The Royal College of Physicians & Surgeons of Glasgow

Travelling Fellowship Report

Shock Trauma
Baltimore

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Introduction

I am a Specialist Registrar in Trauma and Orthopaedics Surgery on the Mid-Trent training scheme, based in Nottingham and in the third year of my training.

My choice of specialty was the result of early exposure to Trauma as a junior doctor and this remains for me the most exciting and exhilarating aspect of Orthopaedics. I envisage pursuing Trauma as a main interest in the future and am I working to expand knowledge, experience and widen my horizons.

I was awarded the RCPSG Travelling Fellowship in 2008 in order to visit the R Adams Cowley Shock Trauma Centre in Baltimore, Maryland.

Why Shock Trauma?

The Shock Trauma Centre in Baltimore is the first and only Trauma Hospital in the United States and has become a model worldwide. It was established by R. Adams Cowley who gave the world the concept of the Golden Hour.

R. Adams Cowley

Since the 1970s it has developed into a major international centre for trauma education and research. Shock Trauma also hosts the US National Study Centre for Trauma and Emergency Medical Systems. Shock Trauma is a level one Trauma Centre where very severely injured patients are transferred. Simple trauma is handled by other centres in Baltimore, so only the most complex cases are treated there. It is the highest volume trauma centre in the United States and a fantastic place to train if you are interested in Trauma.

Shock Trauma offers a prestigious specialist fellowship in trauma and is the principal training site for a number of civilian, army and naval surgery programs. It regularly hosts visiting surgeons from around the world with a special interest in Trauma.

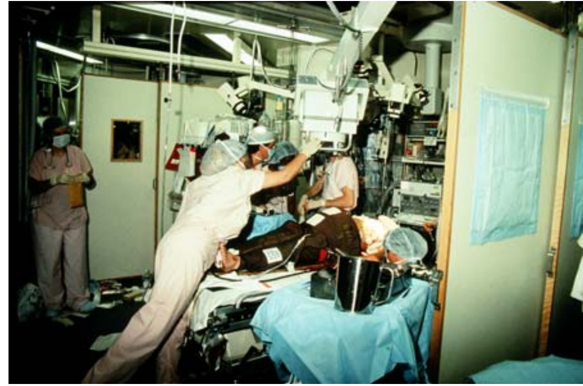
The visit

I arrived in Baltimore on a very cold Sunday evening and settled into my hotel, trying to recover from the jet lag. The next morning, I made my way to the University of Maryland Medical Centre. I was greeted by Gretchen, the lovely International Trauma Programme Manager. After a brief introduction to the hospital and the necessary security clearance, I was introduced to the Programme Director, Dr Andrew Pollack, who welcomed me to the department. I then met the trauma fellows and it was straight into the trademark pale-pink shock trauma scrubs and the operating rooms.

The day officially started with a consultant ward round at 6.30 am, and even earlier on Thursdays to allow for Grand Rounds. The residents had already been up for hours doing

their own rounds in preparation. This was followed by a brief pit stop at the operating rooms (the "OR") to organise the day. A second essential stop was Starbucks for a half-a-litre cup of coffee on the way to the daily x-ray and teaching meeting. This is similar to our own: the residents present admissions from the night before, as well as post-operative radiographs from the previous day, and there is a discussion about management. This is followed by a more formal teaching session, which is run in turn by the consultants. This was an excellent learning opportunity for me, as the number and the calibre of cases presented in terms of injury severity, was much higher than what I have am used to back home. Another difference was that most imaging put up was not in the form of plain x-ray, but preferably CT.

By 8.30 am operating was well on the way in most theatres. On occasions you could hear the helicopter landing and you knew that there was more work on the way. There is a heliport on the roof that can take up to three helicopters at a time and an elevator which brings the casualties straight down to the Trauma Resuscitation Unit (TRU), just a set of doors away from the six main trauma operating rooms. There is an adjacent high speed CT scanner and a trauma angiography suite, all readily accessible 24 hours a day.

