

News

A Symposium on International Health Policy and Medical Waste Management Research in Asian Region

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Keywords: Health care waste, Asian region, 3Rs, Infectious disease

On September 10, 2008, at the University of Tokyo, researchers from China, Laos, Mongolia, Pakistan, Thailand, and Japan exchanged results and shared experiences at the symposium on "*The International Health Policy and Medical Waste Management Research in Asian Region*". This three-year research was supported by the Ministry of Environment, Japan, highlighting 3Rs (Reduce, Reuse, Recycle) initiative toward the society without wastes, which was expressed by then Japanese Prime-Minister at G8 summit in 2004. Health care waste (HCW) management is drawing the global attention due to its hazardous nature and the potential to jeopardize not only the health of the patients but also the health workers and the community at large. It is known that inappropriate health care waste management causes infectious diseases, such as hepatitis B, C, and HIV/AIDS. Another relevant and important aspect is the inappropriate utilization of the small-scale incinerators at temperatures below 800°C in developing countries, as they are reported to produce dioxins, furans or other toxic pollutions while burning the wastes.

The introduction of sophisticated disposable equipment has even increased the pressure on already frail health care waste management systems in many developing countries. According to Dr. Chushi Kuroiwa, waste volume of auto-disable (AD) syringe, which was introduced in the pilot measles mass campaign in Laos, would be 200 times as much as those of sterilized syringes. Since the infrastructure for proper disposal of syringes waste is insufficient and inappropriate, consequently syringes are burnt improperly and thus posing the health workers and the communities at increased risk for injuries. He also briefly talked about the new needle removal machine, which has recently got patent in China. The machine is user friendly and of use in resource poor settings and will help the health care providers in achieving safer working environment.

Dr. Alongkone Phengsavanh from Laos reported that although segregations were relatively done well at major hospitals in Vientiane Capital, only 39% of health workers at the biggest hospital knew how the

International Health Policy and Medical Waste Management Research in Asian region Symposium

Time: September 10 (Wed.), 2008 9:30-16:30
Place: Seminar room no. 6, 13th floor of Faculty of Medicine Experimental Research Bldg. School of Medicine, Hongo Campus, The University of Tokyo
Participation Fee: Free
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 Kingdom of Thailand
The King Chulalongkorn University


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University of Health Sciences


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The University of Tokyo



waste should be separated. In northern part of Laos in Luang Namtha province, Dr. Yoshihisa Shirayama identified problems at each step of HCW management in health facilities, and shared that in the survey, 80% of the health workers acknowledged and felt the need that their HCW management system needs improvement. Ms. Yin-Ju Chen presented a detailed report on the adverse affects on the health of scavengers at the final landfill site in Vientiane Capital, Laos.

Dr. Xu Lingzhong, head of the School of Public Health, Shandong University, highlighted that issue of

urban-rural disparity in HCW management in China. Ms. Ruoyan Gai further the discussion by sharing results of her research pointing to differences in hospital waste management at different levels of hospital (such as tertiary, primary care levels). Ms. Zhang Zhuo reported positive impact of education intervention program on blood-born pathogens and injuries among health workers.

Waste-management infrastructure is not sufficient in many developing countries. In Mongolia, Dr. Budbazar Enkhtuya, head of the Department of Immunization reported 11.5% of healthcare facilities had small-scale low-temperature incinerators and even the incinerators in the capital city do not meet the WHO safety requirements. Dr. Hirsansuthikul from Chulalongkorn University pointed out the main issues facing HCW management in Thailand. He also reported only 22 out of 859 incinerators run at the recommended temperatures *i.e.* above 800°C in Thailand.

Dr. Moazzam Ali highlighted issues of health care workers safety and mentioned that the prevalence of needle stick and sharp injury was very high in Mongolian hospitals and majority of injuries occurred among nurses, followed by housekeepers. In majority of cases the common cause of injury was disposable syringe and most injuries occurred during recapping, opening of ampoule or vial and improper disposal of syringes. He also reported malfunction of HCW management in Pakistan hospitals and urged that regular trainings can create awareness and minimize the problem, as the injury incidence was clearly less among the trained health workers.

Dr. Masamichi Kinomoto, head of Biomedical Science Association, Tokyo, stressed the necessity of behavior change among health workers to bring sanitary and safe environment in healthcare facilities. He also highlighted the importance of education on HCW, which should preferably be initiated especially at elementary school level for children.

The presentations were followed by panel discussion on current issues in improving health care waste system in hospitals. It was an interactive session where diverse questions on the important issues were posed to the panelists by the participants. In the end

Dr. Chushi Kuroiwa summarized the main issues and thoughts from the symposium and finally thanked the participants for their keen and enthusiastic participation. The symposium ended with a note to further the continued collaboration and research sharing in order to improve the HCW management in the participant countries in moving toward waste free societies.

Appendix

- International Health Policy and Medical Waste Management Research in Asian Region (*Chushi Kuroiwa, The University of Tokyo, Japan*)
- Medical wastes management in Japan (*Masamichi Kinomoto, Biomedical Science Association, Tokyo, Japan*)
- Hospital Medical Waste Management in Shandong Province, China (*Xu Lingzhong, Shandong University, China*)
- Health care waste management in Mongolia (*Budbazar Enkhtuya, CCD, Mongolia*)
- Medical Waste in Thailand (*Narin Hirsansuthikul, The King Chulalongkorn University, Thailand*)
- Waste management in central hospital, Vientiane, Laos (*Alongkone Phengsavanh, University of Health Sciences, Laos*)
- Medical waste management in health care facilities in Binzhou District, Shandong Province, China (*Ruoyan Gai, The University of Tokyo, Japan*)
- Vulnerability of Chinese Medical Waste (MW) Management system (*Zhang Zhuo, The University of Tokyo, Japan*)
- Needle stick & sharp injures (NSSI) in health care workers in Ulaanbaatar, Mongolia
- Challenges and issues in hospital solid waste management: case study from Pakistan (*Moazzam Ali, The University of Tokyo, Japan*)
- Health status of scavengers working at the dumpsite in Vientiane, Lao PDR (*Yin-Ju Chen, The University of Tokyo, Japan*)
- Medical waste management in Luang-Namtha province in Lao PDR (*Yoshihisa Shirayama, The University of Tokyo, Japan*)
- Closing remarks (*Chushi Kuroiwa*)

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