than 100 direct anterior total hip arthroplasties over a six-year period. The authors used a systematic review of the literature and the Australian Orthopaedic Association National Joint Replacement Registry data to establish what the probabilities of each health state were, and model was run using two different cost differentials of USD \$219 and \$1,800 for the direct anterior and posterior approaches, respectively. The authors established that for highvolume hip surgeons, the direct anterior approach may be a cost-effective strategy. However, for lower-volume hip surgeons, performing a more familiar approach appears to be more cost-effective.

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## Knee

X-ref For other Round-ups in this issue that cross-reference with Knee see: Hip & Pelvis roundups 1 & 3; Research round-up 5; Sports round-up 2.

## How often can you give steroids to the knee?

The use of corticosteroid injections for the management of osteoarthritis symptoms prior to consideration of total knee arthroplasty (TKA) is a common strategy to delay the need for surgery by treating the early symptoms of degeneration in the knee. While corticosteroids do not obviate the need for knee arthroplasty, they are known to treat the symptoms of early and moderate arthritis. We have learned previously from high-quality publications – many of them featured in BJ360 - that cumulative injections can directly cause cartilage damage, and that the risk of periprosthetic joint infection (PJI) with TKA is higher within 90 days of a corticosteroid injection. However, for many patients (especially in light of increased COVID-19related waiting lists the world over), there are few problems with being offered a knee arthroplasty within 90 days. Having said that, with increasing waiting lists, more and more patients are having multiple corticosteroid injections and there is a dearth of evidence as to how this affects the outcomes for patients, if at all. The authors of this paper from Philadelphia (Pennsylvania, USA) have therefore further examined the effects of cumulative injections,



with corticosteroids and/or hyaluronic acid, to determine if serial injections over time increase infection risk when TKA is performed.<sup>1</sup> This was a retrospective, single-centre study including patients who have undergone TKA with a minimum one-year follow-up. For the purposes of the study, an identified cohort of 672 patients, all of whom had received injections, formed the study population. Patients were categorized based on injection type (corticosteroid injection only in 243 patients, hyaluronic acid injection only in 151 patients, both injection types in 278 patients), and there was also a control group of 648 patients who did not receive an injection prior to TKA. The incidence rates of PJI were low overall both in the group who received injections (0.60%) and those who did not (0.93%). The authors found no difference in PJI rates or overall complication rates between the control and study groups, regardless of the type and number of injections provided, if administered greater than 90 days prior to TKA. This study provides clinically useful information that serial knee injections with corticosteroids and/or hyaluronic acid do not place the patient at increased risk for subsequent PJI when TKA is eventually performed. This provides the clinician with reassurance that serial injections to delay or avoid surgery remain an effective strategy in appropriately selected patients. The one cautionary note we would make is that, overall, the event rates are low with little in the way of early deep infection. This study is clearly underpowered to detect a small difference in event rates.

## Treatment decision regret in two-stage revision surgery

This is an interesting study on the topic of periprosthetic joint infection (PJI) and how patients view their outcomes when treated for this devastating complication. The authors conducted a survey study of patients who had been