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Assessment of prescribers' knowledge of the cost of medications

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Abstract

Background—In 2003, the World Health Organization reported 50% of patients are adherent with long-term therapies. Frequently, the reason for a patient's non-adherence is the cost of medications. Even with prescription insurance coverage, patients may not be able to afford their medication.

Objective—We sought to assess prescriber knowledge of the cost of commonly prescribed medications including atorvastatin, gabapentin, levofloxacin, losartan, pantoprazole, pioglitazone and quetiapine. Secondary objectives evaluated how often prescribers consult a discounted drug list and a patient's prescription insurance coverage.

Methodology—One hundred prescribers from the Medical University of South Carolina were surveyed from November 2010 to January 2011. Prescribers consisted of medical residents, attending physicians, fellows, nurse practitioners, and physician's assistants. Wholesale prices of medications were determined using the Red Book™ and prescription insurance prices from an average of the top three prescription insurance companies' copayments.

Results—Medical residents made up 72% of those surveyed, fellows 3%, attendings 12%, physician's assistants 3%, and nurse practitioners 10%. The different prescriber groups were unable to correctly determine the cost of medications of more than 50% of total possible responses. The majority of prescribers rarely asked about a patient's prescription insurance coverage or consulted a discounted drug list before writing a prescription.

Conclusions—Prescribers are more likely to know the cost of medications for those patients who have prescription insurance coverage versus those who do not.

Keywords

survey; medication cost; compliance; prescriber knowledge; pharmacist intervention; adherence

Background

Cost and, even more so, cost savings have become popular topics in healthcare lately. In 2004, prescription medications accounted for 14.3% of total health spending for the United

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States, with an estimated average annual growth rate of 6.7%.¹ The growth in cost is attributed to multiple factors including an aging population, the development of new medications, and the increase in use of medications as patients are diagnosed with more chronic disease states. In 2003, the World Health Organization reported 50% of patients are adherent with long-term therapies.²

An observational study regarding adherence and healthcare costs was performed from June 1997 through May 1999 by Sokol et al.³ The authors monitored prescription drug costs for medications prescribed for diabetes, hypertension, hypercholesterolemia or heart failure in patients enrolled in a benefit plan sponsored by a large manufacturing company. A significant correlation was found between an overall decrease in disease-related healthcare costs and patients who were adherent with taking their medications for diabetes or for hypercholesterolemia. In addition, hospitalization rates decreased as patients were more adherent with medications for all four disease states.

Medication adherence is defined as taking medications as prescribed.⁴⁻⁵ Other terms that have been used interchangeably but not always properly with this definition include compliance, persistence, and concordance. The National Council on Patient Information and Education (NCPIE), an interdisciplinary panel, prefers the term adherence to others due to its more positive and patient-centered connotation.⁴ In 2007, NCPIE published a report that recommended ten specific action plans to help improve medication adherence. These ten recommendations touched upon subjects such as establishing a multi-disciplinary approach, creating a national education program for all involved and addressing barriers to the problem of adherence.

Factors affecting a patient's medication adherence can be non-intentional or intentional, behavioral or process-oriented, and include problems related to the medication, pharmacy, patient, prescriber or government.⁴⁻⁵ Some examples of barriers that patients face when taking medications correctly include the value of health to the patient, how complicated the regimen is, physical barriers to getting the prescription and patient-physician relationships.⁶ Frequently, the most influential reason for a patient's non-adherence is the cost of medications. Patients who do not have prescription insurance are charged for the full amount of their medications. Those who do have prescription coverage however, pay a reduced amount set by their prescription insurance plan, called a copayment. Even if covered by prescription insurance, patients may not be able to afford their medication due to costly copayments.⁷⁻⁸ Patterson et al. found that heart failure patients were less adherent to their β -blocker regimen if their co-payment was 21 US dollars or higher.⁸ Unfortunately, patients who choose not to take their medicine as prescribed could be putting themselves at risk for developing complications or even death from their disease.

