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Do Managed Care Drug Formularies Signal Health Plan Coverage Generosity?

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Introduction

Managed care is the last hope for non-governmental health system reform in the United States. With it there is hope that health care costs can be contained, quality of care increased, health outcomes improved, and access to care expanded through availability of lower-cost health insurance (Enthoven and Singer, 1996 and Zwanziger and Melnick, 1996).

But for the managed care revolution to succeed, consumers and their agents must have information on health plan attributes. The attribute most concerning consumers appears to be access to appropriate technology. While there have been attempts to rate health plans such as the Health Plan Employer Data and Information Set (HEDIS), developed by the National Committee for Quality Assurance (NCQA), the indicators are generally in the area of prevention, such as pediatric immunization and mammograms and do not address access to new technology (see Sangle and Wolf, 1996 and Lohr, 1997). This paper explores

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differences between HMOs along one of these dimensions - access to pharmaceuticals. We explore whether managed care plans have begun to differentiate themselves according to access to expensive drugs. If this differentiation does occur, with some plans offering access only to older, less expensive therapies while others offer newer, and often better drugs, then better information on HMO drug formularies might be a useful measure of health plan quality for consumers.

Background

Despite rapid expansion in managed care enrollment, population surveys suggest that consumers are ambivalent toward them . Though they overwhelmingly choose managed care alternatives when offered the chance, they undoubtedly do so because of substantially lower premiums. Once enrolled, they often express disappointment (Tudor, Riley, and Ingher, 1998). The most frequent complaint is lack of coverage for services. Either specialty care is difficult to obtain, specific treatments are not authorized, or the latest pharmaceutical therapies are unavailable.

These coverage disputes reveal a more fundamental issue in health plan coverage. Do consumers believe that their managed care health plan provides (or should provide) the same coverage as indemnity fee-for-service plans? Or do they believe that the significantly lower premium is accompanied by reduced coverage in the managed care plan? And in the broader context, does society at large

believe that health care must be of a single quality, or does it accept the notion that there will be a spectrum of both health plan quality and price (see Friedman, 1997).

While consumers readily accept the idea of a price-quality tradeoff in other markets for basic goods and services, such as housing, food, transportation, and education, there seems to be some unease with regard to health care. Support for the unitary quality model comes from the legal system, too, which adheres to the principle that a single standard of medical care exists, and that anything less is "malpractice."

To be sure, markets in which different quality levels co-exist frequently are subject to minimum quality standards. All food, of whatever degree of luxury, must pass tests for cleanliness and safety. Similarly, automobiles, whose price and quality vary widely, must pass crash worthiness tests and be certified as to fuel economy. And all houses, whether inexpensive or luxurious, must comply with building and zoning codes.

The cost-effectiveness ratio measures the cost of producing a particular health outcome and is used frequently in managed care to justify coverage of some services and denial of others. A health plan that is cognizant of its role of providing comprehensive health care for a defined population realizes that it can produce quality-adjusted life-years (or some other outcome) more cheaply through services like pediatric immunizations and use of generic drugs than by exotic treatments for advanced cancers. An HMO can frequently justify exclusion from

coverage treatments that are particularly cost-ineffective if they can be classified as "experimental."

Though perfectly competitive markets are characterized by product homogeneity, imperfectly competitive markets exhibit product differentiation as producers compete for market share (see Chamberlin, 1948). Managed care markets are oligopolistic or imperfectly competitive, and so one should expect to see health plans attempting to differentiate themselves according to "quality." One manifestation of this differentiation might be that a variety of cost-effectiveness thresholds would appear, each employed by a particular HMO, with premiums set according to this C-E ratio. More "rationalized" plans, covering only the most cost-effective therapies, would charge the lowest premiums, while the most "generous" plans would cover treatments that were more costly per expected gain in outcome, in additional to the basic cost-effective treatments. Of course these plans will be more expensive. Plans might even offer multiple options themselves, making explicit coverage extensions that could be obtained for premium differentials. Consumers in this market would have choice along a quality-price tradeoff. Some would economize and purchase a health plan with only basic coverage, while others would be willing to pay more in order to have more treatment options available in the future if they were needed. But the use of C-E by health plans is still rudimentary (Power and Eisenberg, 1998).

