



## Evidence-Based Medicine or Patient-Directed Treatment?

### Kanıtla Dayalı Tıp veya Hasta Odaklı Tedavi?

Knud Bonnet Yderstraede, Steen Joop Bonnema\*

Odense University Hospital, Steno Diabetes Centre Odense, Odense, Denmark

\*Odense University Hospital, Department of Endocrinology, Odense, Denmark

The information available on the Internet can be extremely useful or potentially harmful. This presents challenges for some clinicians who feel obliged to provide their patients with what they ask for, even though the evidence may be limited or completely absent. In parallel, some patients do not comply with the treatment prescribed by their doctor on the account of unjustified skepticism. In this report, we compile such few examples.

The majority of doctors treat hypothyroidism with well-established drugs such as levothyroxine. The treatment goal is to achieve normal hormone levels but unfortunately, not all patients accomplish a state of well-being for yet unknown reasons. According to some patients, treatment with extracts from porcine thyroid glands seems to increase the cognitive abilities and quality of life, although this is not supported by randomized trials. Moreover, patients can gain information from the social media claiming that treatment with such desiccated extracts should aim at a suppressed serum thyrotropin level in order to be effective. However, this reflects a state of hyperthyroidism, which, to our knowledge, is detrimental to health and may even reduce life expectancy (1,2).

Statins are prescribed to millions of patients worldwide and result in good outcomes, since numerous trials support that statins benefit individuals at risk of cardiovascular disease, whether prescribed for primary or secondary prevention. Never-

theless, many patients are reluctant to ingest statins due to fear of adverse events, which, however, ought to be of little concern taking the significant advantages into account.

These examples reflect several dilemmas. Are clinicians too focused on the risks instead of benefits (or the other way around, some may argue), and should we always stick to the knowledge obtained from clinical trials? Sackett and colleagues addressed the matter of evidence-based medicine versus external knowledge more than 20 years ago (3). They pointed out that personal and individual experience should be included in the treatment strategy, and not all evidence-based medicine should come from randomized trials. The patients reluctant to follow the advice of their doctors can easily find support for their own conviction in cyberspace. On social media, scientifically-based facts are far less acknowledged, or even discarded, in favor of personal experiences and advises exchanged between users of the media. How should we, as clinicians, navigate in this rapidly growing field with uncontrollable amounts of dubious information on the internet? Should we fulfill the wishes of our patients, should we oppose and discuss with our patients, or should we handle the situation in a balanced way using both approaches, but with the risk of making the patient even more confused on what is the best available treatment? This is, of course, an open question with no definite answer. A recent overview

**Address for Correspondence:** Steen Joop Bonnema, Department of Endocrinology, Odense University Hospital, Odense, Denmark

**Phone:** +45 65413437 **E-mail:** steen.bonnema@dadlnet.dk

**Received:** 27/08/2019 **Accepted:** 29/08/2019 **Available online:** 13/09/2019

©Copyright 2019 by Turkish Journal of Endocrinology and Metabolism Association  
Turkish Journal of Endocrinology and Metabolism published by Türkiye Klinikleri

on the use of social media in “safety signal management” speculates on the potential effect of pharmacovigilance by using social media information (4). The authors concluded that this source seems to have no particular value, except filling out blind spots in our knowledge.

We often decline the request from patients asking for treatment which we believe might be harmful or non-effective. Unfortunately, if patients face a reluctant attitude from their doctor they often consult alternative therapists, with the risk of receiving undocumented and potentially hazardous treatments. Treatment recommendations in clinical guidelines are usually based on data from randomized controlled trials. Most clinical studies enroll a large number of patients to ensure sufficient statistical power for either recommendation or rejection of the intervention in question. However, on the individual level our recommendation may be less solid due to the biological variations. We are educated to carry out evidence-based medical practice, but the scientific methods by which we provide this evidence may have shortcomings. Thus, we cannot exclude the possibility that patients may be right when claiming to have a markedly positive effect of a specific drug, even though this is not supported scientifically or the drug has

proven non-effective in randomized trials. In such situations, the crucial question is whether the patient experiences a placebo effect or a true effect-or is it two sides of the same coin?

We move on thin ice if we treat our patients in a way we consider harmful or “best” non-inferior to more validated treatments. We urge doctors around the world, while prescribing a non-evidence-based treatment, to do so in concordance with good clinical practice, including thorough information of their patients on the pros and cons.

## References

1. Lillevang-Johansen M, Abrahamsen B, Jørgensen HL, Brix TH, Hegedüs L. Over- and under-treatment of hypothyroidism is associated with excess mortality: a register-based cohort study. *Thyroid*. 2018;28:566-574. [[Crossref](#)] [[PubMed](#)]
2. Gencer B, Collet TH, Virgini V, Auer R, Rodondi N. Subclinical thyroid dysfunction and cardiovascular outcomes among prospective cohort studies. *Endocr Metab Immune Disord Drug Targets*. 2013;13:4-12. [[Crossref](#)] [[PubMed](#)]
3. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ*. 1996;312:71-72. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
4. Rees S, Mian S, Grabowski N. Using social media in safety signal management: is it reliable? *Ther Adv Drug Saf*. 2018;9:591-599. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]