

Test and Evaluation of Patient Tracking Platform in an Earthquake Simulation

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Abstract : In earthquake situation, medical response communities such as field and referral hospitals are challenged with injured victims' identification and tracking. In our project, it was developed a patient tracking platform (PTP) where first responders triage the patients with an electronic tag which report the location and some information of each patient during his/her movement. This platform includes: 1) near field communication (NFC) tags (ISO 14443), 2) smart mobile phones (Android-base version 4.2.2), 3) Base station laptops (Windows), 4) server software, 5) Android software to use by first responders, 5) disaster command software, and 6) system architecture. Our model has been completed through literature review, Delphi technique, focus group, design the platform, and implement in an earthquake exercise. This paper presents consideration for content, function, and technologies that must apply for patient tracking in medical emergencies situations. It is demonstrated the robustness of the patient tracking platform (PTP) in tracking 6 patients in a simulated earthquake situation in the yard of the relief and rescue department of Isfahan's Red Crescent.

Keywords : test and evaluation, patient tracking platform, earthquake, simulation

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