

# A Descriptive Study of Patients Receiving Foundational Financial Assistance Through Local Specialty Pharmacies

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**N**umerous studies have demonstrated that higher co-pay, coinsurance, and out-of-pocket (OOP) costs can lead to medication underuse and lower adherence.<sup>1-8</sup> This lack of adherence is associated with poor clinical outcomes and greater cost of care.<sup>9-13</sup> The rates of cost-related medication underuse tend to be greater among patients with lower incomes, higher OOP prescription drug costs, and less generous prescription benefits.<sup>4,14-20</sup>

Specialty medications are typically more expensive than other medications, potentially making cost a barrier to patient adherence.<sup>21</sup> In 2015, specialty drugs accounted for 36% of the \$428.8 billion total spending on medicine and 75% of new drug spending growth.<sup>22</sup> The high costs of these medicines are known to be related to medication nonadherence among patients,<sup>21,23</sup> which could eventually lead to more significant burden to the healthcare system.

Given that medication underuse or nonadherence could lead to serious health consequences, some researchers and policy makers have suggested that selectively lowering patients' prescription costs might improve adherence and decrease the overall cost of their care.<sup>24,25</sup> For example, first-dollar coverage of angiotensin-converting enzyme inhibitors appeared to reduce costs for Medicare beneficiaries with diabetes and extend their lives.<sup>26</sup> Lowering OOP drug costs for people with chronic diseases could save money for patients and third-party payers directly and reduce medication costs indirectly by achieving better clinical outcomes for patients. A prospective cohort study by Schoen et al<sup>27</sup> examined the impact of a financial assistance program on clinical outcomes and drug adherence among uninsured or underinsured indigent patients with cardiovascular disease. After receiving 6 months of financial assistance, the study found an increased mean international normalized ratio among patients receiving warfarin, a lower mean diastolic blood pressure among patients with hypertension, and decreased mean low-density lipoprotein level among patients receiving free lipid-lowering drugs. The program was also shown to reduce hospitalization events and improve drug adherence.<sup>28</sup>

The high cost burden of drugs could be reduced if patients are able to take advantage of financial assistance programs offered

## ABSTRACT

**OBJECTIVES:** To describe the population of patients who received financial assistance from the Good Days Foundation (GDF) as facilitated by Walgreens local specialty pharmacies (LSPs).

**STUDY DESIGN:** This was a retrospective descriptive study.

**METHODS:** This study used a joint foundational and pharmacy claim database between January 1, 2014, and December 31, 2016.

**RESULTS:** Among 1572 eligible patients who received GDF financial assistance as facilitated by Walgreens LSPs, 1524 had disease state information and 14 of these patients received financial assistance for 2 disease states (patient count denominator, 1538). The top 3 disease states by patient count were oncology (1403; 91.2%), multiple sclerosis (49; 3.2%), and hepatitis C (39; 2.5%). Of the 777 patients who had complete data and disease state information, 2 received financial assistance for 2 disease states (denominator, 779); oncology remained the disease with the highest patient count (724; 92.9%). The mean annual financial assistance per patient was highest for hepatitis C (\$4156), followed by oncology (\$3603) and miscellaneous/rare disease (\$1829), which covered 98.8%, 99.3%, and 99.6% of these patients' total co-pay requirements, respectively. In addition to prescription co-pay assistance, 21 patients received travel assistance of \$554 per year per patient from GDF. The mean persistence of oncology patients was 170.7 days without a 30-day gap over 1 year of observation time.

**CONCLUSIONS:** The facilitation of treatment by GDF and Walgreens LSPs may be the key to many patients receiving their treatment and maintaining medication persistence. GDF co-pay assistance helped cover most out-of-pocket costs associated with medications and aided with travel expenses for patients, especially in the area of oncology. For many patients, this meant reducing the significant financial barriers to accessing care and facilitating the necessary treatment for their chronic or life-altering disease. Without this assistance, many patients would simply not have been able to meet the expected medication persistence and thus would have received suboptimal treatment.

by nonprofit organizations, foundations, and pharmaceutical companies.<sup>11,29-32</sup> Unfortunately, study findings have shown that only a small percentage of patients reporting cost-related adherence problems were given information from their clinicians about such programs.<sup>15,33</sup>

Walgreens local specialty pharmacies (LSPs) have collaborated with multiple assistance providers, such as the Good Days Foundation (GDF), to help overcome financial barriers to medication use for patients.<sup>34</sup> Key steps taken by Walgreens LSPs included identifying those patients who were at risk of not filling their prescriptions due to financial barriers, evaluating patient eligibility, coordinating with assistance providers like GDF, and matching patients to the appropriate sources of financial assistance.

