The Case Against Excessive Cost Sharing

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Modern times have seen the advent of a new realm of pharmacotherapy: biologics. These therapies have opened exciting new possibilities in the treatment of many long-term health conditions. Treatment possibilities are now available which alter physiologic responses, thereby unlocking the potential to halt or even reverse damage. The full promise of biologic medications has yet to be realized.

Biologics, however, often come at a significant cost. In an era of out-of-control healthcare inflation, payers struggle with the cost/benefit ratio of these therapies. Employers, the primary purchasers of healthcare insurance, have put increasing pressure on insurers to slow the rate of premium growth while still maintaining access for their employees. Insurers are often in a quandary as to how to meet both needs. Cost sharing, a traditional method for managing small-molecule therapies, is often the response.

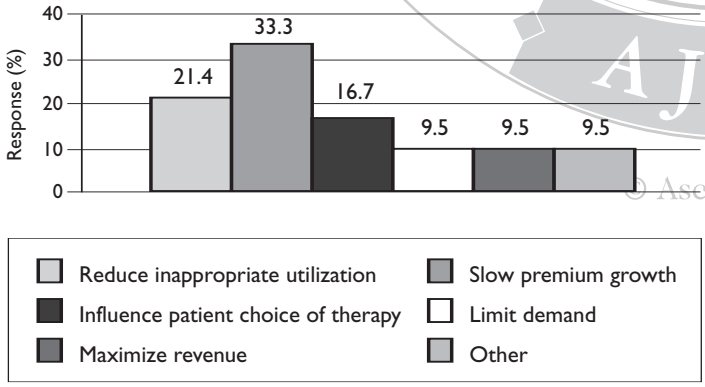
Cost sharing, as discussed by Leslie Fish, RPh, PharmD, has many purposes aside from reducing costs to the plan. Many attendees of the Great Debate felt that one of the primary purposes of cost sharing is to reduce inappropriate utilization (**Figure 1**). Many studies have shown that cost sharing is, at best, a blunt instrument. Increasing patient cost sharing often has the undesired effects of reducing adherence to needed medication and inversely increasing other healthcare costs.

Tamblyn et al undertook a study to determine the impact of increasing cost sharing on 2 at-risk populations: the elderly and the poor. In this study, health claims for 93 950 elderly and 55 333 adult welfare recipients were analyzed before and after the introduction of a prescription coinsurance and deductible. The authors noted that although the implementation of increased cost sharing did have the desired effect of reducing inappropriate drug use, it also had the side effect of reducing appropriate drug use and subsequently increasing the rate of serious adverse events (**Figure 2**).[1]

The RAND Corporation completed a study in 2004 on the effect of doubling patient copays in several categories of prescription medications. The study included 534 000 adult insurance beneficiaries. The results of this study confirmed negative consequences for increasing the cost sharing on needed medications (**Figure 3**).[2] Adherence decreases as copayments increase and costs are shifted to the patient, which often leads to negative healthcare consequences.

Another study dealing with the potential outcome of cost sharing was conducted by the Agency for Healthcare Research and Quality.[3] All of the study's 530 000 patients had employer-sponsored health insurance from 52 plans among 30 employers. The plans each had 3 tiers with increasing copayments. Subjects were followed for 4 years

Figure 1. Major Objectives to Cost Sharing



N = 49.
Source: Results surveys conducted at the 2005 Academy of Managed Care Pharmacy live session.

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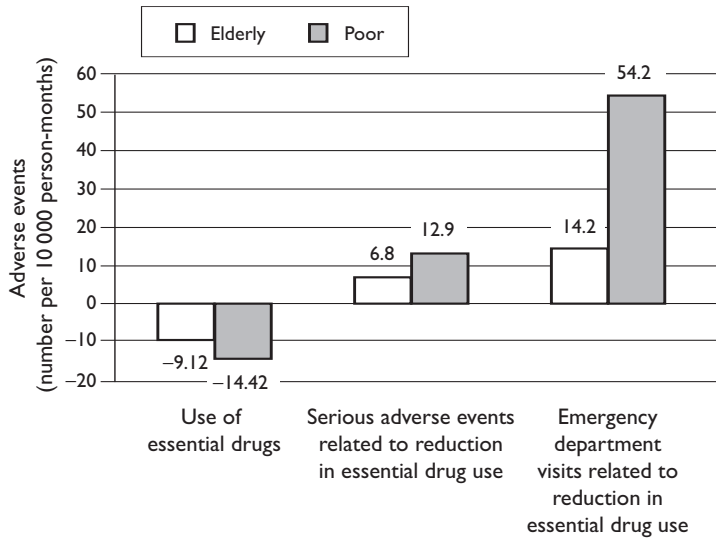
across various drug classes (such as nonsteroidal anti-inflammatory drugs [NSAIDs], antihistamines, antihyperlipidemics, antiulcerants, antiasthmatics, antihypertensives, antidepressants, and antidiabetics). There was a significant percentage decrease in adherence when copayments were doubled.

