Elective Report

Salem Shawaf
090007220
Dates: 7th April – 15th May 2015
Host Organisation: Western Regional Hospital, Belmopan
Elective Country: Belize
Supervisor's name: Bernadette Nicholson, Hospital Administrator
Contact details: rhasouth@yahoo.com

Background

Western Regional Hospital is a small local hospital in Belize's capital, Belmopan. Despite Belmopan being the capital of Belize, Belize City is larger and thus has a more advanced hospital which provides care for a greater proportion of the population. Belize has both state-funded, such as Western Regional Hospital and private healthcare provisions – however it seemed that most doctors worked within both. The public healthcare is regionally split by its geography into north, east south and west regions.

Western Regional Hospital provides both primary and secondary care services in addition to specialities including surgery, gynaecology, obstetrics and paediatrics. The hospital consists of 2 main wards containing around 15 inpatient beds each. The general ward services include paediatric and adult beds, care for pre- and post-surgical patients and two intensive care beds. The accident and emergency contained two resuscitation bays and multiple consulting rooms. The maternity ward was a large ward with two side rooms and 12 beds in three bays.

Objective 1 - Describe the pattern of disease/illness of interest in the population with which you will be working and discuss this in the context of global health

Summarise the similarities and differences in anaesthetic requirements amongst patients from Belize and the UK.

There are only two operating theatres located within Western Regional Hospital, thus advanced surgical procedures are often referred on to larger hospitals located around an hours drive away in Belize city. The majority of operations that are undertaken at the hospital are obstetric and gynaecological procedures. Dilation and curettage procedures were the most common therapeutic procedure I had witnessed as a treatment in the case of missed or incomplete miscarriage. The maternal mortality rate of Belize is 45 per 100,000 live births and the country has an adolescent fertility rate of 70 births per 1000 women aged 15-19 [World Bank Group, 2013]. This is in stark contrast to the UK's maternal mortality rate of 8 per 100,000 live births and 26 births per 1000 adolescent women in 2013. The reason for this difference was that many expecting mothers would not have seen a healthcare professional prior to presenting at the time of labour or miscarriage. Emergency caesarean sections were common and predominantly performed due to pre-eclampsia or foetal distress.

The other predominant surgical procedures requiring general anaesthetic were emergencies such as trauma from accidents and violence. Gang-violence is the strongest contributor to Belize's murder

rate, I was told about many bullet and knife injuries that required rapid sequence induction and emergency life-saving surgery.
A further difference in the anaesthetic requirements amongst Belizean patients is the diseases which are prevalent in the country such as malaria. Malaria influences the choice of drugs that can be administered to patients requiring sedation as the parasite influences hepatic, neurological and cardiopulmonary function. Generally it is recommended that surgery is postponed until the malarial episode has responded to treatment, however in the case of pregnancy or trauma this may be inevitable.

Objective 2 - Describe the pattern of health provision in relation to the country which you will be working and contrast this with other countries, or with the UK

Outline the provision of perioperative care and anaesthetic techniques in Belize and discuss how this differs with that of the UK.

There was a marked difference in the anaesthetic care provided in Belize when compared with that seen in UK hospitals. There was only ever one trained anaesthetist present during the day, whilst one would be on-call in case of emergency. This put a large onus on the anaesthetic nurses, of which there was typically also only one at any given time.
Prior to any operation the patients would be lying on a bed in the hallway of the surgical department before being brought in to the operating theatre and transferred, whilst awake, on to the operating table. In the UK, all operating theatres have their own anaesthetics rooms attached where the patient is monitored, made comfortable and reassured before being sedated and brought into theatre. There were also no safety checks performed prior to the start of any operation, completely disregarding the WHO Surgical Safety Checklist.
Simple monitoring providing electrocardiography, blood pressure and capnography was available in theatre, however as the operations finished patients waking up would often be transferred to a ward without any monitoring available. In the UK patients are brought to a recovery ward to wake up where they are intensively monitored with a specialist nurse that regularly oversees the patients observations and administers prescribed pain medication according to that patient's needs.
General anaesthesia was avoided as much as possible, particularly for gynaecological procedures and midazolam and ketamine were commonly used for mild sedation without the use of any airway adjuncts and simple bag valve mask ventilation was administered by either the anaesthetist or the nurse. For minor surgery and procedures the anaesthetist would often leave the theatre to prepare drugs for the current or next patient leaving the anaesthetic nurse to ventilate, monitor and oversee the rest of the procedure.
Gloves were not used during cannula insertion, drug and fluid administration or bag valve mask ventilation and alcohol gel was not universally used – these are basic infection control techniques which are strictly adhered to in the UK.

Objective 3 - Health related objective

Develop anaesthetic skills whilst also gaining a greater understanding of the speciality.

During my time at Western Regional Hospital I had many opportunities to develop skills which will benefit me not only in my pursuit of a career in anaesthesia but also for my imminent employment

as a foundation year doctor. I was able to cannulate, venepuncture and provide airway and oxygen management. The anaesthetists I had the pleasure of meeting were very friendly and happy to answer any questions we had.

Objective 4 - Personal/professional development goals.

Gain insight into healthcare within a different social and cultural environment.

Despite public healthcare being available in Belize there is a difference to the NHS which is largely dependent on the amount of funding available to Belize's government. The economy is poor and this is evident in the inadequate facilities present. Operating theatres seemed old and tattered, the general wards were hot and had poor ventilation, non-sterile gloves were rarely used due to their cost and within the surgical department a fan was pointed at an open freezer to lower the temperature as the cost of air conditioning was too high.
However despite all the limitations to the provision of care that I myself am used to, I was impressed with how well all the staff were coping and the level of service they were able to provide to their patients.
Despite Belize being an English speaking country I did find that there was a language barrier with many patients speaking only Creole and some only Spanish, however all staff were fluent in English. Many of the doctors working at the hospital were from or had trained in neighbouring countries, particularly Cuba. I was very surprised to find out that Cuba is actually the leading provider of medical personnel to the developing world.