A concern of health system analysts is whether consumers have sufficient information concerning health plans to make informed choices, especially as to the

combination of cost and quality. With appropriate information consumers can choose according to their personal preferences, but without such information the market is likely to degenerate because only one dimension - cost - is readily measurable. Quality is not. Under such a market structure one would expect that managed care plans would compete on price alone and would let quality deteriorate, as long as it was maintained at a sufficient level to avoid being identified as dangerous.

Methodology

Our comparison of drug formularies of managed care plans centers on coverage for the most expensive drugs in each therapeutic class, because these drugs tend to be the newer products that tend to offer improvement over older drugs, but at a higher price. We look at three measures of coverage: coverage of the most expensive drug in the therapeutic category, coverage of the two most expensive drugs in the category, and coverage of all drugs whose price exceeds the median price for drugs in that class.

Drugs differ from one another in terms of efficacy, side-effect profile, and convenience. And even drugs in the same class tend to work differently for different patients. Thus it is an advantage to have numerous drugs within a particular therapeutic class available for patients. Failure to offer a wide variety of drugs restricts physicians to use products that may work well "in general," but may not be optimal for particular patients. The more "open" a formulary, the more trust the health plan places with prescribing physicians to choose the best drug for

patients, without prescribing more expensive therapies when they are not needed. Of course every health plan allows physicians to prescribe drugs that are "off formulary," but bureaucratic policies exist to discourage this practice.

The Data

Five therapeutic categories were chosen for analysis, on the basis of their overall importance in clinical practice: calcium-channel blockers for hypertension, antidepressants, anti-hypercholeresterimias for elevated cholesterol, ACE inhibitors for hypertension, and anti-asthma drugs.

Price data was obtained from The Medical Letter (Medical Letter), and is Average Wholesale Price (AWP). This is not necessarily the actual acquisition cost of drugs, especially by managed care plans, because they frequently obtain price discounts from manufacturers. None-the-less these AWP prices are a commonly-used proxy for prices that health plans pay, and it is likely that though discounted prices would be lower than AWP, relative prices - and especially price rankings - may be well represented by the AWP.

The formulary status of drugs is obtained from a compilation of formularies of major prominent health plans in California published in the Triple I Formulary Guide (Triple I Formulary Guide, 1998). This book summarizes individual formularies from 18 managed care plans, including MediCal, California's Medicaid program. In addition, coverage for Blue Cross of California was obtained directly from that plan's formulary (Blue Cross of California, 1997), increasing our sample of health plans to 19.

Results

The following table presents the drugs for which AWP and formulary status was determined for the 19 health plans. The drugs are grouped according to therapeutic category.

Table 1 Pharmaceuticals and AWP (1997)

Drug (Brand)	Drug (Generic)	AWP 1/
Calcium Channel Blockers (dihydropyridines)		
Norvasc	Amlodipine	$36.60
Plendil	Felodipine	25.62
DynaCirc	Isradipine	25.08
Adalat CC	Nifedipine	26.11
Procardia	Nifedipine	38.25
Antidepressants		
Elavil (G)2/	Amatriptyline	2.57
Wellbutrin	Bupropion	73.70
Norpramin (G)	Desipramine	24.53
Prozac	Fluoxetine	72.51
Tofranil (G)	Imipramine	3.70
Serzone	Nefazodone	58.14
Pamelor (G)	Nortryptyline	11.66
Paxil	Paroxetine	61.95
Nardil	Phenelzine	48.29
Zoloft	Sertaline	66.54
Desyrel (G)	Trazodone	10.53
Effexor	Venlafaxine	68.68
Cholesterol		
Lipitor	Atorvastatin	54.72
Lescol	Fluvastatin	36.60
Pravachol	Pravastatin	58.97
Zocor	Simvastatin	60.86
Angiotensin-converting-enzyme (ACE) Inhibitor		
Lotensin	Benazepril	20.84
Capoten	Captopril	38.90
Monopril	Fosinopril	22.77
Accupril	Quinapril	27.27
Asthma		
Beclovent	Beclomethasone	32.78
Vanceril	Beclomethasone	32.78
Aerobid	Flunisolide	52.02
Azmacort	Triamcinolone	43.50

1/ AWP for 30 days' treatment
2/ (G) indicates generic version

The 19 health plans for which formulary data was available are listed in Table 2:

Table 2 Health Plans

Aetna Health Plans of California	Health Plan of the Redwoods
Blue Cross of California	Inland Empire Health Plan
Blue Shield of California	Maxicare California
California State Medi-Cal	National Health Plans
CaliforniaCare	Omni Healthcare
CareAmerica Health Plans	PacifiCare of California
CIGNA	Prudential Health Care
Foundation Health, a California HP	Sharp Health Plan
Health Net	UNITEDhealthcare
Health Plan of San Mateo	

Most health plans covered the most expensive alternative in each of the categories (mean = 79.2%), and a slightly higher percentage covered the second-most expensive of the alternatives (mean = 78.0%), as shown in Table 3. The proportion of plans covering all of the drugs whose cost exceeded the median was, as expected, far lower (mean = 48.4%).

