How much evidence does it take to change practice?

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There are times when new techniques or implants are adopted rapidly, and others when we wait patiently for clear data regarding the safety, efficacy and cost effectiveness, before changing our practice. There are many reasons that include the perceived need, the absence of suitable alternatives, availability, affordability and good marketing. The hip arthroplasty community rapidly accepted porous metal acetabular components on the basis of experimental data and some promising case series.1-4 This was partly due to “surgical feel”, which gave surgeons the perception that these implants were likely to have a strong and lasting bony interface. Such implants and related coatings are now freely available and widely used, and have been adapted to other areas such as the knee and shoulder.5-7 There is, however, still a paucity of high-level studies.8 Johan Karrholm and his colleagues9 have undertaken an RSA study of migration, and compared porous metal tantalum acetabular components with cemented impaction grafting,10 which has a long and established history in acetabular revision.10 It is this type of level one data that should be encouraged, and should shape orthopaedic thinking and decision making. The study also has the added benefit of having ethical approval and registration at clinicaltrials.gov; a process that we will be mandating in the near future.11 More studies and longer-term follow-up are needed in this area, but the authors should be congratulated on an excellent high-level publication.9

Charles Aldam and his team12 have considered return to theatre after hemiarthroplasty of the hip, which is undertaken for a particularly frail group of patients with displaced intracapsular fractures of the femoral neck.13-15 In the United Kingdom, an increasing number of displaced intracapsular fractures are treated with total hip arthroplasty and, therefore, the hemiarthroplasty cohort described in this series will inevitably be that with the greatest number of comorbidities. The study confirms that early failure of surgery for a fracture of the femoral neck that requires a return to theatre compromised the subsequent outcome. They have shown that a return to theatre by 30 days postoperatively is associated with a longer length of stay, a higher rate of re-admission, and a higher subsequent revision rate. There was no difference in mortality between the two groups, either at 30 days or one year, which may be a reflection of good peri-operative care in that unit. Nevertheless, the measures that are increasingly put in place worldwide to optimise the immediate care of patients with a fracture of the femoral neck and limit repeated surgery are supported further by this paper.

David Ring and his team16 have kindly provided an update on misuse of opiates in the United States. We must learn from our North American colleagues, and thus not go down the route of increasing use of opiates for our patients. They are not particularly effective for pain related to arthritis, but are increasingly used by primary care colleagues in an effort to expedite discharge.17 We must ensure that our enhanced recovery pathways and attempts at day surgery or overnight stay arthroplasty do not lead us down this dangerous route of indiscriminate opiate use and abuse.

There is currently a great deal of interest in peri-operative pain management after arthroplasty of the hip and knee.18-23 Costa et al24 confirm that alternatives such as periarticular infiltration work extremely well, and are a viable alternative to nerve blocks. While femoral nerve blocks are effective in providing pain relief, the paralysis of the quadriceps is a serious problem after arthroplasty of the knee, and can lead to delayed mobilisation, falls and fractures of the femur.25-28

Future studies should focus on how to optimise the drug ‘cocktails’ used at the time of periarticular infiltration, and how and where these mixtures are administered. While the
push towards blocks and the avoidance of general anaesthetic is a laudable one, and one that has been supported both for patients with fractures and multiple comorbidities, we may need to engage with our anaesthetic colleagues in order to contain the block culture where alternatives are available. This will continue to be an area of debate and controversy.

Finally, I would like to highlight a simple but important paper from Carsten Perka’s group\(^\text{29}\) in Berlin on mortality after periprosthetic fracture. We face an epidemic of periprosthetic fractures of the femur in particular.\(^\text{30-34}\) We are also likely to see more and more periprosthetic fractures around arthroplasties of the knee as these patients age and become more osteopenic; this study reinforces that these are a high-risk group of patients. We should make every effort to centralise their care in specialist centres, and to provide expeditious multidisciplinary and well-supported peri-operative care similar to that which we now provide for patients who present with fractures of the proximal femur.

References

34. Van der Merwe JM, Haddad FS, Duncan CP. Field testing the Unified Classification System for periprosthetic fractures of the femur, tibia and patella in association with knee replacement. Bone Joint J 2014;96-B:1689–1673.