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Elective report

Floating Doctors, Bocas Del Toro, Panama

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Elective objectives

1. **How does Floating Doctors operate as a health service?**
2. **What are the common medical presentations that occur in Panama?**
3. **Is malaria a common medical condition in Bocas Del Toro, Panama?**
4. **Improve my clerking, examination and communication skills, and improve my understanding of tropical diseases. Reflect on my overall experience with Floating Doctors.**

1. How does Floating Doctors operate as a health service?

Floating Doctors is a non-profit charity that was founded by Dr Ben La Brot in 2010, and is currently based on an island called Isla Colon in the Bocas Del Toro region, Panama. Floating Doctors delivers medical care to patients who live in remote rural communities in the Archipelago de Bocas del Toro region, who would otherwise not have access to health care. Floating Doctors regularly visits and is the primary care provider for more than 25 key communities over a 500 square-mile area, that are located across small islands and mangrove swamps.

Generally, the schedule is divided into two week blocks; with alternating week long multi-day clinics and the second week entails several single day clinics and visits to a local geriatric centre called Asilo. The single-day clinics involved setting up clinics for local villages that neighboured Isla Colon, whereas the multi-day clinics involved visiting islands that were much further away and setting up a week long clinic to deliver healthcare to remote communities. A typical single day clinic trip involved setting of early in the morning by boat to neighbouring islands, and carrying all of the equipment from the boat, through muddy mangrove swamps up to the community rancho, where we would set up our clinic. The clinics were organised into separate stations. So a typical patient journey started with the patient registering with our administrative staff at the 'registration station'. Subsequently, the patient would then go to the 'intake station', where they would be seen by one of the nurses for an initial clerking, whereby the nurse would take a brief history and measure and record all of the patients vitals signs which included height, weight, BP, pulse rate, respiratory rate and temperature. After this, they were then seen by the doctors at the 'providers station', which was were I was placed. At this point, with the help of a translator, I would take a full patient history and then examine the patient. In some instances when it was necessary to undertake a more invasive examinations, such as internal vaginal or digital rectal examinations, we would examine the patient in their house to maintain privacy.

We had some basic investigations available, to help aid diagnosis which included blood glucose, haemoglobin, Snellen charts, urine dipstick and pregnancy tests, however predominantly our diagnosis was made through the patient history and examination. Additionally, we were fortunate enough to have a portable ultrasound machine that had been kindly donated to Floating Doctors, which proved to be an invaluable imaging modality. This meant that we could provide basic obstetric care and follow up women throughout their pregnancy. Another example of the use of US was for a 54 year old man who presented with epigastric abdominal pain that was radiating to his back. One of my main concerns was that this gentleman might have an abdominal aortic aneurysm (AAA); having the US as an investigative tool was so useful, as we were able to exclude this potentially life threatening condition on US.

As a junior provider, I would discuss my differential diagnosis and preliminary management with one of the senior doctors. Treatment wise, we had a mini-pharmacy with us that was stocked with analgesia, topical and oral antibiotics, topical and oral antifungals, antihelminitics and some basic medication for long term conditions such as diabetes and hypertension. Additionally, a huge part of our care was to deliver patient education. With each consultation, we would educate the patient about the need to drinking enough water, and to ensure that their water source was clean and encourage basic hygiene, and we would provide the patient and their family with soap, tooth brushes and toothpaste.

The setup at the multi-day clinics was similar, however the communities were much further away, which meant longer boat journeys and extremely strenuous, long hikes through mangrove mud swamps, precariously balancing on wooden logs, whilst lugging extremely heavy equipment! We would then stay in the community for the week, sleeping in hammocks and eating rice and beans for breakfast, lunch and dinner. The advantage of being based within a community for a week was that we could follow up patients that we were concerned about and provide continuity of care.

2. What are the common medical presentations that occur in Panama?

Approximately 90% of our patients were young children, between the ages of 0-4 years old. The most common paediatric presentations were communicable diseases, most notably scabies, head lice, worms and gastroenteritis which our pharmacy was well equipped at treating. As well as treating the condition it was extremely important to educate the parents about the condition to help prevent re-infection, the importance of basic hygiene and the need to keep their children hydrated, as often children were only drink one or two cups of water per day. Additionally, I was really struck by the poor dentition of the children, which unfortunately reflected the consumption of Western sugary drinks such as coca-cola. I am really interested in a career in paediatric medicine, so it was a fantastic learning opportunity for me and it gave me an invaluable insight into paediatrics presentations in a developing country which has broadened my understanding of tropical diseases.

