

The Case for Cost Sharing for Biologic Therapies

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In the United States in 2003, overall prescription drug spending totaled \$179.2 billion, with the specialty pharmaceuticals portion of this figure being \$25 billion¹—14% of the total figure. According to Medco Health Solutions, Inc, this figure is expected to reach \$40 billion by the end of 2006 and is currently growing at approximately twice the national average on drug spending.² More than 50% of spending in the specialty pharmaceutical portion was on treatments for rheumatoid arthritis and multiple sclerosis. Although there were few users of biologics in the past, today many more common conditions, such as rheumatoid arthritis, asthma, and hepatitis C, are being treated with biologics. Some pipeline biologic products recently approved by the US Food and Drug Administration include those for certain cancers, skin disorders, pulmonary disease, and Fabry's disease (Table 1).³

Fifteen years ago, pharmacy represented a small portion of total medical care costs, with only a small number of biologic medications being prescribed, mainly for the treatment of diabetes and inborn errors of metabolism. Now, biologics are considered for congestive heart failure, Crohn's disease, mucositis, organ transplants, osteoporosis, sepsis, and wounds/burns. Products in the pipeline include monoclonal antibodies, selectin antagonists, vaccines, endothelial receptor antagonists, gene therapies, and fusion inhibitors.

Biologics are just one of many drivers of rapidly rising pharmaceutical costs. There are several other drivers ranging from the aging of the American population to direct-to-consumer advertising. Los Angeles County undertook an analysis of their rising pharmacy costs from April 1997 through March 1999 and found that, despite a de-

crease in the number of fee-for-service-eligible citizens, pharmacy costs continued to rise, with the majority of these costs incurred by those who were elderly, blind, or disabled (Figure 1).⁴

On examination of the historical economic patterns associated with outpatient prescriptions, we find that prescription costs were small compared with actual medical costs. This system was an effective method of enticing members to join these plans. Over time, pharmacy costs have increased, making up a larger proportion of total healthcare costs; however, the percentage of cost sharing has remained relatively stable (Figures 2 and 3).^{5,6}

As a result of this trend, patients have become blinded to the true cost of therapies, potentially reducing their ability to remain engaged in their own healthcare. Under the current payment system, all relevant factors in care choices are not transparent to patients. They are made aware of their portion of cost sharing, but not of the total cost of a therapy. It is important that we evaluate the

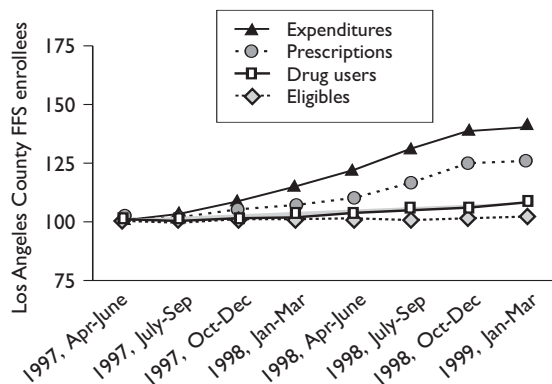
Table 1. Profiles of Recent US Food and Drug Administration Biotechnology Approvals

Drug	Therapeutic area	Monthly cost (\$)
Avastin	Oncology	4400-7500
Erbutinix	Oncology	10 000
Raptiva	Dermatology	1300
Xolair	Pulmonology	466-2750
Fabrazyme	Fabry's disease	17 000-25 000

Source: Reference 3.

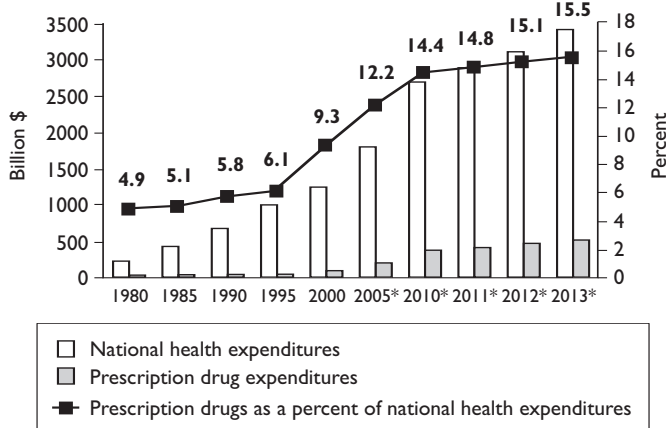
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Figure 1. Medi-Cal Pharmacy Trends, April 1997-March 1999, Elderly, Blind, and Disabled Aid Categories



