
- Drug information resource**
  - Provide medication and dosing information to providers and nursing staff
- Treatment access**
  - Complete insurance prior authorizations and appeals for medication approval
  - Obtain financial assistance as needed

\* Actions supported by CPPA

**Figure 2. Clinic Workflow**



## METHODS

### Study Design

Sample	Adult patients prescribed medication from the renal transplant clinic from 1/01/2019 to 6/30/2019
Data Source	Retrospective review of clinic notes in patient electronic medical records (EMR)
Objective	Evaluate interventions performed by pharmacists in a CPPA at a renal transplant clinic

### Interventions

<b>Medical record assessment</b>	Evaluate patient-specific information to facilitate medication prescribing, adjustment, continuation, or coordination of care
<b>Medication counseling</b>	Educate patients in clinic or by phone on drug-specific information based on need
<b>Resolving barriers to medication continuation</b>	Identify and address potential issues that may impact medication persistence

## RESULTS

**Table 1. Pharmacist Interventions by Category**

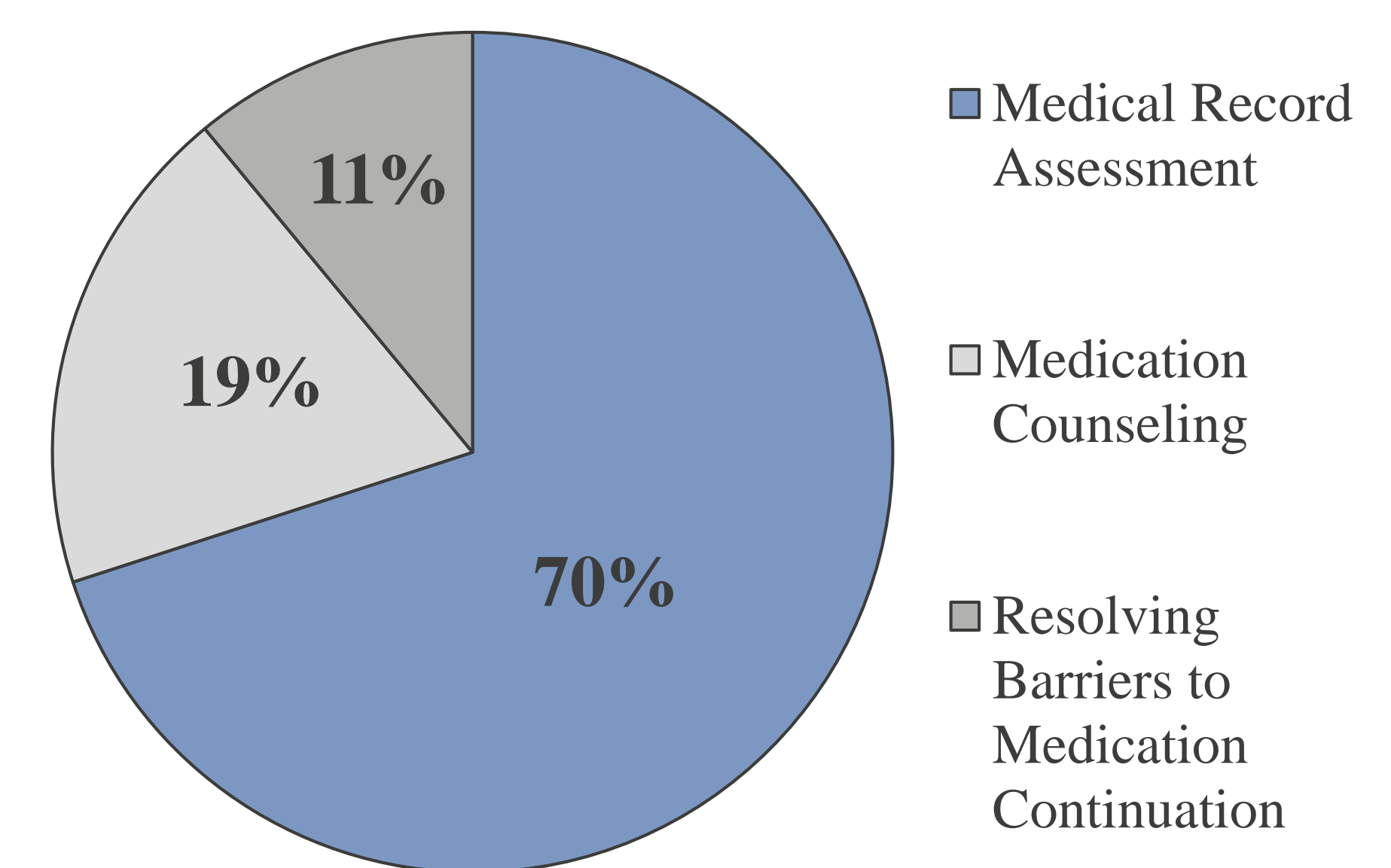
Intervention Category	Subcategory	n	%
<b>Medical Record Assessment (n= 2,695)</b>	Coordination of care	1580	41%
	Dose clarification	600	16%
	Appropriateness of therapy	284	7%
	Labs and medication monitoring	156	4%
	Medication reconciliation	61	2%
	Allergy review	10	<1%
<b>Medication Counseling (n= 734)</b>	Disease related event or symptom	4	<1%
	Drug/administration information	635	16%
	Side effect management	53	1%
	Drug interaction	38	1%
<b>Resolving Barriers to Medication Continuation (n= 423)</b>	Storage and stability	8	<1%
	Facilitating medication access	378	10%
	Adherence	45	1%

1,233 Patients  
5,793 Pharmacist-generated prescriptions

5% Patients' orders audited by physician → 0 Errors identified

1,821 Chart reviews performed → 3,852 Pharmacist interventions preformed

**Figure 3. Types of Pharmacist Interventions**



## CONCLUSIONS

- Prescription management by pharmacists prescribing under a CPPA is safe.
- Pharmacist interventions were common, emphasizing the vital role pharmacists can have on a post-transplant healthcare team.
- CPPAs are a prudent method of providing quality patient care, particularly in clinics with high patient volume and frequent medications changes such as transplant.

## RECOMMENDATIONS FOR ESTABLISHING A CPPA

