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Elective Student Report

Trauma at Tygerberg Hospital

1) Describe the patten of disease/illness in South Africa and discuss in the context of global health with particular attention to major trauma.

My time in Tygerberg has predominantly been spent in the trauma front room where all new cases of trauma are triaged, assessed and managed. A significant number of trauma cases that appear at Tygerberg are due to violence, including stabbings, gun-shot wounds and assault. This is sadly a reflection of the current state of violent crime in the Cape, and South Africa in general. The days which are busiest are on the days when people are paid or on public holidays, where alcohol consumption increases the incidence of violent assaults exponentially. What can be seen is how such violence can dominate a trauma front room, for instance I remember one Friday night where ten patients with gun-shot wounds were lined up in the hallway awaiting assessment whilst a further four stab victims were being sutured. In terms of other trauma, there are also numerous motor vehicle accidents, particularly of pedestrians crossing major motorways unsafely, resulting in significant injury. Whilst there are violent trauma cases and MVAs in the UK, there are significantly more here than in the UK.

My time in Tygerberg has also demonstrated the high levels prevalence of tuberculosis (TB) and HIV in the region. Numerous patients that I have seen have been HIV positive and many have either a current TB infection or a history of past infection. I even clerked a patient who had attended the hospital for a fractured foot but on auscultation of his chest I was concerned and ordered a chest X-ray only to reveal a significant TB infection.

I have also experienced first hand the danger of working in the medical profession in an area with high HIV prevalence. I received an eye splash exposure whilst suturing a patient

and was taking post-exposure prophylaxis for a while until the patient's HIV status results came through. It was a nerve wracking time, however I was lucky and the patient's test was negative. There are at least five exposure incidents a day in Tygerberg, and each carries a risk although there have been no seroconversions from an exposure since 1985. This demonstrates the impact of this disease on healthcare professionals in the Cape and South Africa as a whole.

2) Describe the pattern of health provision in relation to South Africa and contrast this with the UK

Tygerberg hospital is the second largest hospital in the whole of the African continent, it is a tertiary care centre and is staffed with most specialties. The physicians and surgeons and nurses are fantastically well trained, and operate smoothly and calmly in the extremely busy trauma department. They are always willing to teach and offer the patients the best care they can. However, despite this and the enormity of the number of attendees, particularly to the trauma department, resources are limited and there are often occasions where resources are lacking.

The facilities in the trauma department are currently being renovated and so there will be a huge improvement to the facilities available to the department, yet at the moment it is often the case that patients remain without a bed in the waiting room after assessment. In cases where a patient needs to be resuscitated, there are no non-rebreather masks available, which is the standard resus mask in the UK. Monitoring of the patients is also limited with only a handful of functioning obs machines and ECGs, making assessment difficult, particularly in acute situations. The doctors work well with the resources they have however are often frustrated when care is limited by the simple issue of a lack of resources. This occurs significantly less in the UK as most hospitals are well stocked with basic resources. In many cases availability of certain imaging such as CT is also as limited in the UK as here, especially in the middle of the night, but in general, resources are a significant problem here.

3) Consider the causes of trauma in South Africa and explore how these causes could be reduced

The number of incidences of violent crime markedly reflects the social and political environment in South Africa. The majority of these cases emerge from the townships, the poorest areas of Cape Town, where living conditions are poor and tensions run high from the desperate situation. Many cases of stabbings that I have seen have been simple robberies, where a phone has been stolen, and an attempt to prevent the crime results in violent retaliation from the perpetrator. Other cases reflect the gang crime in the townships, with what appears to be seemingly unprovoked assaults on rivals in other gang territories. In addition to this the incidence of domestic violence is high, and a huge number of assaults are committed on family and partners. Sometimes however, and most upsetting are the assaults on the innocent, those not involved in gang warfare that are caught, sometimes quite literally, in the crossfire. For instance I assessed a nine year old boy who had been playing in the street when a shooting occurred and he was injured unintentionally. The poverty in the townships is also sharply contrasted with the wealth in many areas of Cape Town, thus demonstrating a disparity that acts as a reminder to those that have little, the harsh conditions they live in and of the remnant effects of the ghost of apartheid, breeding an anger that sadly is expressed with violence. There is no doubt great changes need to happen to ameliorate this situation, however hopefully in time things will change.

The number of traumatic injuries and fatalities can also be markedly reduced with education. Too many preventable accidents occur from crossing dangerous roads, or not wearing seat belts, which could easily be changed.

4) Become more comfortable and proficient in emergency care and emergency medical procedures and practice as many as possible and gain a good understanding of good trauma and emergency management

My time at Tygerberg has provided me with a wealth of opportunities to practice various medical procedures. As mentioned earlier the doctors here have been very open to teaching and allowing us to learn on the job, enabling me to try many new things. I have thus far: sutured numerous wounds, managed patients airways, cannulated, drawn blood, assisted in surgery, performed CPR, immobilised fractures with back slabs, to name but a few things. It has been a fantastic opportunity and I have also learnt a great deal from observing and assisting in numerous cases, thus gaining a greater understanding of the management of trauma in general.

Conclusions

My time at Tygerberg has taught me a great deal, not only about trauma, but healthcare in South Africa as a whole. I have also gained a greater understanding of the socio-political side of Cape town, and how this impacts on the incidence of violent crime. I wish I could extend my time here further, but have thoroughly appreciated the limited time I had.

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