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SMITHS MEDICAL

Highlights

- *Clinton Global Initiative spotlights Tanzania healthcare worker safety initiative at September meeting*
- *Major article from Center documents the history—and success—of safety devices and needlestick legislation in the U.S.*

Inside:

EPINet Update 3

Focus on surgical safety 3

Conferences and presentations 3

Center publications 4

On the calendar 4

ACTIVITIES

September–November 2008

Global Fellows Program: Focus on India

FROM SEPTEMBER 22–26, 2008, physicians from India convened at the Center for training in sharps safety and prevention of occupational exposures to bloodborne pathogens. The fellows—Anita Arora, Murali Chakravarthy, Suryanath Gudidevuni, Girish Prabhu, Sharmila Sengupta, and Sanjeev Singh—came from cities across India and represented a range of specialties, including anesthesiology, biochemistry, clinical microbiology, pediatrics, infectious diseases and infection control.

The fellows underwent intensive training in EPINet surveillance methods, participated in seminars on epidemiology and infection control, toured and observed at U.Va.'s medical center, and were given a hands-on

introduction to safety-engineered devices and technology. They received 28 CME credits for the week-long program.

Dr. Murali Chakravarthy, chief of anesthesiology at Bangalore's Wockhardt Hospital, one of India's top healthcare institutions, told us he came back from the course "richer in knowl-

edge and generally motivated about what I do. I have already spoken to the [vice president of] quality at our hospital, and she has promised to help me set [healthcare worker safety] standards in all our hospitals." In an

interview with the Daily Progress, Charlottesville's local paper, Dr. Chakravarthy commented, "We've had some cases



Fall 2008 fellows with Center staff

where we had young, important doctors contracting infections from the patient and dying." He added, "We are going to make sure that the movement [for healthcare worker safety] spreads all across India." □



Regional Activities

AFRICA

Tanzania: The International Healthcare Worker Safety Center is a partner in a three-year project that will establish a Center for Excellence in Health Care Worker Safety at the

Bugando Medical Center in Tanzania. Major funding for the initiative comes from BD, with additional support from Merck and Americares, a non-profit organization. The ultimate goal is to train nearly 2,000 healthcare workers and medical students (serving more than 200,000 patients a year) over

the three-year period in key principles of occupational exposure prevention.

During the first year of the program, the Center will conduct baseline surveys and collect data to determine the characteristics of sharps injuries and blood exposures at Bugando. Center staff will also lead on-site sharps



The European Commission committee considering the needlestick prevention issue requested input from Janine Jagger on the U.S. experience and recommendations on the most effective policies for improving healthcare worker safety.

PAGE 2

Regional activities (cont.)

safety training and provide expert consulting in occupational exposure prevention. The program was highlighted at the Clinton Global Initiative annual meeting that took place in September in New York City.

- AmeriCares' press release about the program can be found at: <http://www.americares.org/newsroom/press/2008/americares-pledges-to-improve.html>
- The Clinton Global Initiative's description of the program ("Excellence in Health Worker Safety, 2008") can be found at: <http://www.clintonglobalinitiative.org/NETCOMMUNITY/Page.aspx?pid=2612&srcid=2384>

Congo: The Center will partner with BD and the Dikembe Mutombo Foundation (DMF) to provide training in healthcare worker safety and implement the EPINet surveillance system at the Biamba Marie Mutombo Hospital (BMMH) in Kinshasa, Democratic Republic of Congo. Mutombo Hospital was founded in 2007 by NBA star and Congo citizen Dikembe Mutombo as a model healthcare institution for the DRC and west Africa. The DMF plans to establish an occupational health program at the BMMH, and is working to obtain resources for a Center of Excellence in both immune system monitoring and healthcare worker safety.

This program was also given specific mention at the Clinton Global Initiative meeting in New York in September.

- Read the DMF press release about the project at: <http://www.dmf.org/news1.php?press=64&page=>

Uganda: An NIH-funded study of occupational exposure in a Ugandan surgical setting, led by Timothy Kimuli, M.D., is underway at Mulago Hospital in Kampala, Uganda. The study

will assess risk factors for blood and body fluid exposures, estimate exposure rates and cumulative risk for HIV seroconversion, and identify prevention and risk reduction measures. The Center will provide the data collection instrument (a version of EPINet developed specifically for surgical settings), training in OR surveillance, and technical support for data analysis. [See attached project description]

ASIA-PACIFIC

The Center's focus in the last quarter has been on building a knowledge base for occupational exposure prevention in India through its Global Fellows Program, as described on page 1. In January 2009, Dr. Jagger will speak at the annual meeting of the Hospital Infection Society of India, to be held in Pune. She will also visit some of the hospitals where the Center's Fall 2008 fellows work, and meet with selected authorities to promote policies for healthcare worker safety in India.

