

Pharmacy InFocus White Paper · May 2013

Improving transplant care, outcomes



Summary

This paper describes the results of a recent study published in the *Journal of Managed Care Pharmacy*. The study demonstrates how our designated specialty pharmacy program adds value for post-renal transplantation patients.

The study was conducted jointly by OptumRx and UnitedHealthcare, which are both owned by UnitedHealth Group, a diversified health care company.

The problem

Medication adherence (that is, when patients take their medications as prescribed) has a significant impact on whether care is effective or ineffective. According to the *Annals of Internal Medicine*, the cost of medication nonadherence may be costing up to \$289 billion each year, making it one of the largest single sources of waste in the medical system.¹

Medication nonadherence is particularly important in organ transplantation because patients need powerful drugs to overcome the body's natural resistance to the transplanted heart, liver or kidney.²

In order to prevent the body from rejecting a transplanted organ, transplant patients receive immunosuppressant therapy or, anti-rejection drugs.² Yet even though anti-rejection drugs are essential to help prevent transplant rejection and minimize the need for re-transplantations, studies have consistently shown that many transplant recipients are nonadherent to their medications.² Instead, reported rates for nonadherence in the transplant population range from **20 to 70 percent** (depending on how measured).³⁻⁸

Study focus

Keeping patients adherent to their post-transplant anti-rejection medication regimens was a key focus for our study.

Anti-rejection medication nonadherence is one of the leading causes of transplant rejection and multiple adverse clinical effects, including renewed need for dialysis, additional sickness and mortality.⁹⁻¹³

It is clear that there is room for effective new ways to help transplant patients manage their post-operative therapy and care more successfully.

The solution

Nonadherence has many causes. Patients can misunderstand the importance of their anti-rejection drugs, or, they may not understand how to take their medications (when and how many pills to take, for example). In addition, side effects from the medications can also lead to nonadherence.¹⁵

OptumRx and UnitedHealthcare have been working to demonstrate how our designated specialty pharmacy programs can help engage patients to achieve higher medication adherence and reduced impact from drug and condition side effects. In addition to providing basic dispensing and counseling services, our specialty pharmacies use specialty-trained nurses and pharmacists to engage and educate patients to help reduce variability in pharmaceutical care, improve medication adherence, and manage adverse effects.

We have had notable success using our Specialty Pharmacy Program in support of patients with chronic and complex diseases like oncology, rheumatoid arthritis, multiple sclerosis, HIV/AIDS.¹⁴ We can now demonstrate similar success with renal transplants.

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- One-year OptumRx and UnitedHealthcare study shows 30 percent reduction in transplant-related medical costs.
 - 13 percent lower overall health care costs.
 - Study validates pivotal role played by Specialty Pharmacy to engage members, improve care outcomes, lower costs.
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Total care management

Our approach, which we call **total care management**, holds that it is critical to look at the patient and the condition in a holistic manner – and to not just focus solely on drug management. In the case of post-renal transplantation care, anti-rejection drugs can cause unpleasant side effects like loss of appetite, nausea or vomiting, and trembling or shaking of the hands.² These side effects can be difficult for patients to manage on their own and can lead to reduced adherence to therapy and undesirable outcomes. In these cases, having the right specialty pharmacy program can make a significant difference.

Engaged, empowered members

Our Specialty Pharmacy Program deploys multiple member engagement strategies designed to empower members to manage their medications and more broadly, to take ownership of their own care.¹⁶ And people who are actively engaged in managing their own health have been shown to be more likely to make good health decisions: they tend to listen more closely to their physicians, monitor their health condition and adhere more closely to their treatments.¹⁶

Our engagement strategies include **ongoing support** such as offering patient education materials, proactive adherence program and interventions with the members and physicians if nonadherence is detected.

To date, the evidence indicates that a **total care management approach** can help promote improved medication adherence and lower overall health care costs. Let's now look more closely at the most recent example, in post-operative renal transplantation.

Methodology

In this study, used established member engagement strategies with transplant recipients taking oral anti-rejection therapy. The goal was to improve both the success rates of their transplant medication therapies and the functionality of their grafts.¹⁴

This study compared one group of patients who received pharmaceutical care through the transplant specialty pharmacy program provided to the commercial customers of UnitedHealthcare through our designated specialty pharmacy.

