coli O157 in Africa. Emerg Infect Dis **2001**; 7: 812–9.
7. Kebede A, Polderman AM. Etiology of acute diarrhea in adults in southwestern Nigeria [letter]. J Clin Microbiol **2004**; 42:3909; author reply 3909–10.
8. Okeke IN, Klugman KP, Bhutta ZA, et al. Antimicrobial resistance in developing countries. Part II: strategies for containment. Lancet Infect Dis **2005**; 5:568–80.
9. Abalaka JO. Attempts to cure and prevent HIV/AIDS in central Nigeria between 1997 and 2002: opening a way to a vaccine-based solution to the problem? Vaccine **2004**; 22:3819–28.

Reprints or correspondence: Dr. Iruka Okeke, Haverford College, 370 Lancaster Ave., Haverford, PA 19041 (iokeke@haverford.edu).

Clinical Infectious Diseases 2006; 42:1501–3

Medical Laboratory Services in Africa Deserve More

To the Editor—The recent review by Petti et al. [1] and the editorial commentary by Bates and Maitland [2] are timely contributions to the literature about the situation regarding inadequate medical laboratory services in Africa, as well as some of reasons behind this situation. The suggestions by Petti and colleagues about how laboratory services may be improved are thought provoking, but evidence from Africa about where implementation of programs has achieved success is difficult to come by. The authors refer several times to situations in which laboratory services continue to be less than acceptable. Interestingly, the British government allocated £950,000 to Malawi in 1998 to improve medical laboratory services [3]. This amount of money is equivalent to 40% of Malawi's gross national budget for the 2005–2006 financial year. Obviously, if the finances necessary to improve laboratory services require such amounts of money, Malawi may not be able to commit the necessary resources to the improvement of laboratory services.

We agree with Petti et al. [1] that overreliance on empirical treatment and management of syndromes have contributed to the relegation of laboratory services in many African countries. In Malawi, for instance, syndromic management of sexually transmitted infections, presumptive treatment of malaria in pregnant women, and initial treatment of all cases of fever as if they were due to malaria are the national standards of practice [4]. We suggest that all presumptive and empirical treatment measures be considered temporary and that etiologic diagnosis and treatment be the gold standard. Unfortunately, it is not uncommon for paying clients to access private antenatal clinics and to be provided with presumptive antimalarial therapy as a matter of routine when laboratory investigations could have been conducted first.

The lack of continued medical and professional development as a requirement for reregistration of health professionals in some of the developing nations impedes progress in laboratory services [5]. We also suggest that, if some physicians trained in laboratory medicine and pursued that as a profession, changes may occur. The usual practice, however, is for technician-level staff to take charge, but in many cases, these leaders cannot stand up effectively enough to influence the medical establishment. The training and recruitment of biomedical technicians for the maintenance and repair of laboratory equipment should also be a matter of priority.

Acknowledgments

Potential conflicts of interest. A.S.M. is the Lecturer in Community and Public Health at the Malawi College of Medicine, and F.M. is the Senior Lecturer in Medical Sciences at the Malawi College of Health Sciences (MCHS). The MCHS is 1 of only 2 institutions for the training of laboratory technicians in Malawi.

Adamson S. Muula[1,3] and Fresier C. Maseko[2,4]

[1]Department of Community Health, University of Malawi College of Medicine, Blantyre, and [2]Malawi College of Health Sciences, Lilongwe, Malawi; [3]Department of Epidemiology, University of North Carolina at Chapel Hill; and [4]Ecole de sante Publique, Université Libre de Bruxelles, Brussels, Belgium

References

1. Petti CA, Polage CR, Quinn TC, Ronald AR, Sande MA. Laboratory medicine in Africa: a barrier to effective health care. Clin Infect Dis **2006**; 42:377–82.
2. Bates I, Maitland K. Are laboratory services coming of age in sub-Saharan Africa? Clin Infect Dis **2006**; 42:383–4.
3. Department for International Development (United Kingdom). DFDIM consultations and recommendations. **2005**. Available at: http://www.dfid.gov.uk/pubs/files/gener-audit-malawi3.pdf. Accessed 26 January 2006.
4. Muula AS. Mismanagement of malaria among travelers in developing countries. Clin Infect Dis **2005**; 40:1382–3.
5. Muula AS, Misiri H, Chimalizeni Y, Mpando D, Phiri C, Nyaka A. Access to continued professional education among health workers in Blantyre, Malawi. Afr Health Sci **2004**; 4:182–4.

Reprints or correspondence: Dr. Adamson Muula, Dept. of Epidemiology, University of North Carolina at Chapel Hill, 529 Hillsborough St., H 7, Chapel Hill, NC 27514 (muula@email.unc.edu).

Clinical Infectious Diseases 2006; 42:1503

The "Achilles Heel" of Global Efforts to Combat Infectious Diseases

To the Editor—In the 1 February 2006 issue of *Clinical Infectious Diseases*, a timely article by Petti et al. [1] on the need for increased investment in laboratory services in Africa was accompanied by an excellent editorial commentary by Bates and Maitland, who called for "laboratories and their advocates … to be given a much louder voice on the international health care stage" [2, p. 384]. Many have become concerned that laboratory services are the "Achilles heel" in global efforts to combat HIV infection, tuberculosis, and malaria and the antimicrobial resistance that accompanies them.

On 9–10 May 2005, the American Society of Microbiology (ASM) held a meeting of experts from the United States and other countries to engage in a thoughtful discussion about laboratory infrastructure needs in underresourced countries to support infectious disease prevention and control programs. The meeting focused on (1) the need to increase the awareness of the importance of laboratories to the success of public health programs in underresourced countries and (2) ways to build on existing or planned programs that require a good laboratory system for a program's success.