EUROPE

The European Commission is looking at strengthening its current directive (2000/54/ED) on the use of safety-engineered devices to prevent needlestick injuries, to make it closer to the U.S. Needlestick Safety and Prevention Act. The committee considering the issue requested input from Janine Jagger on the U.S. experience, and recommendations on the most effective policies for improving healthcare worker safety. She submitted the requested document to the EC committee last March; a decision on legislative action is anticipated by the end of 2008.

An adapted version of Dr. Jagger's EC document will appear in the December issue of the *Journal of Infection and Public Health* ("The impact of U.S. policies to protect healthcare workers from bloodborne pathogens: the critical role of safety-engineered devices" – see page 4).

LATIN AMERICA

With the assistance of Dr. Fernando Gomez of Uruguay, the Center is currently contacting a network of colleagues in Latin America (including ones in Argentina, Mexico, and Peru) who use EPINet to conduct occupational exposure surveillance, with the goal of facilitating collaborative exchange. Dr. Gomez has suggested translating the Latin America section of the Center's Global Initiative website into Spanish, an idea we intend to pursue.

MIDDLE EAST

In February 2009 the Center will participate in a seminar on occupational exposure prevention sponsored by the Gulf Cooperation Council Center for Infection Control (CIC), in collaboration with NIOSH (Dr. Ahmed Goma) and the WHO (Susan Wilburn). Ziad Memish, M.D., Director of the CIC, organized the program to provide EPINet training and to advance prevention initiatives throughout the Gulf States. The seminar will be held in Riyadh, Saudi Arabia.

NORTH AMERICA

Ontario's needle safety regulation (474/07), promulgated in August 2007, required hospitals to implement safety devices by

CONFERENCES AND PRESENTATIONS

❖ Simwale O, Phillips EK, Bloom I, Chung M, Johnson C, Munga S, Semanik M, Jagger J. Priority on prevention: Risk of bloodborne pathogen transmission among Zambian healthcare workers [poster session presented by E. Phillips]. XVII International AIDS Conference, Mexico City; Aug. 3-8, 2008. *Healthcare workers (HCWs) from five Zambian hospitals and clinics were surveyed about their experience with sharps injuries and blood exposures. Total exposures reported were 442; nurses sustained more than 50% of exposures. The mean percutaneous injury rate for surveyed workers was 1.4, compared to 0.17 for U.S. healthcare workers. 87% of workers reported that they had access to HIV postexposure prophylaxis, but only 8% said they were fully vaccinated for hepatitis B. Conclusions: Zambian HCWs' risk of infection is extremely high. They should routinely receive HBV vaccine free of charge. Safety-engineered devices for blood drawing and vascular access and puncture-resistant disposal containers are priority interventions. [Copy of*

poster available upon request.]

❖ Jagger J. Surveillance of healthcare workers' blood exposures: foundation for prevention. Annual Meeting of the Safe Injection Global Network (World Health Organization). Moscow; Oct. 13, 2008. *The adoption of the EPINet sharps injury and blood exposure surveillance program in countries around the world has resulted in international standardization of healthcare worker exposure data, which in turn facilitates data comparisons within and between countries. EPINet data on exposure risk provides the foundation for promoting the healthcare worker safety agenda worldwide. [Copy of Powerpoint presentation available upon request]*

❖ Perry J, Phillips EK. Sharps injuries and bloodborne pathogen infection risk to housekeeping and laundry workers. National Summit of Clinicians for Healthcare Justice. Washington, DC; Oct. 24, 2008.

Workers at the end of the health-care waste stream—housekeeping staff and laundry workers—are at substantial risk of exposures to bloodborne pathogens. Approximately 80% of hospital laundry is processed off-site in facilities that largely employ poor and immigrant workers. While exposure risk from sharps left in laundry is high, applicable regulations to protect workers (such as the Bloodborne Pathogens Standard) appear to be poorly enforced in offsite facilities. OSHA, hospital administrators, industrial engineers, researchers, and unions all have a role to play in reducing risk to laundry workers. In particular, hospitals need to find ways to reduce the volume of sharp medical waste that ends up in laundry, and industrial engineers need to reexamine the laundering process to decrease risk to workers while maintaining efficiency. [Copy of Powerpoint presentation available upon request.] □

FOCUS ON SURGICAL SAFETY

The Center has been working closely with Dr. Ramon Berguer of the Perioperative Care Committee (PCC) at the American College of Surgeons, as the PCC works on updating the College's recommendations regarding sharps safety in the OR. Needlestick prevention was the focus of a special session at the American College of Surgeons' 94th Annual Clinical Congress in San Francisco in October. The Center provided EPINet data on sharps injuries in surgical settings to assist the PCC in its deliberations. The PCC also requested the Center's input as it seeks to establish a subcommittee composed of surgeons that will focus on product evaluation. The product evaluation committee will be available to provide feedback directly to manufacturers that are in the process of developing safety-engineered scalpels.

