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GENERAL MEDICINE

A Elective Report: Fiji 2011

1 – Describe the pattern of health provisions and tertiary referral in Levuka contrasting it to the UK.

Levuka is the main referral hospital of the Lomaiviti group, an archipelago covering 411 square kilometers with a population estimated (2007) around 16, 500 people[1]. This area covers 11 nursing stations manned by nurse practitioners who diagnose, prescribe and attend deliveries. There are also 3 nurse-led health clinics where there are maternal and child health and family planning clinics.

Levuka hospital itself is a 40-bed inpatient/boarder unit with one ambulance and outpatient, dental, dietician, physiotherapy, pharmacy, and health inspector units. There is a small surgical unit set for small operations under local-anaesthesia, for example circumcision and contraceptive implant insertion. The hospital is lead by two (FY2) doctorsand a multi-disciplinary team. The laboratory can do basic investigations only: FBC, blood films, ABO blood typing, serum electrolytes and urine pregnancy tests. Other investigations, such as renal or liver function tests have to be sent via ferry to Suva (6 hours). There is neither the facility to do microbiology nor the equipment to store and transport specimens for testing elsewhere. Therefore, in all cases treatment is given empirically, without knowledge of the offending bacteria/fungi or its sensitivities. Radiology is available: xray and basic ultrasound (abdominal and obstetric).

There is a five bed obstetric and gynaecology unit, with a private birthing suite and one long-term incubator for low-birth weight/premature infants. Without anaesthesiologists, there is no facility to do caesarian sections. The doctors also do not perform ventouse or forceps delivery (as there are no operative measures to manage complications). Therefore where possible, all potentially complicated births; primips (untried pelvis), multiple gestations (twins and more) and grand-multiparity (five or more previous births) were all sent to Suva for delivery.

Within the facilities of the hospital, the doctors manage in- and out-patients. When necessary a telephone-referral is made to Suva, where the on-call doctor will decide the suitability of transport. The main transport options are, depending on budgetary constraints; morning ferry and ambulance (~6 hours) or morning airplane flight (~15 min flight, 1h30 transferal). Extremely urgent cases may be transferred by helicopter however, only during daylight hours. National staffing and equipment limitations means that highly-specialized cases could be referred to other countries e.g. Australia (orthopaedics) and India (paediatric cardiology).

In comparison, the UK has local primary health units with both secondary and tertiary referral centers. Most investigations and tests can be done in-hospital

[1] 2007 Fiji National Population Census: http://www.statsfiji.gov.fj/index.htm

and referral and transport is generally quick and easy with ambulances and helicopters.

2 - Describe the pattern of disease presenting to Levuka Hospital and its context in National and International health, economy and health systems.

Similar to all developing countries, Fiji has a high burden of infective disease. In March 2011, Levuka had 83 inpatient admissions. More than a half of these admissions (47) were due to infective causes, notably pneumonias. Similarly, 60% of outpatients during March were diagnosed with infective causes, half of these from pneumonias with abscesses and acute-gastroenteritis also factoring. Fiji has been trying to tackle the burden of infective disease, and indeed in 2009 WHO statistics reported a 99% uptake of infant vaccinations[2].

The burden of infective disease in Levuka and the remoteness of facilities necessitates the frequent use of antibiotics with potentially poor patient concordance. This may have implications on a global scale with encouraging resistance in anera of global travel.

Alongside the continued Western infiltration into the Fijian market there is a notable shift in the diet of most Fijians towards cheap and easily prepared meals such as noodles. With this change there has been a surge in non-communicable diseases, notably diabetes and hypertension. Without appropriate facilities to screen and pre-emptively treat these conditions, so preventing more long-term morbidity and mortality, Fiji may struggle with this burden, exacerbated at the poorest level if there is continued devolution of a public to private health system.

3 – What is the influence of traditional medicine on presentation of disease and the concordance of treatment?

Traditional pre-missionary Fijian culture embraced herbal medicines that were passed down generation to generation. However since the conversion to Christianity this knowledge is slowly seeping out of the Fijian traditions practiced today. Selling traditional cures is a legal offense however some "traditional healers" still practice.

I saw limited use of traditional medicines in the outpatients' department. When present they were restricted to wound management. However through discussion with villagers and medics I understand that there is more widespread use of herbal medicines, mainly those known to settle the stomach, as analgesia, antiseptic and for menstrual and contraceptive control. There was some confusion however as to whether the traditional medicine was being used appropriately; akin to old-wives tales mutated through time and Chinese-whispers.

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[2]BCG, HIB, Polio, Hep B and Diptheria, tetanus and pertususis vaccinations. Reference: The WHO Global Health Observatory Data Repository http://apps.who.int/ghodata/?vid=8600&theme=country

My impression however for the main reasons for delayed hospital presentation and suboptimal appointment and medication concordance appeared to be patient education and poor transport-links. The most remote village on Ovalau, Rukuruku, was a 45-minute ride on very poor roads served daily by only one or two buses. Villagers who presented to the outpatients from this region were either workers in the tuna-canning factory in Levuka or presenting with very sick children. The hospital ambulance appeared to be mainly used as transport when patients were referred to the hospital from nursing stations.

Education was a key point as well, women commonly presented late to antenatal clinic often in the 5th or 6th month, despite mid-wife advice for booking at 2-3 months. An Australian Gynaecologist confirmed that the presentation of gynaecological cancers were very late – often with very disseminated disease despite early symptoms. During our time at the hospital there was a completely avoidable paediatric death due to dehydration from diarrhoea simply as the parents did not bring the child into hospital in time, in part due to lack of transport and knowing when home management wasn't working.

The issues of education and transport were exacerbated by the lifestyle of the village-workers; the main income is fishing or farming and if you go to the hospital there is no one to tend your farm or do your fishing.

4 – Improving practical skills and diagnostics in a context of limited investigations and the ability to recognize my abilities as well as my limitations.

The majority of my time in Levuka was spent in the outpatients department which provided the opportunity to practice and consolidate clinical exams and history taking. Management plans were based on well-used algorithms on basic clinical examination; patients presenting with respiratory infections were treated on the presence or absence of crackles. I therefore was able to hone the skill of chest auscultation, having previously struggled to hear crackles in the UK. Using my clinical judgment instead of relying on investigations, I was able, under supervision, to manage and prescribe for patients following the hospital guidelines.

I was also able to practice practical procedures such as cannulation, cumulating in a successful paediatric cannulation. I was lucky enough to be enabled to perform a circumcision. This was done under direct supervision and after multiple observed and taught circumcisions. This opportunity enabled me to become even more familiar with operating equipment and to practice my suturing.

By lucky coincidence I had the opportunity to teach CPR to school children with the Red Cross. This provided a perfect opportunity to practice my teaching and communication skills, having to transcend both cultural and age differences.

Through a mixture of clinical practice, observation and talking to the Fijian medical students I was able to reflect on medical practices in the NHS and where my strengths and weaknesses lie. Previous self-reflection had highlighted communication skills with patients as one of my strengths, however, I felt that I lacked a more thorough understanding of basic medicine, highlighted by the inability to lean on investigations to build diagnoses. After further reflection into this I realized that the knowledge was there, but it was my confidence in my ability that was lacking. When seeing patients I felt anxious about my management plan which sometimes relied heavily on imaging and investigations however this mostly correlated with the doctor's plan, if not frustrated by lack of equipment/facilities. I realize that building my confidence will take time and more experience. This experience however gave me a building block towards it.

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