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ETHICS CASE

Assessing Information from Pharmaceutical Company Representatives

Commentary by Shahram Ahmadi Nasab Emran, MD, MA

"Just five minutes of your time, doc!"

Dr. Herman turns to see a brilliantly white, winning smile aimed her way. This is the third drug company detail rep who's come looking for her this week.

Newly finished with her residency training, Dr. Herman has joined an outpatient practice group. Her residency program had a policy requiring that interactions with pharmaceutical representatives be pre-approved by the program director, that no gifts or freebies be accepted, and that the scheduled time be used only for the group of residents to discuss peer-reviewed publications and indications for FDA-approved uses with the rep; the guidelines for the interactions were very clear. Not so now.

Dr. Herman actually does have a few minutes before her next appointment, but she turned away the last pharmaceutical rep because she was busy when he came by. *I need an actual plan for this*, she thinks to herself. Should she make a habit of talking to these representatives? Just accept their samples—every doctor she knows seems to do that, but is it a good idea? Send them away? In her new position, she is realizing, it's up to her to set the rules, the times, and the tone for these interactions.

Commentary

The questions Dr. Herman is dealing with are not in any way peculiar to her. Almost all practitioners of medicine will face the same questions sooner or later in their careers. The answers given thus far [1, 2] by medicine's professional organizations reflect the major concern: unjustifiable influence resulting from [physicians' relationships with drug representatives](#). There is ample evidence [3, 4] indicating that drug reps unduly influence physicians' prescription behavior. Current codes of ethics and guidelines [1, 2] emphasize the financial side of the relationship and the resulting conflicts of interest and changes in physicians' prescription and professional behavior. Hence, the general theme in [almost all of the guidelines](#) is to keep the level of [gifts](#) and financial incentives that physicians are allowed to accept from drug representatives to a minimum.

There is an important information-transfer side of the relationship that is not touched upon by these guidelines. The information about new drugs and technologies presented by drug reps is convenient and inexpensive [5], and many physicians rely on drug reps as

a source of this information [6, 7]. However, there is strong evidence that the quality of information physicians receive from drug reps is poor and biased in favor of the drugs that are being promoted: drug information communicated by reps has been found to be inaccurate and often lacking data on drug safety, side effects, and contraindications [8-10]. Furthermore, physicians in general are unable to recognize the inaccuracies and biases in the information they receive from drug reps [3]. The question then arises: why are physicians unable to tell when they are receiving biased information from drug reps?

Using Evidence

A useful way of characterizing the problem is to consider physicians' reliance on drug reps for information as an example of the bigger problem medical professionals have in handling and interpreting medical and scientific information [11]. It means that the problem in physician-pharmaceutical industry interactions should rightly be considered a problem in physicians' information management strategies. New knowledge is constantly produced and published in the language of research, using methods and concepts from epidemiology and statistics. In order to do their jobs, physicians need to constantly update their knowledge by reviewing medical and scientific literature, interpret the implications of research findings for clinical practice, and incorporate relevant information into their daily practice. This process is what we mean by evidence-based medicine.

The basic idea in evidence-based medicine is to identify the best medical treatment that fits the needs and values of the individual patient based on the best available scientific evidence. This way of practicing medicine requires a critical appraisal of the published data on a given subject to choose the option that best benefits the interests and respects the values of the individual patient [12]. Since medical evidence is expressed in the language of numbers, statistics, and probability, the epistemic virtue of being able to understand and use the results of research is inseparable from the practice of evidence-based medicine.

Since a large number of studies published in the medical literature have clinical applications, and since proper understanding of these studies and their potential impact on clinical practice is crucial to being a good practitioner, physicians need to develop certain capabilities and information management strategies for handling the volume of new information that they constantly receive from various sources. A number of intellectual competencies, which are necessary "to understand the quantitative aspects of clinical medicine, [and] original research" [13]—generally referred to as "physician numeracy" skills [13]—are indispensable for the practice of modern medicine. Examples of such skills include the ability to interpret standard deviation, relative risk, confidence interval and statistical significance, and *p* value; recognize power, sample size, and bias; and determine strength of evidence for risk factors [14]. However, the fact is that many physicians do not have the necessary competencies for understanding the results of

scientific research and appraising medical literature [14-16]. In addition, most physicians seem to lack a clear information management strategy to process the information, distinguish between high- and low-quality information, and integrate high-quality information into patient care [17, 18].

We can now look at Dr. Herman's dilemma from the perspective of information evaluation rather than financial conflicts of interest.

Assessing Pharmaceutical Relationships and Information

Regarding the question of whether she should talk to reps at all, Dr. Herman needs to be fully aware of the fact that the purpose of the encounter for the rep is to communicate information about a new drug, and the information the rep presents is probably biased in favor of the drug that is being promoted. Since drug reps are not a reliable source of good quality information about new drugs and devices, meeting with a drug rep should not be given fixed space in a physician's schedule. The duration of such meetings should be kept at a minimum. A physician needs to spend her nonpatient time on reviewing more reliable sources of information, such as scholarly journals.

In addition, to avoid problems in her interactions with pharmaceutical reps, Dr. Herman needs, first and foremost, to have a solid information management strategy and to cultivate the necessary competencies. All information needs to be critically evaluated and appraised before being applicable to practice, and the information received from drug reps is not an exception. Dr. Herman needs to be able to evaluate the validity of research studies, including their design. She therefore should be good at finding biases in research. She also needs to cultivate the necessary numeracy skills that are indispensable for the thorough understanding of scientific data.

Having appraised the general quality of drug reps' information and developed her critical and numeracy competencies and approach to interacting with drug reps, Dr. Herman does not necessarily need to avoid speaking with them. A drug rep might bring a new drug to Dr. Herman's attention. Instead of being considered the final word on the subject, a conversation with a drug rep can be the starting point of an information-seeking process about a new drug or new use. In this way, communication with a drug rep can help the physician and, ultimately, improve her patient care.

She should, however, avoid forming personal relationships with drug reps. A personal relationship might blunt the critical attitude that is necessary for a robust and responsible assessment of the information the drug rep presents. And without this critical attitude, Dr. Herman might become blind to the flaws in the drug reps' information.

Whether to avoid drug reps altogether depends on the doctor and the level and quality of new information the drug rep provides. A busy doctor who does not have enough time to constantly update his or her knowledge of new drugs might benefit himself and his patients by speaking with a drug rep about a new drug or medical technology if it becomes the starting point of an inquiry into more reliable sources of information. However, for those physicians who already have access to reliable sources of information, such as professional journals and textbooks, meeting with a drug rep should never be a central part of their information-seeking strategies.

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