Evidence Based Medicine & the Public

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2010-07-15

An article published online by Health Affairs on June 3, 2010, helps to cast light on the issue of what the public thinks about Evidence Based Medicine. The article is a report of some well-done research into the issue, based on surveys and group and individual meetings. The results are educational and alarming, especially to anyone as vested in evidence-based guidelines as I am.

In short, the public seems not to be acquainted with the term, and on hearing it, to misunderstand what it is all about. The attitude that more care is better care persists, and to it is now added the additional belief that newer care is inevitably better than older care. To the extent that these members of the public understood what evidence based guidelines were, they interpreted them as an effort to deprive people of the best care and to keep physicians from being able to do what is best for their patients.

But let us set our foundation securely in place. The prevalent understanding of "evidence based medicine" in the profession is that it is the use of the best and most recent scientific evidence from the medical literature in the practice of health care delivery. Evidence-based information might apply to hospitals: the staffing of ICU units or to the question of the proper cleaning of the room recently occupied by a patient with methicillin-resistant staphylococcus aureus to prevent transmission to the next patient to occupy the room, or to hand cleansing by hospital staff members. Or evidence-based information might apply to physician practice: which antibiotic works best (or, more importantly, which antibiotic to use first) for strep throat, how most efficiently to make (or rule out) the diagnosis of pulmonary embolism or myocardial infarction; which imaging study to use in assessing an injured knee. But the evidence also expands to be applicable to preventive medicine, public health, physical therapy, occupational therapy, pharmacy, chiropractic and other disciplines. The issue is the systematic development of a scientific basis for understanding what ought to work, as a rule, in most cases, for the evaluation or treatment of any specified presenting problem or disease, and the application of this body of knowledge to the daily processes involved in rendering services to patients.

One can understand that payers are interested in cost-effectiveness comparisons, which may indicate that a slightly less effective treatment should be used initially and replaced with a substantially more expensive treatment only if the first treatment is not effective.

Understandably, this adds a layer of additional sophistication to the analysis, which must first begin with an understanding of what works and with some idea how much better any one course of action works in comparison to any other. In some knowledge areas in health care, we have good evidence about what works and how well; in others, we have virtually no information that is any better than story-telling. Advocates for evidence-based practice would support more research into comparative effectiveness, based on the twin beliefs that newer is not necessarily better and that more expensive is not necessarily better. Better becomes defined as better when there are adequate studies comparing two alternatives to establish which produces better results with fewer unwanted side-effects.

The attitudes "newer is better" and "more expensive is better" may or may not be grounded in reality outside of health care, but are easily refutable by repeated example in medical practice. One example will suffice for both: high dose chemotherapy with bone marrow transplantation for breast cancer was both more expensive than standard treatment and newer when it was introduced in the early 1990s. At least one lawsuit against a payer was settled for the plaintiff (in favor of payment for the new treatment) and many states passed laws requiring payment for the new treatment. In time, however, evidence accumulated indicating that the new, expensive treatment was not better – in fact, it might be killing the cancer victims off more quickly – and that the original paper on the subject had been based on data that had been altered to support the desired conclusion.

But those twin attitudes persist in the public. In fact, a common public appreciation of "evidence-based care" is that the doctor does tests to find the evidence that the patient really has the disease being treated. So, the performance of lab tests or imaging studies would be the "evidence" that the patient accepts as being the evidentiary basis for the treatment.

There is an incredible communication gap here that must be bridged if the United States is going to move forward into a day of "bending the cost curve" in health care and creating a more efficient, more cost-effective system. The article is well worth reading. The citation appears below, with the URL for the communication package that the Business Group on Health believes will assist us in communicating an appropriate understanding of "evidence-based healthcare" to the public.

"Evidence That Consumers Are Skeptical About Evidence-Based Health Care" By Kristin L. Carman, Maureen Maurer, Jill Mathews Yegian, Pamela Dardess, Jeanne McGee, Mark Evers, and Karen O. Marlo; HEALTH AFFAIRS 29, NO. 7 (2010): http://businessgrouphealth.org/usinginformation/Default.aspx