Research related to the construction and development of networktype triage systems for Mass Casualty Incidents

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In this research, we aimed to build a new web system "Command-Organizer (CO)". CO is new web system for sharing triage data entered from multiple terminals on a server through Triage-Organizer (TO), a smartphone application we have previously developed, and providing information to command and coordination departments, medical facilities, and so on. A simulation was conducted for emergency medical technicians at the three fire service headquarters where the research team members belong, comparing 1) information sharing systems using conventional paper tags, telephone, radio, etc., and 2) information sharing systems using TO/CO. After measuring and comparing the time required for both groups, a post-questionnaire was administered to the participants. In the simulation, TO/CO was able to reduce all measured times, and in particular, statistically significant reductions were observed in the time to count the total number of patients and the time to transport all patients. In the post-questionnaire, all respondents said they were able to follow traditional triage, with 87% rating the input and shared data as reliable, and 90% rating the data being shared as sufficient to manage. 15% found it usable for the first time, 70% found it usable after practising a few times, and no respondents found it difficult to use. Although CO is not yet complete, it is expected to be an easy to implement and effective system.