Study objective

The primary objective of this study was to determine what price prescribers believe patients with and without prescription insurance coverage pay for certain medications. Secondary objectives for this study included the frequency at which prescribers consulted a discounted prescription drug list and a patient's prescription insurance coverage.

Methods

A survey was created by the authors and given to prescribers at an academic medical center to assess their knowledge on the cost of medications. Responses from the survey would then be used to potentially identify areas in which pharmacists could help intervene to increase adherence and decrease healthcare associated costs to both the patient and the facility.

Prescribers from the Medical University of South Carolina (MUSC) were surveyed from November 2010 to January 2011. A copy of the survey is available as Appendix 1. Out of the one hundred who responded to the survey, prescribers consisted of medical residents, attending physicians, fellows, nurse practitioners and physician's assistants from both the inpatient and outpatient settings, representing a small sample out of hundreds eligible. Project approval was obtained from the Institutional Review Board.

The anonymous surveys were placed in computer work areas on each of the floors with a notice for prescribers to fill out. Chief residents were asked to encourage house staff to complete the surveys. Additional surveys were distributed to inter-professional teams in which at least one pharmacist practiced. Both the inpatient and outpatient settings comprise of inter-professional teams that include physicians, pharmacists, nurse practitioners and sometimes physician assistants. The make-up of each team is determined by the location of practice within the hospital.

The survey consisted of three questions asking for prescriber demographic data, how often they were aware of their patient's prescription insurance coverage and how often they consulted a discounted drug list. The final seven questions required the prescriber to circle what he or she felt the patient would pay for one of the selected medications with and without prescription insurance. The authors selected medications commonly prescribed at our institution to be included in the survey and ensured that those chosen could be used for common conditions seen in primary care locally and nationally, used for multiple indications, and that some were available as a generic. Medications selected for the survey were atorvastatin, gabapentin, levofloxacin, losartan, pantoprazole, pioglitazone and quetiapine. Medications that were available as a generic at the time of the survey were denoted with an asterisk. These included gabapentin, losartan and pantoprazole. Both trade and generic names were provided on the survey for completeness.

All medications were assessed for a typical 30-day supply except for levofloxacin, which was for 10 tablets. For each medication, the average cost was divided into four separate categories. Categorical groups, determined by the authors, were based off of average wholesale prices and average prescription insurance copayments for all of the survey medications. For patients without prescription insurance coverage, the pricing categories included less than or equal to 20 US dollars, 21 to 50 US dollars, 51 to 99 US dollars and greater than or equal to 100 US dollars. For patients with prescription insurance coverage, the average cost categories included less than or equal to 10 US dollars, 11 to 30 US dollars, 31 to 49 US dollars and greater than or equal to 50 US dollars.

Average wholesale prices (AWP) from the 2010 edition of Red Book were used to determine the average cost a patient without prescription insurance would pay for each medication.⁹ AWP's are not the most ideal measurement of cost but were used to negate any impact negotiations between the different pharmacies and generic manufacturers might have with each other. For the patient with prescription coverage, the average copayments were calculated using the 2010 Kaiser/HRET Employer Health Benefits Survey.¹⁰ This annual report is published by the Kaiser Family Foundation and includes a compilation of prescription insurance information from over 3,000 randomly selected private and public firms. The survey found that 89% of employees covered through prescription drug benefit plans in 2010 were part of a tiered-copayment system. The most frequent tiered system used by prescription insurance companies consisted of three categories: generic, preferred brand and non-preferred brand. Generics correlate with lower copayments compared to non-preferred brands, which have the highest copayments.