Since 2003, GDF has provided financial assistance to eligible patients who cannot afford their medications and established individual funds for more than 30 disease states. In addition to co-pay assistance, GDF also offers programs to provide premium and travel assistance for patients in need. Based on donations received, the premium assistance program provides assistance to cover the monthly insurance premium of eligible patients with any of the following conditions: chronic granulomatous disease, nephropathic cystinosis, severe malignant osteopetrosis, and urea cycle disorder. Premium assistance is also offered to the patient's dependents when applicable (eg, if the patient is a minor, it is offered to the patient's guardian as part of a family plan). The travel assistance program provides assistance to eligible patients who need help with their travel-related expenses for diagnosis-related treatments. These expenses include public transportation (eg, bus, taxi, or train), parking, gas, tolls, rental cars, hotels, airfare, and meals, when applicable. GDF also makes all travel arrangements and stays in contact with the patient, physician, and/or hub case manager (ie, an individual who helps patients navigate payer access and patient assistance services) throughout the course of the patient's therapy.

Based on the previous discussion and aforementioned gaps in the literature, we identified 3 key study objectives: characterizing the study population overall and by disease category, estimating OOP cost savings of the study population overall and by disease category, and describing medication persistence.

## METHODS

This was a retrospective cohort study using joint administrative data from both Walgreens and GDF from January 1, 2014, to December 31, 2016. Our study sample included patients who were 18 years or older, had filled at least 1 medication, and had received financial assistance from GDF as facilitated by Walgreens LSPs. The GDF approval process is shown in the [eAppendix Figure](#) (eAppendices

## TAKEAWAY POINTS

A collaboration between the Good Days Foundation and Walgreens local specialty pharmacies may have been crucial in saving lives, preventing financial ruin, and supporting patient medication persistence. For patients dealing with chronic or life-altering diseases, the assistance and support provided through this collaboration included:

- ▶ Providing hope when it was needed the most.
- ▶ Extending life and allowing more time with loved ones.
- ▶ A viable option for dealing with the reality that insurance, including Medicare, does not always cover everything related to treatment needs.
- ▶ An alternative to reduce rising out-of-pocket costs and improve the ability to afford both treatments and the necessities of everyday living.

available at [ajmc.com](#)). To qualify for financial assistance from GDF, the following criteria must be met: patient must be diagnosed with a covered disease and program must be accepting enrollments; patient must have a valid Social Security number to apply for assistance and receive treatment in the United States; patient must have valid medical insurance with at least 50% coverage of the costs of treatment, excluding deductibles; patient must be seeking assistance for a prescribed medication that is approved by the FDA to treat the covered diagnosis; and patient income level must be at or below 500% of the federal poverty level (FPL) based on household size.

## Outcome Measures

**Financial benefits/savings.** Several types of financial benefits were measured for the 3-year period by disease state: mean annual original OOP costs, mean assistance amount received per patient, mean annual OOP costs after foundational co-pay assistance, mean annual co-pay assistance received as a percentage of mean annual original co-pay cost (OOP cost plus insurer cost was calculated), and mean annual amount of other types of assistance (ie, travel or premium assistance) during the study period.

**Drug persistence.** Persistence was defined as “the duration of time from initiation to the discontinuation of therapy”<sup>35</sup> and was measured by time in days. Patients were considered to have discontinued the adequate regimens if a gap in therapy of 30 days or more occurred. Patients were included in the persistence analysis if they were in possession of adequate regimens for 30 days or more or if they had at least 30 observation days.

## Statistical Analyses

All statistical analyses were performed using SAS Enterprise Guide 7.1 (SAS Institute Inc; Cary, North Carolina).

