TRAUMA

Elective Report

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Elective: Trauma in Chris Hani Baragwanath Hospital, Johannesburg, South Africa

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Elective supervisor: Professor Degiannis

The following objectives reflect my experiences of trauma in Johannesburg, South Africa. When comparing it my experiences in the UK, I have used my time spent at the Accident and Emergency Department at The Royal London as it is a comparable hospital seeing most of London's trauma cases.

What are the prevalent traumatic injuries presenting in South Africa? How are they different to the UK?

The conditions presenting to the trauma department were categorised into 3 groups according to the seriousness of the compliant and urgency. The presenting complaints were assigned either a P1, P2 or P3 with increasing seriousness of injury. P1 conditions included minor injuries mainly resulting in suturing of small lacerations from falls etc. P2 complaints included more serious injuries such as burns and simple stab wounds to the P3 complaints which consisted of resus calls for multiple stab wound injuries, gun shot wounds and assaults.

Comparing the conditions seen in South Africa to those presenting in the UK they were similar in nature i.e. mechanisms of injury although there were clear differences in the numbers of these cases, for example, although gunshot injuries occur in the UK they occur at a far less rate than Johannesburg where it more common, similarly with stab injuries, assaults and burns. Gunshot injuries would happen every few days, for example, where as I did not see any while I was on placement in London although I know that they do occur. One of the biggest differences in the mechanism of presenting injury are crush injuries, in the UK they are almost unheard of where as it was a fairly common occurrence in Johannesburg.

How are the trauma services organised and delivered? How does it differ from the UK?

Chris Hani Baragwanath Hospital is one of the world's biggest trauma centres. The department is incredibly well equipped to cope with the number of patients seen. I was quite surprised at how developed the trauma department was given that it was in a poor area of Johannesburg.

In comparison of resources there was no different seen in the type of equipment used in South Africa compared to here, such as chest drains, airway adjuncts, monitoring equipment. However, there was a noticeable difference seen in the quality of certain things such as the suturing equipment. Due to the high demands of suturing required in the trauma department, there is not much money funded towards disposable suture kits and the instruments are sterilised and used again. The problem with this was that the

instruments are used so much they are no longer the best quality equipment to be using, it was sometimes difficult to penetrate the skin adjacent to the wounds and often I found the needles bending. Also there were days that equipment was not sterilised quick enough to use on the high numbers of people requiring suturing where a noticeable difference in health care was seen as this is extremely unlikely to happen here.

It was interesting to see that the trauma department is one of the most well funded departments in the hospital. I spent some time following up a paediatric case that had presented to the trauma department and was transferred to the paediatric ward and there was a noticeable difference in the state of the ward as compared to the trauma department. The specific ward for trauma patients was also considerably better than some of the other wards although you could see the ward received far less money than the unit, where the unit's standards would be comparable with that of The Royal London and the wards were typical of a third world.

The major difference in pre-hospital care to a trauma patient presenting to the hospital is that they are brought in by a variety of different ambulance organisations where as comparing this to the UK there are structured 999 calls in place with one ambulance service. This may mirror the levels of trauma seen out there and the fact that medical services aren't as well structured or there is not enough money for these types of services.

Observe minor and major trauma management/acute medical/surgical emergencies. To undertake clinical and practical skills where possible according to level.

I was exposed to a great deal of major and minor trauma management. I primarily saw P1 and P2 traumas but when P3 patients arrived we were encouraged to get involved in their resuscitation. When the trauma department was not busy we were also encouraged to see surgical patients, medical patients however presented to a separate area.

I had a lot of opportunities to examine patients and perform practical skills such as blood taking, cannulation, putting up drips etc. I had a chance to go to theatre for a trauma case and I was also able to scrub into an emergency surgical operation where I was the first assistant to the surgeon in both cases. In both operations the surgeon allowed me build on my existing skills in theatre such as the use of diathermy.

Suturing was one of the main skills that I got to practice and improve upon significantly. I went from not having sutured on an awake patient before and only suturing once or twice in theatre to becoming confident on working on awake patients and using local anaesthetic which I never before done. With the level of trauma seen in Johannesburg there were many types of injuries that required suturing which allowed me to test my skills and judgment in the placement of sutures.

Gain an understanding of minor and major trauma management. Gain confidence in the management of trauma.

I have learnt that management of trauma is the same wherever you go in the world and comes down the basic approach of ABCDE. However, this could be because it is very well funded so the management can follow the ABCDE approach well and may differ in a poorer resource deficient area. The only difference that I saw in the management of patients in Johannesburg compared to the UK was the use of a lodox machine that was a full body x-ray machine. They used this on all P3 trauma patients, often it had no real bearing on

the management of the patient so its usefulness could have been questioned, but it seemed to be part of their protocol. FAST scans were preformed in trauma patients that presented with a possibility of internal bleeding from stab or gunshot injuries. This is something that I probably wouldn't have expected to be done as I had the preconception that the resources wouldn't be as available as they are in the UK. Having said this there were some differences i.e. x-rays were still read by film and you would have to ring up for blood results as there was no internal computer system.

By the end of the elective I felt far more confident in suturing, where I was able to suture areas that required more skill and experience and were more difficult technically, such as the nasolabial fold regions and lips. Often this is work that is reserved for the plastic surgeons back in the UK. After much suturing exposure I became more confident in my ability and felt I was able to now teach somebody else to suture, so I taught a medical student from the university there how to suture, who had never done it on another person before but had only practiced on artificial material. When reviewed by a senior who saw her first attempt at suturing they said that it was good which increased my confidence further that I had successfully taught someone how to suture but that they also felt more confident in tackling their next case with less assistance.

The registrars and foundation doctor equivalents were very encouraging in us enhancing our skills but also being mindful of our limitations or when we felt out of our element. They welcomed questions understanding the difference of the experience of trauma here and back home i.e. different types of injuries and sheer number of injuries. They took time to teach us and also called us when an opportunity to practice a skill came up or a more difficult case to suture. We were also encouraged to pick up new skills such as C-Spine stabilisation which is something not routine practiced by medical students in London and part of the ATLS course taught at a postgraduate level.

In conclusion, I feel I have learnt a great deal from this elective, enhancing my skills and knowledge of trauma but most importantly becoming a more confident doctor.