

Maximizing Value:**What Every Practitioner Should Know About Drug Costs**

Prescription drugs are a mainstay in most Americans' lives.¹ Fifty-four percent of Americans report that they are regular users of prescription drugs, 24% say that they take three or more drugs regularly, 30% have more than five prescription drugs in their medicine cabinets, and 8% spend \$1000 or more per year on prescription drugs. Of Americans over age 65, 82% are regular prescription drugs users, 55% take three or more prescription drugs regularly, 40% have more than five drugs in their medicine cabinet, and 19% spent \$1000 or more out-of-pocket on prescription drugs in 2000. 29% of Americans say they have not filled a prescription because of the cost. 80% of the public thinks generic and brand name drugs are about the same quality, compared to only 14% who think that brand name drugs are "better" and 3% who think they are "worse." Finally, 91% of Americans have seen an ad for prescription drugs in the last year, 34% have talked to a doctor about a specific drug after seeing an advertisement, and 7% of Americans report asking their doctor to prescribe a specific medicine they saw advertised. When asked about how much they trust different sources to provide accurate information about prescription medicines, people were most likely to say they trust their doctors (95%) and their pharmacists (93%) "a lot" or "somewhat." Almost half (48%) say they trust advertisements for accurate information about prescription medicines.

The prospects for better health at all stages of life have never been brighter. Against this backdrop of progress, however, there lies a great deal of concern regarding the fastest growing component of health care costs, expenditures for pharmaceuticals.² Managed care plans, state and federal government agencies, and the UW Academic Medical Center are all experiencing double-digit increases in annual drug expenditures. Simultaneously, teaching hospitals across the nation are facing declining 3rd party reimbursement rates, phase downs of indirect medical education payments, and reductions in Disproportionate Share Hospital allowances. Hitting at a time when hospitals are least likely to be able to absorb them, annual increases in pharmaceutical expenditures of 12-18%, recorded each year for the last 5 years, are projected to continue unchecked into the future. Thus, the burden associated with providing medically necessary drugs to patients is expected to rapidly erode operating margins. The ripple effect is likely to raise out-of-pocket expenses for patients and bankrupt inefficient healthcare systems.

Two key factors are known to be driving the increase in expenditures for pharmaceuticals: unit costs and utilization patterns (see Table I). In recent years, the price effect has driven 64% of the increase (new drugs represent 42%; existing drugs represent 22%) while the utilization effect has driven the remaining 36% of the increase (new drugs represent 23%; existing drugs represent 13%).³ The Balanced Budget Act of 1997, the Balanced Budget Refinement Act, and managed care competition essentially preclude hospital systems from passing rising drug costs along to 3rd party payors. Pressure to contain costs elsewhere to make up for the rise in the cost of pharmaceuticals has become a major strain for health systems. Exacerbating the escalation of rising drug expenditures is the indisputable success of Direct-To-Consumer (D-T-C) drug advertising. More than ever before, patients are proactively requesting high-priced pharmaceuticals from their primary

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Due to escalating drug costs and diminishing reimbursements, during the 2000-2004 period, it is expected that 6 out of 10 hospitals will operate with negative margins.

Today, pharmaceutical products account for about 70% of pharmacy expenses while personnel account for only about 20%. In this era of escalating drug prices, traditional strategies aimed at reducing costs by slashing personnel have relatively little bottom-line impact.

Fortune magazine ranks the pharmaceutical business as the most profitable of all industries when measured by returns on equity, sales, and assets. Last year the 11 companies that make up the Fortune 500 drug industry category enjoyed an 18.6% return on revenues, by comparison, the median return for all Fortune 500 industries was 4.9%.^{6,12}

FDA-approval of “breakthrough” medications represent major advances in the treatment options for patients. Regrettably, it is becoming apparent that the health care system simply can’t afford for every possible patient who might be a candidate for expensive new therapies, to receive them.

Table I: Key Factors Driving Increased Drug Costs

	Challenges	Strategies to Maximize Value
Unit Cost (64%)	<ul style="list-style-type: none"> >Drug Price Inflation >Technology Advancements 	<ul style="list-style-type: none"> >P & T Committee process aimed at selecting the best agents based on scientific evidence >Group purchasing contracts to obtain the best possible pricing >Price sensitization of patients and prescribers
Utilization (36%)	<ul style="list-style-type: none"> >D-T-C Advertising >Streamlined FDA Approval Process >Aging Population Demographics >Emphasis on Wellness and Health Maintenance >Incremental Gains at Disproportionately Large Expense >Drug Shortages 	<ul style="list-style-type: none"> >Prescriber consensus regarding patient subsets most likely to achieve benefits >Adherence to guidelines >Generic conversions >Interdisciplinary working relationships >Adverse drug event reduction programs >Proactive counterdetailing >Dynamic changes orchestrated by clinical pharmacists

care providers. This fact implies that prescribers contribute directly to the rise in health care costs via individual prescribing patterns and aggregate “drug utilization” preferences.

