ELECTIVE (SSC5c) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

South Africa is, without a doubt, the most interesting country I've ever visited. The sheer level of income inequality is painfully obvious at every turn, with Vegas scale casinos and bright flashing lights literally opposite a motorway to areas of crippling poverty. The policy of apartheid in the 20th century is largely responsible for this discrepancy and has provided a breeding ground for violent crime to thrive. The trauma seen in South Africa is very, very different to the trauma seen in the UK and is comprised of a much larger percentage of penetrating injuries. The widespread availability of guns in this country also means that significant numbers of gunshot wounds are seen, especially when compared to the UK. I am still a firm believer that strict gun control, as implemented in the UK and Australia, can be an effective strategy at tackling the number of trauma deaths in any country, even one like South Africa where violent crime is so prevalent.

There is a two-tiered healthcare system in South Africa where the wealthy minority tend to receive treatment in well-resourced private hospitals and the impoverished majority tend to receive treatment in severely underfunded state hospitals. This also applies to trauma, where paramedics will inquire about whether patients have insurance and will take insured patients to private centres. Trauma care is highly organised in South Africa, and although there is no designation system equivalent to the 'Level I' or 'MTC' schemes in the US and UK, the paramedics know which centres are equipped with which facilities, and tend to bring patients to appropriate centres. The two largest hospitals in Johannesburg (the Gen and Bara) are both equipped with their own separate trauma casualty units that have resuscitation bays, low-dose radiation x-ray scanners, and stitch rooms. Trauma surgery handles most of the trauma cases by themselves, although there is 24-hr input available from other specialties including neurosurgery, cardiothoracic, and orthopaedics if need be. Minimum staffing levels include two SHO-equivalent doctors physically in the trauma pit, plus a registrar and consultant on-call 24 hours a day.

The strength of this system means that critically ill patients come to the attention of a highly trained doctor very quickly, and there isn't any waiting around for a 'trauma call' to be made across the hospital. This streamlines trauma care and ensures that patients needing resuscitation get treatment faster than they would at most centres in the US and UK. The major drawback to how this system is that you tend to only get a one-specialist view of many of these patients, and treatments may not be as tailored to the patient's individual needs as it should be. An example of this that I encountered on a shift was where the surgical registrar was ready to sedate a patient with ketamine in order to apply traction to a broken femur, whereas the ED registrar (who was only coincidentally on shift with trauma) had the idea to do an ultrasound-guided femoral nerve block, which saved the patient a substantial risk that would have been taken otherwise. Additionally, the chronic underfunding of state hospitals in this country means that the units aren't always properly stocked, and it can sometimes be impossible to give appropriate medications, fluids, or interventions. Another night I was on shift, we ran out of stitch packs, which meant that we had to use inappropriately sized hand sutures in order to provide wound closure to a number of patients.

I have been taught a lot about coagulopathy, acid-base physiology, and renal failure as it pertains to trauma care. The international observers at the trauma unit, who are qualified doctors from other

countries, have been an invaluable teaching resource in this sense. I spent a good three hours one-to-one with Dr Asiri, a visiting consultant from Saudi Arabia, going through the specifics of acid-base physiology. Dr Lee, a visiting registrar from Canada has also spent a significant amount of time with me teaching me about trauma coagulopathy and interventional radiology techniques in trauma.

In this sense, my experience in South Africa has been absolutely incredible. I've had the opportunity to lead a significant number of resuscitations and practice a wide range of clinical skills related to trauma care, including tube thoracostomies, central lines, rapid sequence induction anaesthesia, and focused assessment with sonography in trauma. I feel like my ability to lead a team has improved substantially and I am definitely more confident in managing critically ill patients by myself. I feel like, especially compared to many of my peers who will be returning from very relaxed electives at beach holiday destinations, I'll settle into foundation training much more easily.