Challenges of Developing a Formal Subspecialty Pulmonary Training Program in Kenya

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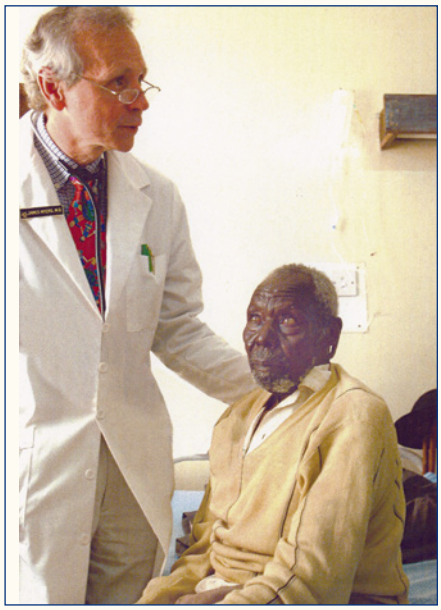

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Dr. James Myers with a patient in Kenya.

Global medicine is now focused on non-communicable diseases such as hypertension, COPD, and diabetes. Unfortunately, there is little infrastructure in many low-income countries to properly diagnose and treat these diseases. In addition, the clinical expertise to care for patients may also be lacking. For example, in all of East Africa, there are only eight formally trained pulmonologists.

In 2009 Moi University School of Medicine (MUSOM) was awarded a grant from the National Heart Lung Blood Institute as one of 13 sites worldwide to develop a Center of Excellence (COE) in cardiopulmonary research. In parallel with that research initiative, the AMPATH consortium with Brown as the lead sought to develop clinical pulmonary training at Moi as well.

For the last 10 years, an informal pulmonary consultation service had existed. Dr. Lameck Diero, now the chair of medicine at MUSOM, had been trained in fiberoptic bronchoscopy parallel to the development of the HIV Care program. Bronchoscopy was focused at that time on the opportunistic infections that followed on the heels of untreated HIV. With advancing HIV treatment, the incidence of these diseases fell. Dr. Diero remained interested in pulmonary medicine as the head of the chest clinic but his departmental responsibilities, coupled with the lack of trained pulmonary colleagues, has limited expansion of pulmonary services.

The first pulmonary clinical research fellow matriculated in 2009. Coincident with his research training, we developed a clinical training curriculum. Faculty consisted of the pulmonary faculty from consortium schools who were already rotating to MUSOM as part of the exchange program. A curriculum of pathophysiology and disease-specific lectures was developed. When US faculty was on site, mentored clinical time in the chest clinic, ward consultation and ICU rounds, and fiberoptic bronchoscopy were conducted in addition to the pulmonary lecture series.

With this initiative, pulmonary expertise on site has improved, although there remains much to be done. Pulmonary certification standards within Kenya have not yet been established; thus, trainees of the MUSOM pulmonary track can be considered only pulmonary-interest physicians at this point. Basic pulmonary function diagnostic testing is available, although there is not a formal pulmonary function lab established to date. Dr. David Lagat, the first COE research trainee, has submitted his manuscript from his work on isolated right heart failure and exposure to indoor air pollution in women. This research has now raised awareness of pulmonary disease and exposures at MUSOM and sparked interest in the field of pulmonary medicine. Lessons learned from these early training experiences, such as the need for consistent rather than intermittent on-the-ground mentoring, are being used to improve and develop better training experiences.

Four years ago, Dennis Oyiengo, a Kenyan medical officer, came to Brown from Eldoret for additional training. He has since completed his internship and residency in internal medicine. He is currently a pulmonary and critical care fellow in the Brown program. Dennis is doing very well in his fellowship training. It is his hope and ours that he will return to Kenya in the future to become involved in helping to lead the pulmonary efforts at Moi.

Despite some missteps in training, over the years pulmonary care has improved at Moi. Under the direction of Dr. Jane Carter, tuberculosis management has lessened the burden of disease across all of western Kenya. As the AIDS epidemic has peaked and started to decline with the availability of better drugs, cases of pneumocystis and AIDS-related pneumonias are less prevalent. The greater availability of chest x-rays and chest CT scans has made more specific diagnoses possible.

Younger Kenyan physicians are becoming increasingly aware of their need to lead the way in program development, not just in pulmonary but in all areas of medicine. This change in focus will certainly help make control of non-communicable diseases more likely in Kenya. ❖

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