INTRODUCTION

Why evidence-based endocrinology? The practice of evidence-based medicine (EBM) requires the conscientious and judicious application of the best available evidence from clinical care research toward making clinical decisions. It requires expertise in order to understand the context of the patient and to incorporate the patient’s values and preferences into evidence-based decisions. This approach to clinical practice is new to medicine (1) and to endocrinology (2–4) (see Chapter 2 for a brilliant account of the history of EBM). This chapter will place the contents of this volume in context while identifying five key contributions that EBM can make to the practice of endocrinology.

EVIDENCE-BASED ENDOCRINOLOGY HELPS PRACTICING ENDOCRINOLOGISTS KEEP UP TO DATE

There are at least 88 journals that focus on endocrinology; 10 of these publish more than 5000 articles every year. Of course, there are also endocrine-related articles...
published in clinical (surgical, radiological, pathological, and general medical) journals, clinical investigation journals, and basic science journals. There is simply no hope that dedicated endocrinologists who want to stay up to date will ever know the totality of research published every day.

Most abnegated specialists read a few journals that share a specific focus with the specialist, a few additional generic journals in their area of clinical practice (usually the table of contents plus selected original articles chosen in some haphazard way, editorials, and reviews), and a few other more general publications. Despite this approach, endocrinologists often see an accumulation of journals in their offices, electronically delivered table of contents in their e-mail inboxes, photocopies, PDFs, and torn-apart articles in their files. Clearly, this approach does not work. Furthermore, if the clinician gets to these articles, he or she clearly has accessed a section of the literature that may not include critical evidence pertinent to his or her practice.

Many prioritization systems are available. One could read journals that are widely recognized as publishing great papers or practical reviews; journals that come to us because of subscription, gift, or entitlement of our membership in a specialty society; or journals that offer their full content on the Internet. None of these approaches, however, select material for review on the basis of how valid and relevant the results are to the practicing endocrinologist.

How does one scan the literature in search of the valid and relevant evidence that could and should impact one’s practice? Haynes and his Health Information Research Unit at McMaster University have made several critical contributions toward this goal. Haynes was among the pioneers of the structured abstract that allows the reader to have access to the methods and results of a study rather than the narratives that obscure what matters in these reports (5). Also, Haynes and his team have developed “hedges” that allow the search in MEDLINE and other electronic databases containing high-quality reports in diagnosis, prognosis, etiology, therapy, systematic reviews, health services research, qualitative research, economic studies, and other areas (6–12).

Secondary journals that scan the literature and identify and highlight the most valid and relevant evidence (e.g., American College of Physicians [ACP] Journal Club, Evidence-Based Medicine) are another contribution of his team. The reader is enthusiastically referred to their chapter in this volume. Thus, having a set of skills enabling one to quickly scan literature to which we have access, or having access to services that scan the literature—using a transparent method with a goal consistent with the physician’s goal of keeping up to date—appear to be better solutions. However, a secondary journal with a focus solely on endocrinology does not exist. Is there enough high-quality and relevant evidence out there to justify one?

EVIDENCE-BASED ENDOCRINOLOGY CALLS FOR MOVING THE RESEARCH AGENDA UP THE HIERARCHY OF EVIDENCE

In Chapter 3, Guyatt—the creator of the term “evidence-based medicine”—and Busse outline the current understanding of the philosophy of EBM. The synthesis of this paradigm shift into two principles facilitates our understanding of what EBM means. The first of these principles recognizes a hierarchy of evidence. One such hierarchy places large and rigorous randomized trials that render accurate and precise estimates of the efficacy of therapies on outcomes that matter to patients at the top. Given