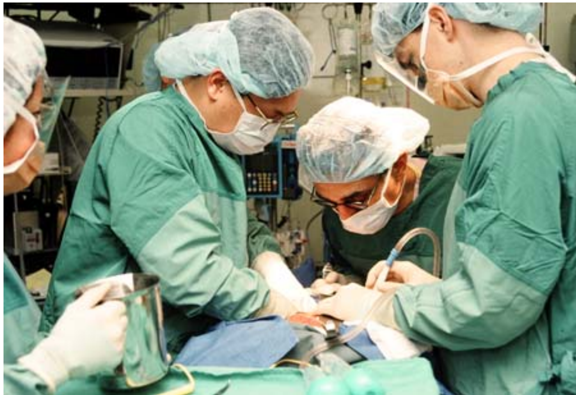


The trauma fellows were in operating every day, all day, as long as there was work to be done. The residents would join them, allocated to their respective duties by the senior resident. The consultant would be present or scrubbed, depending on the complexity of the surgery.

Most cases were what we would consider to be complex in nature and there was a new learning point for me from most of them. Shock Trauma does not accept the walking wounded and routine trauma. Virtually all admissions are poly-traumatised patients arriving by helicopter. They have multiple and mostly open fractures and are often unstable. Damage control orthopaedics, in the first instance, is frequently the norm. Severe gunshot wounds are also a daily occurrence, the result of gang violence or armed robberies in the city. I could not believe my eyes at first. But you soon get used to the daily reports of shootings on the

news, which warn you to stay within the safety of the inner harbour.

I felt immediately welcome by the residents and trauma fellows, who showed great interest in our training system and the provision of health care in the United Kingdom. I was also very well looked after by all the consultants, who though busy were always very friendly and willing to take me through the particulars of a case.



Many things were done differently than I had experienced in the UK. The equipment was basically the same but patients were set up differently for some procedures. For example, intramedullary nailing was not routinely done on traction. There were also techniques that were new to me, such as the use of mini-fragment plates to aid reduction in complex fracture patterns or the introduction of tibial nails through a supra-patellar approach. There was a lot of emphasis on speed, given the volume and severity of the workload. I picked up many useful tips which I can apply to my own practice, just through seeing things done differently to what I have been used to in my own training scheme.

I was not the only visitor to the department: there were army personnel rotating through for training before being deployed to warzones overseas. Overall, all staff were informal, friendly and sociable, with loads of humour used to keep spirits up during the long days.

The day finished when the work was done. This was frequently well into the evening and I am told the summer is even busier. No handing jobs over to the next shift for the junior doctors and no EWTD-type rules to enforce as yet! But residents and fellows would not have it any other way. Resident training lasts only fours years and they are keen to cram in as much experience as possible. They cannot imagine spending seven or eight years in training like we do. The pay whilst in training is low and they much prefer working intensely harder for a shorter period of time. They are resilient and hard working, but possibly less well read than British trainees; this is to be expected as they spend most of their time on the shop floor and would do well to manage half an hour's reading before falling head first into the book after an average 12 hour working day!

Baltimore is a beautiful city. It has a very impressive waterfront and a good nightlife with plenty of bars and restaurants easily accessible within the harbour. I was there in the winter in subzero temperatures, but there were still people about in the evenings making the waterfront lively.

A car is essential if you wish to venture further or do some shopping in the suburbs, where most of the

malls are. I braved a bus ride through the inner city, which opened my eyes to the poverty that lies within deprived neighbourhoods, and explained the origin of the gunshot wounds that we were treating. This was a revelation and very different to the glamourised violence we are used to seeing on television shows.

Washington is also a stone's throw away, half an hour on the train, and well worth visiting on the weekend.

Overall…

I found my time at Shock Trauma invaluable, as I was able to experience all aspects of patient care for a large number of multiply injured patients during my time in Baltimore. It also gave me an overview of the care pathways developed locally and their training system.

I wish to sub specialise in Trauma and this visit not only gave me invaluable experience of a different training system, but also allowed me to investigate the possibility of competing for the prestigious Orthopaedic Shock Trauma Fellowship in the future.

I am extremely grateful for the opportunity to visit this centre where polytrauma is the norm. I would like to thank the College for the award of the Travelling Fellowship, without which this visit would not have been possible. I would also like to thank the Orthopaedic Department at Shock Trauma for their exceptional hospitality.