

Elective Report 2014 - Western Regional Hospital, Belmopan, Belize

1. Describe the needs of the population with regards to anaesthetic care and contrast this with the U.K

Due to the size and population of Belmopan, advanced surgical procedures are often referred on to the larger hospital in Belize City. While surgeries are carried out at Western Regional Hospital, they are often elective surgeries of grades 1-3. Surgeries of grade 4 and emergencies are referred onwards. This is largely due to the equipment available at Belmopan. The monitoring equipment needed for basic anaesthesia is available (such as electrocardiography and capnography), however more advanced equipment (such as LIDCO and cardiac output monitoring) is only available at more specialised and higher funded areas.

In this sense, the provision of anaesthetic care is similar between the U.K and Belize, however the difference feels more significant as the bulk of our training has been carried out in large hospitals that serve huge populations, such as The Royal London hospital and Queens Hospital, Romford. These hospitals therefore, have all the anaesthetic equipment required to deal with any emergencies that arise. As Belmopan has a total population of approximately just 14,000 people, it is difficult to contrast the provision against the U.K without going to a hospital of roughly equal size, funding and population of patients served. Overall the needs of the population with regards to anaesthetics are met, but due to a lack of funding and staffing levels, the availability of the care in emergencies is reduced and the increased time to treatment does have a negative impact on the provision of care.

2. Describe the provision of anaesthetic techniques and perioperative care and contrast this with the U.K

At Western Regional Hospital, just as there is limited availability of anaesthetic equipment (albeit sufficient to match the needs of the population), the same is true in terms of anaesthetic staff. There are two operating theatres available, although only one anaesthetic doctor is ever available. This means that anaesthetic care takes a more complicated route, similar to the way consultants provide instructions for junior doctors to carry out on the wards, the anaesthetic doctor relies heavily on anaesthetic nurses to be able to carry out a large amount of the care based on his or her instructions.

While this works to serve the needs of the population, which is somewhat less complex at Western Regional Hospital when compared to many of the hospitals in North East Thames, there is an inherent risk in having nurses carry out some of the more advanced anaesthetic techniques without any formalised training programs. However, given the nature of the services provided in Belize, the nurses that do provide this care provide excellent care, and as such while it is difficult to compare this with the care provided in the U.K, in which anaesthetists form the largest specialty of any hospital doctors, the safety of the patients still seemed to be paramount and they appeared to be safely taken care of.

With regards to surgical procedures, patients are induced within the operating theatre, as there is no specialised area for this. While this invariably increases the time that surgery takes, the low population of Belmopan means that they are not bound by the same target-driven systems as the NHS. The waiting times for surgery are not particularly excessive and this allows the surgical team to ensure that the patient is safe without being overly concerned about clearing room for the next surgery.

A large role of the anaesthetists in the U.K, as providers of emergency care and working in the Intensive Treatment Unit, are not responsibilities held by their counterparts in Belmopan. An example of this is seen in crash calls, where there is no dedicated team, nor a dedicated number to call. Rather, due to the small size of the hospital, someone will literally find and call doctors one by one that are relevant to the crash happening. In addition, while an intensive treatment unit does exist, there is essentially no difference between that unit and any of the other wards. In Western Regional, the wards exist more to differentiate what doctors and nurses you will find rather than any sort of specialised equipment. Beyond the adoption of alcohol gel, there are not great amounts of effort placed in infection control, and the ITU consists of no specialised equipment.

3. Develop anaesthetic technique experience within a tertiary care centre.

There was plenty of opportunity to get a clearer understanding of anaesthetic techniques, thanks largely due to the relatively low number of anaesthetists available. Thanks to the low demands of the local population this allowed the available anaesthetists more time to teach us about airway management techniques, such as intubating and insertion of laryngeal mask airways. There was also plenty of opportunity to practise the skills that will be more commonly required as part of my work next year, such as cannulas, phlebotomy, ABG's and oxygen delivery and management.

We were also encouraged to take an active role in fluid management and insertion of catheters, which were all skills that we will need to be proficient in by the time we begin work next year, so as a whole it was very useful to be able to take advantage of this opportunity.

4. Develop an understanding of how anaesthetic care can be affected by varying provisions of healthcare.

As established previously, Western Regional Hospital serves a very small population and as such it is difficult to provide the levels of anaesthetic care that a hospital such as Queen's Hospital (which serves approximately 120,000 people a year - around eight and a half times the population of Belmopan) can. The low levels of healthcare provision make it impossible to deal with a large number of situations as effectively as would be ideal. The major consideration is the lack of sufficient emergency care at the hospital. There were several instances in which an emergency would be considered too severe to warrant taking a patient to Western Regional and instead they would be taken straight to Belize Hospital. However this is a journey that takes over an hour and due to poor driving conditions throughout the country, and frequent speed bumps

on the highway, it is a journey that is impossible to do quickly. As there is no helicopter emergency services available in the country, there were multiple instances in which we were told stories of patients that had died enroute to Belize City, or died later at the hospital, with the impression that this was often due directly to the long transfer time.

The time spent at Western Regional Hospital helped reinforce the importance of needing to be able to provide all forms of care to a population and the huge impact that having the correct equipment can have. This has resonated with me the importance of ensuring that a system as important as the NHS not be allowed to fall apart. It has highlighted the role that a national healthcare system has in being able to ensure that all of its citizens are able to access the healthcare they require in a timely manner.