

identification bulletin provides clear information to those who are seeking their family, and thus, avoids the chaos of the scene.

Discussion: From the experience of the earthquake-related MCI, we found that inadequate training causes time mis-triage and treatment delays. Our Disaster Response System facilitates the workflow with an easily practiced algorithm, reveals on-time and easily accessible information to the public, and altogether improves our MCI management.

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Nurse Leadership in a Small Hospital in the Less Developed Country: Is It Needs or Circumstances?

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Introduction: Clinic Communal de Miniera is a small hospital located in the poor Dixinn district in Guinea Conakry. The hospital functions with seven general physicians, three surgeons, one gynecologist, one dentist, and fifteen nurses. The facility provides small admitting wards for medical, gynecologist (mostly maternity), and pediatric patients. The average number of patients per day is about forty, including acute and ambulatory patients. Although there is a medical director, the daily work is run by the Head Nurse (HN) who is specialized (on spot) as an Emergency Nurse. Management of all emergency patients is based on her experience, personality and the reality of the organization.

Results: The circumstances emphasized the gaps between the managerial needs and existent reality, and raised the HN role to a team leader. The work will present the situation in the hospital as a case study related to “non-conventional” management due to a “deferent” situation and will highlight questions related to capabilities and risk factors.

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Nursing Can Improve Shelter Environment: Cluster Approach and the Sphere Standard Based Community Shelter Drill

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Introduction: As Florence Nightingale stated, nursing plays a critical role in environmental management for people in sick, injured, and even good conditions. In current practice, affected people are forced to reside in the evacuation shelters for a prolonged period in Japan. Unfavorable living conditions lead to adverse physical and psychological outcomes including cardiovascular events, depression, and more. However, environment management cannot be achieved without involving the community.

Aim: To initiate community into shelter environment management a multi-cluster drill was coordinated by the Department of Psychiatric and Mental Health Nursing, University of Miyazaki,

which appointed a director of Shelter Management for the annual nation-wide disaster drill hosted by the Cabinet Office of Japan.

Methods: With the Department of Health and Pharmaceuticals, Miyazaki Prefecture, the director invited local communities and held an exhibition type disaster drill on August 4, 2018.

Results: 36 organizations, including prefectural and municipal crisis management departments, health care organizations, a social welfare council, Red Cross, a telecommunication company, WASH cluster organizations, and the Japan Ground Self-Defense Force participated. The director requested to develop a plan filled with tactics and techniques protecting the health of people living in the shelter. Through meetings, the organizations recognized similarities and differences in roles, responsibilities, and capacities leading to an organized inter-cluster network. Participants created and prosecuted the plan independently and the director only orchestrated and negotiated with other supporting entities. The organizations exhibited and demonstrated how residents can protect their own physical and psychological health by setting up a proper shelter environment. Direct feedback from residents to organizations resulted in an expanded local network and the organizations improving their capacities.

Discussion: Shelter environment cannot be managed by nursing solely but coordination by nurses may consolidate multi-cluster aid organizations so that shelter environment management would be done by residents and local organizations.

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One Hospital's Timeline for In-Hospital Vertical Evacuation during a Flood Disaster

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Introduction: Recently, the risk of flood disasters due to concentrated heavy rains has been increasing in Japan. While some cases of hospital evacuation have been reported, standards for hospital evacuation have not been established and regional administrative evacuation plans do not include medical facilities.

Aim: To clarify the timeline for in-hospital vertical evacuation during a flood disaster.

Methods: A timeline was set for vertical evacuation as criteria of the hospital's emergency response based on the Arakawa River Downstream Timeline, which is an estimate of the time until river flooding based on the water level of the Arakawa River located near the facility. The timeline was calculated backward from 0 hours to when the river floods. A drill was held for verification.

Results: The timeline was based on the water level of the Arakawa River and objective evidence of risky transfer of critical patients; therefore, the decision to evacuate was made when the water level reached a dangerous level (-3 hours). However, this

did not provide enough time to evacuate patients in all hospital departments simultaneously, resulting in a shortage of human resources. There was a planned shutdown of the electronic clinical record system at 0 hours to avoid water damage and evacuation of its server, but three hours were not enough to prepare patient clinical summaries.

