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Elective Report 2014 – Western Regional Hospital, Belmopan, Belize

1. Describe anaesthetic techniques in Belize and outline their similiarities and differences from the UK

The anaesthetic techniques in Belize are quite similar to that of the UK. Provision of anaesthetics involves the same induction procedures as those I have encountered with the United Kingdom. Monitoring equipment for basic anaesthesia is similar including electrocardiography, plesthismography and capnography. However, more sophisticated monitoring techniques, such as cardiac output monitoring such as LIDCO, are not available.

2. Describe the provision of anaesthetic and perioperative care and contrast this with the United Kingdom

Anaesthetic care in the Western Regional Hospital is very different from that in the UK, particularly in major trauma centres. At any given time there is only one anaesathetist available to look after the two operating theatres. Because of this, anaesthesia is typically provided by anaesthesia nurses with the doctor supervising and advising as necessary.

Anaesthetists are not routinely part of emergency medicine in the Western Regional Hospital. Crash calls are handled quite differently. Rather than a centralised crash number like in the UK, doctors are required to call the individual specialties as they feel necessary.

Prior to surgery, induction occurs within the operating room. This results in a slower turn over of surgical cases, however as there is only one anaesthetist in the hospital most of the time, this ensures that anaesthesia is provided as safely as possible. This also works within the contraints of the hospital, where facilities and resources are more scarce then in the United Kingdom.

Finally, post operative care provision is not as advanced as in the UK. The most noticeable aspect of this is the lack of intensive care provision. While an intensive care unit does exist, it is an intensive care unit in name only. The facilities in the unit are similar to that of a normal ward (except for the provision of air conditioning), and the nursing is provided by the nurses who look after the patients on the ward simultaneously. There are no specialised intesnivist care doctors, and anaesthetics plays much more of a back seat role than it does in the United Kingdom. Care is provided primarily by the specialty who they were under prior to admission – for example a cardiology patient on intensive care will predominantly be looked after the cardiology team.

3. Develop my experience of anaesthetic techniques within a tertiary care centre

I was given ample hands on experience to improve my competency wthin the field of anaesthetics. I was encouraged to improve my techniques for airway management in particular, being given ample opportunity for the insertion of endotracheal tubes and laryngeal masks. In addition, more transferable skills, such as inserting cannulae and phlebotomy, were developed extensively as well.

I was encouraged to develop my understanding of induction and exploring the effect of various patient's comorbidities on the induction process. I was actively encouraged to participate and was often given one to one supervision for the day.

4. Develop an understanding of how regional patterns of morbidity affect anaesthetic care provision.

The pattern of illness in Belize is markedly different from that of East London. Conditions common in Belize that are not prevalent in London include malaria, dengue fever and cholera. In addition, HIV/AIDS is prevalent.

For example. anaesthetising a patient with malaria requires a number of different considerations. Pulmonary oedema is quite common in advanced disease, and small amounts of respiratory depression will result in a marked increase of arterial carbon dioxide concentration, which can cause dilation of cerebral vasculature and result in cerebral oedema. This influences many aspects of anaesthesia – for example, in these patients isofluorane is used over other inhalation agents as it causes less cerebral dilatation. In addition, ketamine is contradicted in these patients as it may cause cerebral oedema.