

Why Doesn't My Endocrinologist Know All of This?

A question often raised by patients is: **"Why doesn't my physician know about the inaccuracies and limitations of standard thyroid tests?"** The reason is that the overwhelming majority of physicians (endocrinologists, internists, family practitioners, rheumatologists, etc.) do not read medical journals. When asked, most doctors will claim that they routinely read medical journals, but this has been shown not to be the case. Many reasons exist, but it comes down to the fact that doctors do not have the time — they are too busy running their practices. The overwhelming majority of physicians rely on what they have learned in medical school and on consensus statements by medical societies, such as the Endocrine Society, the American Association of Clinical Endocrinologists or the American Thyroid Association, to direct treatment decisions.

Historically, relying on a consensus statement to treat or not to treat a particular patient has been shown to result in poor care and, as such, society consensus statements and practice guidelines are considered to be worst level of evidence in support of a particular therapy or treatment. A number of organizations, including the World Health Organization and others, have ranked the strength and accuracy of various types of evidence used in the medical decision process. In all scoring systems, the highest strength of evidence is randomized control trials and meta-analyses, with lower scores for other types of evidence. All grading systems place consensus statements and expert opinion by respected authorities (societies) as the poorest level of evidence, because historically they have failed to adopt new concepts and treatments based on new knowledge or new-found understanding demonstrated in the medical literature (1-6).

For instance, a recent study published in the 2009 Journal of American Medical Association studied the evidence supporting the practice guidelines and consensus statements published by the American College of Cardiology and the American Heart Association. It was found that only 11% of the recommendations, practice guidelines and consensus statements were based on quality evidence and over half were based on poor quality evidence that was little more than the panel's opinion. The review also found that even the strongest (Class 1) recommendations, which are considered medical dogma, cited as a legal standards and often go unquestioned as medical fact, were only supported by high quality evidence 19% of the time and not revised based on new evidence (6).

Similarly, the Endocrine Society, the American Association of Clinical Endocrinologists and the American Thyroid Association also have a long history of guidelines and recommendations that are not supported by the medical literature and fail to adjust or abandon recommendations when new understanding and knowledge contradicts their recommendations. A case in point is the recommendation by these societies that a normal TSH adequately rules out thyroid dysfunction, despite massive amounts of literature that demonstrate this not to be the case (see [Diagnosis of Hypothyroidism](#) ^[1]) or that T4 only replacement is adequate for most patients. A doctor who simply follows outdated society treatment guidelines that relies on a simple laboratory test and ignores the clinical aspects of a patient is not practicing evidence-based medicine. (1-7). Such doctors may be adequate as lab technicians, but as doctors and clinicians they fall short (1-7). This method of practice is consistently rebuked as improper and poor medicine, but has become the standard used by a large percentage of endocrinologists and physicians who feel medicine can be related to simply reading "normal" or "abnormal" in a laboratory column.

Discussing the lack of scientific basis of most medical society's consensus statements and treatment guidelines in Internal Medicine News, Dr. Diana Petritti, states, "Expert opinion and consensus statements can be quite misleading when used as the basis for a practice. Expert opinions imply that there is something that the experts know that clinician doesn't know. I don't think it's always appreciated that it's only opinion. There is a tendency to make guidelines and recommendations seem authoritative. I believe that physicians think that there is a great deal more behind authoritative recommendations than there might be when you lift the lid of the box and see what's underneath(8)."

There has been significant concern by health care organizations and medical experts that physicians are placing too much reliance on consensus statements and failing to learn of new information presented in medical journals. Thus, they lack the ability to translate this new information into treatments for their patients. The concern is that doctors fail to practice evidence-based medicine, erroneously relying on what they have previously been taught and on "expert" societies instead of changing treatment philosophies based on new information as it becomes available. This is especially true for endocrinological conditions, where physicians are very resistant to changing old concepts of diagnosis and treatment — despite overwhelming evidence to the contrary — because it is not what they were taught in medical school and endocrinology residency.

This concern is particularly clear in an article published in the New England Journal of Medicine entitled "Clinical Research to Clinical Practice: Lost in Translation" (9). The article was written by Claude Lenfant, M.D., Director of National Heart, Lung and Blood Institute, and it is well supported. He states that there is great concern that doctors continue to rely on what they learned 20 years before and are uninformed about scientific findings. According to Dr. Lenfant, medical researchers, along with public officials and political leaders, are increasingly concerned about physicians' inability to translate research findings in their medical practice to benefit their patients. He says that very few physicians learn about new discoveries from reading medical journals or by attending scientific conferences; thus, they lack the ability to translate new knowledge in the field into enhanced treatments for their patients. He states that a review of past medical discoveries reveals how excruciatingly slow the medical establishment is to adopt novel concepts, noting that even simple methods to improve medical quality are often met with fierce resistance. "Given the ever-growing sophistication of our scientific knowledge and the additional new discoveries that are likely in the future, many of us harbor an uneasy, but quite realistic suspicion that this gap between what we know about disease and what we do to prevent and treat them will become even wider. And it is not just recent research results that are not finding their way into clinical practice; there is plenty of evidence that 'old' research outcome have been lost in translation as well (1)."

