# MEETINGS ROUNDUP360

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## OTA ANNUAL MEETING ROUNDUP

The annual meeting of the Orthopaedic Trauma Association (OTA) continues to stand out as the foremost global meeting focussed on the practice and science of orthopaedic trauma surgery. All of the global opinion leaders in orthopaedic trauma regularly present their work, alongside instructional elements, and it remains the meeting at which one will find most of the United Kingdom's leading trauma surgeons. The UK Orthopaedic Trauma Society (OTS) is steadily bringing practice-changing meetings of this kind to the UK and, given time, it seems likely that the OTS meetings should be part of UK trauma and orthopaedic (T&O) surgeons' calendars.

The 30th anniversary 2014 OTA Annual Meeting was held between 15 and 18 October 2014 in Tampa, Florida, hosted by the irrepressible Roy Sanders, of the calcaneal fracture classification. Nearby, the white sands of Clearwater Beach and the turquoise warm water of the Gulf of Mexico posed stiff competition for the extensive educational programme which offered a combination of a large collection of instructional course lectures, symposia, and scientific exhibits representing a wide range of trauma subspecialties. The programme committee presented 150 podium presentations from over 800 submitted, along with 170 posters, for the 1340 attendees.

Prior to the annual meeting, on the Wednesday afternoon and Thursday morning there was a number of pre-meeting events, which cater for the variety of trauma surgeons attending. There is a guest nation each year, which this year was Brazil; 2016 will be the UK's turn as guest nation in Vancouver, Canada.

The extensive OTA meeting includes a number of 'pre-meeting' events such as the pelvic surgeons' forum hosted by Adam Starr each year, and the basic science focus forum. A standout paper from Baltimore (USA), presented in the basic science session, describes one method of checking for malrotation after femoral nailing using the lesser trochanter. The rotation of the proximal femur demonstrates a consistent, linear relationship to the lesser trochanter ($r^2 = 0.87$), such that a 10% deviation in lesser trochanter size corresponds to 7.7° of femoral rotation. As the study demonstrated little variation in paired values between legs, the contralateral leg provides an excellent measure of rotation with which to compare the operated leg – a simple solution to an occasionally difficult problem.[1]

Another standout presentation came from Professor Chris Moran in the international forum who presented an overview to the USA audience as to how trauma care has changed in the UK, and described how, following the introduction of the major trauma networks, there was a significant 19% ($p < 0.008$) increase in the odds of survival during the first year of the new system and a further 17% increase in the odds of survival during the second year as the system matures, so that the odds of survival for the population is now 1.36 compared with 2008. Professor Moran eloquently described how, on a national scale, improvements seen in smaller state or regional trauma systems can be translated to provide improvements in outcomes for the whole population. This was well received but discussed as almost impossible for the Americans to replicate due to a combination of the sheer size of the country and trauma centres being set up for financial reasons rather than based on the appropriateness of facilities and geographical location.[2]

## FOOT AND ANKLE

In the field of foot and ankle trauma the idea of aspirating the haematoma from the injured ankle joint to provide pain relief in acute ankle fractures was investigated in a randomised controlled trial of 109 patients. Sadly, despite a novel approach, the investigators from Rochester (USA) found no benefit in terms of pain scores or opioid use.[3] In a similarly designed study aimed at evaluating the administration of a popliteal block for pain control in ankle fracture surgery, the investigators reported a significantly reduced level of 'rebound pain' and of the need for oral opioid analgesia compared with single-shot regional anaesthetic after operatively treated ankle fractures over a 72-hour period.[4] Further discussion time in the session was given to the question of open versus closed reduction of the syndesmosis with the conclusion that an open anatomic repair of the syndesmosis results in better radiographic outcomes compared with percutaneous screw fixation.[5]

Dan Deakin (Nottingham, UK) and Tim White (Edinburgh, UK) presented work around the idea of early fixation of pilon fractures, championed in Vancouver (Canada).[6,7] Both papers concluded that acute fixation is safe in the majority of cases when performed by experts. It is fair to say that the approach has still not gained any wider support in the trauma community despite some evidence from interested surgeons to support it.

## HIP AND FEMUR

The concept of augmenting established ununited diaphyseal fractures with additional lag screws or plates around the old nail, rather than exchanging the nail, was visited. This is an idea that was recently advanced in the UK by Bob Handley, among others, and takes the view that in cases where the fracture requires additional stability, this can be achieved with placement of one or more lag screws. The old nail remains in place and will therefore continue to provide neutralisation. In an interesting paper from Beijing (China) the authors experienced a cohort of 83 patients showing no difference between augmented fixation and exchange nailing.[8]

Chris Moran from Nottingham (UK) presented an approach to improving population-based care for hip fractures.[9] Clearly there have been huge

advances made in care, which may be impossible for any other system (such as that in the USA, without a nationalised healthcare scheme with one provider for acute care) to reproduce due to the inherent lack of integrated health care. Similar differences are likely to emerge in trauma care where the UK has taken the USA trauma system and been able to improve it through a nationwide approach and organisation, something with which the USA is currently struggling, with a disordered proliferation of major trauma centres.

The question of CT scanning acetabular fractures following fixation for quality control was investigated, something for which there is widespread variation across the world and within the UK.[10] The paper from Cincinnati (USA) concluded that one in 40 patients would benefit from routine scanning – perhaps given the high dose of radiation to relatively young patients, this is something that should be reserved for patients when there is a clinical need.

## UPPER EXTREMITY TRAUMA

The Edinburgh (UK) group presented their large series of non-operatively treated radial head fractures where the data would suggest that the conservative management of these injuries is a reliable treatment option, yielding an excellent or good long-term result in the majority of cases.[11] Despite a small number of patients reporting persistent pain and stiffness, patient satisfaction is high, the need for secondary intervention is negligible, and patients routinely return early to work and sports.

## KNEE AND TIBIA

Following the current trend for suprapatellar nail insertion, researchers in Tampa (USA) reported their experiences in a small randomised study of the suprapatellar nail approach to the tibia.[12] This is a technique used frequently in some centres, but is not yet widespread – with cited advantages of lower rates of anterior knee pain and easier reduction of proximal fractures but potentially at the cost of entering the knee, opinion is somewhat split. The authors concluded that in their study, at least, there are no significant differences in pain, disability, or knee range of motion between these two tibial intramedullary nailing techniques after 12 months of follow-up. The suprapatellar approach can be performed safely with comparable clinical and functional outcomes to the infrapatellar method.

The immediate administration of antibiotics in open fractures was also considered in a paper from Charlotte (USA).[13] The authors were able to conclude in their study that the time from injury to antibiotics and to wound coverage independently predict infection of type III open tibial fractures. Both should be achieved as early as possible, with coverage being dependent on the condition of the wound. Given the relatively short therapeutic window for antibiotic prophylaxis (within an hour of injury), pre-hospital antibiotics may substantially improve outcomes for severe open fractures. There is a realistic possibility that such a move could occur in the UK, just as care-changing interventions such as the use of binders and TXA in the field have already been implemented. The OTA again provided a wealth of early information, dialogue and food for thought aimed at informing and engaging those involved in trauma care at every level.

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