

Patient Use of Cost and Quality Data When Choosing a Joint Replacement Provider in the Context of Reference Pricing

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Abstract

Health plans are encouraging consumerism among joint replacement patients by reporting information on hospital costs and quality. Little is known about how the proliferation of such initiatives impacts patients' selection of a surgeon and hospital. We performed a qualitative analysis of semistructured interviews with 13 patients who recently received a hip or knee replacement surgery. Patients focused on the choice of a surgeon as opposed to a hospital, and the surgeon choice was primarily made based on reputation. Most patients had long-standing relationships with an orthopedic surgeon and tended to stay with that surgeon for their replacement. Despite growing availability of cost and quality information, patients almost never used such information to make a decision.

Keywords

consumerism, hip and knee replacement surgery, provider choice, reference pricing

Introduction

Health plans are promoting consumerism (or consumer-directed health care) as a mechanism to improve quality of care and reduce costs.^{1,2} Advocates of consumerism suggest that patients, facing appropriate financial incentives, will use available cost and quality information to preferentially choose low-cost, high-quality providers, arguing that these engaged consumers will thereby drive cost reduction and quality improvement in health care.

Despite significant interest in consumerism, prior research has found that public reporting of quality and cost data has little effect on patient's choice of providers.³⁻⁵ One potential explanation for this lack of effect is that under many clinical scenarios (eg, heart attack care), patients do not have time to shop for providers. Another potential explanation is that most patients do not face financial incentives to choose lower cost providers.⁶ Joint replacement may be a unique clinical setting to study consumerism. As an elective surgery, patients have more time and interest to select their providers, and patients may not have a prior relationship with their surgeon. Health plans have begun introducing financial incentives to encourage patients to choose lower cost and/or higher quality joint replacement hospitals.⁷ For example, in reference pricing, an increasingly

common consumerism strategy, patients who choose a hospital which costs more than the reference price are responsible for the costs of care above the reference price.⁸ Reference-pricing schemes can shift patients needing hip and knee arthroplasties to lower cost hospitals.⁷ There has been little prior research on how patients choose where they receive joint replacement, particularly within the context of initiatives designed to promote consumerism.

To better understand how patients choose their joint replacement providers in a situation amenable to consumerism, we interviewed patients who recently had a joint replacement. Approximately half of the interviewees were covered by an

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insurance product that used reference pricing and the other half covered by a traditional commercial health plan. The purpose of this study is to describe (1) the process by which patients choose hip or knee replacement providers (either surgeons or hospitals) and (2) the extent to which patients use quality and cost information to compare providers.

Materials and Methods

Sample Selection

We conducted a qualitative analysis of semistructured interviews. Respondents were enrollees in a large California insurance plan who had a hip or knee replacement within 18 months of the interview. For inclusion in the study, we required that respondents were aged older than 18 years, had been diagnosed with osteoarthritis prior to surgery, and had continuous enrollment in their health insurance plan prior to and including the surgery stay. We sent a letter to 50 randomly selected patients, and the letter included a phone number that members could call if they were interested in participating. Consistent with the agreement with the participating health insurance company, we made no outbound phone calls to members to solicit participation. Of the 50 respondents who received a letter, 15 returned the phone call and we were able to schedule calls with 13 of those respondents.

Interview Process

The interview protocol (available on request) was developed iteratively until there was consensus that the protocol included the optimal set of questions. The interviews, which we conducted by phone, began with a general discussion of respondents' most recent joint replacement including the type of surgery received (ie, unilateral hip or knee), where and when the survey was performed, and the extent to which the patient was satisfied with the provider (both surgeon and hospital). Following the introduction, we asked how the patients chose their surgeon and hospital. We asked whether respondents used quality and cost information, where they acquired any cost and quality data used in their decision process, and what types of cost and quality information would have been useful to them. We ended the interview with questions related to age, race, gender, and education.

All of the interviews were digitally recorded, and a note taker participated in each of the interviews. The note taker listened to the interviews after the call and supplemented the notes with more detail from the recordings. The majority of interviews were performed by the first author while other authors participated in a small number of interviews.

Analysis

We performed content analysis to describe the thoughts and experiences of respondents.⁹ Transcripts were analyzed in Atlas.ti. version 7.0 for Windows by 2 authors who used a structured coding scheme to extract key themes. The themes

Table 1. Respondent Characteristics.

| N = 13 | N (%) |
|------------------------------|----------|
| Age | |
| ≤60 | 4 (31) |
| 61-70 | 9 (69) |
| Covered by reference pricing | 7 (54) |
| Female | 7 (54) |
| Race | |
| White | 13 (100) |
| Education | |
| Less than college degree | 5 (38) |
| Bachelor degree | 4 (31) |
| Graduate degree | 4 (31) |

were reviewed by all authors for content and face validity. One author then wrote summaries describing each theme and reviewed them with the first author. Once these authors agreed on the content of the summaries, they adapted them for the results section in the article by pulling specific quotes from the audio-recordings. The results were then reviewed by all authors until consensus was formed around the key themes and the description thereof.