EPINet Update

U.S. EPINet data reports for 2005 and 2006 are now available on our website. As of our last assessment, EPINet has been adopted to varying degrees in 60 countries and translated into 17 languages. Working with African colleagues, the Center has produced a simplified version of EPINet (for example, the list of devices is shorter, eliminating those with very low injury frequency) for use in sub-Saharan Africa. This streamlined version

has been requested by users in other regions as well. An Arabic version of EPINet is undergoing testing by colleagues in the Middle East, and a French version of EPINet designed for use in Quebec is in the final phases of testing as well.

Foreign language versions of EPINet can be accessed at the EPINet Global Resources page on the Center's Global Initiative website. □

Regional activity (cont.)

September 1, 2008. A 2007 Ministry of Labour news release stated that the "government intends to mandate the use of safety-engineered needles or needleless systems in long-term care homes, psychiatric facilities, laboratories and specimen collection centres in 2009, and in other healthcare workplaces (home care, doctor's offices, ambulances, etc.) in 2010." □

INTERNATIONAL HEALTHCARE WORKER SAFETY CENTER

University of Virginia Health System
PO Box 800764
Charlottesville VA 22908-0764

Phone: 434-924-5159

Fax: 434-982-0821

E-mail: janeperry@virginia.edu

On the web at:
www.healthsystem.virginia.edu/internet/safetycenter

ON THE CALENDAR:

- **January 2009:** Janine Jagger, "Protecting Healthcare Workers from Bloodborne Pathogen Exposure: Lessons Learned in the U.S." Annual Meeting of the Hospital Infection Society of India (www.hisindia.org). Pune, India; January 23-25, 2009.
- **February 2009:** Conference sponsored by the Gulf Cooperation Council Center for Infection Control; Riyadh, Saudi Arabia.
- **To be scheduled:** Training programs for projects in Tanzania, Democratic Republic of Congo, and Uganda.

PUBLICATIONS

Recent

Jagger J. *Fine points about safety syringes and level of risk [letter]. American Journal of Infection Control* 2008;36(7):501-2.

Discusses need to maintain product choice and a diversity of designs in the syringe market; includes table showing different kinds of safety-engineered syringes and appropriate applications of each. [copy attached]

Jagger J, Goma AE, Phillips EK. *Safety of surgical personnel: a global concern [letter]. Lancet* 2008;372(9644):1149.

The loss of surgeons due to occupationally acquired disease in countries where surgical personnel and resources are already scarce has a devastating impact; measures to protect their lives should be an inseparable component of any patient safety initiative. [copy attached]

Boal WL, Leiss JK, Sousa S, Lyden JT, Li J, Jagger J. *The national study to prevent blood exposure in paramedics: exposure reporting. American Journal of Industrial Medicine* 2008;51(3):213-22.

Data revealed a 28% underreporting rate for needlestick injuries and a 51% underreporting rate for blood exposures among paramedics. The most common reason for non-reporting was not believing the exposure to be a "significant risk." More education is needed to improve reporting rates among paramedics, which should lead, in turn, to improved access to post-exposure treatment.

In press

De Carli G, Puro V, Jagger J. *Needlestick-prevention devices: we should already be there [letter]. Journal of Hospital Infection* 2008.

Occupational exposure data from Italy's Studio Italiano Rischio Occupazionale da HIV (SIROH) group supports the efficacy of needlestick-prevention devices (NPDs) in reducing sharps injury risk to healthcare workers. Data from 16 hospitals (2003-2006) in which NPDs were implemented indicated that injury rates for NPDs were, on average, 80% lower than for conventional devices. During the same period, in hospitals that had not implemented NPDs 12 cases of occupational hepatitis C infection were reported, and one case of occupationally acquired HIV. Eleven of the 13 injuries that resulted in infection involved devices for which safety alternatives were available.

Jagger J, Perry J, Goma A, Phillips EK. *The impact of U.S. poli-*

cies to protect healthcare workers from bloodborne pathogens: the critical role of safety-engineered devices. Journal of Infection and Public Health, 2008.

Provides an overview of a decade and a half of progress in the U.S. towards reducing healthcare workers' risk of exposure to bloodborne pathogens, emphasizing the key role played by legislation in driving widespread implementation of safety-engineered devices.

Perry J, Goma AE, Jagger J. *Progress in preventing sharps injuries in the United States. Chapter in: Charney W, ed. Handbook of Modern Hospital Safety (2nd ed). CRC Press, Inc.;2009.*

Traces progress in preventing sharps injuries in the U.S., while also addressing some of the important issues and challenges associated with full implementation of the revised bloodborne pathogens standard.

Submitted

Boal WL, Leiss JK, Ratcliffe JM, Sousa S, Lyden JT, Li J, Jagger J. *The National Study to Prevent Blood Exposure in Paramedics: rates of exposure to blood.* □

Global Initiative website

Since the website went "live" in May 2008, it has had over 12,000 hits, and the number of visits has increased each month. We have posted in PDF format a large number of articles from the Center's former publication, *Advances in Exposure Prevention*, and now have an extensive surgical safety resource page, including a training video by Drs. Bernadette Stringer and Ted Haines on the hands-free technique for passing surgical instruments.