

## Development of a collaborative pharmacy practice agreement to improve efficiency and management of prescribing in a renal transplant clinic

Rachel Chelewski, Keren Johnson, Autumn Zuckerman, Josh DeClercq, Leena Choi, Megan Peter and Anthony Langone

### ABSTRACT

**Background:** Post-transplant patients require complex medication regimens to ensure the survival of the transplanted organ and patient overall well-being. These regimens are frequently adjusted, initiated, or discontinued after transplantation. Pharmacist (PharmD) expertise can be utilized to optimize post-transplant medication use.

**Aims:** This study describes the creation and corresponding outcomes of a Collaborative Pharmacy Practice Agreements (CPPA) between PharmDs and physicians within a renal transplant clinic.

**Methods:** After the Tennessee (TN) Pharmacist Association and TN Medical Association finalized legislation approving CPPAs for licensed PharmDs in TN (effective July 1, 2014), the Vanderbilt Renal Transplant Clinic and integrated health system pharmacy (IHSP) developed a CPPA, which was approved by the Vanderbilt University Medical Center (VUMC) Pharmaceutical, Diagnostics, and Therapeutics Committee and VUMC Medical Board. To evaluate the outcomes of the CPPA, we assessed the type of authorizer for immunosuppressant (IS) prescriptions (nurse, physician, or PharmD; measured as % of IS prescriptions) and the volume of IS prescriptions across three 7-month intervals: 1) before PharmD clinic integration (11/1/14–5/31/15), 2) with PharmD integration without a CPPA (12/1/15–6/30/16), and 3) with PharmD integration and a CPPA (4/1/17–10/31/17). Adult patients with at least one IS prescription generated in each time interval were included. Frequency of safety concerns and staffing requirements resulting from the CPPA were collected. Finally, we assessed the total volume of prescriptions filled by the IHSP.

**Results:** Following PharmD prescription management under a CPPA, physician and nurse refill workload for IS prescriptions reduced from 42.7% and 57.3% to 8.7% and 5.9%, respectively. Overall prescription generation to the IHSP increased from 13,523 prior to PharmD integration to 45,320 after integration with a CPPA. No safety concerns were reported in any of seven quarterly reviews, and the IHSP has grown from a team of eight in 2015 to 23 team members in 2018.

**Conclusions:** After implementing a CPPA, more IS and non-IS prescriptions were generated by pharmacists, which reduced physician and nurse burden and allowed pharmacy staff growth. Pharmacists in collaborative practice agreements are uniquely suited to closely monitor patients' post-transplant medication regimens, ensuring safety and effectiveness of therapy.

### KEYWORDS

Transplant; renal; collaborative; clinic; pharmacy

### PRESENTER

Rachel Chelewski  [rachel.chelewski@vumc.org](mailto:rachel.chelewski@vumc.org)

**Previous presentations:** AMCP, ATC (American Transplant Congress)