

Educating Clinicians-In-Training About Pharmaceutical Marketing and Appropriate Prescribing



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Abstract

The U.S. spends more per capita than any other nation on prescription drugs, but for most conditions we cannot demonstrate a correspondingly greater health benefit from that expenditure. In addition, evidence from several groups including our own makes it clear that prescribing practices are frequently sub-optimal.

One major cause of these problems is that the pharmaceutical industry has a disproportionately large role in shaping the drug-related knowledge of physicians and other clinicians. This occurs for initial awareness of the properties of a new drug, choices among competing products, the content of continuing medical education, and knowledge of cost and cost-effectiveness. Yet although communications from drug companies loom so large in shaping physicians' drug knowledge, we are never trained to be astute consumers of that information. Alarming naïveté persists in doctors' awareness of how drugs are approved and marketed, and how one should weigh the promotional claims made by manufacturers: this material is simply not taught in most U.S. medical schools.

The results of these shortfalls are substantial. Less effective drugs are used when more effective ones are available, drugs with safety problems are prescribed when less risky ones could be used, expensive products displace equally effective ones that are off-patent and no longer promoted. Together, these problems cause Americans to receive prescriptions that are less effective, less safe, and more costly than necessary. Providing clinicians with basic tools for weighing drug data, "immunizing" practitioners and trainees from the more problematic aspects of drug marketing, and providing them with a greater understanding of the drug development / approval / promotion process could go a long way to addressing these problems.

Educational Curriculum

➤ We have organized a novel curriculum for clinicians-in-training to improve awareness of how drugs are approved and marketed, and how to best weigh the promotional claims made by manufacturers. The program will concentrate on three specific educational areas:

- 1. New drug approval:** government-industry relationships in shaping the approval process; the strengths and limitations of existing FDA procedures for pre-approval drug studies, including: responsibility for trial funding, design, and conduct; regulatory standards for demonstrating efficacy; the use of surrogate markers to predict clinical efficacy; the generalizability of findings to typical patients; practical and ethical aspects of placebo controls; adequacy of detection of adverse events.
- 2. Post-marketing assessment of drug safety:** Inherent limitations of pre-approval studies for identifying and quantifying side effects; strategies for post-marketing detection of adverse events; strengths and weaknesses of the spontaneous reporting system.
- 3. Factors influencing drug choice by clinicians and patients:** the relative impact of clinical trial data vs. promotional materials; understanding pharmaceutical marketing strategies and their effects; studies of the impact of direct-to-consumer drug advertising in influencing patient demand and physician prescribing; critical reading of promotional materials to discern their clinical relevance; how to distinguish appropriate claims from "hype."

Trainee Intervention: Partnership with Improvehealthcare.org

Key partner: A web-based educational organization designed by HMS students. The website is actively used to guide education at 16 other medical schools nationwide in health care policy fields, and is freely available on the Internet for other interested parties.



Methodology: Five sub-topics intended to be presented in a roundtable fashion by a knowledgeable group leader to stimulate discussion.

Brief Narrative Example

Primary topic: Factors Influencing Drug Choice

Subtopic #1: Pharmaceutical Industry/Physician Relationship: *What are the methods that pharmaceutical companies use to educate and influence physicians?*

Subtopic #2: Influence of Pharmaceutical Promotion on Prescribing Habits: *Are physicians actually influenced by pharmaceutical promotional material, small gifts, and food?*

Subtopic #3: DTCA: *What are some of the benefits and risks of DTCA?*

Subtopic #4: Sources of Information on Products: *How should a prescriber critically read promotional material?*

Subtopic #5: Policies Mediating Physician/Pharmaceutical Representative Interactions: *What are some guidelines governing prescribers' interactions with pharmaceutical companies?*

Assessment

To assess its impact, we will seek to quantify the knowledge, attitudes, and/or behavior of trainees prior to and after the intervention with pre-test and post-test quizzes that will be administered before and after classroom presentations, as well as at the start and finish of the interactive web-based teaching modules. The data, along with trainee feedback, will be used to modify the educational program to address its weaknesses and maximize its strengths.

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