Acuity level	1	2	3	4	5
Triage color	Red	Orange	Yellow	Green	Blue
Recommended wait time	0 min	15 min	1.5 hour	4 hours	12 hours
Was the recommended time exceeded?	No	No	Yes	Yes	Yes
Did death occure?	Yes	Yes	Yes	No	No
Visits by acuity level	0.56%	2.57%	17.84%	73.29%	5.74%
Hospitalization by acuity level	100%	76.49%	43.1%	14.35%	2.08%

Table 1. The ESI modification in practice.

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The Relevant Factors of the Early Prognosis and the Need of Intensive Medical Resources of Patients with Multiple Injuries

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Study/Objective: To estimate the early prognosis and evaluate the need of intensive medical resources of patients with multiple injuries.
Background: A large amount of research and clinical practice indicates that the multiple injuries are urgent and the illness change of a patient's condition is rapid, which leads to the a high mortality rate. We can take some early and effective methods of triage to make patients receive timely, effective treatment, thus to reduce the mortality rate. In that case, we need some early and effective indicators of triage.
Methods: We recruited 115 patients with multiple injuries admitted to emergency department of West China Hospital, Sichuan University between March 2016 and May 2016 and collected 19 clinical indicators from each patient. The indicators included gender, age, temperature, heart rate, respiratory rate, peripheral oxygen saturation, systolic pressure, diastolic pressure, power of hydrogen (PH), hemoglobin, base excess (BE), serum potassium, serum sodium, serum calcium, lactic acid, glucose, partial pressure of oxygen (PO2), carbon dioxide partial pressure (PCO2), and peritoneal effusion. We analyzed the correlation of these indicators with deaths within the first 24 hours, emergency surgery, admissions to intensive care unit (ICU), and length of ICU stay through the method of a rank sum test and logistic regression with SPSS 19.0.
Results: The results showed that the possibility of death (A) could be expressed as: A = -0.276*BE(mmol), -3.005*T(°C)-0.073*PO2 (mmHg) 110.843 and the need of admissions to intensive care unit (B) as: B = 1.007* peritoneal effusion + 0.140* glucose (mmol/L) - 3.224.
Conclusion: BE, T, PO2 may be useful in early forecasting the prognosis of patients with multiple injuries; glucose and peritoneal effusion can evaluate if the patient needs the intensive medical resources.

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Validation of CRISTO as a Triage Tool in Emergencies and Disasters

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Study/Objective: Our objective was to validate CRISTO (C: Walking; R: Respiratory failure; I: Unconscious/neurological impairment; S: Bleeding/Shock; T: Complex trauma/ Behavioral disorder; O: Others), as a method to be applied in victim classification, as well as in the comparison of efficiency and execution time regarding the Standardized Testing and Reporting (STAR) method.
Background: In April 2016, Ecuador suffered an earthquake which caused 671 deaths and left 8,690 people homeless. This event tested the capacity of response and the implementation of protocols, including triage in the country. START is a validated and widely used method for victim classification; however, the average evaluation time it has, among other things, has made us question its effectiveness in major disasters like this one.
Methods: This is a descriptive and comparative study of two triage methods. A total of 12 simulated patients were evaluated by 10 First Response Teams during a disaster simulation exercise; five for each triage method, selected by drawing lots. Triage was carried out by Technologists in Medical Emergencies, or Medical Doctors with training in both methods and previous experience in each procedure. The simulation patients were 1 black, 4 red, 3 yellow and 4 green. We compared sorting efficiency and evaluation time for each method.
Results: The percentage of positive answers with CRISTO was 85%, and with START was 73.3% ($p = 0.21$); nevertheless, when we evaluated triage time, CRISTO (10.8 sec.) was faster than START (9.5 sec.), $p = 0.025$.
Conclusion: In conclusion, CRISTO is a reliable and fast method of triage, ensuring greater patient care during large events with multiple victims.

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The Use of the Mobile Information and Communication Technologies in Mass-Casualty Incident and Disaster Management - A Medical Triage System

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Study/Objective: Worldwide, Mobile Information and Communication Technologies (ICT) have been used in prehospital emergency care and emergency and disaster medicine. In Poland, the use of ICT in routine emergency practice does not raise any concerns, but special application used in mass-casualty incidents and disasters is still being discussed.
Background: The development of "intelligent" Command Support System (CSS) for Emergency and Disaster Medicine is the aim of this study. The problem of the correct allocation of

the injured in hospitals after mass-casualty incidents and disasters is what we want to solve during this study.
Methods: The study was based on the analysis of the local EMS database and simulations of mass-casualty incidents (MCI) during "sand table drill." We compared a management model with and without ICT support. The study measured the following aspects: the triage on site, the decision-making model, the effectiveness of EMS (response time and appropriate management medical staff), the information flow to/from the command and control center, the criteria deciding on a patient transport model, and allocation in hospitals.
Results: The ICT monitoring emergency medical care has proved greater effectiveness of decision making with the ICT support than the traditional one. Moreover, ICT allows to take decisions that could not be taken within the traditional model due to the lack of current feedback from the incident analysis and hospital database. The ICT provides new management possibilities during MCI and disasters.
Conclusion: The use of ICT in disaster management improves the efficiency of the allocation of the injured in hospitals. The results allow to define new directions for development of intelligent Command Support Systems for emergency and disaster management.
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Results of Lectures and Training on Two Methods of Disaster Triage for Local Residents who are not Medical Personnel

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Study/Objective: To compare the results of lectures and training on two methods of disaster triage, START (ST) and SALT Step 1 (S1) for local residents.
Background: In the Nerima-ward, if a major earthquake occurs, medical personnel are on duty to initiate triage at the regional first-aid station. However, the process is expected to face delays because they often reside outside the ward. To avoid mass confusion, the emergency plan calls for local residents to carry out triage. For a decade, they have received only an annual ST lecture, and problems such as complexity and risk of infection exist.
Methods: We developed and implemented a training course for residents, wherein both ST and S1 are taught. Each trainee experienced ST then S1, acting as an officer or an assistant or patients. The two methods were compared in terms of the results of triage completion rate and judgement of correct triage rate. Comparison of the responses to the questionnaire completed was also conducted.
Results: After the training, the triage completion rate and correct judgement rate were both higher in S1. A comparison of the responses showed that confidence in practice was higher for S1. Anxiety, concerning blood contact and the decision to categorize black tags, was revealed in the questionnaire about ST.
Conclusion: Although ST is often used for initial triage, the method is rather complicated. Counting pulse or respiration is not an easy task. There are other problems such as the risk of infection and decision making. We speculate that this result was mainly because of the simplicity of the method, although the teaching order might have induced a learning effect. Our conclusion is that S1 could be an easier alternative for triage conducted by residents. However, we also continue to teach ST because they are expected to serve as assistants after the arrival of medical personnel.
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