Dr. Lenfant discusses the fact that the proper practice of medicine involves the combination of medical knowledge, intuition and judgment and that physicians' knowledge is lacking because they don't keep up with the medical literature. He states that there is often a difference of opinion among physicians and reviewing entities, but that judgment and knowledge of the research pertaining to the patient's condition is central to the responsible practice of medicine. "Enormous amounts of new knowledge are barreling down the information highway, but they are not arriving at the doorsteps of our patients. (9)."

These thoughts are echoed by physicians who have researched this issue as well, such as William Shankle, M.D., Professor, University of California, Irvine. He states, "Most doctors are practicing 10 to 20 years behind the available medical literature and continue to practice what they learned in medical school....There is a breakdown in the transfer of information from the research to the overwhelming majority of practicing physicians. Doctors do not seek to implement new treatments that are supported in the literature or change treatments that are not (10)."

This view is echoed by the Dean of Stanford University School of Medicine who states that in the absence of translational medicine the delivery of medical care would remain stagnant and uninformed by the tremendous progress taking place in science and medicine (11).

This concern has also received significant publicity in the mainstream media. An example is an article by Sidney Smith, M.D., former president of the American Heart Association, published in 2003 in the Wall Street Journal entitled Too Many Patients Never Reap the Benefits of Great Research. Dr. Smith is very critical of physicians for not seeking out available information and applying that information to their patients, arguing that doctors feel the best medicine is what they've been doing and thinking for years. They discount new research, Dr. Smith says, because it is not what they have been taught or practiced, and they refuse to admit that what they have been doing or thinking for many years is not the best medicine. He states, "A large part of the problem is the real resistance of physicians...; many of these independent-minded souls don't like being told that science knows best, and the way they've always done things is second-rate (12)."

The National Center for Policy Analysis also expresses concern for the lack of ability of physicians to translate medical therapies into practice (13).

A review published in The Annals of Internal Medicine found that there is clearly a problem of physicians not seeking to advance their knowledge by reviewing the current literature, believing

proper care is what they learned in medical school or residency and not basing their treatments on the most current research. The review found that the longer a physician is in practice, the more inappropriate and substandard the care (14). Thus, it is not a surprise that the scientific evidence as expressed in the literature is often opposite to what is continually repeated as dogma by most physicians and those considered to be "experts."

Another example is a study published in the Journal of the American Medical Informatics Association (15). In reviewing the study, the National Institute of Medicine reports that there is an unacceptable lag between the discovery of new treatment modalities and their acceptance into routine care: "The lag between the discovery of more effective forms of treatment and their incorporation into routine patient care averages 17 years." (16) In response to this unacceptable lag, the Business and Professions Code passed an amendment relating to the healing arts. This amendment — CA Assembly Bill 592; An Act to Amend Section 2234.1 of the Business and Professions Code — states: Since the National Institute of Medicine has reported that it can take up to 17 years for a new best practice to reach the average physician and surgeon, it is prudent to give attention to new developments not only in general medical care but in the actual treatment of specific diseases, particularly those that are not yet broadly recognized [such as the concept of tissue hypothyroidism, chronic fatigue syndrome and fibromyalgia] (17).

The Principles of Medical Ethics adopted by the American Medical Association in 1980 states that a physician shall continue to study, apply, and advance scientific knowledge, make relevant information available to patients, colleagues, and the public (18). This has, unfortunately, been replaced with a goal of providing merely "adequate" care. The current insurance reimbursement system in the United States fosters this thinking, as the worst physicians are financially rewarded by insurance companies. While it is true that the best physicians are continually fighting to provide cutting edge treatments and superior care that the insurance companies deem not medically necessary, even these physicians eventually get worn down and are forced to capitulate to the current system that promotes substandard care.

This was clearly demonstrated in a study published in the March 2006 edition of The New England Journal of Medicine entitled "Who is at Greater Risk for Receiving Poor-Quality Health Care." The study found that the majority of individuals received substandard, poor-quality care, and that there was no significant difference among different income levels or whether or not the individual was covered by insurance. It used to be the case that only those in low socioeconomic classes without insurance received poor-quality care. But insurance company restrictions on treatments and diagnostic procedures have made the same poor care afforded to those of low socioeconomic status the new standard-of-care for society at large (19). An example of this is a physician's failing to spend the time to adequately assess a potential hypothyroid patient and instead simply does a TSH test.

