Engeye Uganda Project

Janet Lin, MD, MPH recently returned from rural Uganda where she conducts ongoing work and research. For the past three years, she has been working with Engeye Health, a non-profit organization registered both in the U.S. and Uganda, to increase access to quality healthcare in Ddegeya Village and its surrounding communities. Engeye Health was founded in 2006 with a mission “to improve living conditions and reduce unnecessary suffering in rural Africa through education and compassionate health care.” Currently, Dr. Lin is serving on the advisory board of the organization assisting with public health programming.

Three years ago, she conducted a study to better identify local barriers to healthcare. This July, she returned to continue work that was started the previous year to describe health-seeking behaviors in the community. Her fieldwork has incorporated teams of international emergency medicine fellows, attending and resident physicians, nurses, and UIC medical and public health students. Each team participates in clinical care and help conduct assessments, learning not only about diseases, but how illnesses are perceived, approached and treated. They work with national staff that runs the clinic throughout the year. This year, in addition to the health seeking behavior assessment, she also worked on a mapping of the surrounding area (with the aid of GPS units) to better identify where patients that seek care at Engeye are coming from.

An interesting twist to this year’s trip was that it was cut short because of the Ebola outbreak that occurred in Uganda while the team was there. While the risk of exposure to the disease was relatively low, the decision was made to evacuate the country to ensure safety of all team members. On August 4th, the team returned to the U.S.

Ebola Outbreak in Uganda

The last documented case of Ebola in Uganda occurred on August 3rd. The patient was discharged after 21 days. An outbreak is declared over after the last documented case has met the maximum incubation period for Ebola. The outbreak began in July and was located in the western part of the country in Kibaale District. It was linked to a funeral and the first victim was a 3 month-old child. In total, 24 cases were reported, 11 cases laboratory confirmed. There were 17 deaths associated with this outbreak. There is a new current outbreak in the Democratic Republic of Congo, which reportedly has infected up to 108 people, killing 31. This is an unrelated outbreak and has been linked to eating tainted bushmeat that local villagers hunted.

What is Ebola?

Ebola virus is a group of five distinct species that can cause a viral hemorrhagic fever. The origin of the name of virus is the Ebola River located in the Democratic Republic of Congo. Clinically, the presentation is similar to Marburg virus. The case fatality rate of Ebola virus ranges from 25-90%.

Initial signs and symptoms of an Ebola infection are similar to a nonspecific flu-like illness. It is characterized by sudden onset of fever and chills, malaise, muscle pain, headache and sore throat. This can be followed by nausea, vomiting, diarrhea, abdominal pain, and progress to internal and external bleeding with kidney and liver failure. The differential diagnosis of an Ebola virus infection includes: malaria, typhoid, shigellosis, cholera, leptospirosis, plague, rickettsiosis, relapsing fever, meningitis, hepatitis and other viral hemorrhagic fevers. The incubation period varies between 2 to 21 days.

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What is Ebola?

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There is no specific treatment or vaccine for Ebola infection. It is primarily supportive and for the hemorrhagic presentations, prevention and treatment for disseminated intravascular coagulation. Prevention is primarily aimed at standard universal precautions (hand washing, gloves, etc.) to avoid direct contact with infected tissue (meat), blood, or bodily fluid. It is not spread by aerosol or an inhalational route of contamination, but rather via a droplet route of contamination.

Ebola virus is associated with primates, and exposure to primates is often the source of infection to humans. However, they are generally not considered the reservoir, but accidental hosts, like humans. The natural reservoir is thought to be fruit bats. Spread to humans of the virus is typically due to oral or conjunctival exposure from infected fresh blood, raw milk or animal tissue. Human to human transmission is due to direct contact with infected blood and bodily fluids. Healthcare worker infections are associated with failures to observe and/or practice proper infection control: gloves, eye protection, gowns, and hand washing.

