

# Virtual Mentor

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## Medical Education

### **Educating Trainees about the Cost of Medications**

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New drugs are introduced into clinical practice at a brisk and daunting pace, making it difficult for physicians to keep up with the latest therapeutic advances. Some new agents are clinical breakthroughs that must be introduced into practice rapidly, while others, heavily hyped by their manufacturers, represent little that is therapeutically new or important. A few pose major risks of adverse events—not adequately emphasized when the drug is first marketed—that must be weighed carefully against their potential benefits for each individual patient. And many are quite costly; pharmaceuticals represent the fastest-growing component of the US health care budget. In some instances, an expensive new drug may actually save money because of its benefits in terms of improved patient outcomes, shortened length of hospital stay, or reduced need for other health care resources. But other new agents add expense far out of proportion to the clinical benefit they offer. At a time of rapid advances in therapeutics, increasing concern over adverse drug events, and constrained reimbursement, it is vital for each physician to have the best available data on the benefits, risks, and costs of a drug therapy.

Obtaining all of this information is not easy. On the one hand, promotional material from drug manufacturers is easy to come by (often accompanied by tasty meals and tickets to sporting events) but is aimed primarily at increasing product sales rather than at providing well-rounded objective information or an educational experience. On the other hand, many insurers and other payors, alarmed at drug price increases of up to 20 percent per year, are eager to impose their own incentives and restrictions in an attempt to hold down pharmaceutical spending. The physician writing a prescription must balance these competing pressures. Yet costs of therapy are rarely discussed in medical training curricula.

The Division of Pharmacoepidemiology and Pharmacoeconomics at Brigham and Women's Hospital was created to serve as an evidence-based, clinically relevant, outcome-oriented information resource for clinicians. Faculty in the division educate students, house officers, and attending medical staff about many aspects of prescribing, including medication costs. In this review we will focus on educating medical trainees (students and residents), although this same framework can be used with more senior physicians. The curriculum has 3 components: (1) engaging clinicians about why the topic of drug costs should matter to them; (2) eliciting baseline knowledge and

correcting misconceptions; and (3) providing practical suggestions and resources for future actions.

### **Why Should I Care about Drug Costs?**

Traditionally, the first hurdle has been convincing students and residents that medication costs are a significant concern, not just for patients, but also for hospitals and insurers. This task has become considerably easier in the past few years, thanks to the intense media coverage of hardships due to prescription drug expense and related stories about drug reimportation from Canada and other countries. The ongoing problems with the Medicare Part D drug benefit have also kept the issue of drug costs in the national spotlight. For medical residents working long hours at the bedside for relatively modest wages, however, issues of national health policy or hospital cost containment may not resonate, so discussions that start at the patient level can be more effective.

Asking the group about the monthly cost of some common medications can be eye-opening; for example, the monthly cost of most statins exceeds \$100, which often surprises trainees [1]. Case studies calculating the monthly prescription expense for a typical older patient with conditions such as hypertension, hyperlipidemia, type 2 diabetes, or congestive heart failure can build on this initial point. Once students and residents have a better idea of monthly drug costs, the discussion can move to how patients pay for their medications, emphasizing the increasingly high copayments and cost-sharing requirements faced by insured patients and the persistent problems for the elderly, despite Medicare Part D. Case studies illustrate the difficult choices patients face when they must decide between paying for prescription drugs and other basic needs. Pointing out the documented inverse relationship between medication costs and adherence to prescribed regimens drives home the clinical relevance of this point and underscores the obvious: prescribed treatments that are not taken will not work [2].

This initial conversation should help trainees understand that drug costs are a barrier to care that blocks the path to effective therapy. Conveying the need to control drug costs at the hospital and societal level can be more difficult. The issue can be framed in terms of competing budget needs, using analogies to patient-based case studies, but specifically examining how financially strapped hospitals might have to balance increased pharmacy spending with, for example, reductions in nursing staff. Situating the economics of drug costs in the broader context of health care spending helps students and residents understand why hospitals and insurers need to limit the use of highly expensive medications. As the conversation moves from the patient to the health policy context, one or more members of the group usually asks the next logical question: why are drug costs so high?

