

ELECTIVE (SSC5c) REPORT (1200 words)

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

1. What are the prevalent causes of injury and illness within an emergency medicine context in Guyana? How do they differ from the UK?

Motor Vehicle Accidents (MVA) are a very common presenting complaint – patients present daily after an MVA, often between car v bicycle, or car v motorbike. This is possibly exacerbated by limited enforcement of traffic regulations, no drink and drive campaign, poor street lighting, no pavements and generally poor road conditions. Driving under the influence is seemingly common and relatively accepted. Due to the nature of the climate many patients wear shorts and flip flops, which provide poor protection and skin trauma/lacerations are therefore very common. The wearing of helmets on motorcycles / mopeds and seat belts in cars does not seem to be compulsory or, alternatively, enforced. Head trauma is also relatively common following an MVA. While MVAs are not uncommon in the UK the enforcement of traffic laws, compulsory wearing of safety equipment (helmets, seat belts) would appear to do much to reduce the injury rate.

Tropical diseases: malaria, dengue fever, chikungunya, are all unlikely to be seen in the general population in the UK, although should always be suspected in the returning traveller with fever. The medical team in Guyana are skilled at recognising these illnesses. Treatment can therefore be initiated quickly as there is a naturally high index of suspicion and familiarity with the disease pathology. Snakebites are common in Guyana, and not likely to feature in the UK. The pit viper venom in Guyana has a high mortality rate – causing widespread haemolysis. Despite the common occurrence of snakebites there is no anti-venom in the Georgetown Public Hospital and treatment is supportive only.

There is a relatively common late presentation of chronic conditions, e.g. cancer, TB, heart failure, diabetes. This may be either through an unwillingness to attend the health services, lack of ability to access the health services (some of the population is very remote), lack of confidence in the health services, concerns about costs of treatment, or lack of education or awareness of how serious a condition might be. Although late presentations do occur in the UK, the impression is that this is at a far lesser rate than Guyana, and treatment is therefore often more effective.

2. How are emergency medical services organised and delivered in Guyana? How does it differ from the UK?

A new ambulance service was set up approximately one year ago: while this is a nominally a national service – the reality is that it is probably not a feasible option for injury or illness in the Interior where access is mainly by air, or else a lengthy drive overland. Many patients from the Interior will take riverboats to the nearby town of Farika and then road transfer to get to Georgetown if coming from the more remote areas – and this can take many hours. The ambulance service would appear to be a more viable option in the more densely populated areas of Guyana, e.g. along the coastline. Air evacuations do occur from the Interior – but flying at night is not feasible, and the service is arranged privately.

Emergency medical services are generally very heavily stretched. Similar to the UK, many of the problems facing the services here is the inability to move patients on to an admitting ward, or arrange for further treatment of a condition once the patient is stabilised. Bed blocking is a daily battle for the A&E department. It is not uncommon to see a patient in A&E for 24 hours or more waiting for a bed.

Within Guyana the health system is a mix of private and public hospitals. Some patients will initially attend private hospitals, but if their funds run out can be transferred / referred across to the Georgetown Public Hospital. There are cost implications for patients for ordering some tests, e.g. CT scans, where hospital will pay part of cost, but the patient is expected to pay the other part. This can cause difficulties as the cost of a CT scan is roughly the cost of the average monthly salary. Medications are issued for free.

3. Examine the use of pulse oximetry within the anaesthetic and surgical setting and the steps being taken to improve patient safety.

Pulse oximetry is a vital asset in the management and monitoring of unwell and/or surgical patients. Within Guyana access to pulse oximetry is generally severely limited. Theatres, ICU, HDU and parts of A&E have wall mounted monitoring equipment, but the general wards often rely on medical staff to have their own personal pulse oximeters. As a result there is a drive by Lifebox, a UK supported charity, to ensure that there are sufficient pulse oximeters in the various hospital departments. A number of portable pulse oximeters have been donated. This has allowed the higher risk departments to have additional monitoring equipment and therefore provide a degree of redundancy for equipment failures. Other departments have been given their own pulse oximeters, where previously they have had none. By allowing minute to minute monitoring of an unwell patient clinical staff can be alerted early to any deterioration in the patient's condition.

4. Improve clinical judgement skills, particularly within a resource limited setting and reflect on how it may be used to improve my abilities to make decisions and manage difficult situations as a junior doctor.

In a resource limited setting the emphasis must be on clinical reasoning: working out the most likely illness, and the most dangerous illness. Rafts of (unnecessary / confirmatory / physician reassuring) tests should be avoided due to cost, time and resource limitations – e.g. there is no Arterial Blood Gas machine in A&E, standard biochemistry and blood tests routinely take up to 6 hours to be turned around and the results given to the initiating doctor. The clinical situation could well have moved on by the time the results are back. It is therefore more time and cost efficient to restrict tests to those that are actually going to make a difference in patient management.

The importance of taking a good history is further reinforced in a resource limited setting. This includes asking the patient what is their greatest concern and why they presented today at this moment. Often the reason that a patient presents to hospital is due to pain – and that is their biggest priority. After that, medical priorities, such as decreasing blood pressure can be addressed. Medical professional priorities should probably take second place to a patient's priorities – unless there is an immediate risk to life (in which case both patient and medical professional priorities are likely to be aligned!).