Task Shifting in sub-Saharan Africa

October’s African Journal of Emergency Medicine featured an article entitled “Task shifting: Meeting the Human Resource Needs for Acute and Emergency Care in Africa”, co-authored by Dr. Stacey Chamberlain with the Center for Global Health. Task-shifting is the practice of using different cadres of health care providers, often nurses, to assume new roles and responsibilities that are not traditionally within their scope of practice. This concept is being promoted by many organizations, including the World Health Organization, to address the critical shortage of health care workers in many resource-limited settings. Task-shifting has been shown to increase access to quality care in a cost-effective manner in other disciplines; this article highlights how this model can be successfully applied to the emergency care setting.

MS Ramaiah Medical College Agreement

In August, a delegation from the Center was invited to visit the MS Ramaiah Medical College in Bangalore, India. Tim Erickson, Bellur Prahakar, Ai-Xuan and Mark Holterman, Marcia Edison, and Rhea Begeman made presentations to faculty, acted as observers in a “Disaster Drill,” toured the Institute of Ayurveda and Integrative Medicine (I-AIM), and signed an affiliation agreement which should lead to collaborations in education and research between our institutions.

GMED Program

Our GMED students are now up and running in medical school. We began our program with a welcome party so we could mingle with and greet our new class. The students have participated in several co-curricular activities this semester, and have been introduced to the program goals and expectations, the capstone project roadmap and requirements, the global burden of disease, and the social determinants of health.

Our students have been assigned Introduction to Patient Care (IPC) faculty who are all globally minded and selected especially for them. All in all, a great start for our first GMED class!

Health Care Without Harm

Peter Orris attended the third session of the International Conference on Chemicals Management from September 17th-21st, 2012, in Nairobi, Kenya. Over 400 delegates, representing 122 governments, 19 international organizations and 79 nongovernmental organizations and industry participated in the week-long Conference. Highly hazardous pesticides emerged as an issue at the meeting, where delegates called for their elimination, substitution and addition to the FAO Code of Conduct. A strengthened resolution on elimination of lead paint that includes promotion of national regulatory frameworks was also adopted.
**Vietnam MOU Signing’s**

In September, Valerie Dobiesz & Tim Erickson traveled to Vietnam with two inspirational Pediatric Surgical colleagues, Dr. Ai Xuan Holterman and Dr. Mark Holterman from the University of Illinois COM Peoria campus and their NGO, IPSAC (International Pediatric Specialists Alliance for the Children of Vietnam). It was a very productive trip with signing of MOU’s (Memorandum of Understanding) with hospitals and medical centers in Ho Chi Minh City, Hue, Da Nang, and Hanoi.

The UI team gave several educational presentations and met with the country's Minister of Health who has a great vision and future plans to improve the health care system in Vietnam through educational and research exchanges.

Future trips are scheduled for March 2013 & September 2013 to assist with pediatric patient care and team teach Advance Pediatric Life Support (APLS) and Advanced Trauma Life Support (ATLS) courses with the Vietnamese faculty.

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**Emergency Medicine Resident Education in Uganda**

Through Dr. Stacey Chamberlain's work with a training program for midlevel providers in emergency care in rural Uganda, over the past several years, UIC Emergency Medicine residents, have had the opportunity to do a clinically-based elective in a rural Ugandan ER. Several EM residents, including Drs. Cullen Kehoe, Sam Hayward, and Phil Mumm, as well as one of the international EM fellows, Dr. Eugene Oh, have participated in bedside teaching of Ugandan Emergency Care Practitioners (ECPs) and participated in clinically-based research projects. This spring, resident physician, Dr. Josh Sawyer, one of the recipients of this year's Derek Piper Scholarship, will be traveling to Uganda to work and teach the ECPs. The elective exposes EM residents to the clinical practice of emergency medicine in a resource-limited setting where they not only learn how to manage acutely ill patients with limited diagnostic testing and treatment options, but also patients with a unique disease spectrum including malaria and other tropical diseases, advanced presentations of disease, and HIV/AIDS complications.