Results

Respondent Characteristics

Respondents ranged in age from 45 to 70 years old and were all white (Table 1). Over half (54%) of the respondents were female. Seven (54%) were covered under the reference pricing program. The insurer set the reference price at US\$30,000 for hospital care, excluding surgeon fees. Patients were able to access a list of hospitals below the reference price through plan's annual member notification and preauthorization letter or by calling their insurer or visiting the insurer's Web site. The other 6 respondents were subject to standard copayment and cost sharing. Five reported having less than a college degree, 4 had a bachelor's degree, and 4 had an advanced degree (eg, Masters or Doctorate).

Describing Provider (Surgeon and Hospital) Choice Process

Respondents almost universally chose their surgeon first as opposed to choosing a hospital. One respondent said, "I did not care about the hospital as much as the guy who was going to be cutting my leg. That was my driving force." Five respondents explicitly stated that hospital quality was not an important factor in their decision process, and only one explicitly stated that the hospital might influence their choice. After selecting a surgeon, they only considered 2 characteristics of the hospital: whether it was close to home and whether it was "in network."

Five of the seven respondents in the reference pricing program actively sought information on the potential cost of the

surgery, as most knew that they were subject to significant out-of-pocket costs. In assessing the costs of the hospital, the interviewees did not frame their choice of hospital based on the reference price but rather “in-network” versus “out of network.” One respondent said, “If I go along with my insurance company who says to have it (the surgery) at that hospital, and it only cost me \$3,500 why am I going to insist on having it done somewhere else where it is going to cost several thousand more?” Respondents in the reference-pricing program would have switched if their chosen hospital was “out of network,” while the non-reference-pricing group did not consider costs, as all hospitals were covered equally. Respondents covered by the standard plan did not call their insurance company to confirm network status of the hospital.

When respondents were choosing a surgeon, they first relied on their own prior episodes of orthopedic care. Says one respondent: “I had good experiences with all of the previous surgeries so by this point I knew what good was.” Six patients had an established relationship with an orthopedic surgeon, and the replacement was the final surgery in a series of procedures (eg, meniscus repair and other hip or knee replacements) to relieve symptoms and improve functioning and was, therefore, not a “one time” or isolated event.

Respondents who had either no surgical history or the 2 who chose not to return to their prior surgeon investigated potential surgeons using information from a variety of sources. The most prominent source was word of mouth with or without simultaneous Internet searches. Patients who used a word-of-mouth approach generally asked friends and family members to recommend orthopedic surgeons. Others relied primarily on online searches to find orthopedic surgeons in the area, looking for general information such as patient reviews and basic biographical information often provided on a hospital Web site (eg, medical school, residency, and specialization).

This process of using word-of-mouth recommendations and/or a brief Internet search was generally used to select a single preferred surgeon. After the respondents chose their preferred surgeon, all respondents set up an initial appointment primarily as an “interview.” Only 1 respondent performed interviews with multiple surgeons (a total of 8). During this meeting, nearly half of the respondents were interested in the surgeon’s “people skills,” an important characteristic in making the final decision to choose a given surgeon. In addition, the respondents placed importance on the amount of time the surgeon spent with them in answering questions and providing information. When looking back on their surgery, the initial meetings were important to respondents in setting expectations about recovery time and pain they might have postsurgery. Finally, respondents often asked about the specific surgical technique that the surgeon would be using. One respondent explicitly decided not to seek care from specific surgeons believing that the surgeon’s techniques were outdated: “The doctors in my town, I don’t think they are as up-to-date as the doctors that I went with. They more or less do the old surgery which I am not too thrilled with.”

Describing the Use of Cost and Quality Data

Only a small proportion of patients utilized formal cost and quality data, regardless of coverage type. Respondents in the reference pricing group often called their insurance company to acquire information about whether their hospital where their surgeon had privileges was covered under the reference price but did not generally ask questions on the out-of-pocket costs that they would face if they chose a different hospital. No respondent looked at or reported having access to hospital cost or charge data. Furthermore, the respondents specifically mentioned that they had no interest in overall cost or charge data and were only interested in information related to their own expected out-of-pocket costs.