## RESULTS

**Table 1** summarizes the demographic characteristics of 1572 eligible LSP patients who received GDF assistance. Per eligibility requirements, all patients had an income at or below 500% of the FPL

## ORIGINAL RESEARCH

**TABLE 1.** Baseline Characteristics of Walgreens LSP Patients Who Received Financial Assistance From GDF During the Study Period

Variables	Joint Patients Between Walgreens and GDF Databases <sup>a</sup>	Patients With Complete Data <sup>a</sup>
Patients (n)	1572	777
Age, years (mean ± SD)	72.9 ± 10.0	72.9 ± 10.5
Age group (years)		
18–49	43 (2.7%)	23 (3.0%)
50–64	201 (12.8%)	102 (13.1%)
≥65	1328 (84.5%)	652 (83.9%)
Female	801 (51.0%)	373 (48.0%)
Plan type (n of patients)	1559 <sup>b</sup>	617 <sup>c</sup>
Medicare Part D	1163 (74.6%)	467 (75.7%)
Medicare Part B and D	260 (16.7%)	96 (15.6%)
Medicare Part B	9 (0.6%)	4 (0.6%)
Commercial	108 (6.9%)	43 (7.0%)
Medicaid	10 (0.6%)	5 (0.8%)
Other	9 (0.6%)	2 (0.3%)
Number of comorbidities (n of patients)	1295 <sup>b</sup>	617 <sup>c</sup>
1	68 (5.3%)	27 (4.4%)
2	4 (0.3%)	3 (0.5%)
≥3	2 (0.2%)	1 (0.2%)
Per capita income (mean ± SD)	\$19,159 ± \$17,156	\$20,145 ± \$13,138
Diseases/conditions (n of patients)	1524 <sup>d</sup>	777 <sup>e</sup>
Oncology	1403 (91.2%)	724 (92.9%)
Multiple myeloma	724 (51.6%)	313 (43.2%)
Liver cancer	182 (13.0%)	140 (19.3%)
Non–small cell lung cancer	158 (11.3%)	91 (12.6%)
Multiple sclerosis	49 (3.2%)	10 (1.3%)
Hepatitis C	39 (2.5%)	29 (3.7%)
Miscellaneous/rare	31 (2.0%)	14 (1.8%)
Nonspecialty	14 (0.9%)	2 (0.3%)
Organ transplant	2 (0.1%)	0 (0%)
Cost outcomes (n of patients)	1524 <sup>d</sup>	777 <sup>e</sup>
Mean original co-pay amount, \$ (mean ± SD)	728 ± 808	889 ± 974
Mean co-pay assistance amount, \$ (mean ± SD)	722 ± 806	882 ± 973
Mean out-of-pocket amount, \$ (mean ± SD)	6 ± 38	7 ± 20

GDF indicates Good Days Foundation; LSP, local specialty pharmacy.

<sup>a</sup>Data are n (%) unless otherwise noted.

<sup>b</sup>There were 74 patients with multiple diseases.

<sup>c</sup>There were 31 patients with multiple diseases.

<sup>d</sup>There were 14 patients who received financial assistance for 2 diseases/conditions.

<sup>e</sup>There were 2 patients who received financial assistance for 2 diseases/conditions.

based on household size. The mean annual per capita income was \$19,159 (SD = \$17,156). The majority of patients were 65 years or older (85%), and half of them were female (51%). Among the 1559 patients with insurance information available, most (92%) had Medicare Part B or D. Most patients (91%) were receiving assistance for oncology medications. Across patients, the average initial co-pay of \$728 per patient per year was reduced by an average of \$722 in financial assistance to yield an average final co-pay of \$6. Due to the complexity of the data captured in 2 systems (Walgreens and GDF), approximately half of these patients (777) had consistent cost data between data systems (see the second column of Table 1). Characteristics of this subset of patients were similar to the larger sample.

Table 2 provides the average co-pay before and after financial assistance, as well as the proportion of costs covered by financial assistance for the subset of patients with consistent cost data between data systems. The top 3 disease categories by patient count were oncology (93%), hepatitis C (4%), and miscellaneous/rare diseases (2%). Among the oncology patients, the top 3 cancers were multiple myeloma (43.2%), liver cancer (19.3%), and non–small cell lung cancer (12.6%). The mean financial assistance per patient was highest for hepatitis C (\$4156), followed by oncology (\$3603), miscellaneous/rare disease (\$1829), and multiple sclerosis (\$1439), which covered between 99% and 100% of total co-pay requirements. After receiving financial assistance from GDF, the mean patient co-pay ranged from \$0 to \$51 per patient per year.

In addition to this prescription assistance, some patients received other types of financial aid from GDF, such as premium or travel assistance. Within the study population, 21 received travel assistance, averaging \$554 per patient per year. None of the patients in this study population received premium assistance. Furthermore, oncology patients persisted, on average, 170.7 days without a 30-day gap over 1 year of observation time.