A second, similar, group of patients had their pharmaceutical care provided through retail pharmacies.

Data source

The data source was the administrative claims database for approximately 14 million UnitedHealthcare enrollees. Data included prescription drug, medical, and facility claims information.

Patient pool

We collected a de-identified pool of patients with a history of renal transplantation between August 1, 2007, and December 31, 2007. Study patients were required to be continuously enrolled for at least 1 year prior to the baseline period and for 1 year afterward (follow-up period).

Once the matched retail and specialty pharmacy cohorts were identified and potential conflicts removed, 519 patients remained in each of the specialty pharmacy and retail pharmacy groups. Neither group had statistically significant differences in demographics or clinical status during the baseline period.

Then we performed a retrospective study to compare the differences in health care costs and health services utilization between the groups.

Targeted engagement

In August 2007, UnitedHealthcare implemented an oral immunosuppressant transplant medication Specialty Pharmacy Program for its commercial employer group plans. (Note: ASO clients have the option to participate.) We rely on claim system edits to identify the critical subset of transplant patients who need these additional services.

Once the transplant patients are identified, we provide a comprehensive set of engagement strategies as shown in figure 1:

An Overview of Specialty Pharmacy Program Flow

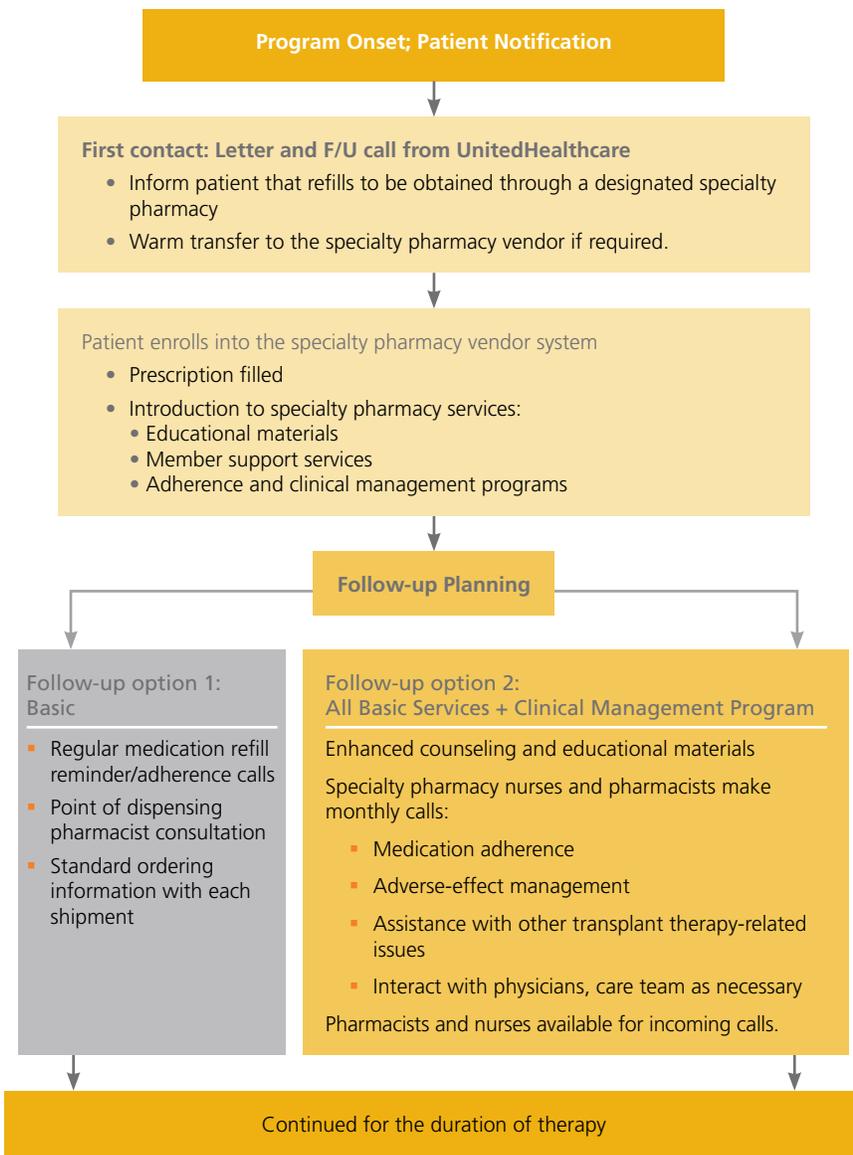


Figure 1

All one-on-one phone consultations are with either a pharmacist or nurse who is specially trained in transplantation. During the first consultation, we collect important background and medical information to determine each patient's unique needs and determine how we can support them during their medicine therapy.

