

## Editorial

## Global health inequities in rheumatology

*Addressing an urgent and largely unmet need of the developing world*

Advances in the diagnosis and management of autoimmune diseases have revolutionized the field of rheumatology over the past two decades. Although we believe this to be true, the fact is that for millions of people across the developing world there has been little tangible benefit from such advances. For them, musculoskeletal disorders and autoimmune diseases are barely recognized as medical ailments. This needs to change. Not only is it essential for rheumatology to be accorded the same regard as other fields of medicine, but it is also an ethical imperative to serve those in greatest need.

First and foremost, despite popular misconceptions, there is an unacceptably high burden of rheumatological disease activity worldwide. Approximately 2% of the total disease burden in the developing world is estimated to be due to musculoskeletal disease, with OA believed to be the greatest contributor [1]. Although this figure may seem negligible, the morbidity of these diseases is considerably high. In terms of disability-adjusted life years, the burden is ~2.5 times as high as that of the developed world (21 076 000 vs 8 723 000 disability-adjusted life years in the developed world) [2].

Secondly, there is a dire lack of trained rheumatologists in developing countries. In sub-Saharan Africa, there are <20 rheumatologists serving a population of > 800 million. India fares slightly better, with ~100 registered rheumatologists tending to a population of 1.1 billion, of which at least 5 million are believed to suffer from RA alone [3, 4]. Given that the specialists are concentrated in metropolitan cities, much of the rural population is left unserved. This lack of rheumatologists has other longstanding effects; there is inadequate education of other medical personnel and lack of awareness in the general population [5]. Unfortunately, outdated attitudes that arthritis is untreatable and that the adverse effects of medications are prohibitive for effective treatment are still prevalent throughout much of the developed world [6].

Thirdly, research on the diagnosis and treatment of rheumatological diseases has largely focused on how to treat patients in resource-rich areas [7]. Biologic DMARDs, currently the mainstay of therapy for autoimmune diseases, remain prohibitively expensive. Additionally, because reactivation of latent tuberculosis is a real concern and is seen in as many as 10.6% of patients in India on standard protocols devised in the developed world, lower, potentially suboptimal doses are often prescribed [8]. Even conventional DMARDs, such as MTX and SSZ, are not always available, and when available, require close monitoring for potential side-effects, including hepato- and

myelotoxicity; therefore, they may not be appropriate in geographically inaccessible areas [9].

Unfortunately, there are no simple solutions to remedy this problem. Large-scale epidemiological studies need to be undertaken to determine adequately the burden of disease. The development of the Community Oriented Programme in the Rheumatic Diseases, a questionnaire drafted by the World Health Organization and the ILAR in 1981 probing the prevalence of rheumatic and musculoskeletal diseases, has been instrumental in defining the scope of the problem but needs to be refined further so that it is less labour intensive and more standardized in order for it to be used in more widespread settings [10].

This will also require particular sensitivity to ethnic and racial differences, as it has been noted that there are different responses to therapy depending on ancestry [11]. The additional challenge will be in finding culturally appropriate, well-tolerated and inexpensive medications and incorporating them into the varying health-care delivery models present throughout the world [8].

Lastly, the quality of training has to be improved. As early disease recognition decreases the disease burden, it is essential for primary health-care providers to be trained in the basics of diagnosis and management. Culturally sensitive and community-based approaches will be pivotal in shaping maladaptive attitudes that prevent adequate diagnosis and treatment. Even for diseases such as OA where there are limited pharmaceutical approaches, simple steps such as proper education and referral to physical therapy may drastically improve the quality of life.

It is therefore our duty to advocate for our patients in the developing world to professional societies, government bodies and pharmaceutical industrial groups that arthritis and other rheumatological diseases have unacceptably high levels of morbidity. Moreover, it must be borne in mind that such initiatives do not solely benefit the impoverished. The knowledge that is gained from such research and practice enriches the lives of all patients with rheumatic diseases, regardless of their location, and enables further advances in the science of musculoskeletal medicine and clinical immunology.

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