

the discussion and gave feedback right after the students' decision.

Knowledge of each core capability was tested by four multiple-choice questions. The interest in learning disaster medicine and willingness to participate in MCI management were evaluated by questionnaire, along with quantitative feedback to the exercise. The same test and questionnaire were conducted before and after the TTx.

**Results:** From September 2018 to May 2022, 326 students completed both pre- and post-exercise evaluations. The test scores of all five core capabilities, levels of interest, and willingness increased significantly after the exercise. Students thought the exercise was interesting and a good learning tool. Most students wanted to be notified of further training.

**Conclusion:** A tabletop exercise using 3D models is an effective way to teach senior medical students MCI management and disaster medicine while increasing their interest in learning and willingness to participate.

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### Triage Accuracy Rates Using the New MCI Triage System of Regione Piemonte: What's New?

Nicole Goldschmidt MD, Nicola Tommasoni MD, Mario Raviolo MD, FACS

Disaster Medicine Service118, ASLCN1, Levaldigi, Italy

**Introduction:** An adequate Mass-Casualty Incident (MCI) triage system is essential to provide the best possible health care to the greatest number of affected people and to optimize the management of the available resources in the context of a MCI.

**Method:** In February 2022, Disaster Medicine Service 118 of Regione Piemonte adopted a new 5-color code-MCI triage system and Emergency Medical System (EMS) personnel was trained through a 3-hours-distance learning course. 515 medical doctors and nurses attended the course and completed the final test (triaging of 50 computer-based simulated patients/cases). Their performance was compared to intended triage designations. We collected the data and conducted a descriptive observational study.

**Results:** A total of 25.750 evaluations were carried out: 1.030 white cases, 6.180 green cases, 6.180 yellow cases, 9.270 red cases and 3,090 black cases. Overall triage accuracy was 89,63%. The overall errors were 2.671 (10.37%). Concerning the type of error, there were 1.415 cases under-triaged (5.5%) and 1.256 cases over-triaged (4.88%). Based on color-code, the highest rate of error was in green cases (3.48%), while black patients showed the highest accuracy rate (0.32%). Based on type, the most frequent error was under-triage of red patients, while the less frequent was over-triage of black patients.

**Conclusion:** The results of the final test performed by EMS personnel showed the accuracy rates of triage using new 5-color code-MCI triage systems of Regione Piemonte to be in range with data reported in the literature. A study limitation is the fact that the data analyzed are derived from online testing performed

in no-time limited and no-stress conditions. Another potential limitation is the distance learning which doesn't allow a discussion with the teacher or a request for clarification. For this reason, we would plan a future study defining the efficacy of the didactic methodology in comparison with face-to-face courses.

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### Development of a Learning Support System for Acquiring Disaster Nursing Competencies Required in the Acute Phase of Disaster

Miyuki Horiuchi PhD<sup>1</sup>, Ryuichi Mastuba PhD<sup>2</sup>, Makoto Miyazaki MEng<sup>3</sup>, Sachiko Shimizu PhD<sup>4</sup>

1. Naragakuen University, Nara, Japan
2. Tokyo University of Technology, Tokyo, Japan
3. Teikyo, Tokyo, Japan
4. Mukogawa Women's University, Hyogo, Japan

**Introduction:** The purpose of this study is to develop a disaster nursing learning support system and a list of learning contents developed by our team to effectively and efficiently acquire the necessary disaster nursing competencies in the acute phase of disasters.

**Method:** As the first step, based on the ICN Framework of Disaster Nursing Competencies, we examined the teaching materials using nine competencies extracted through prior literature, interviews with disaster nursing practitioners and reviews of disaster nursing experts. Next, we extracted learning contents that are considered difficult to learn in daily work from textbooks used in disaster relief nurse training. We gained new information on disasters using interviews with experts and internet search review literature.

**Results:** Educational materials, including links to five open access sites, a summary of basic knowledge and original videos (case reports on dispatching disaster relief nurses, lectures on evacuation center management by experts, triage using the START-method and the PAT-method, psychological first aid, handling medical records and J-SPEED+ apps), were implemented. A test as an entry point for learning, a rubric to check current learning achievement, learning confirmation tests for each competency, a forum as a place for exchanging opinions among the learning community and an automatic certificate issuance system were set up.

**Conclusion:** Disaster nursing is an extension of daily nursing, and many matters can be learned in daily work. There are few things that general clinical nurses should learn in addition as this study showed. However, it is inferred that it is not easy to select and update the knowledge and information that nurses need from the abundance of data available in the information society.

It is meaningful to have a learning support system that allows nurses at medical institutions that are expected to collaborate in the event of an emergency to learn together during the silent phase.

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