

Pharmacist Perspectives on Medication Costs and Affordability: A Pilot Study

Shraddha Shinde, BS. Pharm, MS, MS. Student, Pharmacy Systems, Outcomes and Policy, University of Illinois at Chicago

Bupendra Shah, BS. Pharm, MS, Ph.D. Associate Professor of Social and Administrative Sciences, Arnold and Marie Schwartz College of Pharmacy and Health Sciences, Long Island University, Brooklyn, NY

Abstract

Background- Research on pharmacist provided care and services has rarely focused on medication cost and affordability. This study aims to bridge the gap by examining pharmacists' perspectives of medication costs and affordability.

Objective- To explore pharmacists' perceptions about medication cost burden for patients, their communication with patients about i) ability to afford medications, ii) price, and iii) ways to reduce medication cost burden, their perceptions about ways to help improve affordability of medications and the barriers to communication.

Method- A cross sectional exploratory study design was utilized. A convenience sample of pharmacists working in community pharmacies in Brooklyn was approached and asked to complete a survey. The survey questions examined the extent to which pharmacists: 1) perceived medication cost to be a burden, 2) initiated discussion about i) ability to afford medications, ii) price of medications, iii) ways to reduce cost burden. Pharmacists were also asked to opine on how to improve affordability of medications and their perceived barriers for such communication with the patients. Questions were formulated to differentiate pharmacists' perceptions and behaviors in regards to dealing with patients with (PWI) and without insurance (PWOI). Data was analyzed using SPSS version 17.0.

Result- A total of twenty-six pharmacists out of 54 approached participated in the study. Majority of the pharmacists reported the cost of medication to be extremely/very burdensome for PWOI (73%) than PWI (23%). In contrast, more pharmacists reported initiating a discussion very often/always about affordability with PWI (35%) than PWOI (20%). Discussions about price of medications were more common than discussions about affordability and ways to reduce medication burden. On an average, 33% of the pharmacists suggested generics as a way to improve affordability of the medications for PWI and PWOI.

Conclusion- Patient-pharmacist communication on affordability and ways to reduce cost burden occurs very infrequently. Understanding the perspectives on patient-pharmacist communication on medication cost may help in developing effective strategies and may help reduce cost-related medication non-adherence.

Introduction

In the United States healthcare system, spending on prescription medications is at an all high. The total sales for prescription medications alone in the US were \$259.1 billion in 2010.¹ While much of the costs for prescriptions are estimated to be paid for by insurance companies, recent reports indicate that approximately one third of the US population pays out of pocket (OOP) for their prescription medications.¹ Due to the high cost of medications, paying OOP for medications can be a huge burden in the current economic environment; especially for 16% of the US population that are currently uninsured.^{2,3} Insurance plays an important role amongst patients as it predicts their access to medical care and health care facilities provided.^{1,2,3}

The effects of high OOP costs on patient adherence and patient outcomes can be devastating. Several studies show that cost related non-adherence (CRN) to prescription medication leads to declining health status, increased health complications, more frequent visits to emergency departments, acute care hospitals, nursing home admissions and general health services.⁴ Hence non-adherence to medications increases the cost and reduces the quality of

care offered to patients and prevents patients from receiving the necessary medical treatment.^{3,5}

Communication about cost and insurance related issues holds high importance as high cost medication and copayments have a direct impact on patient non-adherence to medications.⁷⁻¹¹ While there is a vast literature on factors affecting medication adherence and cost related non-adherence, the literature on patient-provider communication about medication costs is scant and mostly focused on patient-physician communication about costs. This literature suggests that patients would like their physicians to discuss prescription medication cost and cost reduction strategies with them but the same studies also suggest that physicians rarely talk to their patients about the cost of their medications.¹²⁻¹⁶ These same studies also report that patients rarely initiate discussions about costs with their providers and that patient discomfort, embarrassment, perceptions of insufficient time, belief that providers will not have viable solutions, are important barriers to patient initiated conversation about costs of medications. Research also suggests that discussions about drug costs differ by age, ethnicity and income of the patients. Physicians are more likely to discuss drug costs with younger, white¹⁶ and low-

income patients.¹⁵ Lack of adequate physician knowledge about the cost of prescription medications and coverage details of insurance formularies has been identified as primary sources of lack of discussion between patients and physicians.¹⁷⁻²⁵