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**Global Health Faculty Briefs**


Janet Lin, MD, MPH is the Chair-elect of the International Section of ACEP. ACEP is one of the largest organizations that support emergency care in the U.S. and abroad. It represents over 28,000 physicians, residents, and medical students. The International Section has a membership of over 1000 and is one of the College’s largest and most active sections. This year, the International Section had a Spanish High-Tech Simulation Lab, an Education session on Ethical Considerations in Global Emergency Medicine, and a Low-Tech Simulation Didactic and Lab Sessions during Scientific Assembly held October 7-9, 2012.

Daniel Hryhorczuk was named a “Top Doctor” in Occupational Health By US News & World Report.

Oleg Dardynskiy visited Belarus and Germany as part of the research project "t(14;18) Translocations in Dioxin Exposed Workers." He worked on quality control and cleaning of collected data.

Dan Hryhorczuk was awarded a Fogarty International grant through their GEOHealth Program titled “Building on Excellence: an Interdisciplinary GEOHealth Hub in Ukraine.”

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**CGH Network Meeting Presenters**

**August 2012**
Andrew Dykens, Department of Family Medicine— Cervical cancer screening and primary care intervention in Senegal and West Africa

**September 2012**
Stevan Weine, Professor of Psychiatry & Director of Research Training, CGH— "Building Resilience to Counter Violent Extremism"

**October 2012**
Geri R. Donenberg, Associate Dean of Research, School of Public Health— "Project STYLE: Adapting a Family Based HIV Prevention Program for South Africa"

According to Dolphin: (1) Porphyria victims are extraordinarily sensitive to sunlight. Even mold exposure can cause severe disfigurement. Facial skin may scar, the nose and fingers may fall off, and the lips and gums may become so taut that the teeth project like fangs. (2) To avoid sunlight, people with serious cases of porphyria go out only at night. (3) Currently, porphyria can be treated with injections of blood products. Centuries ago, porphyria victims might have sought to treat themselves by drinking blood. (4) Garlic contains a chemical that worsens porphyria symptoms, causing sufferers to avoid it—just like vampires.

Porphyria is named from the ancient Greek word porphura, meaning purple. The Greeks borrowed the term from the Phoenicians, who extracted a purple pigment from purpura mollusks to dye the garments of their royal families.

“The world is not dangerous because of those who do harm but because of those who look at it without doing anything.”

~Albert Einstein

“Where in the World…?”

Dr. Chris Stout went to Washington DC for Committee on International Affairs in Psychology meetings for the American Psychological Association and to Springfield MO to deliver the Commencement Address for the Forest Institute Doctoral class in clinical psychology.

Dr. Mona Khanna volunteered treating survivors of the Great Tohoku Earthquake and tsunami in Ogatsu and Ishinomaki, Japan. In July she also travelled to Santo Dominigo, Dominican Republic on a strike team with the Rush Global Health Program providing care in the barrios through several community churches to assess the possibility of a long term collaboration with the churches.

Dr. Dharmapuri Vidyasagar and Dr. Nagamani Beligire travelled to Chennai, India this past month on an educational exchange in Developmental Pediatrics and Neonatology.

Dr. Marilyn Miller has been to Nanjing, China to work on a collaborative project, to Calabar Nigeria to visit a hospital that a small NGO has supported, and also gave a lecture to the Ophthalmologic Society of Nigeria. She visited Madurai, India to give lecture at Aravind Eye Hospital in September as well.

Chun-Tao Che attended the Scientific Committee meeting of the Hong Kong Chinese Materia Medica Standards project in Hong Kong, where he is also a member of the International Advisory Board.

In July, Dr. Alan Lau travelled to Hong Kong to attend a board meeting of the Asian Conference of Clinical Pharmacy and then to Singapore to conduct a consultation visit for the Ministry of Health on clinical pharmacy post-graduate training programs. He returned to China in September and then to Indonesia for several presentations.