Is everything presented in medical journals or presentations true?

On the whole I believe that many of our members don't read orthopaedic journals as often as they should, judging by the number of South African subscriptions to the JBJS, and are therefore prone to being misled by podium presentations at congresses and selected articles distributed by the orthopaedic or pharmaceutical trade.

Published articles often report very opposing opinions on common procedures that we perform on a daily basis. If you are presented with only one opinion, which is often seen in distributed articles or presentations, then you are prone to think that this option of treatment is the way to go. One example of this was the growth of mobile bearing knee replacements in this country where the vast majority of presentations as well as publications distributed led many surgeons to switch to this form of treatment where fixed bearing knees have now shown superiority on the world knee implant registers. Another example has been the exponential growth of metal-on-metal hip replacements, which is now causing tremendous harm to patients who received these implants as well as the reputation of the orthopaedic community.

There is a fine line between dishonest research and fraud. 'Fraud and scientific research are incompatible bedfellows and yet are an unhappy part of our research existence. All subspecialities are to blame and orthopaedics is no exception.'

This brings us to another dilemma – that of selection of papers for our congresses in South Africa. Too often the selection committees are faced with few and extremely poorly written abstracts for podium presentations. Here you are forced to accept the drivel sent in from members in the hope that these will eventually end up as reasonable podium presentations. Fortunately this does occur in most instances but there are exceptions and we should be more stringent in rooting out these bad apples. The implications of accepting these papers can have devastating consequences for our community as opinions are often based on these findings and treatment is altered to accommodate these 'new' facts picked up at congresses.

The conflict of interest statement is another problem where this is usually not worth the paper it is written on. We should all be much more suspicious of authors presenting at our congresses and questions should be more probing on these issues. We must understand that for various reasons 81% of researchers are willing to select, omit or fabricate data for potential financial gain.

There is a fine line between dishonest research and fraud

The retraction rate of articles in peer-reviewed journals has increased 15-fold in the last decade.

This is due to questionable research practices, selective reporting, incomplete data analysis, modification of images, not obtaining ethical approval, not declaring financial conflict of interests and ghost or guest authors.

The best quote of one of the senior editors on this matter is that by Marcia Angell, a former editor of the New England Journal of Medicine, who stated the following concerning pharmaceutical marketing: 'It is simply no longer possible to believe much of the clinical research that is published, or to rely on the judgment of trusted physicians or authoritative medical guidelines. I take no pleasure in this conclusion which I have reached slowly and reluctantly over my two decades as editor of NEJM.'
One of the wonderful things that has blessed our decision-making in clinical matters has been the rise in importance of registries. This work was initiated in the pre-computer days by the diligence of the Swedes who have dominated the world with such excellent examples as the Swedish Hip Register. This has had such a phenomenal impact on our thinking that many other countries have moved to start up equally good registries. In some instances they have even improved on the matter, for example the Australian and British joint replacement registers. The outcome of these registers has added immense value as they are reported without bias and raw data is presented without manipulation or exclusion. These registers have been instrumental in showing the folly of using matt stems in cemented hips, the inferior results of mobile bearing knee replacements as well as early detection of failing implants such as the ASR cup which was first picked up by the Australian register before being recalled worldwide. Seeing the success of these implant registers, it saddens me even more that we could not succeed in getting our implant register to work.

These issues once again emphasise the importance of good clinical research and honest reporting of results. It also makes it necessary to relook at existing evidence and makes it important that clinical work should be audited and reported even if many similar articles on the same topic have been reported or published before. Sometimes different conclusions or results are reached which begs the question whether the first results were correct. This should encourage our younger members knowing that you don't always have to invent the wheel to make a clinically significant contribution, and that showing results that concur with or differ from existing work is often just as valuable as original research.

References

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