In a study by Intermountain Health Care and the University of Utah in Salt Lake City, similar differences were observed in patients remaining on therapy, which included antihypertensives, NSAIDs, and antihistamines, who experienced a benefit design change of a $5 or more increase in pharmacy copay (**Figure 4**). More patients with allergic rhinitis who underwent a benefit change discontinued medication than those who did not undergo a change in benefits (67% vs 54%, respectively; P <.001). In patients with asthma, there was a 16% difference in discontinuation, with 66% discontinuing medication if they had a benefit change, and 50% discontinuing if they did not (P <.001). The greatest difference was seen in those with osteoarthritis, where 61% of those with a benefit change discontinued medication, whereas only 36% of those without a benefit change did (P <.001). Only 18% of patients with hypertension discontinued medication without a benefit change, and 39% discontinued with a benefit change (P <.001). In patients with diabetes, 20% discontinued without a benefit change, and 33% discontinued with a benefit change; this was the only group with a nonsignificant difference (P = .240; Figure 4).

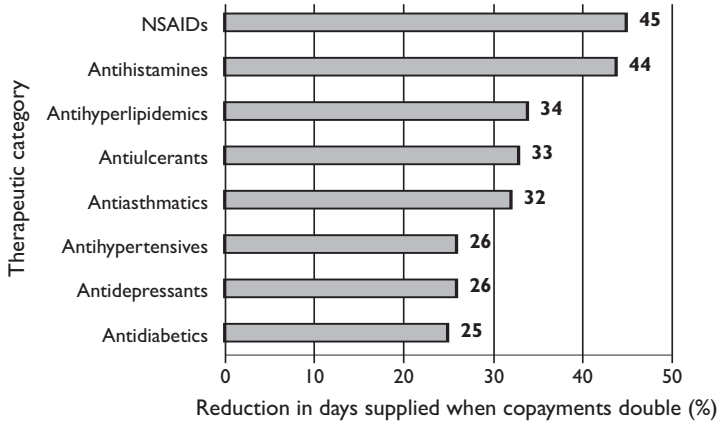
Looking at the impact of cost sharing in the biological realm, it can have a much higher impact, because drug costs tend to be exponentially higher. If a patient pays a 35% coinsurance for therapy that costs $14 000 per year, the patient is still facing an approximate $4900 out-of-pocket cost for this biological therapy. In 2004, the median household income in the United States was $44 000,[4] making the cost of this therapy 11% of the patient's total income before taxes. These types of costs put what often is the best therapy out of reach of the average American. Although literature on the negative consequences of cost sharing is clear for small-molecule therapies, there are no such data for biologics.

Figure 2. Adverse Events Associated With Prescription Drug Cost Sharing Among Poor and Elderly Persons (Change From Baseline)



Source: Reference 1.

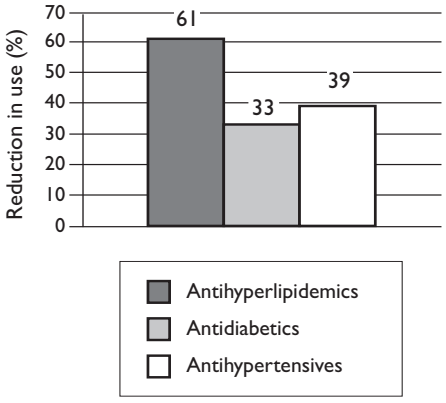
Figure 3. Copayments Can Have a Large Effect on Service Use, Including Prescription Drugs



NSAIDs indicate nonsteroidal anti-inflammatory drugs.
Source: Reprinted with permission from Reference 2.

