

of arrival, vital parameters, time before physician's assessment, and mortality were registered. Retrospectively, Injury Severity Score (ISS) was calculated, and patients were categorized according to the Rapid Emergency Triage and Treatment System (RETTTS).

**Results:** A total of 571 patients were analyzed, revealing a mean ISS of 12.2 (SD 7.7) and a mean length of stay of 11.6 (SD 18.3) days. 70% of the patients arrived by taxi, private car, or police car; only 17.6% were transported by ambulance. RETTTS categorization was compared with ISS using a Kruskal-Wallis test with Dunn's multiple comparisons post-test. A higher average ISS was found in the red category compared to other categories ( $H(df) = 24.47(4)$ ,  $p < 0.001$ ). A Spearman correlation test between ISS and time to assessment revealed an  $r$  value of  $-0.041$  ( $p = 0.43$ ).

**Discussion:** The results clearly illustrate a lack of correct prioritization of patients in relation to the need for timely assessment. Since there was no difference in time to assessment regardless of ISS, the need for a triage system is apparent. Currently, the implementation and evaluation of a validated triage tool at the emergency department are underway. Moreover, the finding that less than 18% of trauma patients are transported to the emergency department by ambulance illustrates the need to develop prehospital care systems.

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### Leadership and Factors Enabled the “Group Allocation” which Preserved Pre-existing Local Social Ties in Prefabricated Temporary Housing After Great East Japan Earthquake (GEJE)

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**Introduction:** Social isolation and death alone in the prefabricated temporary housing after a disaster has been a social concern. The importance of social ties among the community has been suggested and several reports pointed out the positive effect of “group allocation” which preserves pre-existing local social ties compared to the “lottery allocation”.

Japan Red Cross Society recommended “group allocation” as a better option than “lottery allocation” on their guidelines. However, many municipalities carried out “lottery allocation” for temporary housing arrangement after the Great East Japan Earthquake (GEJE).

**Aim:** To collect the information about the accelerating factors and bottlenecks when practicing the “group allocation”.

**Method:** In-depth interview was conducted between August and November 2013. Interviewees were the professionals of disaster management, individuals who were involved in arranging the prefabricated housing and the residents. This research was supported by the Ministry of Education, Culture, Sports, Science, and Technology in Japan.

**Results:** This study found the municipality which carried out “group allocation” had characteristics such as: (1.) the staff in charge of housing arrangement had the information about the positive effect of “group allocation”, and (2.) pre-existing community leaders were able to gather residents' opinions, and citizens were involved in the decision making to some content.

**Discussion:** Although this study is based on the experience of a limited number of key persons, it would be useful to give the insight about the possible bottleneck for the practitioners who will be in charge of housing arrangement under the disaster setting in future. Also, the relevancy and evidence about “group allocation” should be carefully examined in the context of preventing social isolation as well as various long-term effects. It would be essential that the knowledge and experience will be accumulated and shared between municipalities in a usable and comparable format.

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### Learning Effects of Cross Road Game Using a Clicker-Nano System

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**Introduction:** There are some tools for teaching disaster countermeasure in Japan. Cross Road Game was developed to get a concrete image of a disaster situation and is based on interviews from Kobe city government officers in an area affected by the 1995 Great Hanshin-Awaji Earthquake. The alternative includes a lot of ‘dilemmas’ that sacrifice something based on whichever outcome is chosen. For example, “There are 2000 meals at the evacuation center with 3000 refugees. Do you distribute these foods or not?” This game was developed for five to seven players, however, it is not suitable for class lessons with a hundred students. Thus, we tried to employ the Clicker-Nano system for an interactive lesson.

**Aim:** To provide a brief introduction to this new style of teaching disaster countermeasure.

**Methods:** The study included involved a classroom discussion using Clickers-Nano system in addition to Cross Road Game.

**Results:** Nursing students could learn the concrete details of disaster countermeasure in an enjoyable format. They could share thoughts and compare opinions while deciding how to resolve the dilemma at the time of disaster.

**Discussion:** The most important issue faced was how to develop an educational effect for nursing students. Even if five or seven students (players) could enjoy the game, it would not lead to the accumulation of unified knowledge of disaster countermeasure compared to a lecture at the university. The use of the Clickers-Nano system avoided differences in the reach of

learning due to differences of facilitators' capabilities. This study suggests a new style that combines interactive discussion not only with small but also large numbers of students.

