TROPICAL MEDICINE Castle Cioumo Gunnis

Elective write-up: MRC Gambia, 2011

Objectives:
1. What are the prevalent infectious diseases in the Gambia? How do these differ from the UK?
2. How are infectious diseases treated in the Gambia, specifically at the MRC? How is this different to the UK?
3. What can be done to prevent the spread of infectious diseases in the Gambia?
4. To gain an understanding of how to practice medicine in an environment which does not have the diagnostic facilities I am used to in the UK.

During my time at MRC Gambia I have learnt that a lot of the conditions treated here are the same as those seen in the UK such as hypertension and diabetes within the adult population and respiratory tract infections in the under-5s.

There appears to be a higher prevalence of some conditions such as TB, paediatric pneumonias, diarrhoeal diseases and fungal skin rashes. There are a great number of cases of rheumatic heart disease (secondary to previous streptococcal infections). There is a charity, Chain of Hope, which is involved in treating some of these patients by flying them to other countries for cardiac surgery.

Many of the admissions to the paediatric ward are due to pneumonia or sepsis and in the under 5s malnutrition is another commonly seen problem which can lead to infections.

In my time at the MRC I have seen a few cases of paediatric TB, in some of these cases the mother has tested positive for HIV. The prevalence of HIV in the Gambia is estimated to be about 2% and there is an unwillingness to be tested due to the stigma still attached to a positive diagnosis.

Many conditions are treated empirically. The MRC has a 'Gate Clinic' which sees about 250 people each morning. Some of these patients are given a prescription by the triage nurse or referred to Sister. Sister either treats these patients or refers them to see the doctor in the outpatients' clinic if she feels their condition requires treatment. Often, if a patient has had a week of antibiotic treatment with no resolution of symptoms then they are referred to the doctor who might chose to alter the treatment or admit them for IV antibiotics. TB is often diagnosed at the MRC and then treated at government-run clinics unless they are an in-patient on the wards.

In the OPD if it is thought that a child is well enough to be treated with oral medication then they are given antibiotics and a follow-up appointment. If they are thought to be too sick to be treated with oral medications, or they require close monitoring for their condition (such as malnutrition) then they are admitted to the ward

Much like in the UK, when children are admitted to the MRC ward with pneumonia or acute respiratory infections they have blood taken for full blood counts, U+Es and blood cultures. Urine samples are often taken for dipsticking and culture & sensitivity if appropriate. If there is diarrhoea then these patients have stool samples sent to the laboratory for culturing. If there is a clinical indication then CSF is also taken for culture, antigen testing and microscopy. These patients are then started on empirical antibiotic therapy, usually ampicillin and gentamicin, either until sensitivities come back from the lab, the course of antibiotics are complete or the clinical course has indicated a change of antibiotics.

In cases where the mother of a patient or an adult patient is found to be HIV positive they are referred to the clinic at the Royal Victoria Teaching Hospital in Banjul where they are monitored and screening of the children is done.

The Gambia has an excellent immunization programme with children receiving vaccines for DTP, Polio, Pneumococcus, TB and Hepatitis B. All children have a blue record card which charts their

weight gain and any visits to health centres for treatment. The vaccine programme ensures that many childhood infections are prevented.

Prevention of malaria is very important, particularly during the rainy season, and families are encouraged to sleep under mosquito nets and to deal with any stagnant pools of water to prevent mosquitoes from breeding. They are also encouraged to use insecticide sprays or repellent coils. Some infectious diseases which are spread by mosquitoes do not have vaccines or curative treatments so preventing bites is very important.

To prevent the spread of HIV public health campaigns promote the ABC approach: Abstain, Be faithful, use a Condom. Polygamous marriages are common place in The Gambia so people are also encouraged to know their HIV status to prevent further spread of the virus. Work is also being done to reduce the stigma attached to a positive diagnosis, particularly for women, by charities.

Diarrhoeal diseases, particularly adenovirus and rotavirus, are often spread due to poor hygiene so mothers are educated and encouraged to improve sanitation within the home.

My time at the MRC has reinforced that, in the vast number of cases, expensive imaging is not necessary and that diagnoses can be made on the basis of the history, the examination, basic blood tests, x-rays and ultrasounds. It has helped me to develop my diagnostic reasoning and formulate treatment plans based on the limited resources available.