

## World laments loss of pathology service

The closure of one of the world's most important pathology resources leaves doctors in many developing countries in a void. Gary Humphreys and Alice Ghent report.

A baby boy with a growth the size of a grapefruit on his neck has been brought by his parents to the Tamale Teaching Hospital in northern Ghana. Dr James Murphy, an ear nose and throat surgeon from New Jersey in the United States of America (USA), thinks the growth might be a mass of blood vessels but he has no way of finding out. The hospital has no pathology department and there is no point in sending tissue samples to the capital city of Accra for diagnosis as they frequently get lost. In the past he would have sent the tissue sample to the free referral service run by the Armed Forces Institute of Pathology (AFIP) in Washington, DC, via the diplomatic bag of the United States embassy in Accra, but he has heard that this service is no longer available.

Murphy, who has been working at the hospital for three years and is the sole otolaryngologist for an estimated 3 million people, is on his own. Usually he will not operate before a baby is 10 weeks old but the situation becomes grave as the infant starts to have trouble breathing. A consultant in Accra advises him by telephone to inject an anticancer drug directly into the growth but instead he takes a punt worthy of his 35 years of experience and operates. After the procedure he can see

that the mass has the characteristics of a teratoma, which is usually benign.

“Working without pathology services means taking an educated guess about what is wrong,” he says, sanguine about the life-and-death lottery of working in a hospital in this part of Ghana, where people live on about US\$ 3 a day and most cannot afford to travel for a biopsy. “We get odd kinds of tumours here because of AIDS,” he says.

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*Dr Daniel Seckinger*

Patients who present to hospitals like the Tamale Teaching Hospital with tumours and unusual symptoms are the hidden casualties of the decision made by the United States Department of Defense to close the AFIP. The decision, announced in 2005, has provoked little real protest,

despite what many experts view as an incalculable loss to global public health. Murphy joined a thousand or so signatories to an online petition to save the renowned institution. People signing this petition call the closure an “irredeemable loss”, a “travesty” and worse, “a grave error”.

Such reactions are most likely too little, too late. The AFIP will close by September 2011 as part of a federal programme to realign or close military bases. On 1 June, AFIP director Florabel Mullick announced that, after 30 September 2010, the institute will no longer accept “non-federal civilian consultation cases”. While the military will continue to collect pathology samples for its own purposes, doctors worldwide will no longer have the option of sending specimens for free second opinions. Their only option will be to use fee-based services, which is not feasible for doctors working in many developing countries.

The institute, which is located at the Walter Reed Army Medical Center campus, was set up in 1862 by William Hammond, surgeon general of the United States Army, during the American Civil War to collect tissue samples for the military. The closure impacts the institute's international referral services, its renowned textbook series, training courses for pathologists, surgeons and radiologists worldwide and access for researchers to the world's most complete tissue repository, which contains 3 million specimens. The loss of access to this repository would mean that doctors would no longer be able to reference 150 years of case histories, 50 million glass slides, 30 million paraffin-embedded blocks of tissue and 12 million preserved wet tissue specimens. According to Paul Stone, a spokesperson for the AFIP, many aspects of the closure are yet to be determined.

In its 2007 report on the impact of closing the AFIP, the United States Government Accountability Office said, “Since AFIP receives pathology material for many difficult-to-diagnose diseases, the repository contains complex and uncommon cases that have accumulated over time. Studying these samples allows for advances in diagnosis and treatment of diseases”.



The AFIP's international referral services will close at the end of September.

“It is an unparalleled collection,” says Dr Louis Zinterhofer, president of the New Jersey Society of Pathology in the USA, who worked in the soft-tissue group of AFIP as a member of the United States Air Force from 1971–1973. Now a pathologist at Monmouth Medical Center in Long Branch, New Jersey, he says most people, even physicians, do not comprehend the value of the collection. “It’s not just a national source of preserved tissue, it is international,” he says.

“Preserved tissue will no longer be collected in one archive. Instead it will be sent to individual pathologists,” he says. Furthermore, pathologists in the USA can pay for other services and consultants, he says. “Other countries may not have these kinds of options.”

Dr Kingsley Asiedu, who is a medical officer in the Department of Neglected Tropical Diseases at the World Health Organization in Geneva, agrees. He says many pathologists working in Africa will struggle to find alternatives to the AFIP in their work on diseases such as Buruli ulcer. For the past 15 years, Asiedu has worked closely with pathologists in Benin, Côte d’Ivoire, the Democratic Republic of Congo, Ghana and Togo seeking to understand how infection is transmitted as well as trying to improve diagnosis, treatment and prevention. An

important part of that work has involved sending tissue samples to AFIP, in particular to pathologist Dr Wayne Meyers, one of the world’s leading authorities on Buruli ulcer. Meyers is writing an AFIP book on the clinical pathology of invasive arthropod diseases; it will be the last book to be published by the institute.

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James Murphy

“Without the kind of support offered by experts like Meyers, doctors and pathologists in Africa will struggle,” says Asiedu, pointing out that pathology services are not well developed in Africa. “They suffer from a chronic lack of human resources and are often overwhelmed.” As for going elsewhere for help, Asiedu explains that, while certain institutions do take an interest in diseases like Buruli ulcer, they do not cover them with the same level of expertise or bring to bear the

same level of technical resources. “We can get occasional help from places like Guy’s and St Thomas’ NHS Foundation Trust in London, the Swiss Tropical and Public Health Institute or Anatomia Patologica e Citopatologia in Italy, but their work on a specific disease may be just a secondary activity and we cannot therefore ask them for the same level of support that AFIP provided,” he says. “So the closure of the AFIP will be a real loss to us.”

According to the AFIP’s web site, the institute received around 50 000 surgical and autopsy consultation requests from pathologists around the world in 2007. Those who request help benefit not just from AFIP’s expert pathologists, but can also draw on a staff of over 50 histopathology and electron microscopy technicians.

The proposed “disestablishment” of AFIP so alarmed the late Dr Daniel Seckinger, past-president of the College of American Pathologists, that he told the Defense Base Closure and Realignment Commission in July 2005 that AFIP was not just a “national treasure” but also one of the few facilities in the USA able to offer some sort of response to a bioterrorist attack. “I urge the commission to keep in mind that once you dismantle 150 years of unmatched professional medical and scientific expertise, there is no turning back,” he said.

As a result of this and other concerns raised at the commission, the United States Department of Defense is establishing a Joint Pathology Center (JPC) to open in 2011. While it will replace some of the functions of the AFIP, its purpose will be primarily military and it will be relatively small in comparison to the AFIP, which has almost 800 members of staff. The tissue repository will be housed at JPC’s Maryland premises but it is widely understood that only United States military staff will have access to the archive – not civilian researchers. Despite the imminent closure of AFIP, JPC’s functions have not yet been settled, according to spokesman Craig Ratcliff. “There are no answers to these questions yet.” However, he confirmed that “JPC will not have the capacity or staffing to maintain all the diverse functions of the AFIP.”

AFIP is also non-committal, with director Florabel Mullick deeming it inappropriate to comment at this time. ■



President Dwight Eisenhower attended the dedication of the AFIP in 1955.