

Tropical Medicine Course Report

Dr Gerard Flaherty

I had the great pleasure of attending the TROPMEDEX tropical medicine excursion to Ghana in West Africa from November 26th to December 5th. This course is organised and delivered by Dr. Kay Schaefer (Figure 1), an experienced Consultant in Tropical Medicine working in Cologne, Germany, whose PhD was based on research on schistosomiasis and leishmaniasis in Africa. His extensive experience of living and working in sub-Saharan Africa makes him the ideal leader for medical expeditions to the continent. He has been offering courses in Kenya, Tanzania and Uganda for over 20 years, but this was his fourth successive year to guide healthcare professionals on an expedition to Ghana.



Figure 1.
Dr. Kay Schaefer, Course Director

I have introduced a special study module entitled "Tropical Infectious Diseases" into the undergraduate medical curriculum at NUI Galway, and this course provided a helpful refresher in tropical diseases as I prepared learning materials for this module in semester 2. I joined a delightful group of 12 doctors, mostly GPs, infectious disease experts, travel medicine specialists and consultant microbiologists, on our 10-day medical tour of southern Ghana. My connecting flight from Heathrow landed 3 hours behind schedule so we arrived at our hotel in Ghana at midnight. A driver collected us from the airport and throughout the trip we enjoyed very reliable transport with an English-speaking driver in an air-conditioned bus. The roads in Ghana are of very variable quality and it takes some skill for drivers to safely avoid the numerous potholes on some of the secondary roads.

On day 1 of our excursion, following a morning lecture on schistosomiasis, we visited Dangme East District Hospital where local doctors presented cases of patients with malaria and sickle cell disease to the group. We stayed at a riverside hotel that night and enjoyed a seafood buffet meal on the shores of the Volta River. The following morning we went on a river cruise, stopping off to visit a vibrant fishing village on the way (Figure 2), and learning how the river acts as a habitat for schistosomiasis (bilharzia). So many of the locals are chronically infected and we learned that the national mass drug administration programme which covers schistosomiasis, river blindness, lymphatic filariasis, and trachoma does not reach every village as it should. Dr. Schaefer gave lectures on malaria and cutaneous larva migrans and we saw cases of the latter at the nearby Akosombo hospital later that day. We were careful to avoid walking barefoot once we had seen how unpleasant this hookworm infection can be! Fortunately it is easily treated with Praziquantel. Consider it in your returned travellers presenting with an intensely pruritic serpentine rash on the soles of their feet especially.



Figure 2.
A fishing village on the shores of the Volta River

The following day we visited Aburi Botanical Garden and learned about the native trees of Ghana and their medicinal properties. We then had a tour of the Cocoa Research Institute to learn how farmers are assisted in growing this important crop, from which many fine products including cocoa butter and chocolate are derived. Even though Ghana is currently considered free of Ebola virus disease, it is not free of dengue infection which, according to Dr. Schaefer, is often under-diagnosed in Africa. Your febrile patients who return from Africa may have contracted dengue but you must of course exclude malaria first. Buruli ulcer,

2 Tropical Medicine Course Report

a necrotising skin infection caused by *Mycobacterium ulcerans*, is very common in Ghana, and we received a lecture on the topic before visiting a missionary hospital in Agogo where we saw many patients with Buruli ulcer, chronic hepatitis B and tuberculosis.



Figure 3.

A roadside public health message about malaria

This took us to the second city of Ghana, Kumasi, whose sprawling market is possibly the largest in West Africa (Figure 4). We walked through the market the following day with two local guides and Dr. Schaefer, and we were treated to a tantalising display of local meats, fish, spices, and just about every product imaginable; the intense heat and noise just added to this unforgettable sensory experience. A guest lecturer from the USA gave lectures on WHO travel vaccines and travellers' diarrhoea on day 5, before the group visited a museum and palace dedicated to the colourful Kingdom of Ashanti, currently a sub-nation state within Ghana. This was one of many examples of how this expedition provided valuable context for our understanding of tropical diseases; to gain an appreciation of how tropical diseases are transmitted one needs to understand the environment, the people, their culture and health beliefs.

From the still waters of the Volta River where schistosomiasis is endemic, we then learned about onchocerciasis, or river blindness, which is associated with fast-flowing rivers and spread by the black fly. The group joined public health officials as they did active case finding in a village affected by the disease. It was reassuring to see an Ireland Assist truck distributing free bags of clean water to the villagers, who jointly celebrated the recent passing of a local person and our arrival in the one ceremony; some of our group even joined in the celebrations by dancing

along with the locals! The warmth and exuberant good humour of the Ghanaian people impressed me deeply and we were very privileged to be able to meet and talk to many local people throughout this trip.



