Pre-Hospital Emergency Care (ICS – E)

Overview

Pre-Hospital Emergency Care (ICS – E) applications feature a unique tool for prompt and accurate management of emergency incidents and of ambulatory resources. The coordination center and the ambulance service can prioritize and manage the available resources in the best possible way. In the ambulance, episode monitoring is supported through patient tele-monitoring of vital signs to allow for proper arrangements at the host health center.

Pre-Hospital Emergency Care applications constitute the pre-hospital emergency care family (ICS – E) of FORTH-ICS’ Integrated Care Solutions suite. They are based upon an open, scalable and evolvable architecture that integrates distributed information and knowledge in a flexible manner, focusing on the timely and effective delivery of the appropriate information to all authorized users. Being the outcome of applied research, they encompass both state of the art trends and real-world requirements for effective use.

The main characteristics of the Pre-Hospital Emergency Care applications are:

- They can be installed either as stand-alone systems or in combination with other ICS applications.
- They are subsystems of an integrated solution.
- They support automation of business processes both within and between healthcare facilities by communicating with each other.
- They can electronically interface with third party applications and open devices. All interfaces are based on standards such as HL7, DICOM, XML, and web services.
- They are customizable and scalable according to the needs of each institution.
- They support role based access control.

Target Domains

ICS – E is suitable for pre-hospital health emergency coordination centers and mobile units.
Description

Main Functionalities

The Pre-hospital Emergency Care family of ICS products have been designed for health care professionals who provide emergency and primary health care to patients outside of a hospital, and also deal with transportation between hospitals and medical facilities.

Pre-Hospital Emergency Care applications include the following:

- Health Emergency Coordination Center Management (PHE-M)
- Telephone Operator Application (PHE-TO)
- Radio Dispatcher Application (PHE-RD)
- Incident Monitoring (Coordination Center part) (PHE-IM)
- Incident Monitoring (Ambulance part) (PHE-AA)
- Automated External Defibrillator Network Management (PHE-ED)
- Pre-Hospital Emergency Care Protocol Management (PHE-PM)

The significant impact of creating an emergency management system reveals demographic, topological, and qualitative issues allowing health emergency coordination centers to improve efficiency by reducing dispatch time, time at accident scene for metropolitan areas, and time at the emergency ward, mainly due to medical interventions on site.

Additional Information

The software suite Integrated Care Solutions (ICS) is a series of IT software, centered around the electronic health record, to support patient administration (ICS – A), pre-hospital emergency care (ICS – E), health information infrastructure (ICS – H), the integrated electronic health record (ICS – I), nursing and medical applications (ICS – M), primary health care (ICS – P), IT support (ICS – S), welfare (ICS – W), and picture archiving and communication (ICS – X).

The ICS suite follows high quality international trends regarding both the structure of the Electronic Health Record (EHR), as well as integration with third party systems through the use of internationally acclaimed standards and protocols (like HL7, DICOM, etc.). This system is deployed in Crete since 1998.

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