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Comment on "Clinical studies in spinal surgery" (B. Hanson and B. Kopjar)

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Over the past few decades, we have seen a shift in both public and professional interest from clinical research studies to basic science, such as in the field of gene therapy. Research in this field is considered therapeutically and economically exciting, and rightly so, as it holds many promises for the future. However, when we as doctors stand in front of our patients, we have to rely on results that have emerged from clinical studies.

A clinical study serves several functions: it offers the only systematic technique that can translate and remodel results from basic medical scientific research to useful clinical routine. It is also the only rational instrument that can guide us in incorporating new treatment options and discarding old ones. Finally, it can help to define the relationship between "opinion-based medicine" and "evidence-based medicine". Clinical studies are thus the prerequisite for "evidence-based medicine", which today is considered one of the most important concepts regarding our ability to set priorities among different treatment options.

In the present article, orthopaedic surgeons (other colleagues are welcome to the table) are given a useful overview on basic clinical research concepts, including definitions and explanations that probably were not generally available to most of us when we attended medical studies and completed our training as specialists.

The authors exemplify their theoretical presentation with references to previously published studies, cited in the text, which makes their points easy to follow. The importance of cooperation with both an epidemiologist and a biostatistician is rightly emphasised, and it must be stressed that these disciplines should be invited to join the research team in planning a clinical study, a statement that deserves to be repeated.

In a short overview like this it is not possible to cover all aspects of clinical research, but I would have wanted some information on not only "treatment effectiveness", but also "treatment efficacy" and "efficiency", two expressions that are commonly (and sometimes confusingly) used in the literature. Also, when it comes to statistics, I think a discussion of confidence intervals, which are often more useful in describing uncertainty than *p* values, would have been appropriate.

In summary, this is a useful overview of basic clinical research concepts, which may, along with the authors' intentions, serve as a helpful checklist for those in the planning phase of clinical research, while for those already started, it could probably be too late. This paper could be one of many signs of a growing interest among spinal surgeons, and hopefully also among fund holders, of conducting clinical research studies.

The article to which this comment refers can be found at <http://dx.doi.org/10.1007/s00586-005-0926-2>.

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