A medication was considered to be preferred or non-preferred based on formularies from the top three prescription insurance companies in 2010.^{11–13} The top three healthcare insurance and managed care companies, including prescription insurance coverage, were determined by the Fortune 500 list, which takes into account gross revenue from top companies in the United States each year.¹⁴ The top three companies for prescription insurance consisted of UnitedHealth Group, Wellpoint, and Aetna for the year 2010. Furthermore, UnitedHealth Group and Wellpoint use separate third party payers to handle their prescription insurance claims, Medco and Express Scripts respectively.^{11–12} If one of the medications was considered to be a preferred brand on one formulary but not on another, an average of all three prices was calculated to determine the average copayment. Average wholesale prices and prescription insurance copayments for each medication are depicted in Tables 1 and 2.^{11–13}

Descriptive statistics were used to characterize survey responses. The number of responses answered correctly from the various prescriber groups was calculated as a percentage and is depicted in Tables 1 and 2. Wilcoxon signed rank tests, ideal for analyzing paired observations of count data, were used to determine whether respondents were able to correctly identify medication costs more frequently for patients with prescription insurance compared to patients without prescription insurance. Comparisons between nurses' and other professions' responses were made using Fisher's exact tests.

Results

Of the 100 surveyed, 72% were resident physicians, 12% attending physicians, 10% nurse practitioners, 3% fellows and 3% physician assistants. Out of the 7 medications included in the survey, the average number of medications whose costs were correctly estimated by prescribers was significantly higher ($p < 0.001$) when patients were assumed to have prescription insurance coverage (mean number correctly estimated $\pm$ SD = 3.2 ± 1.8) than when patients were assumed not to have prescription insurance coverage (mean $\pm$ SD = 2.2 ± 1.5). Details for responses assuming patients have prescription insurance, stratified by medication and profession, are summarized in Table 1. When patients were assumed to have prescription insurance coverage, a majority of prescribers correctly assessed patient cost for losartan (55.7%), pantoprazole (55.8%), pioglitazone (56.8%) and quetiapine (51.6%), but not for atorvastatin (42.7%), levofloxacin (19.8%), or gabapentin (34.4%). The different categories of prescribers who answered correctly about the cost of medications for patients without prescription insurance are provided in Table 2. For patients without prescription insurance, the proportion of prescribers who were able to determine the correct average cost for the assessed medications was consistently low, ranging from 22.2% (pantoprazole) to 40.8% (levofloxacin).

Prescribers were also asked to report the number of times they referenced a discounted drug list. Table 3 depicts how often those surveyed consulted a discounted medication list before prescribing. For every 10 patients seen, 32% of prescribers reported checking discounted medication lists one to two times. Fourteen percent reported never checking these lists. Nurse practitioners on average were checking more often, with 70% checking the list at least 3 to 4 times for every 10 patients, compared with 54% of physicians. This difference was not statistically significant ($p = 0.5$).

Table 3 also shows how often prescribers determined a patient's prescription insurance coverage. A total of 21% of prescribers admitted to never consulting a patient's prescription insurance coverage before writing for a medication. In addition, the majority of prescribers who reported consulting a patient's prescription insurance coverage did so in no more than half their patients. Nurse practitioners were the group most likely to check a patient's

prescription insurance, with 30% reporting to check with five to six patients out of every ten seen. Since only ten responders were nurse practitioners, this was not statistically significant ($p=0.7$). Only eleven percent of prescribers consulted with the patients about their prescription insurance coverage 90 to 100% of the time.

Discussion

Results from our survey show prescriber groups were able to successfully determine the cost of a select number of medications less than half of the time. Fellows were the most accurate, assessing 48% of the total possible answers correctly. However, drawing conclusions from this would be inappropriate since this group only had three individuals. The largest group, being resident physicians, accurately predicted the cost of a medication 39% of the time, independent of prescription insurance coverage.

To help alleviate problems associated with cost, many retail pharmacies have begun to offer a list of medications at a discounted rate such as the \$4 lists available at Wal-Mart and K-Mart. Prescription assistance programs are also available for some medications to help reduce the cost for those patients who meet certain criteria.¹⁵ Unfortunately, as the survey results show, prescribers are not often looking at the discounted drug lists, and rarely determine a patient's prescription insurance coverage. Only 12% of all prescribers who answered the survey reported checking a discounted drug list a majority of the time. One method to increase the amount of time a prescriber considers using these resources is to increase accessibility to the lists and patient assistance programs. For example, links to discounted drug lists can possibly be provided on our institution's homepage or hard copies placed near computer work areas as a quick reference. The phone number to our patient assistance program coordinators can be placed on each and every work phone as well.