If appropriate, we schedule follow-up consultations where the nurse or pharmacist provides education and additional resources on specific medical conditions and how to manage their symptoms; the correct way to take prescribed medicines; blood work; how to remember to take medicines as well as how to manage any side effects from their medicines.

All patients receive a care plan, which is a personalized summary of key topics and self-management tips discussed during their consultation(s). Many patients also receive educational materials in the mail related to their medical condition, for example regarding the importance of exercise and eating healthy or the possibility of financial help for these medicines (if available). We also send a summary of the care plan to the attending physician.

Outcomes

The primary outcomes showed statistically significant differences between the two groups for mean total(overall) cost per patient as well as for mean transplant-related health care costs (the sum of pharmacy, outpatient, and inpatient), and other measures.

Figure 2 shows how mean total medical costs per patient were approximately **13 percent lower** for patients with access to our specialty pharmacy programs compared to the retail cohort.

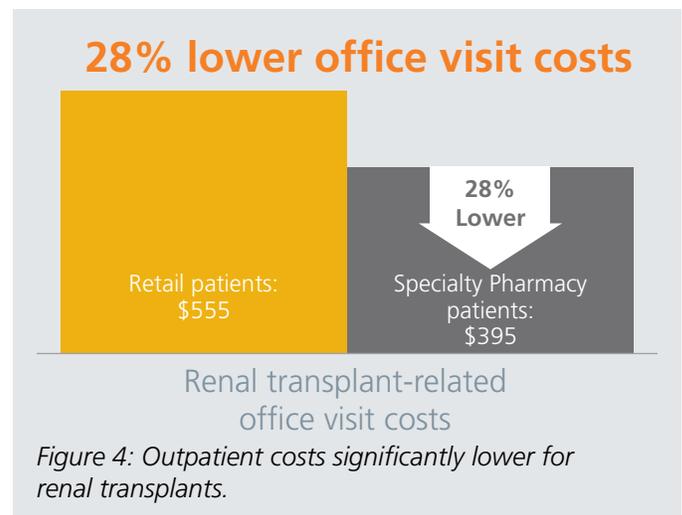
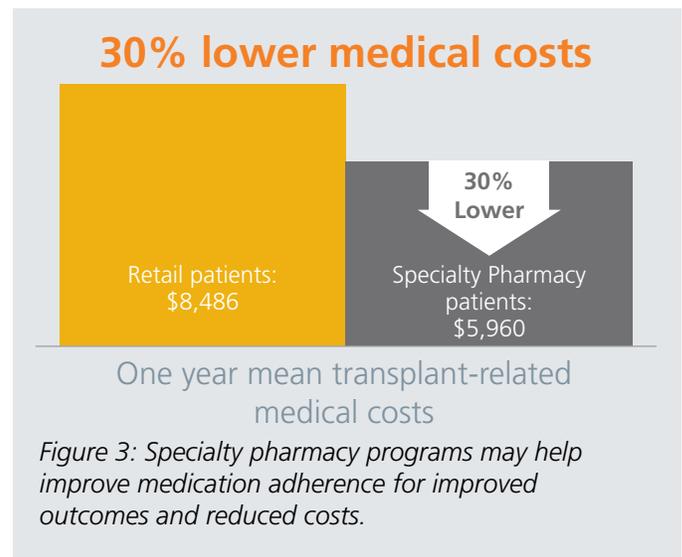
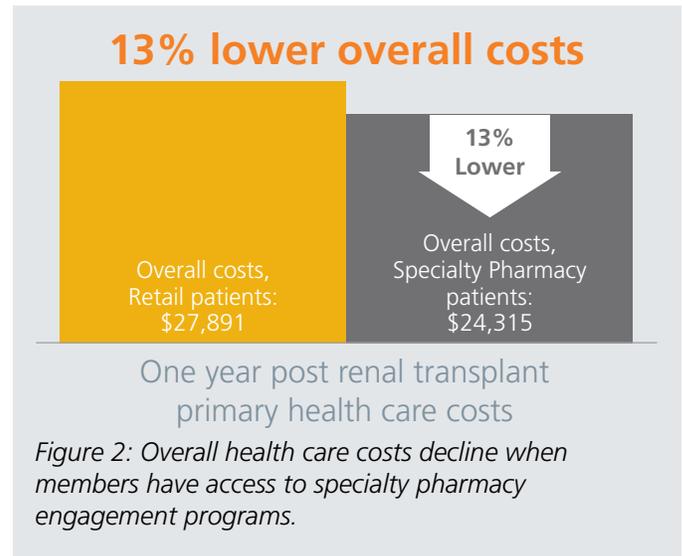
In Figure 3, we see that the mean transplant-related health care costs (the sum of pharmacy, outpatient, and inpatient), was **30 percent lower** in the specialty pharmacy program group.

