Mapping Cochrane systematic reviews: the next appeal for the Evidence-Based Medicine age.

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Background: The aims of the Cochrane systematic reviews are to make readily available and up-to-date information for clinical practice, offering consistent evidence and straightforward recommendations [1]. However, they are criticized for frequently offering, inconsistent evidence and for an absence of straightforward recommendations [2]. In 2004, we evaluated the conclusions from Cochrane systematic reviews of randomized controlled trials in terms of their recommendations for clinical practice and found that 47.83% of them had insufficient evidence for use in clinical practice [3].

Objective: We therefore reanalyzed a random sample of Cochrane systematic reviews to evaluate whether this percentage had significantly decreased and, if so, we hypothesized that there was an increase in the production and quality of primary studies for inclusion in systematic reviews, thereby reducing the widespread uncertainties that still exist in medical science.

Methods: In this cross-sectional study, we selected systematic reviews from the Cochrane Library Issue 7, 2011, excluding withdrawn reviews and protocols. We used the same methodology applied in our previous study (El Dib 2007) [3], except that each investigator analyzed the reviews from their own clinical expertise area. We randomly selected up to 23 systematic reviews from all 52 Cochrane Collaborative Review Groups. We did not evaluate the reviews from the Cochrane Methodology Review Group as they are responsible for preparing methodology reviews only.

Results: We analyzed 1128 (24.02%) of the completed systematic reviews published in the Cochrane Library, Issue 7, 2011. Of these, 45.30% concluded that the interventions studied were likely to be beneficial, of which only 2.04% recommended no further research. In total, 45.04% of the reviews reported that the evidence did not support either benefit or harm, of which 0.8% did not recommend further studies and 44.24% recommended additional studies; the latter has decreased from our previous study with a difference of 3.59%.

Table 1 shows the comparison of percentages for authors’ conclusions relating to implications for practice and research between the years 2004 and 2011.

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<th>Beneficial interventions</th>
<th>Harmful interventions</th>
<th>Insufficient evidence</th>
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<td>Authors did not suggest further research</td>
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<td>2007 (%)</td>
<td>1.30</td>
<td>43.01</td>
<td>1.97</td>
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<td>2011 (%)</td>
<td>2.04</td>
<td>43.26</td>
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Conclusions: Systematic reviews have a great structure but they lack on the ‘fuel’ that feeds them, the clinical trials. A Cochrane’s appeal was the first step to establish good evidence for decision making in health care. The next appeal, as per El Dib’s words, is “A great criticism of the Evidence-Based Medicine age is that we have not produced higher-quality primary studies, with worldwide centers’ participation and in accordance to the Cochrane’s protocols, to cover all those systematic reviews that did not offer enough evidence for clinical practice.” So, it is recommended that we should produce higher-quality primary studies in active collaboration and consultation with global scholars and societies so that this can represent a major component of methodological advance in this context.

References