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### Learning from Disasters: How Do We Share the Knowledge and Experience?

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**Introduction:** Understanding the difficulties of sharing knowledge generated from disaster situations is essential to allow for a better process of disseminating the “lessons learned” from the ongoing natural and man-made situations which result in healthcare crises.

**Aim:** To explore nurses ways of gaining knowledge from previous experiences, with a particular focus on earthquakes and natural disasters in the New Zealand (NZ) setting.

**Methods:** Initial analysis of a series of individual, semi-structured interviews with a small group (n=10) of emergency department registered nurses from a range of geographical areas in NZ.

**Results:** While familiar with the major earthquake events that have recently affected different areas of NZ (most notably Canterbury, Kaikoura, and Wellington), few could recall detailed information or lessons generated from these events. When asked about the most effective means of learning about and from disasters, the direct experience was identified as the most effective, followed by narrative retelling and vicarious experience.

**Discussion:** Recognition of the value of “story-telling” in sharing information, and of the importance of offering experiences in a way that allows colleagues to experience or place themselves in the situation in a “virtual” sense is necessary for learning to occur. This involves an emotional as well as an intellectual connection to occur. There is a risk for knowledge to be lost, and lessons to be constantly “re-learned,” as each succeeding generation needs direct involvement to retain the information and insight generated. We need to tailor the medium by which this information is shared, for maximum effect.

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### Let's Rock and Roll Baby! Strengthening Skills to Deliver Basic Obstetric Care in Sudden Onset Disasters

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**Introduction:** In 2017 the New Zealand Medical Assistance Team (NZMAT) were verified by the World Health Organization (WHO) as an Emergency Medical Team Type 1. During the verification process, the WHO highlighted the need for further NZMAT capability in the specialty areas of reproductive, sexual, and maternal health. The NZMAT

consists of doctors and nurses from many different clinical sub-specialties but with a predominance of emergency and rural medicine or general practice. Due to the subspecialist nature of hospital medicine in the New Zealand environment most GPs, emergency physicians, and nurses have very little exposure to normal labor and birth in their day-to-day work and limited exposure to obstetric complications.

**Methods:** To increase the knowledge and skill level of the NZMAT, a two day Basic Emergency Obstetric Care (BEOC) course was designed by Kass Jane, a midwifery educator, researcher, and member of NZMAT, in consultation with the NZMAT Clinical Director Emma Lawrey.

**Results:** This presentation will outline the curriculum design, the course delivery, and the feedback from participants on this inaugural BEOC for the NZMAT, as well as the findings of a post-course review and plans for further BEOC courses for NZMAT members.

**Discussion:** This presentation will address why courses of this type have value, especially where the delivery of basic obstetric care in a low technology or austere environment may translate into skills for other Australian clinicians wishing to work either in a humanitarian or developing world context.

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### Living Condition Relating to Social Isolation and Suicidal Thoughts Over 65 Years Old Living in Prefabricated Temporary Housing After the Great East Japan Earthquake (GEJE)

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**Introduction:** The Great East Japan Earthquake (GEJE) and subsequent devastating tsunami struck the northeastern coast of Japan on March 11, 2011. According to the previous studies about displaced evacuees, increases in suicide rates and social isolation (especially among older adults) have been reported. However, the living condition of residents at prefabricated temporary housing after GEJE is unclear.

**Aim:** To explore potential factors which might relate to social isolation and suicidal thoughts among older adults by using a qualitative method.

**Methods:** Inclusion criteria for this study were older adults over 65 years living in prefabricated temporary housing since the GEJE. Data were collected by face-to-face-interviews with semi-structured questionnaire between October and December 2014. The protocol of this study was approved by the Ethics Board of the Tokyo Metropolitan Institute of Gerontology. This research was supported by the Ministry of Health, Labor, and Welfare of Japan (No.H25-iryuu-shitei-003).

**Results:** Twenty older adults participated in the study. Most of them had been engaged in agriculture or fishery and experienced the sudden loss of family members, friends, and property in the aftermath of the GEJE. Findings indicated that social connections formed through the collective construction of prefabricated temporary housing. The study found that individuals who had