Advanced Simulation in Disaster Preparedness and Relief: The Gold Standard for Soft Skills Training

Alessandro Barelli[1], *Camilla Naso*[2]
1. Anesthesia Intensive Care, Catholic University Rome, Rome/Italy
2. European Center for Disaster Medicine, San Marino/San Marino

Study/Objective: To explore and describe the gold standards, to optimize soft skills training by full-scale high-fidelity simulation. To identify which soft skills are less powered by rescue teams.
Background: Safety management in organizations has seen good developments. Early safety issues focused primarily on environment and equipment (the technology) matters, while later practices also considered human aspects (human factors) and the overall management of the organization (organizational factors). Advanced simulation has been demonstrated to be effective in training people to both technical and non-technical skills.
Methods: Teams of rescuers were exposed to full-scale high-fidelity scenarios. All phases of the simulation training process were investigated and graded in order to identify the key phases to obtain the learning objectives; Laerdal Sim Man 3 G was the patient simulator used in all scenarios.
Results: All phases of simulation are critical to obtaining the learning objectives; failure in providing effective feedback by reflective debriefing has been shown as the main cause of missed learnings and low motivations of participants. Team membership has been shown as the most critical soft skill to practice and retain.
Conclusion: Traditionally, rescue team training has been focused on knowledge and technical skills, while soft skills have been often a secondary teaching goal. Well established evidences have been demonstrated that most errors rise from human factors and non-technical skill insufficiency. Soft skills training of both health care professionals and non-health care rescuers must be a priority of all training programs. Full-scale, high-fidelity simulation is the gold standard to practice and retain soft skills.

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Find Me if You Can! An Interprofessional Search & Rescue Disaster Collaboration among Nurses, Physician Assistants and the Military

Heather M. Anderson[1], *Terri L. Moore*[2]
1. Baccalaureate Nursing, Indiana State University, Terre Haute/IN/United States of America
2. Baccalaureaute Nursing, Indiana State University, Terre Haute/IN/United States of America

Study/Objective: Disaster preparedness is now a public health problem and an increased number of disasters have led to a greater need for trained volunteers during these times. There is a greater need for creation of simulation sites outside of the simulation laboratory. The need to educate nursing students in a non-traditional learning environment is needed to reinforce the best educational practices for our future nursing workforce. Staging a disaster simulation in a "real life setting" was found to generate better student learning outcomes when compared to traditional simulation lab activities.
Background: In Summer 2013, an Interprofessional Mass Casualty Search and Rescue exercise was conducted with senior baccalaureate nursing and physician assistant students, and the Indiana Air Guard CERF-P medical division. This qualitative pilot exercise was conducted to meet course curriculum requirements for disaster preparedness. The exercise included high fidelity adult and pediatric simulators along with live actors that were moulaged. Special needs victims and non-english speaking victims were used.
Methods: A fifteen question Likert-type, pre and post simulation evaluation was administered to participants. The pre evaluation revealed students expected to be overwhelmed, yet have a realistic experience. The post simulation evaluations revealed the exercise was realistic, allowed students to use communication skills to establish collaborative relationships, it provided an opportunity to connect classroom and clinical learning, and students utilized their critical thinking and judgment skills.
Results: showed the majority of students would participate in future mock disaster exercises. Lessons learned included the need for additional staff to run the mannequins, revision of the post survey, and greater formalized pre and post briefing. Lessons learned were utilized in future mass casualty simulation exercises.
Conclusion: This was an innovative experiential learning opportunity for student practitioners. More disaster response programs are needed for student competency in rural health settings with positive impacts on Quality and Safety Education for Nurses (QSEN) outcomes.

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Necessity of Disaster Training in Cooperation with Public Health Centers

Kayako Chishima
National Disaster Medical Center, DMATsecretariat, Tokyo/Japan

Study/Objective: This summer, I conducted training in collaboration with DMAT and a public health center, in a large-scale earthquake medical activity training; I will report on this.
Background: In Japan, public health centers are established as prefectural governments, government ordinance designated cities, core cities, etc., as public institutions that are central to the maintenance and promotion activities of local residents. There are 510 public health centers nationwide, and since peacetime, it is the core of regional medical care. Even in the Kumamoto earthquake that occurred in April 2016, we will work closely with public health centers in the afflicted area, before the end of activities by the DMAT in the hyperacute phase, and gradually move the work to continue suddenly discontinue support we did not care.
Methods: We conducted material procurement drills, focusing on exchanges at all health centers and medical facilities in the prefecture, medical aid and relief adjustment headquarters at each site, and at prefectural office headquarters. We also conducted training on some of the health centers, and conducted an evaluation of an evacuation center.
Results: We procured supplies from the health care facilities, bases and prefectural agencies, and requested cooperation from the health centers. In addition, we were able to share the results

of shelter assessment with DMAT, and plan activities coordinated in the acute phase of disaster.

Conclusion: In the event of a disaster, a medical team such as DMAT will enter the disaster area. However, the duration of the activity is limited, and it's necessary to gradually lead to health care and health in peacetime. Cooperation between health and disaster medical care is necessary during times of peace, so that seamless support transition can be made in a short period of time.

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Attempt of Communication and Collaboration, Web-NOLO to Prepare for Disaster in South Tama, Tokyo

Masamune Kuno[1], *Ken Harikae*[2], *Kensuke Suzuki*[3], *Takao Arai*[4], *Kentaro Tokuoka*[5]

1. Emergency And Critical Care Medicine, Nippon Medical School Tamanagayama Hospital, Tama/Japan
2. Hino Municipal Hospital, Hino/Japan
3. Nippon Sport Science University, Yokohama/Japan
4. Tokyo Medical University Hachioji Medical CenterMedical Center, Hachioji/Japan
5. Tokai University Hachioji Hospital, Hachioji/Japan

Study/Objective: Our group promotes web based chronology, Web-NOLO.

Background: In South Tama region of Tokyo, we have promoted disaster medical cooperation. The disaster medical coordinator of this region launched a working group to prepare for disasters. This made us reinforce cooperation among hospitals, clinics, the medical association and municipal officers. This group is trying to summarize the disaster drills already conducted in a few hospitals, and to support other organizations that are inexperienced in conducting such drills. It also created a web-based chronological information management system called Web-nolo. A web-based Emergency Medical Information System (EMIS) is already being used throughout Japan to manage disaster information. But there are some restrictions for using EMIS. To complement EMIS, our group created Web-nolo.

Methods: A Disaster Medical Assistance Team (DMAT) training was conducted by simulating an earthquake disaster in the Tama area on July 30, 2016. Web-nolo was used for this training.

Results: At that DMAT training, we used both EMIS and Web-nolo. Through Web-nolo, it is easy to share and understand each organization's situation. A similar system can be applied to assemble and manage the situation of staff and patients being admitted to hospitals after a disaster. A current issue with Web-nolo is that it is difficult to update information regarding the disruption of lifeline services; more staff is required and necessary to determine the importance of information.

Conclusion: Regarding communication tools, satellite phones and a disaster management radio communication system that includes a telephone and fax system, are available for each city and for the Tokyo metropolitan area; EMIS is available nationwide. The availability of many communication tools is useful. Web-nolo, which uses a free Google system, and which can be easily used by everyone, is considered a very useful tool. However, it essentially complements EMIS, and it is unnecessary if it is corrected.

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