Open communication between the physician and patient has been identified as another possible solution to helping improve medication adherence.¹⁶ The TRIAD study performed by Schmittiel et al. evaluated the effects of physician communication and medication costs with a group of Medicare Part D beneficiaries and physicians. Out of those who responded to the survey, 44% of patients discussed the cost of medications with their doctor. The majority of these patients stressed the desire to discuss cost with their physicians and wanting physicians to take cost into consideration, with 76% and 80% responding respectively. Groups that were less likely to have discussions about cost with their physician included females, minority patients, and patients over the age of 75 years.

In another similar survey performed by Piette et al., 17% of patients admitted to at least one or more instances where they underused medications in the past year to cut costs.¹⁷ The chief reason patients gave when asked why they had not approached the subject with their physicians was that they were never asked about the subject. What's more, a survey of 1400 cardiologists and general internists by Alexander et al. found that the biggest barrier the prescribers had when talking to patients was about the cost of medications.¹⁸ Our study showed that only 34% of the prescribers reported speaking to their patients regarding their prescription insurance coverage more than half the time. Prescribers could improve upon their open communication regarding cost and adherence, especially in those patients who are at higher risk of not approaching the subjects voluntarily, by incorporating a question about the patient's ability to afford their medications into every visit.

Despite the significant finding that prescribers' knowledge on the cost of medications is poor, there are some limitations to our study design. The first limitation is that the surveys were voluntary, and prescribers were self-selected. Some of the responders may not have been as familiar with the medications as others, depending on their main area of practice.

For example, pediatric residents may not have known what the costs of the medications included on the survey were as these are mainly used in adults. In addition, we did not ask how long each prescriber had been practicing. A difference might have been seen between someone who just graduated medical school and had not even been practicing for a year versus someone who had been practicing for twenty years.

Distinction as to where the prescriber practices a majority of the time, whether in the inpatient or outpatient setting, was also not assessed. At our institution, the prescribers are very seldom limited in regards to formulary medications. We have an open formulary with moderate restrictions on the inpatient side and no restrictions for the outpatient setting. Patients however may be limited by their prescription insurance coverage and ability to pay their co-payment.⁷⁻⁸ The percentage of correct responses may have been different had we focused more on regional prescription insurance prices instead of using national surveys to determine pricing for co-payments.

Another limitation is that the survey was not validated prior to placing them in common work areas. Further limitations were placed upon the study because some of the survey questions could have been misinterpreted. For example, generics were noted with an asterisk on the survey. Clear directions, however, were not given as to which version, brand or generic, should be assessed for cost. Prescribers could have marked what they thought the brand cost to be instead of the generic, skewing the percentage of incorrect responses. Also, the directions did not clearly distinguish between whether the prescribers were assessing for how much the medication truly cost or how much the patient was willing to pay for the medication.

Finally, the medications that were chosen to be included in the survey were similar in pricing, both for those with and without prescription insurance coverage. Fifteen respondents chose to circle down one column instead of choosing the price they thought each medication cost. Eight of the fifteen prescribers answered this way for both the “with” and the “without prescription insurance” columns. A larger selection of medications with various cost values may have shown a more significant difference in correct responses from each prescriber group.

Although our study does have some limitations, the important point is that prescribers’ lack knowledge of the cost of medications. This represents one of many areas where pharmacists can potentially help decrease healthcare costs for the patients at our institution. Pharmacists here can start by taking a pro-active approach to finding prescription insurance information in the electronic medical record, asking the patient or family member, or checking with the patient’s local pharmacy on how much they typically pay. The information found can then be relayed back to the inter-professional team prior to discharge from the hospital or check out in the outpatient clinics. In addition, discounted drug lists can be placed around the common work areas for ease of access to the prescribers as a quick reference. If the patient is not able to afford the medications, pharmacists can also serve as a patient advocate by recommending a potentially less expensive alternative.