The ASM report [3] describes several opportunities to enhance laboratory services in developing countries, with 2 opportunities of particular note: (1) improvement in the understanding of and knowledge about countries developing, implementing, and evaluating the President's Emergency Plan for AIDS Relief program and the Global AIDS Program to address the critical need for adequate laboratory systems to support the goals of these programs, both for diagnosis of HIV infection and for clinical management of patients; and (2) encouragement of polio laboratories, where feasible, to address laboratory needs of the highest priority in these countries. Polio laboratories are already assisting in limited areas with prevention and control of several other viral diseases of high priority. The report also recommends a global coordinated focus for advocacy and support of laboratories vital to global public health programs (e.g., a Secretariat).

More recently, the ASM responded to a request by the Centers for Disease Control and Prevention to assist with the President's Emergency Plan for AIDS Relief program. Under a 4-year cooperative agreement, the ASM's "Building the Capacity of Microbiological Laboratories for HIV/AIDS and Opportunistic Infections Program" will address 2 key aspects in the building of clinical microbiological laboratory capacity: (1) strengthening laboratory organizational and technical infrastructure, especially as it relates to clinical microbiology for HIV prevention, care, and treatment programs; and (2) assuring the quality of laboratory testing. Working through ASM members who have been chosen on the basis of their technical and cultural expertise and experience from among the societies' clinical laboratory microbiologists and immunologists worldwide, the ASM will support laboratories with direct, hands-on guidance in laboratory management and procedures. The Association of Public Health Laboratories, American Society for Clinical Pathology, and Clinical Laboratory Sciences International are also instrumental in assisting with this need as partners of the Centers for Disease Control and Prevention.

At the same time that we address HIV/AIDS, the urgency of strengthening laboratory services for all major infectious diseases is increasing. Rapid increases in the prevalence of multidrug-resistant tuberculosis are not being well monitored, cases of bacterial disease are assumed to be malaria, and antimicrobials continue to be inappropriately distributed [1]. The unseen laboratory is the underpinning for the major treatment and prevention programs for infectious diseases, and further impetus is needed to ensure that programs designed to strengthen the world's health do not neglect this critical resource.

Acknowledgments

Potential conflicts of interest. All authors: no conflicts.

Ruth Berkelman,[1] Gail Cassell,[2] Steven Specter,[3] Margaret Hamburg,[4] and Keith Klugman[1]

[1]Rollins School of Public Health, Emory University, Atlanta, Georgia; [2]Eli Lilly and Company, Indianapolis, Indiana; [3]College of Medicine, University of South Florida, Tampa; and [4]Global Health and Security Initiative, Nuclear Threat Initiative, Washington, D.C.

References

1. Petti CA, Polage CR, Quinn TC, Ronald AR, Sande MA. Laboratory medicine in Africa: a barrier to effective health care. Clin Infect Dis **2006**; 42:377–82.
2. Bates I, Maitland K. Are laboratory services coming of age in sub-Saharan Africa? Clin Infect Dis **2006**; 42:383–4.
3. American Society for Microbiology. Strengthening microbiologic laboratory systems to support infectious disease prevention and control programs in under-resourced countries, final meeting report. Washington, DC: American Society for Microbiology, **2005**. Available at: http://www.asm.org/Policy/index.asp?bid=37831. Accessed 9 April 2006.

Reprints or correspondence: Dr. Ruth L. Berkelman, Center for Public Health Preparedness and Research, Rollins School of Public Health, Emory University, 1518 Clifton Rd., Rm. 420, Atlanta, GA 30322 (rberkel@sph.emory.edu).

Clinical Infectious Diseases 2006; 42:1503–4

Methicillin-Resistant *Staphylococcus aureus* Bacteremia after Isolation from Urine

To the Editor—We read with great interest the article by Muder and colleagues entitled "Isolation of *Staphylococcus aureus* from the Urinary Tract: Association with Symptomatic Urinary Tract Infection and Subsequent Staphylococcal Bacteremia" [1]. We agree that *S. aureus* should be considered a pathogen in urine and that clinicians should be aware that the isolation of *S. aureus* from urine samples places patients at higher risk for eventual *S. aureus* bacteremia. The authors describe a cohort of 102 male Veterans Affairs Medical Center patients and showed that 16 patients (15.7%) had staphylococcal infections after *S. aureus* was initially isolated from urine samples. They note that the rate of subsequent infection was particularly high among patients from whom methicillin-resistant *S. aureus* (MRSA) was isolated [1]. We sought to determine whether the rate of reinfection with MRSA would be as high in patients in community hospitals.

The Duke Infection Control Outreach Network (DICON) is a network of 31 community hospitals located in Virginia, North Carolina, South Carolina, and Georgia. Prospective surveillance is performed for multidrug-resistant organisms in these hospitals. These multiple-center surveillance data are maintained in a single master database. Using this database, we identified all patients with urine cultures that grew MRSA in these 31 community hospitals. From 1 January 1999 to 1 October 2005, we identified 1661 MRSA urine isolates from 1015 patients in 4,433,357 patient-days (rate of isolation of MRSA from urine samples, 0.37 cases per 1000 patient-days). Of these 1015 patients with MRSA isolated from urine samples, 51 (5.0%) had concurrent bacteremia due to MRSA, 18 (1.8%) had MRSA bacteremia before isolation of MRSA from urine samples (range, 1–265 days), and 17 (1.7%) had bacteremia after isolation of MRSA from the urine samples (range, 1–33 days). This database