(P2-46) Understanding the Willingness of Australian Emergency Nurses to Respond to a Health Care Disaster J. Ranse, P. Arbon, L. Cusack, R. Shaban, J. Considine, B. Mitchell, R. Woodman, K. Hammad, M. Kako, L. Bahnisch<sup>2</sup>

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Background: Disaster response is an emergency nursing responsibility. Responding to disasters, however, is hazardous as terrorism, pandemics and chemical industrial accidents challenge the safety of nurses and their families. International experience has shown that nurses can become victims of disasters and that fear of contaminating family and friends may prevent nurses from attending work or returning home during a disaster response. An understanding of the factors that enable or disable their disaster preparedness will underpin future disaster policy and planning for Australian and international health care organizations.

Methods: This study examines the willingness of Australian emergency nurses to attend work to respond to a health care disaster, using a 3-phase mixed-method design. Phase 1 was a national online survey, with 451 responses. Phase 2 involved 6 focus groups at 4 hospital sites, with 41 participants and Phase 3 involved in-depth interviews with emergency nurses at different sites, with 11 participants. This presentation will highlight results from the study on the willingness of Australian emergency nurses to respond to a health care disaster.

Results: Preliminary findings indicate that emergency nurses' willingness to respond to health care disasters was dependent on a number of factors, including their out-of-work responsibilities, the changes to their roles and responsibilities at work, their confidence in management and their work team, the information they are given about the disaster, the type of disaster and the degree of risk involved.

Conclusions: The contribution the findings this study will make to disaster planning and preparedness for nursing staff, health planners and administrators will be outlined.

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## (P2-47) Emergency Response to a Mass Gathering Involving Hazardous Materials

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Mass gatherings involving hazardous materials (HAZMAT) poses unique challenges to the operations of any emergency department. A screening station is essential for risk stratification and identification of HAZMAT casualties. Existing patients and relatives in the emergency department must be restricted and controlled. Prompt segregation and decontamination of casualties is crucial in a HAZMAT incident. Identification of such a facility with planning of inflow and outflow routes must not be undermined. Crowd control should be performed by securing all entrances and exits, minimizing cross-contamination The topography of the emergency department must

be examined with the objectives of minimizing acquaintance and cross-contagion in mind. Directional leadership is crucial during chaotic situations. Clarity of thought and decisiveness is critical. Good communication channels must be established with internal and external agencies in all phases of emergency department response. Apart from the acute response mechanism, training is an important factor in enhancing staff preparedness. Regular continuity of education is essential to keep staff up-to-date with the latest procedures and legislation. Drills and audits are useful for assessing staff competency levels. Familiarity and easy accessibility to overall response plans and detailed individual action cards also are important. The availability and adequacy of operationally ready equipments and consumables must not be underestimated. All equipment and consumables must be easily accessible and clearly labeled. Bimonthly audits are recommended to ensure defect-free equipment and validity of consumables. In conclusion, regardless of these difficulties, emergency departments continue to be the main provider of care to contaminated individuals. Thus, it is imperative that all emergency departments in Singapore be vigilant during peace time.

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## (P2-48) Improve Nursing Disaster Preparedness by Education and Maneuver

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Introduction: Nurses have pivotal roles before, during, and after disasters. Enhancing their professional skills to help the injured is one the basic principles in health management in disasters. The aim of this study is to investigate the effectiveness of training disaster nursing preparedness on improving the preparedness of nurses.

Method: Using a quasi-experimental method, 113 nurses were selected randomly. The preparedness program, which consisted of a one-day workshop on disaster management, a tabletop exercise, and an operational maneuver, was executed for the participants. The preparedness of all participating nurses was measured by disaster preparedness questionnaire, one week and also one month after the program. Data analysis was performed by using the ANOVA test.

**Results:** The mean scores of knowledge, attitude, and performance improved from 5.55 to 19.88, from 66.18 to 72.41, and from 3.36 to 12.48, respectively (p < 0.001). In addition, the mean of total preparedness score was increased from 75.14 in pretest to 104.77 in the follow up (p < 0.001).

Conclusions: Preparedness plan training improves participants' preparedness for responding disasters, because preparedness and reliability for responding to disasters is influenced directly by the training courses and previous experiments. Therefore, based on the results obtained in this project, in order to improve the preparedness of nursing staff, including a disaster preparedness plan in academic, educational curriculum and as a continuing educational program is recommended.

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