Given the limited literature on patient-provider communication about medication costs, there is a critical gap in addressing patient concerns about medication costs and affordability. Research is needed to assess the varied sources of knowledge that patients' use to discuss medication cost and affordability.²⁶ Pharmacists, who are often considered to be medication experts and the last frontier for addressing patient issues about medications, can play a big role in discussing medication costs and affordability with their patients as they know the costs of medications and ways to reduce medication costs for their patients. For example, pharmacists may help patients switch to low cost generic medications, help patients with identifying prescription assistance or discount programs, or offer discounts that would lower patient costs. However, very little is known about the extent to which pharmacists and patients have discussions about medication costs and affordability. There are many studies of patient-pharmacist communication but very rarely the focus is directly and solely on patient-pharmacist communication about cost of medications and affordability.²⁷⁻³¹ This study aimed to fill that gap and explore four main research questions: 1) To what extent do pharmacists perceived medication cost to be a burden for their patients? 2) To what extent do pharmacists initiate discussion about i) ability to afford medications, ii) price of medications, iii) ways to reduce cost burden? And 3) from a pharmacists' perspective what are some ways to help improve affordability of medications for their patients? And 4) what are pharmacists' barriers to communication with patients about medication costs and affordability?

Theoretical Framework

The theoretical framework for this study was based on Gerbner's theory of communication³² as a dyadic transaction between two participants whose behaviors in the encounter is influenced by several factors including participant's past experiences. A literature review presented by Shah and Chewing³³ provide an excellent overview of this theory and how it can apply in the context of patient-pharmacist communication. The literature on patient-provider communication about medication costs was utilized to identify the factors to be included for this study.

Methodology

Given that this was designed as a pilot study, an exploratory cross sectional study design was utilized. Pharmacists working

in pharmacies within a 2-mile radius of the Arnold and Marie Schwartz College of Pharmacy and Health Sciences (AMSCOP), Long Island University (LIU) in Brooklyn were established as the sampling frame. A Google Maps search revealed approximately 35 community pharmacies in the 2-mile radius of the AMSCOP. The student investigator approached each pharmacy in the sampling frame and sought the participation of pharmacists. A total of 54 pharmacists were approached, of which 26 agreed to participate in the study. Upon consent, they were asked to complete a survey. The paper-based survey was self-administered by the student investigator to participating pharmacists. The survey was primarily based on acquiring the extent of discussion between patients-pharmacists on medication cost acquisition issues. The survey included questions primarily on the extent of communication between the pharmacist and patients' regards to medication price, affordability and ways to reduce medication cost burden and pharmacists perceived barriers to communication with patients. Given that patient's insurance may play an important role in such discussions, questions were formulated to differentiate the extent to which pharmacists initiated cost related discussions (affordability, price and ways to reduce cost burden) to patients with insurance (PWI) and without insurance (PWOI). There were 2 questions measuring each construct (affordability, price and ways to reduce cost burden). A five point Likert type scale (not at all—always) was used as the response scale for each question. Pharmacists' perceptions about medication cost as a burden for their patients was also measured using two items. Item one asked pharmacists to indicate the approximate percentage of patients for whom medication cost is a burden whereas the second item asked participants to indicate the extent to which they believed medication cost as burdensome for their patients with insurance and patients without insurance using a 5 point Likert scale (extremely burdensome—not at all burdensome). To elicit strategies that pharmacists could use to improve affordability of medications, pharmacists were asked to indicate ways in which they could help improve affordability of medications using an open-ended question. Pharmacist demographics such as age, gender, ethnicity, working hours, # of years having worked at the store, the type of store, average # of hours worked per week, average # of prescriptions dispensed, filled per day for patients without insurance, and estimated percentage of patients who had concern about cost of medication, difficulty in paying for medications and lastly percentage of patients who don't use medications and do not pick up medications because they cannot afford, these were items that were also collected. In addition to this, pharmacists were also asked about the extent to which patients initiate discussion about cost of medications.

Majority of the survey questions were developed by the investigators based on the literature available on patient-physician communication about medication costs and affordability. Prior to the study initiation, the survey was pretested using 5 AMSCOP faculty members who hold a New York state pharmacist license and were not involved in the research. Face and content validity was established during the pretest. Subsequent to the pretest, LIU institutional review board approved the study protocol.