Conclusion

Although rarely checking a patient’s prescription insurance coverage, prescribers were found to more likely assess correctly the cost of medications for patients who have prescription insurance coverage versus those who do not. Furthermore, prescribers reported seldom referencing discounted drug lists available from various pharmacies to help choose potentially less expensive alternatives for patients. The next step, with future studies, would be to determine if differences are seen in patient adherence and healthcare costs after

pharmacists provide education and recommendations to prescribers concerning the cost of medications.

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Appendix 1

- 1) Please circle your profession:
Resident Physician Physician's Assistant Fellow Nurse Practitioner Attending Physician
- 2) For every 10 patients seen, please circle the number of times you ask a patient and/or consult another source to determine their prescription insurance coverage:
Never 1-2 3-4 5-6 7-8 9-10
- 3) For every 10 patients seen, please circle the number of times you consult discounted prescription drug lists to prescribe a cheaper alternative:
Never 1-2 3-4 5-6 7-8 9-10
- 4-10) For the following drugs, please circle the average price range you believe a patient would pay if they do not have prescription insurance coverage and also if they have prescription insurance coverage:

Medication (# of tablets)	Average cost for patient without insurance (\$US)				Average cost for patient with insurance (\$US)			
Cozaar® (losartan) (#30) *	20	21-50	51-99	100	10	11-30	31-49	50
Protonix® (pantoprazole) (#30) *	20	21-50	51-99	100	10	11-30	31-49	50
Actos® (pioglitazone) (#30)	20	21-50	51-99	100	10	11-30	31-49	50
Lipitor® (atorvastatin) (#30)	20	21-50	51-99	100	10	11-30	31-49	50
Seroquel® (quetiapine) (#30)	20	21-50	51-99	100	10	11-30	31-49	50
Levaquin® (levofloxacin) (#10)	20	21-50	51-99	100	10	11-30	31-49	50
Neurontin® (gabapentin) (#90) *	20	21-50	51-99	100	10	11-30	31-49	50

* Denotes available as a generic

Table 1
Proportion of Prescribers Able to Identify Correct Medication Cost for Patient with Prescription Insurance Coverage

Medication (# of tablets/ cost in US dollars)	Pricing Categories (US dollars)	Resident Physicians n=72 (%)	Fellows n=3 (%)	Attending Physicians n=12 (%)	Physician Assistants n=3 (%)	Nurse Practitioners n=10 (%)	Total Prescribers n=100 (%)
Atorvastatin (30/\$28)	10	26 (36.1)	1 (33.3)	2 (16.6)	1 (33.3)	3 (30)	33 (33)
	11-30	30 (41.7)	2 (66.7)	5 (41.7)	1 (33.3)	3 (30)	41 (41)
	31-49	10 (13.9)	0 (0)	2 (16.6)	1 (33.3)	3 (30)	16 (16)
	50	4 (5.6)	0 (0)	2 (16.6)	0 (0)	0 (0)	6 (6)
	Not available	2 (2.8)	0 (0)	1 (8.3)	0 (0)	1 (10)	4 (4)
Gabapentin ^a (90/\$11)	10	31 (43.1)	1 (33.3)	4 (33.3)	3 (100)	4 (40)	43 (43)
	11-30	25 (34.7)	2 (66.7)	3 (25)	0 (0)	3 (30)	33 (33)
	31-49	14 (19.4)	0 (0)	4 (33.3)	0 (0)	1 (10)	19 (19)
	50	1 (1.4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	2 (20)	4 (4)
Levofloxacin (10/\$35)	10	14 (19.4)	0 (0)	3 (25)	0 (0)	1 (10)	18 (18)
	11-30	34 (47.2)	3 (100)	6 (50)	2 (66.7)	4 (40)	49 (49)
	31-49	14 (19.4)	0 (0)	2 (16.7)	1 (33.3)	2 (20)	19 (19)
	50	9 (12.5)	0 (0)	0 (0)	0 (0)	1 (10)	10 (10)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	2 (20)	4 (4)
Losartan ^a (30/\$11)	10	24 (33.3)	0 (0)	3 (25)	3 (100)	3 (30)	33 (33)
	11-30	40 (55.6)	3 (100)	5 (41.7)	0 (0)	6 (60)	54 (54)
	31-49	7 (9.7)	0 (0)	1 (8.3)	0 (0)	0 (0)	8 (8)
	50	0 (0)	0 (0)	2 (16.7)	0 (0)	0 (0)	2 (2)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	1 (10)	3 (3)
Pantoprazole ^a (30/\$11)	10	26 (36.1)	0 (0)	2 (16.7)	1 (33.3)	3 (30)	32 (32)
	11-30	39 (54.2)	3 (100)	5 (41.7)	1 (33.3)	5 (50)	53 (53)
	31-49	2 (2.8)	0 (0)	4 (33.3)	0 (0)	1 (10)	7 (7)
	50	2 (2.8)	0 (0)	0 (0)	1 (33.3)	0 (0)	3 (3)
	Not available	3 (4.2)	0 (0)	1 (8.3)	0 (0)	1 (10)	5 (5)
Pioglitazone (30/\$28)	10	10 (13.9)	1 (33.3)	2 (16.7)	0 (0)	2 (20)	15 (15)
	11-30	41 (56.9)	2 (66.7)	5 (41.7)	2 (66.7)	4 (40)	54 (54)