### **Do Drugs Need To Be So Expensive?**

Before identifying the components of drug pricing, it is useful to provide some basic concepts and terminology. Many medications are described as “cost-effective,” but this catch phrase is frequently misused and misunderstood. We differentiate between the expense of producing a given agent—its cost—and the benefit per dollar spent on that agent in place of other treatment options—its cost-effectiveness. We focus here on the

actual magnitude of medication expense, ie, cost; cost-effectiveness is an important topic but is beyond the scope of this discussion.

The next step is to solicit thoughts about why drug costs are so high. There are often substantial misconceptions about this. The high cost of developing and testing drugs is almost always cited as justification for high drug prices, with the argument that large drug company profits finance the research that will yield the next therapeutic advance. A couple of facts qualify this justification. First, the amount spent by companies on marketing, sales, and administration is 2 to 3 times greater than spending on research and development. Second is the fact that “me-too” drugs (new drugs in an already-established therapeutic class) account for more than 75 percent of drug applications to the FDA [3].

Next, the educator should tackle the issue of drug detailing and how it works. Most students and residents have been exposed to pharmaceutical representatives and have received pens, lunches, stethoscopes, or other items in exchange for their attention. Group members should be asked whether they think detailing has an impact, either on prescribing patterns as a whole or on their individual decision-making. Following that discussion, the leader can introduce the considerable evidence about the influence of detailing and its impact on drug expense, from newspaper stories about cheerleaders “pepping up” sales as drug detailers to our own studies showing that academic detailing can improve prescribing [4-6]. Prominent recently published position statements by medical leaders help demonstrate growing recognition of the professional obligation to resist drug-company influence when making prescribing decisions [7].

The relative merits of branded and generic medications are a related and equally important topic. Many students and residents believe that branded medications are superior to generic alternatives; indeed, they are likely to have heard this from more senior physicians. Here again, the literature demonstrates the equivalence of most generic and brand name medications, and research shows the potential savings if generics are substituted for branded medications [8-10]. For certain medications with a narrow therapeutic index (thyroid replacement, warfarin, some anti-convulsants) minor variations in medication absorption may be clinically significant, although even in these cases generic medications can be a reasonable option if prescribed thoughtfully [11-13].

Sensitized about the hardship of drug costs for some patients and understanding how costs have gotten so high, the group is ready to learn how to do something about the problem.

### **What Can I Do about It?**

It is best to begin with the professional responsibilities of physicians to their patients. Physicians have an obligation to learn and consider the evidence for drug selection from credible and impartial sources and to be guided by data, not marketing hype. The increasing recognition of evidence-based medicine as a cornerstone of current practice also helps convey this message. Beyond encouraging physicians to acquire knowledge from reliable sources, we need to help them apply that knowledge in their interactions with patients.

We urge all physicians to introduce the topic of medication costs with patients and to ask them openly and nonjudgmentally whether they are taking their medications as prescribed and whether cost is an issue. Physicians should know the cost of both prescribed drugs and their alternatives. Physicians with computers in their offices can go to Internet resources that provide access to medication costs, share those findings with patients, and make medication choices collaboratively. As part of the discussion, patients should be asked about their drug insurance status. This is especially true for older patients confronting the confusing choices of the new Medicare drug plan. Referrals to social workers or hospital patient advocates can assist patients in finding coverage for some or all of their drug expenses.

Finally, we encourage physicians to integrate their knowledge about medication costs into their teaching and research. There are many opportunities for clinicians to shape institutional responses to high drug costs, such as by serving on formulary committees or drafting hospital guidelines. We urge physicians to advocate rational prescribing to their colleagues, tell them about other resources for thinking about medication costs, and encourage them to resist the blandishments of pharmaceutical detailers.

The current environment offers excellent opportunities for physicians to learn about drug costs and incorporate this knowledge into practice. Events of the past several years have raised awareness of the importance of prescription drug costs, and physicians can no longer prescribe without considering expense. The approach that we have outlined can help all clinicians—regardless of their educational level—learn more about costs. Future innovations, such as electronic prescribing programs that incorporate cost information at the moment of prescription writing, will help doctors continue to apply these lessons in the future.

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### **Additional Resources**

For more information about medication costs, antidetailing groups, and rational prescribing visit:

[www.drugstore.com](http://www.drugstore.com)

[www.epocrates.com](http://www.epocrates.com)

[www.nofreelunch.org](http://www.nofreelunch.org)

[www.RxFacts.org](http://www.RxFacts.org)

[www.drugapi.org](http://www.drugapi.org)

[www.PowerfulMedicines.org](http://www.PowerfulMedicines.org)

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