Because respondents relied primarily on word of mouth, they rarely sought any formal quality data such as complication rates, readmission rates, or postsurgical functioning. No respondent reported that formal quality information factored into their decision. Ten respondents stated that if quality data were available, they would have looked at it. However, they could either not find any applicable quality data or did not know that such data were available. Patients were most interested in having data regarding postsurgical functional outcomes and patient satisfaction, which was viewed as a gauge for the surgeon’s reputation. Respondents were least interested in mortality or complication rates.

Some respondents reported using “quality” data when performing Internet searches, but these data tended to be informal or “proxy” quality data. For example, respondents noted that they reviewed where the surgeon went to medical school, their age, the number of publications they had, whether they were affiliated with a teaching hospital, and how many surgeries they have done. This information was used both as an initial search and as confirmation of their initial impressions of the surgeon.

Discussion

We found several key themes related to how patients choose their joint replacement providers. Patients almost universally made their choice based on the surgeon, and the choice of hospital played little role in their decision. In choosing a surgeon, patients often relied on their experience from previous orthopedic treatment; in this way, a significant proportion of patients had an established relationship with their orthopedic surgeon and often simply used their extant surgeon. Patients who chose a new surgeon or did not have an established relationship with a surgeon generally relied on word-of-mouth recommendations from friends and family. This decision was confirmed by searching the Internet for information about that surgeon related to the surgeons training or academic publications. Publicly available quality information had no role in any of the patients’ decisions. Respondents rarely searched for cost data with the exception of patients covered by reference pricing who were likely to call their health insurance company to ensure that the hospital was “in-network.”

Our findings have a number of important implications for policy interventions designed to promote consumerism in the context of hip and knee replacement. The study findings call into question the current focus on hospitals for publicly reporting quality data and financial incentives. Respondents in our study universally focused on the choice of the surgeon when making their decision, and choice of hospitals was almost an afterthought. Although no prior studies have specifically asked patients about the relative contribution of hospitals versus surgeons for choice of replacement providers, a recent survey of joint replacement patients showed that surgeon factors were generally ranked higher than hospital factors as important for decision making.¹⁰ Creating surgeon-specific quality information is difficult. Most quality information, such as complication rate, is calculated at the hospital level because the number of patients treated by a single surgeon is often too low to create reliable metrics.

Our study also highlights that the types of available quality and cost data are not what patients desire. Respondents had relatively little interest in mortality and complications rates. Rather the quality data that patients were most interested in were patient satisfaction and measures of postsurgical functional outcomes. This is consistent with prior literature both within and outside orthopedic surgery.^{10,11} This disconnect might explain why patients were more likely to use information from friends and family than publicly available quality information.^{11,12} Another key factor was that patients were simply not aware these data were available. This echoes previous studies that public reports of provider quality are difficult to find.^{10,13,14} In terms of cost data, patients were most interested in their own expected out-of-pocket costs and not at all interested in hospital costs or charges. Yet many cost transparency efforts are focused on hospital costs or charges.⁶

In contrast to focusing on primary care physicians where patients often have long-standing relationships,¹³ one perceived advantage of encouraging consumerism among joint replacement patients is that these surgeries may represent discrete one-time events with a new surgeon. However, our results suggest the opposite that many patients do, in fact, have established relationships with their orthopedic surgeon that may be difficult to break.

Finally, our results might help explain how reference pricing drives patients to lower cost hospitals.⁷ While reference pricing did appear to make patients conscious of price, the respondents simplified the reference-pricing method into a more familiar binary framework—in network versus out of network. The results suggest that to patients, reference pricing represents a variation in the more easily understood hospital tiering program in which patients pay differential copayments depending on their choice of hospital.¹⁵

This study has several limitations. First, we have a relatively small sample of patients though it is within the range of other studies investigating similar topics.¹⁶ Second, our sample is relatively educated and included no minority patients. Therefore, the generalizability to all patients may be limited. Third, our study relies on a sample of patients who responded to a

single outreach mailing. We did not perform any active outreach. Therefore, our sample may include patients who are particularly engaged. Although respondents in the reference-pricing program called their insurance company to confirm that their hospital of choice was in “in-network,” we found little other use of cost and quality data among these patients, and therefore it is likely that the use of cost and quality information is even lower among the general population.

In conclusion, our study investigates the process by which patients choose providers for their hip and knee replacement. Our findings highlight the potential of consumerism in the context of joint replacement and a number of limitations and areas for improvements related to the current policy interventions being used.

Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article. Two authors are employees of HealthCore, Inc, an independent research subsidiary of WellPoint, Inc.

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