Most physicians will satisfy their required amount of continuing medical education (CME) by going to a conference a year, usually at a highly desirable location that has skiing, golf, boating, etc. Physicians are rarely monitored as to whether or not they actually showed up for the lectures or went skiing instead. One must also understand that the majority of conferences organized by medical societies are in fact sponsored by pharmaceutical companies. These payments by pharmaceutical companies are called unrestricted grants, so that the society has free reign to do what they want with the money and thus can claim there is no influence of lecture content by the companies. The problem, however, is that if the society wants to continue getting these "unrestricted" grants, they must think twice about providing content that the sponsoring pharmaceutical company might disapprove of. Consequently, ground breaking research that goes against the status quo and does not support the drug industry receives little attention.

Evidence-based medicine involves the synthesis of all available data when comparing therapeutic options for patients. Evidence-based medicine does not mean that data should be ignored until a randomized control trial of a particular size and duration is completed. A physician who tries to avoid the need of being a physician and is fine with just being a technician or health care provider will adamantly defend the "one-size fits all" method of diagnosis and treatment. But the best doctors who truly practice evidence-based medicine and not merely the perception of such will not rely on consensus statements to best provide their patients. Instead of relying on old dogma, the best physicians will seek out and translate both basic science results and clinical outcomes to decide on the safest, most efficacious treatment for their patients. Further, the best physicians will continually assess the current available data to decide which therapies are likely to carry the greatest benefits for patients and involve the lowest risks.

References

1. Amerling R, Winchester JF, Ronco C, "Guidelines have done more harm than good," Blood Purification 2008;26;73-76.
2. Guirguis-Blake J, Calonge N, Miller T, Siu A, Teutsch S, Whitlock E., "Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development". Ann. Intern. Med 2007; 147(2):117-22.
3. Barton MB, Miller T, Wolff T, et al. "How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force," Ann. Intern. Med 2007;147(2):123-7.
4. CEBM > EBM Tools > Finding the Evidence > Levels of Evidence http://www.cebm.net/levels_of_evidence.asp#levels.
5. Atkins D, Best D, Briss PA, et al. (2004). "Grading quality of evidence and strength of recommendations," BMJ 2004;328 (7454):1490.
6. Tricoci P, Allen JM, Kramer KM, et al. Scientific evidence underlying the ACC/AHA clinical practice guidelines. JAMA 2009;301(8):831-841.
7. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS (January 1996). "Evidence based medicine: what it is and what it isn't". BMJ 312 (7023): 71-2.
8. Zoler ML. Half of cardiac guidelines are not evidence based: Expert opinion under scrutiny," Internal Medicine News 2009;42(7):1,8.
9. Lenfant C, New England Journal of Medicine, "Clinical Research to Clinical Practice: Lost in Translation" 2003;349:868-874.
10. William Shankle, M.D., Key Note Presentation. International Conference on the Integrative Medical approach to the Prevention of Alzheimer's Disease. Oct 11, 2003.
11. Phillip Pizzo , M.D., Stanford Medical Magazine. Stanford University School of Medicine.
12. Begley S., "Too Many Patients Never Reap the Benefits of Great Research" Wall Street Journal, September 26, 2003.
13. "Science Know Best," Daily Policy Digest. National Center for Policy Analysis, Sept 26, 2003.
14. Niteesh. C et al., "Systematic Review: The relationship between Clinical experience and quality of health care," Annals of Internal Medicine.
15. Balas, E.A. 2001," Information Systems Can Prevent Errors and Improve Quality," Journal of the American Medical Informatics Association 8 (4):398-9.
16. National Institute of Medicine Report, 2003b
17. BILL NUMBER: AB 592 AMENDED BILL TEXT; AMENDED IN ASSEMBLY APRIL 4, 2005, INTRODUCED BY Assembly Member Yee FEBRUARY 17, 2005 . An act to amend Section 2234.1 of the Business and Professions Code, relating to healing arts.
18. The Principles of Medical Ethics adopted by the American Medical Association in 1980.
19. Asch SM et al., "Who is at Greater Risk for Receiving Poor-Quality Health Care," New England Journal of Medicine 2006; 354:1147-1155.

Article printed from National Academy of Hypothyroidism: <http://nahypothyroidism.org>

URL to article: <http://nahypothyroidism.org/why-doesn%e2%80%99t-my-doctor-know-all-of-this/>