The majority of the women presented with obstetric and gynaecological problems, particularly symptoms suggestive of sexually transmitted infections (STI). Initially I was really surprised by this, however I learnt that in this particular culture polygamy was common. I noticed that the women seemed more open at discussing these particular complaints with female doctors and translators, and seemed more reluctant to discuss this with male colleagues. Clearly, it was

really important to examine women with symptoms suggestive of STI; however at our clinic we did not have anywhere private to do this. Therefore, we would examine the women in her house if she lived locally or in a neighbouring house close to the clinic. This certainly pushed me out of my comfort zone; donning a head torch as a light source and examining a woman in a wooden hut. A second challenge was that we were unable to take any vaginal swabs for microbiological examination, which meant that we were treating infections blindly and we were unable to provide adequate follow up as each clinic is visited roughly every 3 months. This contrasts greatly to the UK, were the patients infection would be identified, treated and followed up to ensure that they had adequate treatment, as well as treating the patients sexual contacts.

The most prevalent male complaints were secondary to their occupation of manual labour. Frequently men complained of musculoskeletal back pain and eye strain from the sun. However, on one occasion one of the doctors clerked a patient who presented with back pain with several red flag symptoms of significant weight loss, night pain and prostatic urinary symptoms which unfortunately were highly suggestive of malignancy. Additionally, I clerked a patient who presented with vague eye complaints and headaches which could have been dismissed as sun-induced eye strain. However on cranial nerve examination, the patient had bitemporal hemianopia visual field defect that might point towards a pituitary enlargement, classically a pituitary adenoma. Both these cases really highlighted to me the importance of taking thorough histories and examinations and the importance of being extremely vigilant and alert to underlying sinister pathologies, and not to dismiss patients presenting complaints with preconceptions.

3. Is malaria a common medical condition in Bocas Del Toro, Panama?

Last summer, I spent one month volunteering in a hospital in Uganda, where malaria was extremely prevalent. Before starting my placement with Floating Doctors, I thought that malaria was going to also be a common medical diagnosis in Panama. However, it quickly became apparent to me that malaria is not prevalent in Bocas, and when it does rarely present it is not the life-threatening *Plasmodium falciparum* (*P. falciparum*) strain. From discussion with the senior doctors and from observation, the most common tropical infection in the Bocas region was helminth infection, such as hookworm (*Ancylostoma duodenal* and *Necator americanus*) and roundworms (*Ascaris lumbricoides*).

The main symptoms of helminth infection are gastrointestinal upset; therefore a lot of our patient's symptoms could fit the diagnosis of helminth infection and mask other important diagnoses. The danger of this is that it can lead to lazy and dismissive medical practice. On the one hand helminth infection is extremely common, it was absolutely vital to be very thorough and vigilant, and to constantly consider other diagnoses. One of the challenges of practising medicine in a developing country is the difficulty in isolating the specific strain of helminth. This is because at Floating Doctors we did not have access to microbiology examination, and additionally it would have been extremely difficult to gain a stool sample from the patient, as this would be seen by the patient population as culturally unacceptable. Thus patients were

4. To improve my clerking, examination and communication skills, and to improve my understanding of tropical diseases. Reflect on my overall experience with Floating Doctors.

One of the main challenges that I experienced at Floating Doctors was the language barrier. Before I came to Panama I undertook a beginner's Spanish course, so I did have some basic Spanish skills, but certainly not enough to carry out a medical clerking without a translator, which clearly does create a barrier in a patient consultation. However, I feel that I have learnt so much Spanish by being totally surrounded by the language, and I will certainly continue learning Spanish back in the UK. Furthermore, I will be working as a FY1 and FY2 in East London, where English often is not the first language spoken by many of the patients. Therefore it has been a really good experience working with translators in my medical consultations at Floating Doctors, and is most definitely a skill that I can transfer when I start work in August.

Throughout medical school we have often been taught the doctrine that "common is common", and certainly within communities there are specific patterns of disease. However, there have been several cases that have really highlighted to me that back pain is not always musculoskeletal back pain and that abdominal pain is not always helminth infection etc. And thus the absolute importance to treat each patient individually, not to jump to conclusions and to always be aware of other diagnoses.

I have learnt so much tropical medicine from Dr Brot and Dr Parker, the two senior doctors, who were always really eager to teach, and it has left me wanting to learn more! So much so, that I intend to undertake a Tropical Medicine Diploma after I have completed my FY2 year because I really want to continue to work in developing countries and such a course will best equip me to do so.

I absolutely loved my elective with Floating Doctors; it was an absolutely incredible experience in so many ways and I feel very privileged to have worked with such a unique charity. It has left me feeling very inspired and wanting to work as a doctor for NGO´s and organisations such as Medecins Sans Frontieres (MSF) in developing countries throughout my medical career, and I would really like to come back and work for Floating Doctors in a couple of years time.