

Appropriate Use Criteria Get Orthopaedic Sports Medicine and Arthroscopy Back on Track

Our story begins with a movement *Arthroscopy* joined in 2004 called “evidence-based medicine.”¹ Our goal was to help arthroscopic and related researchers answer the clinical question, What is the best way to treat our patients?

The American Academy of Orthopaedic Surgeons attempted to apply evidence-based medicine techniques to improve the treatment of patients by publishing “Clinical Practice Guidelines” in 2012,² but the AAOS rotator cuff clinical practice guidelines missed the mark.³ Evidence-based medicine requires original scientific research of high levels of evidence to allow “conclusive” answers on how to best treat patients. (We place conclusive in quotation marks because each patient is different, so research is not conclusively generalizable, and because even Level I evidence randomized controlled trials cannot possibly eliminate every form of bias or chance.) And since we have explained that evidence-based medicine is never entirely conclusive, and since evidence-based medicine requires high-level-of-evidence research, which is rare, and since the Guidelines the Academy came up with were, to quote, “(w)e cannot recommend for or against...”,² it is the opinion of the editors that inconclusive recommendations do not a guideline make.³

So what is the best method for treating patients? From an editorial standpoint, our opinion is that specific methods are required to answer the question in a manner that minimizes bias. Appropriate Use Criteria (AUC) combine systematic review of the literature and expert opinion using rigorous methodology to address the true challenge of clinical medicine, which is understanding the fine distinction between individual patients due to human variability.³ It may be controversial, but we have always valued expert opinion as a valid contribution to the evidence-based conversation.⁴

Admittedly, in some ways, it seems difficult to discern a difference between Clinical Practice Guidelines and AUC. Both attempt to use evidence-based medicine

guidelines to determine the appropriateness of specific treatments.^{2,5} In fact, some may feel that the name “Clinical Practice Guideline” is of greater gravitas than Appropriate Use Criteria. But, when it comes to patient care, “What’s in a name?” We believe that when it comes to scientific research, it is the methods that matter, and to determine the best method to treat our patients, consideration of all available evidence, including expert opinion, is vital.

Thus, in the current issue, we wholeheartedly credit McIntyre, Beach, Higgins, Mordin, Mauskopf, Sweeney, and Copley-Merriman, and we commend these authors for their true passion and clarity of presentation as they share their expert opinion: “Evidence-Based Medicine, Appropriate Use Criteria, and Sports Medicine: How Best to Develop Meaningful Treatment Guidelines.”⁵ We admire that the authors attempt to ensure that AUC guidelines represent all available evidence.

Our editorial position remains unchanged. First, we implore authors to submit original scientific research of high levels of evidence.⁶⁻⁸ And when it comes to controversial expert opinion: “Bring it on.”⁹

As our story approaches a conclusion, until next time, we’ll be trying to understand what we think McIntyre, Beach, Higgins, et al. are claiming. We think the message is that evidence-based medicine is limited because randomized controlled trials are difficult, and that expert opinion has great value and can be quantitated using methods to reduce bias.

In the end, AUC methods don’t seem controversial at all, and seem to put the clinical relevance of orthopaedic sports medicine and arthroscopy back on track.

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References

1. Lubowitz JH. Understanding evidence-based arthroscopy. *Arthroscopy* 2004;20:1-3.

2. Pedowitz RA, Yamaguchi K, Ahmad CS, et al. American Academy of Orthopaedic Surgeons. Optimizing the management of rotator cuff problems: Guideline and evidence report. *J Bone Joint Surg Am* 2012;94:163-167.
3. Lubowitz JH, McIntyre LF, Provencher MT, Poehling GG. AAOS rotator cuff clinical practice guideline misses the mark. *Arthroscopy* 2012;28:589-592.
4. Lubowitz JH. Introducing level V evidence to *Arthroscopy* journal. *Arthroscopy* 2006;22:237.
5. McIntyre LF, Beach WR, Higgins LD, et al. Evidence-based medicine, appropriate use criteria, and sports medicine: How best to develop meaningful treatment guidelines. *Arthroscopy* 2013;29:1224-1229.
6. Lubowitz JH, Poehling GG. Clinically relevant articles of high levels of evidence are required to change surgical practice. *Arthroscopy* 2007;23:803.
7. Lubowitz JH, Poehling GG. The research effort. *Arthroscopy* 2007;23:1143-1144.
8. Lubowitz JH, Poehling GG. Comparative effectiveness research: We must lead (so as not to be misled). *Arthroscopy* 2009;25:455-456.
9. Lubowitz JH, Poehling GG. Controversy in *Arthroscopy*: Bring it on. *Arthroscopy* 2010;26:573-574.