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INFECTIOUS DISEASES

Elective Report

Labasa Hospital, Fiji

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What are the main infectious diseases in the Fiji and how does this compare to the UK?

I have spent my medical elective in Labasa Hospital on Vanua Levu, Fiji. I joined the medical team there and the first obvious difference was that there were no particular medical specialties such as cardiology, respiratory and gastroenterology. All of the medical patients were treated by the same doctors who were generalists. There was a small coronary care unit of 4 beds which had heart monitoring equipment, though they were still treated by the same doctors.

The main infectious diseases in Fiji are dengue fever, leptospirosis and salmonella thyphii. I have never seen any of these diseases in the UK and I have only really heard of typhoid in the UK. The UK has a cooler climate so there are no mosquitoes, which are the vectors of dengue fever. Agricultural work is less common in the UK and workers always wear footwear, which prevents leptospirosis infection. Typhoid is spread through unclean water and undercooked food, in the UK, I think we treat all water and people are less likely to drink water from natural sources. This is why we see fewer cases of typhoid in the UK.

Most patiends in Labasa Hospital with these conditions were male, because they spend more time doing outdoor work. There was severe flooding in Fiji a few weeks before we arrived and we were told this had probably increased the incidence of dengue fever.

All of these conditions presented similarly with an acute febrile illness. Patients complained of generalised aches and pains. In dengue fever there was sometimes a characteristic rash on the flexor surfaces. Patients with low platelets were likely to have dengue fever. Diagnosis could only be confirmed with serological testing which was conducted on the main island in the capital, Suva. These results took at least a week to come back.

Treatment for dengue fever was supportive with fluids. Platelets could be given, however the hospital did not have any, instead, fresh frozen plasma was sometimes given in necessary. Leptospirosis was treated with penicillin or doxycycline. One patient died of a massive pulmonary haemorrhage due to leptospirosis during our placement. Very few other patients died of infectious diseases during our placement though.

In the UK, I have had an infectious diseases placement at St Bartholomew's Hospital, which had many cases of HIV and a few cases of multi drug resistant TB. In East London, the large

Indian and Bangladeshi population have a high prevalence of TB. There were cases of TB mentioned in Labasa but no admissions during our placement. We were told HIV cases were rare, although it is probably not often tested for, so there may be an unrecognised prevalence.

In the UK, we see patients with hepatitis viruses, either brought back from travelling, or associated with drug use or sex workers. I did not see any of these cases in Labasa. We also have programs for testing for sexually transmitted diseases as part of our infectious diseases speciality in the UK. I did not see any of these services in Labasa, they are probably treated as part of gynaecological care.

Rheumatic heart disease caused by inadequately treated streptococcoal infection is much more common in Fiji, unlike in the UK, where we only see it in elderly patients that had rheumatic fever as children.

Contrast respiratory conditions in Fiji with those in the UK and discuss management

The main respiratory condition I saw in Fiji was asthma. It was treated with salbutamol inhalers and nebulisers and inhaled steroids, as it is in the UK. Access to spacer devices was not always possible, which was difficult for some patients that lacked the coordination for a good inhaler technique and meant they could not derive much benefit from their inhalers. I think we take for granted access to different medical devices and equipment like this in the UK.

We stick strictly to the four management steps for asthma in the UK, which were not rigidly adhered to in Fiji. When there is scarcer access to medications and when patents live very rurally without access to regular follow up, a step up approach is not always practical.

Asthma is also common in the UK, affecting 7% of the population. In the UK, there are a lot of patients with COPD due to lifelong smoking. I did not see any COPD cases in Labasa, probably because cigarettes are not ingrained in Fijian culture. Smoking became popular in the West after world wars 1 and 2 due to advertising, before the health risks were recognised. A lot of effort is put into smoking cessation in the UK, although many people continue to smoke.

Also, due to smoking, there are a lot of cases of lung cancer in the UK, it is the most common cancer in men and the second most common in women. I did not see any cancer diagnoses during my placement at Labasa hospital, although I realise these patients may be diagnosed elsewhere and treated by the surgical teams.

We saw a case of known fibrotic lung disease which would also be seen in the UK. We also saw chest infections and pneumonia, as seen in the UK. In the UK, we sometimes see

occupational lung diseases, for example due to asbestos exposure, I didn't see any of these in Labasa.

We also have cystic fibrosis sufferers in the UK, this hereditary condition is obviously not present in the Fijian population.

Contrast antibiotic useage in Fiji and the UK

I saw a narrower selection of antibiotics available in Fiji. Penicillin was used a lot, as well as chloramphenical, gentamicin and doxycycline. In the UK, we have much larger variety of penicillins to choose from. We often use co-amoxiclav (amoxicillin and clavulanic acid) or tazocin (tazobactam and piperacillin). We only use chloramphenicol for eye infections in the UK due to the side effect profile and the access we have to better drugs.

We use gentamicin less frequently in the UK, and when we do, we do blood tests to measure serum levels to prevent oto- and nephrotoxicity. The levels are not checked in Fiji. They are more cautious about giving it to patients with renal impairment, though, because treatment for renal failure is not a possibility for most patents, due to the cost of dialysis.

In the UK, we use a lot of macrolides, such as erythromycin, and we frequently use third generation cephalosporins like cefuroxime with metronidazole. We are also fortunate to have access to different antibiotics for specific infections, like we use trimethoprim for urinary tract infections or vancomycin against MRSA resistant anaerobes.

As there are different infectious diseases in Fiji, some antibiotics such as doxycycline and chloramphenicol are better suited to treat these diseases.