All collected data were entered into SPSS version 17.0 and analyzed using descriptive statistics. The open-ended responses were coded by the student investigator based upon the common themes of improving the affordability of medications. The reliability for the different constructs on the survey was examined using Cronbach's alpha. Bivariate analyses were conducted to examine whether age, gender ethnicity and type of pharmacy influence pharmacists' discussion with patients about the cost, price and ability to afford medications.

Results

Out of the 54 pharmacists who were approached, 26 agreed to participate resulting in a 48% participation rate. The majority of the respondents enrolled in the study were males (65%). The demographics also showed most respondents to be Non-Hispanics (45.8%), working at independent stores (50%), working 40 hours per week (35%) and between 30-40 years of age (43%). (Table 1)

Non-participating pharmacists worked mostly at Pharmacy chain (64%) and (34%) at independent pharmacies and 35% were between 40-50 years of age.

The Cronbach's alpha for the constructs examining the extent of communication on price, affordability and ways to reduce medication cost were 0.89, 0.86 and 0.85 respectively.

Pharmacist Perceptions about Medication Cost As a Burden for Patients

On an average, pharmacists reported that 70% of their patients had concerns with paying for their medications. Figure 1 presents responses provided for the second item measuring pharmacist perceptions about medication cost as a burden for patients. Pharmacists who indicated medication costs to be extremely/very burdensome for patients without insurance were 34% and 38% respectively; where as 23% of the pharmacists indicated medication costs to be extremely/very burdensome for patients with insurance.

Pharmacist-Patient Communication about Medication Costs

a. Pharmacist initiated discussion of medication cost and affordability

Table 2 presents the descriptive analysis of pharmacist responses on questions related to pharmacist-patient communication about medication costs. Approximately 15% of the pharmacists reported that they always initiated a discussion on the ways to reduce cost related burden for patients without insurance. Very few of the pharmacists very often initiated a discussion with patients with insurance on the ability to afford the medications (23%), price (31%) and ways to reduce medications costs. (27%) Where as on an average 35% of the pharmacists somewhat often initiated discussions about ability to afford the medications (35%), price (23%) and ways to reduce medications costs (47%) with patients without insurance.

b. Patient initiated discussion of medication cost and affordability

Approximately 35% of the patient without insurance very often initiated discussion about medication cost and affordability with pharmacists where as 30% of the patients with insurance very often initiated discussion about cost of medication and affordability with pharmacists. Figure 2

There were no significant differences found between pharmacists' gender, ethnicity, and type of pharmacy and pharmacists' initiation about cost related communication with their patients. However, there was a significant difference among pharmacist's age groups with regards to their initiation about cost related communication with patients ($p=0.01$).

Strategies to Reduce Medication Cost Burden

In response to the open ended questions, pharmacists reported a variety of strategies to reduce cost related burdens for their patients. These strategies included providing coupons for buying the medication, discounts on the price of medications, switching medications to generics, calling the physician to make switches and recommending over the counter products. Table 3 presents the number and percentage of instances where pharmacists mentioned the strategies. On an average 33% of the pharmacists reported suggesting generics to patients without insurance and patients with insurance. However approximately 32% of the pharmacists reported working with insurance plan for patients with insurance and 35% pharmacists reported providing discounts to patient without insurance.

Pharmacist's Barrier to Communication with Patients about Medication Costs and Affordability

Approximately 60% of the pharmacists reported that lack of time with a busy schedule as the prime reason for the lack discussion regards medication cost and affordability with the patients. Pharmacists also reported that patients are in a hurry (45%) and patients don't care (40%) as other reasons for the absence of such communication.

Discussion

There were no known studies on patient-pharmacist communication that focused primarily on patient affordability and costs of medication. This exploratory study aimed to explore the nature and extent of cost related pharmacist-patient communication and also examined pharmacist's perceptions of cost as a burden and ways to reduce the burden. In this pilot study, we found that pharmacists feel that paying for medications was a concern for approximately 70% of their patients. While no earlier comparisons are available to identify if this number has increased in the current economic environment, the fact that pharmacists feel that nearly every seven in ten have concerns about paying for medications is striking. Future studies should examine why pharmacists believe such high number of patients have concerns about paying for medications and the characteristics of such patients.

