



**Workshop:  
Patient Centered (Health) Care Solutions**

**MET System: a New Approach to M-health in Emergency Triage**

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**Abstract**

We present MET (Mobile Emergency Triage), a mobile clinical decision support system that supports emergency triage of various types of acute pain presentations at the point of care. The system is designed for use in the ED (Emergency Department) of a hospital and to aid physicians in disposition decisions regarding patient management. Given patient's condition, MET recommends a triage by consulting decision rules stored in the system's knowledge base. The rules have been created using a data mining technique (based on rough set methodology) on data collected during a retrospective chart study and verified by the clinicians.

MET is designed following the extended client – server architecture, suited for weak-connectivity conditions, where permanent and stable connection between clients and a server cannot be provided. The MET server interacts with the hospital's patient information system in order to retrieve information about patients admitted to the ED. It also stores current patients' demographic and clinical data to be exchanged with mobile clients. The MET mobile client, running on a Personal Digital Assistant (PDA), is used for collecting clinical data at the point of care and supporting triage decisions. The support function runs solely on the client side, thus it can be invoked *anytime and anywhere*, even if there is no communication link with the server (e.g., there is no wireless network available in the ED).

Due to running on PDAs and working in weak-connectivity conditions, the MET system is very well suited for operation in the ED and fits seamlessly into the regular clinical workflow without introducing any hindrances or disruptions that are often reported when using stationary (i.e., working on desktop computers) clinical systems. The system facilitates patient-centered service and timely, high quality patient management. It provides recommendations using a limited amount of clinical data, normally available at the point of care. Furthermore, it provides a possibility for the structured evaluation of this data by an attending physician.

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