Evidence-based practice (EBP): more than meets the eye

Thursday 13\textsuperscript{th} November 2014, 10.00am – 12.00pm

**Presenters**
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**Pre-workshop activities – Important information for attendees:**

Prior to attending the workshop, attendees are asked to consider three clinical case scenarios and to **anonymously submit their answers** to a short series of questions relating to the assessment, diagnosis and management of these patients **by Friday 7\textsuperscript{th} November 2014**. Responses will be collated and the results will be presented in the workshop as a basis for discussion.

The case scenarios can be accessed using the following weblink:


Before submitting your responses electronically, please print out a hard copy of your answers and bring these to the workshop to enable interactive discussions.

**OVERVIEW**

Optometric evidence-based practice (EBP) involves complex and conscientious decision-making that is based not only on the available evidence but also on patient characteristics, situations and preferences. It recognizes that care is individualized and ever changing and involves uncertainties and probabilities.

For various reasons, applying an EBP to optometric clinical practice can be challenging. EBP demands the consideration of a range of types of research data (e.g., observational studies, case-controlled series, randomized controlled clinical trials etc.); understanding the relative
hierarchical standings of such evidence is essential to an EBP approach. The qualitative ranking of different types of evidence can be complicated, as can attempting to combine and/or compare different forms of evidence to achieve a clear consensus. Complex study designs, which are common in large RCTs, may also be difficult to interpret and/or to derive appropriate conclusions.

Significant gaps between research evidence and clinical practice have been reported within the optometric profession.\(^1\)\(^-\)\(^3\) A need therefore exists to improve research evidence translation into clinical practice by optometrists as a basis for enhanced clinical decision making. Clinical decisions can then be made using an appropriate rationale using the best evidence that is presently available to complement the practitioner’s clinical expertise as applied to an individual patient.

This two-hour workshop explores the fundamentals and process of EBP in an optometric clinical setting. The workshop will engage participants by encouraging debate and discussion on potentially controversial subjects, including the role of nutrition in age-related macular degeneration (based upon an invited review\(^4\) by the authors for the AMD feature issue in *Optometry and Vision Science*, 2014) and interventions for paediatric myopia control, through the use of clinical case scenarios.

**SESSION OUTLINE AND SEQUENCE**

**Part One – Introduction**

We will first explore ‘The Fundamentals of EBP’ as relevant to clinical optometrists. This material will establish an essential groundwork for applying EBP principles to clinical scenario. The topics to be covered in Part One include:

- What is EBP? And conversely, what isn’t EBP?
- Is EBP important – to optometry? To patient outcomes?
- What is ‘clinical expertise’?
- What is ‘evidence’? What is ‘current best evidence’?
- The evidence hierarchy / levels of evidence
- Clinical research – why is it important? What is the process? (phases of clinical trials, basics of clinical trial design)
- A brief history of EBP - what can we learn from the past (without EBP)?
Part Two – ‘Hot Topics in Optometry’

Part Two will explore the adoption of EBP for three clinical scenarios; these can be accessed using the following weblink:

https://www.surveymonkey.com/s/AAO2014WorkshopEBP

At the end of this workshop, participants should be able to:

a) appreciate the importance of common definitions and clinical classifications for quantifying and assessing ocular disease, in particular for conditions such as AMD, where such details are essential to the coherent and consistent interpretation of clinical studies;

b) develop an EBP diagnostic and management plan for a clinical case, through formulating an appropriate clinical question, being able to search the literature and having an understanding of how to assess the evidence based upon an accepted hierarchical scale;

c) utilise EBP principles to assess a patient’s suitability for a given therapeutic intervention (e.g., dietary supplements for AMD or orthokeratology for childhood myopia control), including but not limited to: patient assessment, clinical staging and appropriate recommendation/avoidance of the intervention(s);

d) understand how to approach a clinical scenario in which the highest levels of evidence may not yet exist.

REFERENCES