One would assume that if patients had concerns about paying for medications, pharmacists would be discussing price, affordability and ways to reduce costs with their patients very commonly. However, this pilot study found that pharmacists very infrequently discussed cost related issues with all their patients. Also, this study found that pharmacists more commonly discussed price of medications more than affordability and ways to reduce cost burden. Future studies should qualitatively examine how pharmacists discuss price without discussing affordability and ways to reduce cost burden. Interestingly, pharmacists also had more discussions about these issues with patients with insurance than patients without insurance. This is counterintuitive, as one would expect more discussion with a patient paying the full price rather than only OOP costs. Again, more research is needed to explore why discussions with patients with insurance are more common than with patients without insurance.

This study also examined barriers to patient-pharmacist communication about medication costs and affordability and found that the reasons reported by pharmacists for lack of such communication are similar to earlier studies of patient-pharmacist communication.^{27, 28} In this study, pharmacists cited lack of time, patients' in a hurry, patients' don't care as primary reasons. Future studies should develop interventions to target some of these barriers. Such interventions may

enhance patient satisfaction and reduce the problems such as cost related under use of medications. It may also help pharmacists generate more revenue for their pharmacies as improving adherence may help the pharmacy generate more sales and improve customer loyalty.

Strategies indicated by pharmacists in this study as a way to reduce cost related burden add to those found in the patient-physician communication literature. Pharmacists in this study suggested use of generics, discounts and coupons and providing information to seek an effective insurance plan as ways to reduce cost burden. Efforts need to be directed to increase the use of these strategies by pharmacists and to educate patients about initiating discussions about ways to reduce their cost burden.

There are several limitations of this study that should be taken into consideration while interpreting the results. This was a pilot study utilizing a convenience sample located in a single geographic location. Thus, generalizability of the study is limited. The investigator collected the surveys personally and hence the mode of data collection could have lead to participation, recall bias and social desirability. Finally, due to small sample size, bivariate relationships may be exposed to an inflated alpha and decreased power. A close-ended survey was utilized in the study taking in account the busy schedule of the pharmacists. Future research should look to validate the findings of this study under more diverse and generalizable circumstances. Additionally more efforts needed to understand the impact of medication cost communication on patient's satisfaction, adherence and outcomes.

Conclusion

Discussions related to price, affordability and ways to reduce the medication cost related burden occur rarely between the pharmacist and the patients and are more likely to occur between patients with insurance rather than patients without insurance. Pharmacists helped reduce the medication cost related burden on patients by offering them generics, coupons, and discounts and over the counter medications. More comprehensive research is needed to assess the perspectives on patient-pharmacist communication on medication cost, in developing effective strategies. Efforts should be directed to advocate and beget the frequency of cost related communication between patient and pharmacist. More emphasis on research in determining the impact of cost related communication by pharmacist on the patient's health outcomes and adherence to medications.

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Table 1: Demographics

Age	N (%)
25-35	12 (52.1%)
36-45	6 (26%)
46-55	5 (21.7%)
Gender	
Males	17 (65.4%)
Females	9 (34.6%)
Ethnicity	
Non –Hispanic White	11 (45.8%)
African American	2 (8.3%)
Hispanic	1 (4.2%)
Asian Pacific Islander	5 (20.8%)
Other	5 (20.8%)
Type of Pharmacy	
Pharmacy Chain	10 (38.5%)
Independent Single Store	13(50%)
Independent Multiple Store	3 (11.5%)