Nearly 4-times higher than other Fortune 500 industries, the profitability of pharmaceutical companies towers above other industries.^{6, 12} Consolidation of pharmaceutical firms into near-cartels of large, multinational corporations has resulted in tremendous leverage to set and maintain high U.S. drug prices.

Clearly it is acceptable for pharmaceutical companies to earn a reasonable return on investment for producing high technology medications. Yet, in reality, many expensive new drugs offer little more than “comfort measures” or “me-too” functionality and are increasingly accompanied onto the market with an incomplete record of safety. Even so, a single new medication can add millions of dollars to a health care organizations’ annual budget. There is no debate that the FDA-approval of “breakthrough” medications represent major advances in the treatment options for patients. Likewise, there is little debate that many such drugs are exceedingly expensive for the health care system. Regrettably, given the constraints on funding, it is rapidly becoming apparent that the current health care system simply cannot accommodate every possible patient who might be a candidate for expensive new therapies. At the UW Academic Medical Center, this fundamental reality is shifting the focus of clinical strategies towards those designed to ensure that “breakthrough” medications will remain available to the subset of patients that will benefit most. To achieve the best value for the entire population that we serve, this paradigm shift requires every prescriber to actively participate in balancing cost control and best care for patients.

Rate of Growth of Pharmaceutical Spending: Some Key Statistics

Spending on prescription drugs shot up 18.8% to \$131.9 billion (not including mail-order sales) in 2000. The 50 most frequently prescribed drugs rose 18.6% to \$866.6 million (up from \$730 million in the preceeding year). ⁴
According to HCFA, national spending for drugs tripled in the last decade and is expected to more than double again before 2010, from an estimated \$177 billion to \$366 billion. ⁵
Since 1992, of the 39 prescription drugs most commonly used by seniors, prices of 19 have increased more than 2x the rate of inflation, with some increasing as much as 26x. Between 1992 and 2000, the average price/prescription increased by 48.4%, more than double the increase in overall prices and more than any other basic necessity. Prescription drug expenditures/senior have increased by 115.6% since 1992 due to increases in the price/prescription and the number of prescriptions/senior. ⁷
Prescription drug costs are the most rapidly increasing expense for employer-based insurance, representing 40% of the premium increases between 1998 and 2000. Between 1993 and 1998 retail prescription costs increased 84% or \$42.7 billion. ⁸
Medicaid prescriptions accounted for 14% of 2000 prescriptions. ¹⁰
Generic drugs account for 46% of all prescription drugs, but only 8% of total prescription costs. ⁹

1998

Avg. Price/Prescription

- New drug: \$71.49
- Existing drug: \$30.47

Medicaid spending for outpatient prescribed drugs, increased by 90% or more in Washington state from 1997-2000.

Washington State Health Facts

Per Capita Metric	Value	State Ranking
# of R _x	8.3	43rd
Drug Expenditures	\$954.07	11th
Total Expenditures	\$3,595.79	16th
	26.5% of State expenditures go for health care	

(Source: Kaiser Family Foundation State Health Facts Online - FY 1999)⁹

Consumer advertising could be responsible for 10-25% of the recent increase in prescription drug spending (see: When Business and Practice Collide: Direct-to-Consumer Advertising by Michelle Moomaw, Pharm.D. http://depts.washington.edu/druginfo/DTT/2001_Vol30_Files/V30N1-2.pdf). Other factors include insurance coverage of drugs, the aging of the population, and the fact that more medicines are being approved by the FDA.

Rate of Growth of Pharmaceutical Costs: Medicaid Spending

In the face of deteriorating economic outlooks and declining revenue growth, states have become the standard-bearers in the battle to slow the growth of Medicaid drug spending.¹⁰ In the absence of a federal Medicare outpatient drug benefit, drug coverage is a key state Medicaid benefit for low-income elderly and disabled individuals eligible for dual Medicare/Medicaid coverage. Nationwide such patients accounted for 80% of state Medicaid drug spending in 1998 and continue to account for the majority of Washington state Medicaid drug expenditures today.^{25a} Faced with a combination of double-digit spending growth in Medicaid (driven largely by prescription drug costs) and declining state revenue growth, states are under growing pressure to find effective methods to control spending. State approaches to control costs generally include use of formularies to influence utilization and/or pressure manufacturers for price concessions, reducing pharmacy payment levels, and adopting intrusive disease state management programs. Such cost control efforts are sometimes accompanied by significant unintended consequences for access to care and at other times in unexpected shifts in overall State medical expenditures. In Washington State (see side-bar for ranking), cost-containment efforts are at the heart of the UW Academic Medical Center paradigm shift towards clinical strategies geared to ensuring the best value possible for Medicaid and Medicare enrollees, all of whom are low income and many of whom may be elderly, disabled, or have substantial health care needs. Regardless of the success or failure of this shift, rising medical inflation will force health care practitioners to make tough choices about the cost and quality of the care they provide.

