

Elective Report April-May 2012 Princess Margaret Hospital, Fongafale, Tuvalu Lawrence Zdenek Walker

Elective Objectives:

- 1) Describe the pattern of disease and ill health in Tuvalu. Discuss this in the context of global health.
- 2) How does health provision in Tuvalu differ from that in the UK?
- 3) Describe your experience of Ophthalmology in Fiji and Obstetrics and Gynaecology in Tuvalu. Compare and contrast with the UK.
- 4) What have you learned from your activities and experiences? How will this influence your professional and personal development?

1) Describe the pattern of disease and ill health in Tuvalu. Discuss this in the context of global health.

The pattern of disease in Tuvalu, as encountered at Princess Margaret Hospital, Fongafale, can be classified into three main groups: Infectious disease, trauma and diabetes including the sequelae of chronic diabetes.

Infectious diseases in Tuvalu are particularly common in the paediatric population, as is the case across the globe. Amongst the more benign conditions, many children present to the hospital outpatient department with impetigo and other skin disorders such as fungal infections. The humid tropical climate with temperatures generally in the region of 30°C probably plays a role in making such skin infections difficult to avoid.

A more serious result of the chronic skin infections found in some children in Tuvalu is the development of abscesses. These appear to be quite common, and seem to account for a significant number of cases in the operating theatre, where drainage is performed. It's not entirely clear why so many children develop abscesses, but there may be a couple of key factors: fruit and vegetables are quite scarce and have to be imported to Tuvalu. When they are available, these are quite expensive, easily more so than in the UK. As a result of the scarcity and price, it is likely that there is a lack of vitamin-containing foods in children's' diets. This may affect the development and maintenance of the immune response, resulting in a greater risk of infections developing into abscesses. Additionally, it

seems that once children develop infections, their parents sometimes consult traditional healers prior to seeking medical care in the hospital. As a result, infections are often more advanced than if they had been treated with antibiotics sooner.

As in any other part of the world, trauma commonly affects younger people in Tuvalu. This includes skin cuts and injuries in motor bike accidents, boating accidents, especially in fishermen, and coconut tree climbing injuries, especially in young boys. The outpatient department at Princess Margaret Hospital serves as an Accident and Emergency as well as a location for outpatient review. Any patients with acute injuries are therefore brought straight into one of the bays especially equipped for acute injuries, and assessed and treated there.

Diabetes is common in Tuvalu. There seems to be a combination of reasons for this: As with many populations across the globe, it is likely that there is a genetic predisposition to developing the disease. Environmental factors, that are likely to act in addition to this predisposition, include the fact that many of the foods available in supermarkets in Tuvalu are tinned to aid their shelf life, and are therefore quite processed and refined. Most people use motorbikes to get around the capital island of Fongafale, reducing the amount of physical activity performed during the day. Although lots of people exercise and play sports on the airport runway in Fongafale, which serves as a social hub and playing field when not in use, those exercising tend to be in their teens and early twenties, with few people above that age taking part.

As a result of the high prevalence of diabetes, admission to hospital with complications of diabetes is common. The main complication encountered seems to be diabetic foot sepsis, which occasionally requires debridement or amputation if severe. Procedures such as these seem to be amongst the commonest performed in the operating theatre at Princess Margaret Hospital. There is a special diabetes clinic in the outpatient department once a week, providing monitoring, follow-up and repeat drug prescriptions.

2) How does health provision in Tuvalu differ from that in the UK?

In terms of structure, health provision in Tuvalu is quite similar to that in the UK. Health care and prescriptions are free at the point of delivery, so there is no requirement for health insurance.

Geographically, Tuvalu consists of nine islands. Princess Margaret Hospital, the only one in the country, is located on the capital island of Fongafale. The outer islands are served by specially-trained nurses, who treat conditions, but also refer patients to Hospital. Their role is analogous to that of General Practitioners in the UK.

The health system is funded by both the Government and overseas aid. For example, Princess Margaret Hospital was built with help from the Japanese Government in 2003. Some of the medications are provided by donations from international bodies such as the WHO. Doctors are employed by the Tuvaluan Government, by organisations such as New Zealand Aid or by other countries, such as Cuba. Specialist medical teams from across the globe, including Australia and Taiwan, visit during the year, providing services not usually available, such as ophthalmic surgery and cardiology. Patients requiring investigations and procedures not available at Princess Margaret Hospital, are discussed amongst the Doctors to be considered for management in Fiji. The Government funds both travel and hospital expenses in such cases, so that treatment remains free at the point of care.

3) Describe your experience of Ophthalmology in Fiji and Obstetrics and Gynaecology in Tuvalu. Compare and contrast with the UK.

I assisted a visiting Ophthalmology team for nine days, at Natuvu Creek Mission Clinic near Savusavu, Fiji. The team was headed by Dr Jerold Beeve, an ophthalmologist from America, and included two American eye surgeons, an anaesthetist from Sydney, Australia; and an Optometrist from New Zealand. It was funded by money raised by the Beeve Foundation for World Eye and Health.

My duties included cleaning and preparing glasses that had been donated from overseas, screening patients by testing their visual acuity, and assisting the anaesthetist by inserting IV cannulas and re-constituting drugs for administration. The operations performed by the team included cataract surgery and pterygium operations. Having done an SSC in ophthalmology at St Thomas' in London earlier this year, I was able to understand the principles of both surgical procedures. As I had previously learned how to use a slit lamp, I was able to examine patients and assess the extent of their disease. This elective placement further confirmed my aim to become an ophthalmologist.

Amongst Medicine and Surgery, Obstetrics and Gynaecology is one of the key services provided by Princess Margaret Hospital, Tuvalu. I joined one of the doctors running the weekly antenatal clinic, assisting him by writing notes on the examination findings and calculating estimated due dates. In addition, I saw some pregnant patients during outpatient clinics, and arranged tests for their antenatal clinics, including taking routine blood tests.

4) What have you learned from your activities and experiences? How will this influence your professional and personal development?

This elective has demonstrated to me the importance of practical skills, and the practical management of medical and surgical conditions. On occasion, I have

had difficulties with procedures such as IV cannulation, and I aim to continue practicing in London to improve my proficiency and confidence with practical procedures in time for starting work in August.

I have also found that my knowledge of antibiotic therapy for various conditions is lacking, and I plan to familiarise myself with the guidelines at The Royal London Hospital before I start work there.

This elective has reinforced my existing interest in ophthalmology, and I will continue to develop my knowledge and practical experience in this area, in preparation for specialist job applications at the beginning of my second year of work.

I have thoroughly enjoyed my elective placements in Fiji and Tuvalu! All of the members of the healthcare team have made me feel very welcome, and have been happy to teach and answer questions. I am especially grateful to Dr Stephen Homasi, who gave me a great deal of advice and assistance in organising my placement in Tuvalu and Dr Jerold Beeve for allowing me to join his team in Fiji. This elective has been a fantastic experience!