## DISCUSSION

Our study results indicate that, without assistance programs, the financial burden of

**TABLE 2.** Financial Assistance Provided During the Study Period, by Disease State (N = 777)<sup>a</sup>

Disease State	Patients (n)	Annual Original Co-Pay Sum	Annual Original Co-Pay Mean	Annual OOP Sum	Annual OOP Mean	Annual Assistance Sum	Annual Assistance Mean	% Co-Pay Covered by Assistance
Oncology	724	\$2,628,279	\$3630	\$19,593	\$27	\$2,608,686	\$3603	99.3%
Hepatitis C	29	\$121,993	\$4207	\$1468	\$51	\$120,525	\$4156	98.8%
Miscellaneous/rare	14	\$25,713	\$1837	\$105	\$8	\$25,608	\$1829	99.6%
Multiple sclerosis	10	\$14,394	\$1439	\$0	\$0	\$14,394	\$1439	100.0%
Nonspecialty	2	\$21	\$11	\$0	\$0	\$21	\$11	100.0%

OOP indicates out-of-pocket costs.

<sup>a</sup>There were 777 unique patients, with 2 patients receiving financial assistance for 2 disease states; therefore, the patient count by disease state was 779.

medications for complex diseases like oncology and hepatitis C was very high among individuals who were underinsured, especially the Medicare population. Our findings show that a high proportion of this financial burden in our study population was covered by co-pay assistance, leading to lower OOP costs for patients.

Of note, the majority of our study population in this analysis had cancer and were Medicare beneficiaries with low family incomes. According to findings of a study conducted by Narang and Nicholas from 2002 to 2012, the mean annual OOP costs of cancer therapies ranged from \$2116 to \$8115 among Medicare beneficiaries<sup>36</sup>; other reports indicated that the median income of the Medicare population was less than \$24,150.<sup>37,38</sup> As such, the burden of OOP spending relative to patient income was very high, which is consistent with the findings of this study.

This financial burden can lead to patient noncompliance with therapy.<sup>1-8</sup> According to the findings of a study by Starner et al,<sup>39</sup> an OOP expense of \$250 was considered the point at which patients were much more likely to abandon costly therapies, including biologic anti-inflammatory drugs and drugs for multiple sclerosis ( $P = .09$  compared with the reference group, \$0-\$50), in the majority of cases. A significantly higher abandonment rate was detected when monthly OOP expenses were \$500 or more ( $P < .001$ ). Co-pay assistance programs have been developed to address this and help patients overcome financial burdens. In our study, co-pay assistance covered most OOP patient costs; the mean annual patient OOP cost decreased to \$0 to \$51 with the foundational co-pay as facilitated by Walgreens LSPs, which might have helped decrease the medication abandonment rate.

## Limitations

As is the case with other observational studies using administrative data, this study had some limitations. First, data were limited to 1 pharmacy chain. If a patient visited another pharmacy, it would not be reflected in Walgreens' pharmacy claims; thus, persistence rates in this study may be underestimated. Second, the results of this study were descriptive because we could not compare eligible patients who received financial assistance with those who did not. Third, physician discontinuation of a drug regimen might have

been misclassified as nonpersistence. Finally, the administrative data were not collected for research purposes, resulting in data inconsistencies that hampered a complete analysis dataset.

## CONCLUSIONS

Financial assistance through the collaboration between Walgreens LSPs and GDF contributed to dramatic reductions in patients' co-pay burden. As of late 2016, the total underinsured population in the United States had doubled since 2003 to 41 million individuals.<sup>40,41</sup> This partnership between LSPs and foundational financial assistance organizations might provide a safety net for those with multiple complex, chronic, and rare conditions within the underinsured population to prevent these patients and their loved ones from bankruptcy or other significant financial impacts affecting everyday life. The facilitation of treatment by foundational assistance organizations and LSPs might be the key to a patient receiving their treatment and maintaining medication persistence. GDF co-pay assistance helped cover nearly all of the OOP costs associated with medications and aided with travel expenses for patients, especially in the area of oncology. For many patients, this meant reducing significant financial barriers that may have affected their access to care and allowing them to receive the necessary treatment for their chronic or life-altering diseases. Without the elimination of these financial barriers, many patients would not have been able to meet the expected medication persistence required for proper treatment. However, this was only a preliminary descriptive study. Future research should be conducted to further examine and expand the relationship between adherence and/or persistence and co-pay assistance. ■

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**eAppendix Figure.** Good Days Foundation Approval Process

