**Course Director:** Eric Powers, MD  
Email: powerse@musc.edu  

**Course Coordinator:** Kathleen Ellis  
Telephone #: 843-792-5602  
Email: ellisk@musc.edu

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Does this rotation accept visiting students? ☑ YES ☐ NO

**Course Description:**
This is a four-week clinical elective in Dar es Salaam, Tanzania, designed for fourth-year medical students with a genuine interest in global health and in caring for underserved populations. This rotation will expose the student to 1) medical care at a national hospital (Muhimbili National Hospital) in a developing country which has recently invested in an advanced cardiac center and 2) participation in a rural outreach clinic where MUSC and Muhimbili University of Health and Allied Sciences (the national university) have an active, NIH-funded field research site focused on large-scale community-based prevention and care programs, including integration of screening for non-communicable diseases such as diabetes and hypertension with HIV testing, coupled-based HIV treatment, HIV pre-exposure prophylaxis for HIV-uninfected clients coupled with HIV-infected partners, home-based monitoring for diabetes and hypertension, development of a low-cost locally produced glucometer, studies of the prevalence and predictors of non-communicable diseases (diabetes, hypertension, CKD), tailored counseling and testing for HIV based on risk profile, home-based HIV self-testing, and an incentive-based program to encourage sexual partners of HIV-infected and high risk patients to seek HIV testing. The primary focus will be on teaching the student to rely on clinical skills and judgment in addition to technology available in that setting. Students will participate in all aspects of care of medical patients at Muhimbili National Hospital. This will include daily inpatient ward rounds, outpatient clinics, ICU, and emergency room management of medical patients. There will be hospital-wide didactic teaching sessions involving attendings and students, didactic conferences, case presentations and interactive sessions with attendings. Students will be exposed to a wide spectrum of heart diseases in addition to problems not commonly seen in the U.S. such as malaria, typhoid and rheumatic heart disease.

**Learning Goals & Objectives:** At the completion of this clinical rotation students should be able to do the following:
1. Gather accurate and essential information in a system without modern technological equipment and use that information to provide best possible care. (PC1, PC3, PC6)
2. Diagnose and manage illnesses that are common worldwide but are rare in the U.S. (PC2)
3. Assist with diagnostic evaluation and provision of care to patients on the MNH medical ward under the supervision of attending physicians. (PC2, PC3, PC6, PC7)
4. Participate in the diagnosis and treatment of a wide spectrum of heart diseases and other prevalent health conditions. (PC2, PC3)
5. Demonstrate understanding of diseases in low-income countries and integrate and apply basic and clinical science knowledge to these diseases. (MK3, MK7)
6. Examine the role of community-based interventions in providing health care in rural communities with relatively limited resources to ensure proper treatment in patients with chronic health issues. (PC6, PR3, PL1, PL6)
7. Demonstrate expanded medical knowledge of heart disease and treatment in poor socioeconomic conditions by assisting with histories, physicals and assessments (rheumatic heart disease, etc.). (MK3, MK7, PC1, PC2, PC3)
8. Discuss how the local patient population’s health practices, culture, and beliefs affect the patient. (PR2, PR3, PR4)
9. Demonstrate insight into health care disparities and social determinants of health. (MK7, SL4)
10. Demonstrate the ability to adapt clinical skills and practice in a resource-constrained environment. (SL1, SL2)
11. Discuss the challenges of cross-cultural communication in a multilingual context. (CS1, PR1)
12. Exemplify an awareness of and respect for cultural differences unique to their experience and self-evaluate during difficult interactions. (PR3, PD1)
13. Demonstrate sensitivity and openly discuss ethical decision-making in treatment of patients as well as in teaching situations. (CS3, PR2)
14. Discuss the ethical dilemmas posed in an developing country hospital such as limited resources, needs of poor patients. (PL1, SL2, SL4)
15. Demonstrate humility, flexibility, professionalism, and cultural sensitivity when working within a different healthcare context. (PR1, PR3)
16. Demonstrate an understanding of cultural and ethical issues working with underserved populations. (CS2, PR2, PR3)
17. Discuss the various health care systems available in Tanzania and how this hospital fits into that system. (SL1, SL3)
18. Identify barriers to health and health care in low-resource settings. (SL4)
19. Develop an understanding of the need for feasible interventions targeted to the local health system realities that maximize positive health outcomes at a low cost. (PL6, SL2, SL4)

20. Demonstrate an appreciation of the need for continuity of interventions at the community level, and the risks and perils of sporadic provision of services in low-income settings. (SL1, SL4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Participating in daily rounds and conferences on the Cardiology services of the Muhimbili National Hospital.
2. Participating in the evaluation and management of patients undergoing routine and advanced cardiac procedures and the evaluation and care of patients presenting to the Emergency Department at Muhimbili National Hospital.
3. Participation in a rural outreach clinic where MUSC and Muhimbili University of Health and Allied Sciences (MUHAS) have an active, rural field site focused on large-scale community-based programs addressing HIV testing, linkage and retention to care, couples-based interventions, and non-communicable diseases. Students will participate in the diagnosis, education and management of patients.
4. Students will be expected to spend one day in the MUSC Ashley River Tower Heart And Vascular Center prior to departure in order to observe advanced cardiac procedures in the U.S. to gain an understanding of the differences in health care systems.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:

1. Wide spectrum of heart disease and heart-related diseases
2. Chronic communicable diseases common to the area (TB, Malaria, HIV/AIDS)
3. Non-communicable diseases such as diabetes and hypertension

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:

1. Exit interviews with MUSC supervising faculty upon return to the U.S.
2. E*Value Clinical Performance Evaluation completed by supervising faculty at Muhimbili.
3. Presentation and discussion of patients with the consult attending.
4. Direct observation of clinical patient care skills verbally evaluated by the attending physician.
5. Student will be required to present a 45-minute case-based presentation from a clinical experience seen at MNH or field site. Student will meet with course director to discuss case details and presentation forum.

Will students be expected to participate in call? □ YES □ NO

ADDITIONAL INFORMATION: This course requires the following:

1. Approval by the COM Associate Dean for Curriculum - Clinical Sciences and the COM Selectives and Electives Committee. Permission to participate in this elective may be denied or revoked after original permission is granted if for any reason concerns arise regarding safety or quality of the educational experience.
2. Coordination of travel with the MUSC Center for Global Health and adherence to the MUSC International Travel Policy and restrictions, which includes
   a. Registration of travel with International SOS, the university international travel assistance provider
   b. Completed Health and Safety Plan
   c. Completed International Travel Waiver
3. Vaccines are required for travel into Tanzania; please see the CDC website on travelers’ health and/or visit the MUSC Travel Medicine Clinic for more details

**Funding may be available to cover costs associated with this elective, please contact Kathleen Ellis in the Center for Global Health at ellisk@musc.edu for details.**