Medication (# of tablets/ cost in US dollars)	Pricing Categories (US dollars)	Resident Physicians n=72 (%)	Fellows n=3 (%)	Attending Physicians n=12 (%)	Physician Assistants n=3 (%)	Nurse Practitioners n=10 (%)	Total Prescribers n=100 (%)
	31–49	17 (23.6)	0 (0)	2 (16.7)	1 (33.3)	3 (30)	23 (23)
	50	2 (2.8)	0 (0)	1 (8.3)	0 (0)	0 (0)	3 (3)
	Not available	1 (1.4)	0 (0)	2 (16.7)	0 (0)	1 (10)	5 (5)
Quetiapine (30/\$28)	10	7 (9.7)	1 (33.3)	2 (16.7)	1 (33.3)	1 (10)	12 (12)
	11–30	36 (50)	2 (66.7)	6 (50)	0 (0)	5 (50)	49 (49)
	31–49	22 (30.6)	0 (0)	3 (25)	2 (66.7)	1 (10)	28 (28)
	50	5 (6.9)	0 (0)	0 (0)	0 (0)	1 (10)	6 (6)
	Not available	2 (2.8)	0 (0)	1 (8.3)	0 (0)	2 (20)	5 (5)
Total Correct Responses for Prescriber Group		225 (44.6)	14 (66.7)	31 (36.9)	5 (23.8)	28 (40)	303 (43.3)

^a Available as generic

Table 2
Proportion of Prescribers Able to Identify Correct Medication Cost for Patient without Prescription Insurance Coverage