Figure 1: Pharmacists’ perception about medication cost as a burden for patients

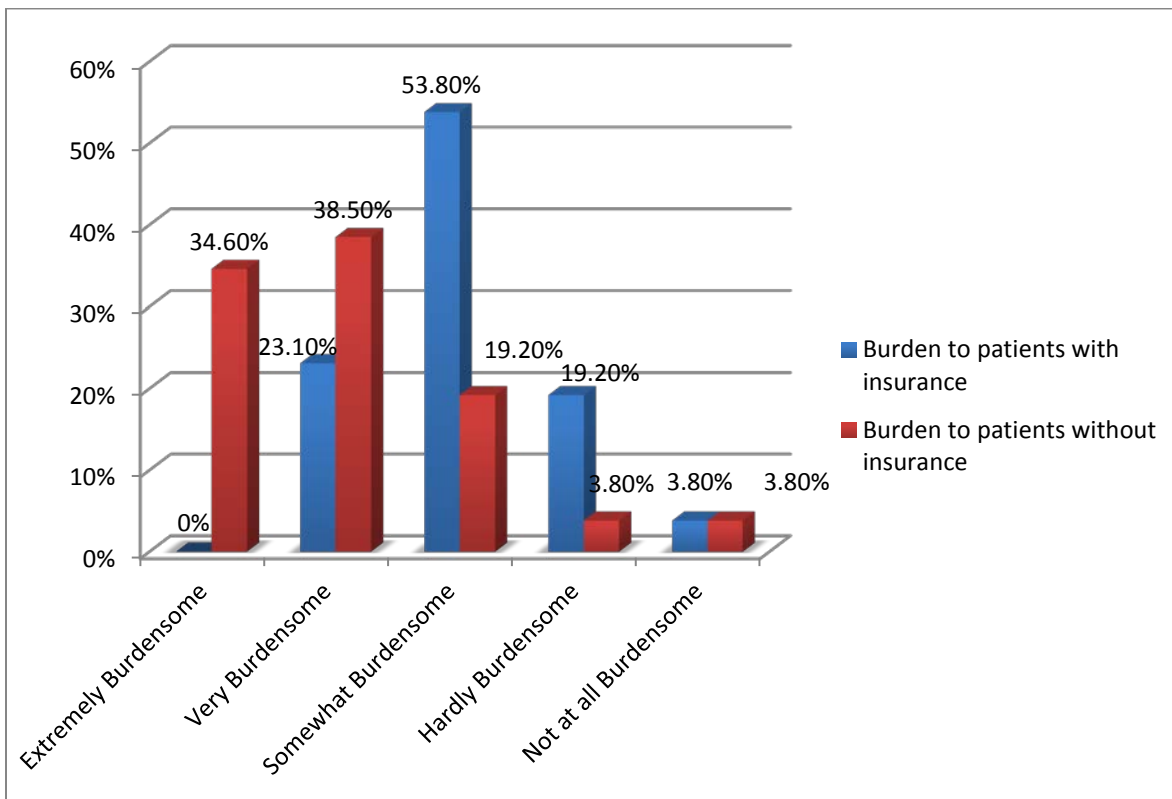


Figure 2: Pharmacists perceived extent to which patients initiate discussion about medication cost and affordability

