

Editorial

 **Appraisal Technique is Quality Work**

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One of the best things about my role as editor-in-chief of *Pain Physician* is being surrounded by many brilliant and insightful clinicians and scientists. In an ever-changing landscape of basic and clinical science studies, regulation, and technology, it is always important to look backwards as we move forward. In this issue, we present 2 new instruments to assess methodological quality of randomized and nonrandomized trials, namely, Interventional Pain Management – Techniques – Quality Appraisal of Reliability and Risk of Bias Assessment (IPM-QRB) (1) and Interventional Pain Management Techniques – Quality Appraisal of Reliability and Risk of Bias Assessment for Nonrandomized Studies (IPM-QRBNR) (2), and grading of strength of evidence (3).

This was an incredibly challenging process of reflection, self-criticism, and in the end, a chance for a more standard way to review interventional pain trials into the future. The process is not new for some organizations. In fact, in 1997, the Cochrane review group editorial board published method guidelines for systematic reviews in the field of spinal disorders (4). As an evolutionary process, these guidelines were updated in 2003 and addressed the main steps in conducting a systematic review: literature search, inclusion criteria, methodologic quality, data extraction, and data analysis (5). They stated that the purpose for the method guidelines was to offer guidance to researchers preparing, conducting, or reporting a systematic review and to readers evaluating these reviews. These guidelines were operationalized specifically for the field of back and neck pain which included certain minimum criteria for which either empirical evidence existed that confirmed they were associated with bias in systematic reviews, or there was consensus among Cochrane Back Review Group editorial board that they were likely to be associated with bias. With multiple publications of systematic reviews and protocols, Cochrane Back Review Group felt there was new evidence on review methodology since 2003, and introduced in the February 2008 version of Cochrane Handbook for systematic reviews of interventions (6) and Cochrane Back Review Group also seemingly acquired more experience in preparing, conducting, and updating systematic Cochrane reviews. The 2009 updated method guidelines for systematic reviews in the Cochrane Back Review Group was the final document published in Spine (7). The authors were careful to emphasize that these guidelines are not a gold standard, but merely an indication of the current state-of-the-art of review methods. However, these guidelines have been judged to be deficient for many of the treatment modalities in managing spinal pain, specifically interventional techniques.

Multiple systematic reviews and guidelines felt there were multiple deficiencies in assessing the quality of the manuscripts of interventional techniques. Consequently, this project was undertaken by the American Society of Interventional Pain Physicians (ASIPP).

As a participant, it was clear that countless articles over many decades could be looked at in terms of relative strengths or weakness readily identifiable in the IPM-QRB and IPM-QRBNR. I was amazed at the tremendous variation and influences, both positive and negative, which were readily identifiable from review of countless articles over many months. The instrument presented represents thousands of hours of work and, although we expect a certain degree of future modification, we believe it is a good place to start as we move to the future. Lastly, methodologic quality risk of bias assessment does not provide the grading of evidence.

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Manuscript received: 04-25-2014
Accepted for publication: 04-29-2014

Grading of evidence is established either based on meta-analysis or best evidence synthesis. ASIPP's grading of strength of evidence which includes randomized trials, non-randomized studies, and diagnostic accuracy studies will provide a basis for qualitative analysis, avoiding inappropriate quantitative evidence synthesis. We encourage methodologists and clinicians

across the globe and global medicine and other specialties to consider elements of the IPM-QRB and IPM-QRBNR for critical review of trials in their respective fields and for those groups that have regular journal clubs to consider our instrument and to communicate with us where input would further help us to improve these instruments.

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