Biologic therapies treat a wide range of conditions and therefore have a wide range of impact. Some biologics improve quality of life in non–life-threatening diseases, such as psoriasis, whereas others reduce effects in diseases that have significant impact on a person's ability to remain completely functional, such as rheumatoid arthritis or multiple sclerosis. Payers need to pay close

Figure 4. Effect of a $5 or More Increase in Pharmacy Copayment on a Chronically-ill, Insured Population



attention to the overall value of an individual therapy when evaluating cost-sharing options to avoid discouraging appropriate therapy.

In the literature on rheumatoid arthritis, one study asked physicians about the percentage of the newer biologics that they would use to treat the disease. In severe disease activity for rheumatoid arthritis, 65% responded that they would use the newer disease-modifying antirheumatic drugs (ie, leflunomide, infliximab, etanercept) if cost was not a consideration.[5] However, this number dropped to 14% when cost was a consideration. It appears that prescribing physicians are taking cost into consideration and appreciating that biologics are very costly drug alternatives. The underlying question is: What is being considered, the benefit to the patient or the cost to the health plan?

Another published rheumatoid arthritis study demonstrates that these high-cost drugs can help people return to work.[6] The economic value of returning a person back into the workplace to be productive must be incorporated into payer decisions. Overall costs need to be factored into the equation, especially in disease states that impact younger, employed patients.

Another disease which often impacts younger, employed adults is Crohn's disease. Low-cost options, such as 5-aminosalicylates, steroids, immunomodulators, and antibiotics, range from $9.43 to $337.86 per month versus the anti–tumor necrosis factor (TNF) drug, infliximab, the current biological option priced at $1375.50 per month.[7] There is overwhelming proof of improved efficacy of TNFs in this particular disease. Anti-TNF therapy has an 82% response rate versus a 17% response rate with placebo.[8] In addition, remission in patients with Crohn's disease is associated with improvement in employment and quality of life.[9]

Payers need to redesign systems to fully evaluate all of the benefits of a therapy. They must stop using cookie cutter methodologies to control costs. Although these methods reduce inappropriate therapy, they also reduce appropriate therapy. Recent literature has many examples of the negative consequences on both health outcomes and costs of increasing patient cost sharing across the board without consideration of the benefits of individual therapies.

REFERENCES

1. Tamblyn R, Laprise R, Hanley JA, et al. Adverse events associated with prescription drug cost-sharing among poor and elderly persons. *JAMA.* 2001;285:421-429.

2. The RAND Corporation. How cost sharing affects use of drugs by the chronically ill. Available at: http://www.rand.org/publications/RB/RB9109/RAND_RB9109.pdf. Accessed January 12, 2006.

3. Goldman DP, Joyce GF, Escarce JJ, et al. Pharmacy benefits and the use of drugs by the chronically ill. *JAMA.* 2004;291:2344-2350.

4. US Census Bureau. 2004 American community survey. Available at: http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=01000US&-qr_name=ACS_2004_EST_G00_S1901&-ds_name=ACS_2004_EST_G00_. Accessed February 2, 2006.

5. Erkan D, Yaziei Y, Harrison MJ, Paget SA. Physician treatment preferences in rheumatoid arthritis of differing disease severity and activity: the impact of cost on first-line therapy. *Arthritis Rheum.* 2002;47:285-290.

6. Gabriel SE, Coyle D, Moreland LW, et al. A clinical and economic review of disease-modifying antirheumatic drugs. *Pharmacoeconomics.* 2001;19:715-728.

7. Sandborn WJ, Sands BE, Panaccione R, Feagan BG. Optimizing management of Crohn's disease: a case-based discussion of current and future therapies. Available at: http://www.medscape.com/viewprogram/4284. Accessed September 23, 2005.

8. Feagan BG, Enns R, Fedorak RN, et al. Infliximab for the treatment of Crohn's disease: efficacy, safety and pharmacoeconomics. *Can J Clin Pharmacol.* 2001;8:188-198.

9. Lichtenstein GR, Yan S, Bala M, Hanauer S. Remission in patients with Crohn's disease is associated with improvement in employment and quality of life and a decrease in hospitalizations and surgeries. *Am J Gastroenterol.* 2004;99:91-96.