EDITORIAL

Introduction of new hip and knee prostheses

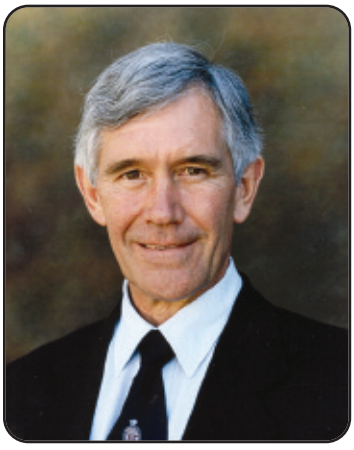
World-wide there is a plethora of different hip and knee prosthesis designs available, each one claiming advantages over their competitors. The surgeon has more choices available than would be the case in a clothing or furniture shop. Is this to the patient's benefit, or is it driven by money due to profits made by the manufacturers and distributors of the prostheses?

We live in an era of evidence-based medicine. At every orthopaedic meeting around the globe surgeons are seduced into using new prosthetic designs with promised benefits that have not been adequately clinically proven. As a result many patients in whom these prostheses are used could potentially be compromised. There are many examples published in the orthopaedic literature of this having occurred in the past. Is this ongoing introduction of new prostheses a good example of evidence-based medicine?

It has been established (or suggested) that there should be a structured method of introducing new prostheses. Initially laboratory testing of the design is done by the engineers. Once they feel they have a good design it should then be introduced into prospective randomised blinded trials at recognised arthroplasty centres. If the device performs as well or better than a prosthesis that has stood the test of time, only then should it be introduced to the open market for general use. Later information will then come from the joint implant registries, either confirming or rejecting the findings of the initial trials. If after this rigorous and somewhat arduous process the prosthesis is vindicated, then only should surgeons feel comfortable in using it in their clinical practices with a clear conscience.

Manufacturers argue that this long slow process will stifle scientific research and progress. Is this true or does it simply stifle the company's bottom line? What happens in practice is that a prosthesis is designed and tested in the laboratory, and then introduced into the market with a lot of fanfare and advertisement. The internet has become a powerful tool for this. The registry and trial results then come later, and at times identify some prostheses as disastrous or failing, leaving many unsuspecting patients in their wake. Recent examples of this are the Charnley Elite stems, metal-on-metal bearings, the ASR hip and the Journey knee. There are current prostheses available with a 96% 25- to 26-year follow-up. It would need a revolutionary new prosthesis to improve on these results, and not simply a minor design tweak to make profit for a new designer or manufacturer.

Surgeons are obviously not the innocent victims in this equation. If they resisted using the new toys with no clinically proven background, much of the above could be avoided. No company can survive without sales! The first question every surgeon should ask when faced with a new prosthesis is what the clinical trials over a ten-year period have shown. If this information is not available and there is an existing prosthesis with a good track record, then they should continue using that prosthesis in their clinical practice. By doing this the good prostheses will remain in the market, and the rest will disappear. Above all, a surgeon should not be seduced into using a new prosthesis for personal monetary gain, which is not only unethical but also morally unacceptable clinical practice.



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