Escalating Pharmaceutical Costs: Framework for the Future

Expensive pharmaceuticals can provide real value when used rationally. Rational use requires consensus building, prescriber buy-in, and shared goals. Anchored in solid scientific information, practice guidelines can establish the bounds for optimal utilization and overcome practitioner biases about patient responses to medications. Adherence to such guidelines eliminates inefficient usage patterns and enhances patient care.

Increasingly, health care organizations are evaluating new pharmaceuticals in the same manner used for high-technology, expensive capital equipment. A common component of this type of evaluation process places the onus for achieving acceptable pharmacoeconomic outcomes with the pharmaceutical companies themselves. Adhering to rigorous decision-making criteria that weigh total system costs against reliable data on efficacy, safety, and expected return on investment is touted as an equitable way for hospitals to simultaneously achieve cost control and best care for patients

Another framework that incorporates clinical outcomes and economic consequences into the evaluation of high-cost drug therapies suggests that cost-effective interventions are those that result in an incremental gain of one additional quality-adjusted year of life for less than \$50,000. (Mather DB, Sullivan DS, Augenstein D, et al. *Am J Manag Care* 1999; 5(3):277-285.). While this framework may not make logical sense for every clinical scenario, more than ever before it is important to consider the outcomes achievable with medications and the impact on other medical costs. An expensive drug associated with significantly improved patient outcomes, if used efficiently and in appropriate patient subgroups, may provide an excellent return on investment despite an increase in the hospital budget.

Regardless of the approach to cost containment, multidisciplinary involvement through the Pharmacy and Therapeutics (P & T) Committee is essential in evaluating the efficacy, safety, and pharmacoeconomics of new medications. At the University of

Select
HMC/SCCA/UWMC
P & T Committee
Cost-Saving Initiatives

Initiative	Status	Projected Cost Savings
5HT3s	Achieved	\$630,000
Albumin		\$360,000
Anticoagulation		\$ 1,580 per patient per year
PPIs		\$900,000
Sedation		\$42 per patient per day
SSRIs		\$30,000 per year
TPN		\$50,000
ACE Inhibitors, Antibiotics, Antifungals, COX-2 Inhibitors, Statins	In-process	

We often see information touting the added benefits of a new drug and the downsides for using a drug that has recently lost its patent.

Manufacturers typically offer coupons for their newer Rx products, not for their older generics.

We have an explosion of new “me-to” drugs, but there is an increasing shortage of important and effective drugs like tetanus vaccine, dexamethasone, and generic fentanyl.

As gene therapy takes hold, we will see a surge in R_x budgets.

“Will we have to make staffing cuts and decrease capital equipment spending so that we can afford to pay for rising R_x costs?”

Washington, the P & T Committee has a long tradition of advising the Academic Medical Center in all aspects related to the rational and cost-effective prescribing of pharmaceuticals. **Moving into the future, Dr. Paul G. Ramsey, Vice President for Medical Affairs & Dean, School of Medicine, has charged the P & T Committee with taking an even more active role in examining how the UW Academic Medical Center:**

- **Incorporates credible outcome and pharmacoeconomic information into formulary decisions;**
- **Engages the various UWMC and HMC clinical services in developing guidelines for the prescribing of new and/or expensive medications; and**
- **Benchmarks utilization to best practices and implements process improvements to align prescribing with these best practices.**

Conclusion

The problem of rising health care costs has reemerged as a national crisis. Unfortunately, costs are rising as the economy sputters, the federal surplus dwindles, and the nation is focused on the war against terrorism.¹³ No national approach over the past 35 years has had a lasting impact on controlling health care costs.¹³ Indeed, history suggests that it may be folly to expect that there are any easy or magic answers to this problem.¹³ For the UW Academic Medical Center, pharmaceutical cost issues are multifaceted and exceedingly complex. For some time now, the P & T Committee and the Department of Pharmacy Services have been putting pieces into place that are necessary to get a better handle on the system costs related to the use of pharmaceuticals by our patient population. As these systems continue to come on-line, it is imperative that every prescriber be aware of the goal to ensure that necessary drugs remain available for patients most likely to achieve benefit. It is important that prescribers work even more effectively with the clinical pharmacist responsible for providing pharmaceutical care to the patients on service. Moving into the future, this partnership is going to be in the best position to ensure that the value of prescribed pharmaceuticals is maximized according to the applicable system constraints. Failure to work together to control drug expenditures is likely to be met with dwindling staff expenditures, diminishing hospital and physician reimbursements, restricted spending on capital equipment, and further curtailment of services. (References available upon request)

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