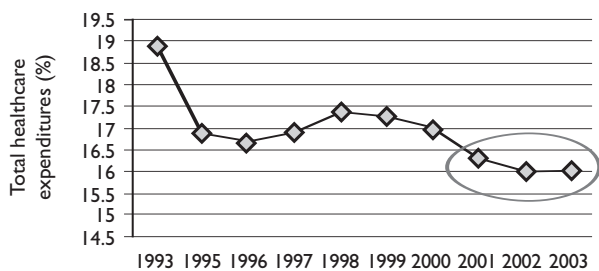
FFS indicates fee-for-service.
Source: Reference 4.

Figure 2. Pharmacy Costs as a Percentage of All Healthcare Expenditures



*Projected.
Sources: References 5 and 7.

Figure 3. Percentage of Total Healthcare Costs Paid Out of Pocket



Source: Reference 7.

effect this lack of information has on a patient's ability to remain engaged in his/her healthcare. Would patients make different choices if they were aware of the total cost of the offered therapies?

With healthcare costs increasing, the degree to which employers may be forced to limit or reduce healthcare coverage for their employees becomes a concern. Employers argue that rising costs will limit their ability to remain competitive in the current global economy. How much responsibility must the average healthcare consumer take in these rising costs? Do we, as individual healthcare consumers, bear some responsibility to evaluate the cost benefits of our own care?

Furthermore, if the individual patient evaluates all factors of a treatment choice, including cost, is he/she more likely to remain engaged in his/her own healthcare? Does this engagement then translate into improved health outcomes?

In May 2005, the American Association of Retired Persons Public Policy Institute undertook a study to evaluate the correlation between health status and patient activation (defined as having the knowledge, skills, beliefs, and confidence to manage one's health). The results of this study showed that there is a correlation between the degree of health literacy and activity a patient has and how healthy he/she is, underscoring the importance of engaging patients in their own healthcare (Table 2).⁷

Although this study did not specifically evaluate cost as part of participants' knowledge base, it does underscore the importance of knowledge in improving health outcomes. Can we make the argument that cost is an important component of this knowledge?

As part of engaging patients in their own healthcare, it is important to help them to define value for a particular treatment. Offering educational information about the drugs, their proper use, and providing a clear explanation of all costs may help patients to assess the value of a particular therapy. Defining value in terms of concrete improvements valued by the patient is important. For example, if they have peripheral arterial disease, will the treatment allow them to walk another mile, another half mile, or

Table 2. Bivariate Relationships Between Health Literacy and Patient Activation and Dependent Measures

Patient activation and dependent variables	Mean of values by health literacy level		
	Inadequate/marginal (n = 39)	Barely adequate (n = 78)	Adequate (n = 176)
Patient activation (range = 0-100)	57.3	60.8	64.2*
Medicare decision making (range = 1-4)			
Confidence in Medicare decision making	2.4	2.6	3.0*
Using comparative information to make Medicare decisions	1.1	1.3	1.7*
Healthcare-related behaviors (range = 1-4)	3.0	3.4	3.4*
Healthy behaviors (range = 1-4)			
Exercise regularly	2.7	2.9	3.2†
Know recommended cholesterol level	2.5	2.9	3.1*
Usually pay attention to fat in diet	2.6	2.9	3.1†
Eat at least 5 servings of fruits or vegetables per day	2.6	2.8	2.9
Long-term disease self-management behaviors (range = 1-4)			
Take long-term illness medications as recommended	3.3	3.4	3.6†
Keep written diary of blood pressure readings	2.7	2.7	2.6
Know what blood pressure doctor would like me to have	2.9	3.1	3.3†
Do regular exercises to help manage my arthritis	2.4	2.7	3.1†
Have personal plan that helps me manage my arthritis pain	2.5	2.7	2.9†

ANOVA test of differences of means among respondents with inadequate/marginal, barely adequate, and adequate health literacy levels. Sample sizes for long-term disease questions vary from 147 to 191.

*P < .001.

†P < .01.

‡P < .05.

ANOVA indicates analysis of variance.

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another 30 feet? What is the cost benefit of this improvement?

New therapies must be evaluated with this concrete definition of value. Payers must be able to determine the true cost benefit of a therapy and provide this information to patients.

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