Discussion: There is a need for greater and earlier preparation for evacuation to reduce or discharge patients who can leave the hospital when a flood disaster is predicted. Only in-hospital vertical evacuation was considered because it is very risky to transfer critical patients without an evacuation order from government or municipal officials. In fact, over 10,000 patients would need to be evacuated in the region if the Arakawa River floods. Therefore, a regional plan is indispensable for such large scale and simultaneous hospital evacuations.

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Organohalogen Contamination in Vietnamese Women Electronic Waste Recyclers Living and Working in Rural Northern Vietnam

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Introduction: Electronic waste (e-waste) is increasing worldwide and is often shipped from developed to developing countries. Many of these products contain toxic levels of metals, organics, etc. When unsafe recycling approaches or methods are used (e.g., burning wire to reclaim copper), the resulting occupational exposures can adversely affect the health of e-waste recyclers.

Aim: To identify which polybrominated and which polychlorinated dibenzo-p-dioxins/furans are higher in electronic waste recyclers when compared to non-recyclers.

Methods: This study focused on female e-waste recyclers and non-recyclers that live in rural northern Vietnam. Whole blood, urine, and serum of forty e-waste recyclers and twenty Vietnamese comparisons and were evaluated for metals, organics, and dioxin-like exposure by the Center for Disease Control. This paper will be reporting on serum organohalogenes. The Vietnamese cohorts were compared to the U.S. general population, using the National Health And Nutrition Examination Survey. TEQ's were calculated and statistical significance was determined using Wilcoxon Rank Sum Test. The IRB of the University of Texas Health Science Center Houston and the Ethics Board of the Hanoi School of Public Health oversee this study.

Results: 12378-PeCDF, 123678-HxCDD, 123678-HxCDF, and 1234678-HpCDF were significantly different between recyclers and Vietnamese comparisons. Total dioxin TEQ was higher in e-waste recyclers than comparisons. Of the polybrominated dioxins and furans, 12378-PeBDD and 2378-TeBDF were significantly different between recyclers and comparisons.

Discussion: This is the only study with data on polybrominated dibenzo-p-dioxins/furans in female electronic waste recyclers from rural Northern Vietnam, and the first to describe serum levels of both polychlorinated and polybrominated

dibenzo-p-dioxins/furans in Vietnamese female e-waste recyclers. Improved occupational protocols may reduce potential adverse health effects such as cancer, endocrine, reproductive, developmental, and other disorders.

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PARABORN: A Training Program for “Outdoor” Activities by Pregnant Urgent Patients for Paramedics

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Introduction: Spontaneous delivery is a completely physiological phenomenon. Occupational obstetric care in a hospital environment focuses on supporting the mother, the smooth progression of the baby, and the treatment of the newborn child. Occupational activities play a rather supportive and assisting role. The obstetrician and the midwife are ready to respond immediately in the hospital environment to any complications or sudden emergencies. During a birth outside of the hospital environment, there are a number of influences that can cause complications in an unprepared environment without professional assistance, endangering the condition of both the child and the woman.

Methods: The educational concept of PARABORN focuses on situations outside the hospital environment. It is generalized and adaptable to varying geographic, economic, and cultural-political conditions of the target providers, particularly to rescue and paramedic teams. Educational concepts are specialized, interactive courses. The course includes a theoretical and practical block. In the theoretical part, the participants acquire knowledge of urgent obstetric conditions in an out-of-hospital environment including an overweight birth, bleeding, premature delivery, or a complicated delivery (non-standard position, umbilical cord prolapse, etc.). In the practical block, participants acquire the skills of acute interventions as well as methods of communication in these emergency situations. Practical training takes the form of case studies and can be tailored to the real geographic and cultural conditions in which the intervention units operate such as remote terrain, conflicts zones, etc.

Discussion: The knowledge of the cultural and political environment is a necessary prerequisite for managing the urgent situation. Paramedics, as first responders, should have adequate training to manage maternity situations in an out-of-hospital environment where a hospital environment is not available or accessible either by choice or circumstance.

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Pediatric Outpatient/Urgent-Care Emergency and Disaster Planning

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Introduction: Children are frequently victims of disasters, however important gaps remain in pediatric disaster planning. This includes a lack of resources for pediatric preparedness planning for patients in outpatient/urgent-care facilities. The