Figure 4.

The market at Kumasi

Ghana suffered a large outbreak of cholera in 2014 and Dr. Schaefer gave us an excellent update lecture on this disease. Later that night we arrived at a delightful beach resort close to the fishing village of Brenu, and the party shared a delicious seafood feast on the beach with only a bonfire for light. I have an amateur interest in ornithology and this part of the tour was a real treat for me (Figure 5), as I saw hooded vultures, black kites, hornbills, weavers, and cattle egrets (occasionally seen in Ireland) for the first time in the wild. We even saw fruit bats a few days later as we arrived into Ghana – yes the same fruit bats which are thought to be reservoirs for Ebola virus disease!



Figure 5.

A cattle egret following a herd of goats in Brenu

Lymphatic filariasis is hyper-endemic in the Cape Coast region of Southern Ghana and we saw patients with varying degrees of severity of this distressing condition on day 7. Most had already been treated for the disease but we gave advice to the patients through an interpreter about the importance of foot hygiene to prevent ulceration. The tour guide who took President Barack Obama around Cape Coast Castle, which was a staging post for the transatlantic slave trade, also guided us through the slave dungeons and told of the horrific treatment of the slaves at the hands of the cruel slave traders. I had learned about the slave trade while visiting the Gambia in 2009 but we all found this guided tour very informative and moving.

Day 8 brought a welcome early rain shower (daytime temperatures were a humid 30 degrees every day) which cleared on time for our lecture on leprosy before we went on rounds with an experienced dermatologist at the local Ankaful leprosy hospital. This was a good day for physical activity as we got to go on a guided walk through the rainforest at Kakum National Park and learn about botanical medicine which is widely practised in Ghana. My last forest

canopy walk was in Brunei in 2013 but this one in Ghana was even more exciting and there were cheers for each participant as he/she completed the crossing on a rope bridge which apparently can take the weight of two elephants! Later that evening we went on surgical rounds with a dynamic local general surgeon who brought us to patients on the wards with an acute abdomen from a typhoid-related gut perforation, volvulus, and osteomyelitis. The same doctor provides medical assistance to ill international travellers in conjunction with International SOS who sometimes fly into a local air strip to evacuate seriously ill travellers. One of the highlights of the trip was a guided walk through the fishing village of Brenu, where we were greeted by the local chief, before being driven back to the capital Accra.

On the final day of the expedition we had a practical laboratory session in a very modern private laboratory in Accra. This was a good opportunity to practise thick and thin blood films and brush up on our microscopic diagnosis of various parasites. Overall, this was a most enjoyable learning experience and I cannot speak highly enough of Dr. Schaefer and his team. His punctuality and organisation were outstanding and he gave us all a lasting insight into the culture and diseases of this fascinating country. I recommend that all travel medicine clinicians who also like to travel complete a medical excursion such as this if they get the opportunity. You will find that the pre-travel health advice you give to patients will be more specific and well informed and ultimately more effective at preventing tropical infectious disease. Ghana has enormous potential as a tourist destination, being currently ranked as the fourth most peaceful country in Africa. I hope you get a chance to visit there and I hope that the people of Ghana will have a brighter future.

"Reproduced from Taisteal, the newsletter of the Travel Medicine Society of Ireland, with the permission of the author, Dr. Gerard Flaherty".

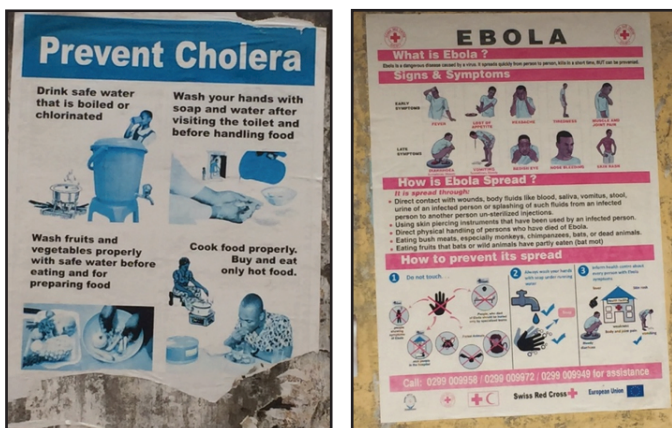


Figure 6.
Information posters on cholera and Ebola
in Brenu fishing village