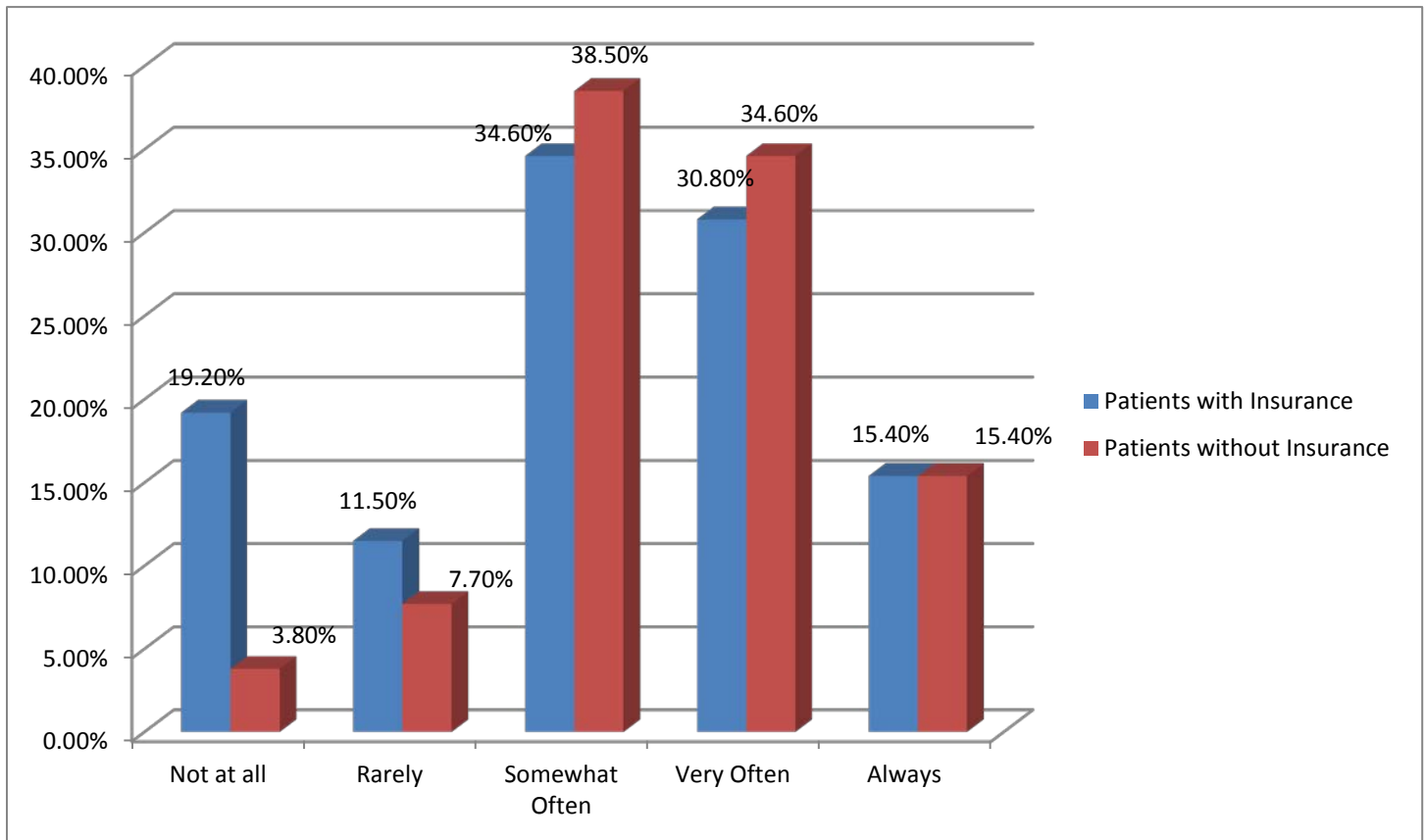


Table 2. Pharmacist-Patient Communication about Medication Costs and Affordability

RPh initiated discussion about....	For Patient With Insurance N (%)					For Patient Without Insurance N (%)				
	Not At All	Rarely	Somewhat Often	Very Often	Always	Not At All	Rarely	Somewhat Often	Very Often	Always
Ability to afford medications	1 (4%)	3 (12%)	13 (50%)	6 (23%)	3 (12%)	2 (8%)	10 (39%)	9 (35%)	3 (12%)	2 (8%)
Price of medications	1 (4%)	3 (12%)	6 (23%)	8 (31%)	8 (31%)	3 (12%)	8 (31%)	6 (23%)	6 (23%)	3 (12%)
Ways to reduce medications costs related burden	2 (8%)	5 (19%)	7 (27%)	7 (27%)	5 (19%)	2 (8%)	7 (27%)	12 (47%)	1 (4%)	4 (15%)

Table 3. Strategies To Help Patients Reduce Medication Cost Related Burden

Pharmacists would....	For Patients With Insurance	For Patients Without Insurance
<i>Work with insurance plan to make changes</i>	6 (31.6%)	2 (10%)
<i>Provide Options to Patient: Either use generics or call Medical Practitioner to switch drugs</i>	1 (5.5%)	2 (10%)
<i>Suggest generics</i>	7(36.8%)	6 (30%)
<i>Use Multiple Strategies: Discounts, generics and call Medical Practitioner to switch to over the counter medications</i>	2 (10.5%)	1 (5%)
<i>Provide Discounts/Coupons</i>	1 (5.3%)	7 (35%)
<i>Refer to Technician</i>	1 (5.3%)	1 (5%)
<i>Recommend Over The Counter medications</i>	1 (5.3%)	1 (5%)

Sample of survey questions

In your opinion, how burdensome is the cost of medications for...

	Extremely Burdensome	Very Burdensome	Somewhat Burdensome	Hardly Burdensome	Not at all Burdensome
Patients who do not have insurance and pay completely out of pocket for their medications					
Patients who have insurance and pay a co-pay for their medications					

To what extent do YOU initiate a discussion about ability to afford medications with the following patients.

	Not at all	Rarely	Somewhat Often	Very Often	Always
Patients who do not have insurance and pay completely out of pocket for their medications					
Patients who have insurance and pay a co-pay for their medications					

To what extent do YOU initiate a discussion about price of medications with the following patients...

	Not at all	Rarely	Somewhat Often	Very Often	Always
Patients who do not have insurance and pay completely out of pocket for their medications					
Patients who have insurance and pay a co-pay for their medications					

Series "Patients without Insurance " Legend Entry