In addition, supporting the idea that improved medication adherence is also reflected in reduced side effects and fewer doctor visits, the renal transplant study found **significantly reduced transplant related office visit costs** for our specialty members, as shown in Figure 4.

Pharmacy cost

One intriguing result concerned pharmacy costs. Anti-rejection medications are costly. Each transplant patient faces an average medication expense of approximately \$30,000 during the first year after transplantation and an additional \$15,000 every year thereafter.^{17,18}

And past experience shows that sometimes initiatives aimed at increasing medication adherence rates also show an **increase** in raw pharmacy costs. This increase makes sense, because more people are taking their medications as part of the patient outreach programs. In any case, higher raw pharmacy costs are usually offset by lower overall medical costs.¹⁹



However, in this instance we noted that, despite increases in medication possession ratio (MPR – a measure of adherence) and in the number of prescriptions filled in the specialty pharmacy group, **we did not see a significant, corresponding increase in pharmacy costs**. Rather, **both** overall medical costs and total pharmacy costs were **lower** in the specialty pharmacy group.¹⁴

The reason is that UnitedHealthcare has successfully negotiated discounted transplant medication rates and services through the contracted specialty pharmacy to mitigate the effect of increased adherence contributing to higher IST medication costs.¹⁴

Conclusion

Our research demonstrates that:

The OptumRx and UnitedHealthcare Specialty Pharmacy Program works to optimize a member's medication therapy and promote better health care outcomes through education, adherence intervention and medication management review by specially-trained pharmacists and nurses.

The Specialty Pharmacy Program is associated with lower transplant-related medical costs and lower overall health care costs, as well as higher transplant medication adherence during the first year of evaluation:

- Total health care costs during 1 year of follow-up were **13 percent lower** in the specialty pharmacy program group.
- Transplant-related medical costs were **30 percent lower** in the specialty pharmacy program group.
- Transplant-related office visit costs were **28 percent lower** for the specialty pharmacy program.
- **Adherence** (measured via Medication Possession Ratio, or MPR) **was higher** (87 percent) in the specialty pharmacy program members than in the retail pharmacy members (83 percent).

These results are consistent with our research on our other Specialty Pharmacy Programs:

- Multiple sclerosis (MS)
- Human immunodeficiency virus /acquired immunodeficiency syndrome (HIV/AIDS)
- Oral oncology
- Rheumatoid arthritis (RA)

Studies of these patients all confirm that our Specialty Pharmacy Programs can play an important role in improving medication adherence and quality of care while reducing the overall costs of patients with complex and costly conditions.

We offer a broad spectrum of medical and pharmacy benefit management programs to support members. When aligned with our total healthcare approach, our specialty pharmacists and nurses serve as extensions of the member's health care team and work with the member, provider and UnitedHealth Group's disease management programs to deliver holistic care management and oversight.

As our society experiments with new ways to expand coverage to new populations in the United States, our integrated delivery model uniquely positions the OptumRx/ UnitedHealthcare specialty program to maximize efficiency, member experience, service and cost.

Endnotes

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