Medication (# of tablets/cost in US dollars)	Pricing Categories	Resident Physicians n=72 (%)	Fellows n=3 (%)	Attending Physicians n=12 (%)	Physician Assistants n=3 (%)	Nurse Practitioners n=10 (%)	Total Prescribers n=100 (%)
Atorvastatin (30/\$140)	20	11 (15.3)	0 (0)	2 (16.7)	0 (0)	4 (40)	17 (17)
	21–50	13 (18.1)	1 (33.3)	1 (8.3)	1 (33.3)	2 (20)	18 (18)
	51–99	28 (38.9)	2 (66.7)	3 (25)	0 (0)	2 (20)	35 (35)
	100	19 (26.4)	0 (0)	5 (41.6)	2 (66.7)	2 (20)	28 (28)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	0 (0)	2 (2)
Gabapentin ^a (90/\$90)	20	16 (22.2)	0 (0)	2 (16.7)	2 (66.7)	4 (40)	24 (24)
	21–50	17 (23.6)	1 (33.3)	6 (50)	0 (0)	3 (30)	27 (27)
	51–99	24 (33.3)	1 (33.3)	1 (8.3)	1 (33.3)	2 (20)	29 (29)
	100	15 (20.8)	1 (33.3)	2 (16.7)	0 (0)	0 (0)	18 (18)
	Not available	0 (0)	0 (0)	1 (8.3)	0 (0)	1 (10)	2 (2)
Levofloxacin (10/\$200)	20	5 (6.9)	0 (0)	1 (8.3)	0 (0)	2 (20)	8 (8)
	21–50	14 (19.4)	1 (33.3)	2 (16.7)	1 (33.3)	2 (20)	20 (20)
	51–99	20 (27.8)	2 (66.7)	6 (50)	0 (0)	2 (20)	30 (30)
	100	33 (45.8)	0 (0)	2 (16.7)	2 (66.7)	3 (30)	40 (40)
	Not available	0 (0)	0 (0)	1 (8.3)	0 (0)	1 (10)	2 (2)
Losartan ^a (30/\$75)	20	9 (12.5)	0 (0)	2 (16.7)	0 (0)	5 (50)	16 (16)
	21–50	23 (31.9)	0 (0)	3 (25)	2 (66.7)	3 (30)	31 (31)
	51–99	23 (31.9)	3 (100)	2 (16.7)	1 (33.3)	2 (20)	31 (31)
	100	16 (22.2)	0 (0)	4 (33.3)	0 (0)	0 (0)	20 (20)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	0 (0)	2 (2)
Pantoprazole ^a (30/\$120)	20	10 (13.9)	0 (0)	2 (16.7)	1 (33.3)	3 (30)	16 (16)
	21–50	24 (33.3)	0 (0)	2 (16.7)	1 (33.3)	4 (40)	31 (31)
	51–99	23 (31.9)	3 (100)	3 (25)	0 (0)	1 (10)	30 (30)
	100	15 (20.8)	0 (0)	4 (33.3)	1 (33.3)	2 (20)	22 (22)
	Not available	0 (0)	0 (0)	1 (8.3)	0 (0)	0 (0)	1 (1)
Pioglitazone (30/\$220)	20	4 (5.6)	0 (0)	2 (16.7)	1 (33.3)	2 (20)	9 (9)
	21–50	14 (19.4)	2 (66.7)	1 (8.3)	0 (0)	4 (40)	21 (21)

Medication (# of tablets/cost in US dollars)	Pricing Categories	Resident Physicians n=72 (%)	Attending Physicians n=12 (%)		Physician Assistants n=3 (%)	Nurse Practitioners n=10 (%)	Total Prescribers n=100 (%)
			Fellows n=3 (%)	Physicians n=12 (%)			
Quetiapine (30/\$275)	51-99	28 (38.9)	0 (0)	6 (50)	0 (0)	2 (20)	36 (36)
	100	25 (34.7)	1 (33.3)	2 (16.7)	2 (66.7)	2 (20)	32 (32)
	Not available	1 (1.4)	0 (0)	1 (8.3)	0 (0)	0 (0)	2 (2)
	20	4 (5.6)	0 (0)	1 (8.3)	1 (33.3)	2 (20)	8 (8)
	21-50	9 (12.5)	1 (33.3)	4 (33.3)	1 (33.3)	2 (20)	17 (17)
Total Correct Responses by Prescriber Group	51-99	29 (40.3)	1 (33.3)	2 (16.7)	0 (0)	1 (10)	33 (33)
	100	28 (38.9)	1 (33.3)	4 (33.3)	1 (33.3)	4 (40)	38 (38)
	Not available	2 (2.4)	0 (0)	1 (8.3)	0 (0)	1 (10)	4 (4)
		167 (33.1)	6 (28.6)	20 (23.8)	10 (47.6)	17 (24.3)	220 (31.4)

^a Available as generic

Table 3

Frequency of Prescribers Assessing Secondary Objectives

	Number of times discounted drug list consulted for every 10 patients seen	Number of times prescription insurance coverage assessed for every 10 patients seen
	%	%
Never	14	21
1 to 2	32	36
3 to 4	16	9
5 to 6	12	14
7 to 8	14	9
9 to 10	12	11