Table 3 Extent of Coverage by Therapeutic Class (# plans out of 19)

Coverage Generosity	Therapeutic Class				
	CCB	Depression	Cholesterol	ACE	Asthma
Most expensive product	14(74%)	15(79%)	11(58%)	18(95%)	17(90%)
Second-most expensive	16(84%)	15(79%)	14(74%)	11(58%)	18(95%)
All products >median price	11(58%)	4(21%)	6(32%)	9(47%)	16(84%)

But more interesting is the degree to which plans are consistent across category in their generosity. Five of the 19 plans covered the most expensive drug in all 5 categories, though 14 out of the 19 covered the most expensive product for 4 out of the 5 categories. None covered all the products priced above the median for all 5 categories, and only 1 covered these drugs for 4 out of the 5.

Looking at plans that tended to be more frugal, no plan failed to cover the most expensive product for all 5 categories, or even for 4 out of the 5 categories. Similarly, no plan consistently failed to cover all of the most expensive products for all products, though 4 of the plans failed to cover them for 4 out of the 5 categories.

Conclusions

Our findings indicate that the managed care plans studied were fairly generous in covering relatively expensive products within the 5 therapeutic groups. Most plans covered the most expensive products for most of the classes. None-the-less, there was not a great deal of consistency in the coverage by each health plan, either in terms of generosity or frugality. Several plans covered the most expensive product in all of the therapeutic classes, and nearly all did so for 4 out of the 5 classes, but the plans were not uniform in which of the classes were covered. And no plan was consistent across class in its failure to cover expensive drugs.

The implication is that drug formularies do not yet appear to be used by managed care plans to define coverage generosity or frugality. It is possible that health plans have not yet decided to use cost-effectiveness criteria aggressively in deciding which health services to offer to their members. This may be because managed care markets have not yet reached the level of maturity to engage in product differentiation along quality lines. Or perhaps managed care plans are responding to a general societal concern over explicit rationing of care within

health care in general. Society will have to clarify its desires concerning the allocation of scarce resources in health care, in order to confront the dilemma of whether multiple quality of care standards should be allowed to coexist openly or whether we will continue our ambivalence, with some institutions attempting to maintain uniform standards, while markets are allowing differentiation to exist. Until the social contract is better spelled out it appears that the health care markets are not yet segmenting themselves, and consumers will be at a loss trying to find health plans that meet their quality and price criteria.

References

Blue Cross of California, Clinical Drug Formulary, (Woodland Hills CA: Blue Cross of California), January 1997.

Chamberlin EH, Theory of Monopolistic Competition, 5th ed. (Cambridge, Mass: Harvard University Press), 1948.

Enthoven AC, and Singer SJ, "Managed Competition and California's Health Care Economy," Health Affairs 15(1): 39-57).

Friedman E, "Managed Care, Rationing, and Quality: A Tangled Relationship," Health Affairs 16(3): 174-182, May/June 1997.

Lohr, KN, "How do we Measure Quality?" Health Affairs, 16(1): 22-25, May/June 1997.

Power EJ and Eisenberg JM, "Are We Ready to Use Cost-Effectiveness Analysis in Health Care Decision-Making?" Medical Care (36(5): MS10-17, May 1998.

The Medical Letter, (New Rochelle NY: The Medical Letter, Inc.), selected issues.

Triple I Managed Care Formulary Guide: California (vol 2, no 3), (New York: MediMedia USA, Inc.), Fall 1997/Winter 1998.

Sangl JA and Wolf LF, "Role of Consumer Information in Today's Health Care System," Health Care Financing Review, 18(1):1-8, Fall 1996.

Tudor CG, Riley G, and Ingher M, "Satisfaction with Care: Do Medicare HMOs Make a Difference?" Health Affairs 17(2):165-176, March/April 1998.

Zwanziger J and Melnick GA, "Can Managed Care Plans Control Health Care Costs?" Health Affairs 15(2):185-199, Summer 1996.