Imperfection leads to progress

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A recent editorial published jointly by JBJS, CORR and BJJ has established a new set of guidelines for the publication of randomized clinical trials [1]. The purpose of these guidelines is clearly and explicitly set out in the editorial and one cannot argue with the intent. As pointed out in the editorial biased acceptance by journals of positive outcome trials versus neutral or negative outcome trials may lead to an incorrect interpretation of data. By requiring registration of all randomized clinical trials in a public repository of clinical trials all results must be available thus avoiding unnecessary duplication and providing a more balanced picture when performing literature searches or meta-analyses.

Randomized clinical trials remain the supposed gold standard of clinical research but the value of other research in orthopaedics should not be under-estimated. There are a variety of other examples of valuable research activity that clearly advance the art and science of surgery. It should be recognized that a randomized clinical trial requires extensive infrastructure if it is to be done properly. A large number of patients from which to recruit study subjects is required. Experienced investigators to explain the trial to possible participants and recruit those patients to the trial have to be hired. Clearly defined primary and secondary outcomes agreed to by all of those individuals enrolling patients in the trial and surgeons capable of performing the intervention skillfully, repetitively and without variation will have to be trained. Statisticians are

required for appropriate sample size calculation and loss to follow-up provisions to ensure that sufficient patients are enrolled to provide evidence of clear differences between both the primary and secondary outcomes. Diagnostic imaging capability is often sophisticated in order to provide accurate information around prosthetic migration, fracture union, curve correction or other calculations that have to be extremely precise. Finally the statistical analysis at the end of the trial will evaluate the results and determine whether or not the intervention being studied was effective.

Most hospitals, clinics or universities where orthopaedic surgery is practiced do not have these resources or if they do have them they are rationed and orthopaedic surgeons must compete for resources with other investigators from other specialties. The cost of running such trials, especially if a number of centers are enrolled, may be prohibitive. Finding funding for these trials is a challenge and industry sponsored trials are often viewed with suspicion.

It is imperative that all types of orthopaedic research be encouraged and supported. Small schools or clinics with limited resources may still provide meaningful information to guide orthopaedic practice. A hospital-based registry, for example, can clearly track the outcomes for specific surgical procedures using a validated outcome tool provided without cost. A number of these tools are available and have been used by small hospital or clinic-based registries. Some of these registries have been in existence for decades and provide valuable information over years of review. Cohort studies using a retrospective analysis of prospectively gathered data may be done with relative ease with these hospital-based registries. The effect of introducing a change in patient care, either surgical or non-surgical, can easily be tracked by retrospective analysis of quality prospectively gathered data. These studies are very common, usually valuable in providing information and often form the basis for a more formal randomized clinical trial.

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Single surgeon experiences are also important in informing colleagues of technical aspects of surgical technique or patient management. A “new way” of doing something may be widely accepted and if successful become the accepted standard of care. Many of the advances in surgical approach, post-operative care and patient outcome evaluation or assessment began with this type of single surgeon case series.

There is a role for analysis of large data sets to determine trends or success or failure of certain interventions such as hip fracture care. However, there also remains a role for individual surgeons or surgeon groups to assess and report on the effect of implementing change based on registry reporting. A critical analysis of such actions is important for other surgeons contemplating a similar change in practice.

Finally, a note on case reports. While case reports are fascinating to the surgeon reporting and of occasional interest to the reader they are of little or no benefit in informing the general readership and possess virtually no educational value. Therefore case reports are rarely published in journals devoted to peer review manuscripts.

The history of “International Orthopaedics” is 40 years of science published on behalf of the SICOT, 40 years of continuous efforts to improve, from a window open on congress proceedings and society life to a respected high-volume, good visibility and high impact peer-review journal with contributors from five continents and over 130 countries [2]

Our journal is a well respected orthopaedic periodical with an excellent record for important peer reviewed publications of interest to orthopaedic surgeons across all countries and all continents. A brief perusal of Volume 41, No 3, January 2017 reveals the astonishing breadth of our contributors. The Journal is divided into several sections including general orthopaedics, hip, knee, foot and ankle, spine, sports, research, upper limb, trauma, childrens orthopaedics and orthopaedic oncology. This demonstrates the general nature of the journal and its appeal to every type of orthopaedic surgeon.

When we review this issue we realize that the 27 papers are authored by colleagues from Austria, China, France, Germany, Greece, India, Italy, Japan, Netherlands, Poland, Romania, South Korea, Turkey, the United States of America and

Vietnam. It’s hard to imagine another peer reviewed journal particularly one with the quality of International Orthopaedics that would have such a variety of topics from such a wide and diverse number of countries of origin.

We strive to provide our readership with topical papers which will inform them of current and future trends in our specialty as well as appropriate retrospective analysis of past practices. Our journal also allows our readership to look into the nuances of orthopaedic practice in a global environment – not just orthopaedic practice in your community, region or country but orthopaedic practice on a truly global scale [3–6].

The Editors of International Orthopaedics support the position of our sister journals regarding the importance of regulating randomized clinical trials but wish to remind our readers of the importance of all types of orthopaedic research and our intention to provide a venue for all high quality relevant orthopaedic papers.

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