Tropical medicine and infectious diseases in a shrinking world

A recent article in the *British Medical Journal* discussed the direction tropical medicine must take if it is to remain relevant to the needs of the new century [1]. The *Lancet* subsequently published an editorial referring to it and arguing that academic work relating to tropical medicine should move to the tropics [2]. Predictably, considerable correspondence ensued, much of it from people involved in international work. Have the London and Liverpool schools of tropical medicine served their clinical purpose after almost 100 years of existence? What are the needs for expertise in tropical medicine in the UK today? And how does tropical medicine relate to the disciplines of infectious diseases and genito-urinary medicine in the era of HIV and AIDS?

Health and social trends in sub-Saharan Africa, where much UK-sponsored tropical medical research is targeted, are sobering. Economies are mostly deteriorating, with accompanying degradation of health care structures and services. The emergence of the HIV/AIDS epidemic, a phenomenon intimately associated with the social changes of the last half century, has profoundly influenced health indicators, resulting in reduced life expectancy, reduced child survival, increased rates of tuberculosis, and increased mortality rates in adults in heavily affected countries. Urbanisation is continuing as rural inhabitants, especially young men seeking work and better opportunities, move to cities that have inadequate sewerage, waste disposal, health care or educational facilities for their burgeoning populations [3]. Some of the most destructive civil conflicts in recent time have occurred, and continue to occur, in Africa, with high rates of injuries in non-combatants, breakdown of law and order and collapse of routine services. This is just part of the vista of health-related problems facing those interested in health in sub-Saharan Africa, a century after Manson founded the specialty of tropical medicine.

Traditional tropical medicine arose from the scientific advances in the late 19th century and the needs of the colonial powers whose functionaries lived and often died overseas [4]. We prefer to speak today of ‘medicine in the tropics’, recognising that climate is a risk factor for only a small fraction of disease burden in countries of the South. Broadly, three categories of disease face the physician in Africa [5]. First, and most importantly, there are diseases, many of them communicable, associated with poverty. Tuberculosis, typhoid, pneumonia, sexually transmitted diseases and meningitis are examples. Second are those diseases that occur worldwide, that are mostly non-communicable and that may or may not have a cause identified. Malignant disease, auto-immune conditions, cardiovascular disease and psychiatric illness are examples. Some may be the non-infectious, long-term complications of communicable diseases. Regional comparisons can sometimes give important insight into risk factors for conditions of this kind, as illustrated by the work of Dennis Burkitt and Michael Hutt, who described their research as the study of geographical pathology. Finally, there are diseases restricted by climate or ecology to specific zones, such as the parasitic infections, that make up much of traditional tropical medicine. Even this categorisation of medical disease is inadequate for today’s medicine in the tropics, failing to take into account the surgical disciplines, including obstetrics and traumatology, and ancillary diagnostic services that are essential for clinical work even in disadvantaged situations.

Three questions relating to clinical work in resource-poor countries merit discussion. What constitutes essential clinical services in such settings? What future is there for UK physicians interested in medicine in the tropics? And what training is appropriate for physicians interested in infectious diseases and international health? The subject of clinical work in resource-poor settings has been neglected as increased emphasis, much of it appropriate, has been put on epidemiology and public health. Nevertheless, as the World Bank’s 1993 World Development Report clearly stated, there is need for definition and provision of a package of clinical interventions for the most important health problems in poor countries such as tuberculosis, sexually transmitted diseases, trauma, obstetric complications, etc. [6]. Few countries in Africa have found the appropriate balance between neglect of clinical medicine and provision of inappropriate tertiary care. International donors and western schools of tropical medicine should devote more attention to this difficult question, as the need for clinical services will always exist.

It is difficult to know how to advise young physicians
interested in working overseas, as a long-term career in clinical work in developing countries is probably not feasible unless undertaken outside the mainstream, such as with a missionary organisation. A short spell abroad after basic specialisation in internal medicine should, however, be seen as a sign of initiative rather than as a waste of time. Domestically based careers in traditional tropical medicine may not be realistic; traditional tropical medicine is probably best absorbed into the discipline of infectious diseases, of which sexually transmitted diseases, HIV/AIDS and clinical parasitology are all important subspecialties. Experience in a developing country is of great value to the infectious diseases specialist, and a period overseas should be considered as a useful part of training.

The career structure for clinicians committed to infectious diseases is poorly developed in the UK, with few specialist units and limited senior positions. Medical microbiology, in contrast, is strong, but is perceived primarily as a laboratory-based discipline even though many medical micro­biologists participate in clinical activities. Most of the c. 400 senior medical practitioners in the UK involved in different aspects of infectious diseases are medical microbiologists [7]. The clinical roles of the Schools of Tropical Medicine also remain subjects of debate, and continue to evolve. The academically oriented clinician who is interested in infectious diseases, but does not wish to become a microbiologist, would be wise to acquire training in an additional discipline, either in basic science or therapeutics, or in epidemiology and public health, in order to maintain research interests outside regular clinical work.

There is widespread interest among young clinicians, including some of the best and the brightest, in infectious diseases as a career. Many go into genito-urinary medicine; those committed to international medicine commonly switch to public health. It is perplexing that infectious diseases is a thriving clinical discipline in the USA, while in the UK it is not. Advice to younger colleagues considering the infectious diseases path is that the rewards can be great, but the outcome uncertain; they are unlikely to be out of work, but their journey, although mostly interesting, will occasionally be difficult. Opportunities are being missed, and the absence of infectious diseases as a strong clinical discipline in this country is regrettable.

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References