Integrated Electronic Health Record (ICS – I)

Overview

The Integrated Electronic Health Record (ICS – I) applications provide a uniform way for professionals and citizens to access patient record data that are physically located in different clinical information systems across different organizations. They provide fast, secure access to distributed patient record information from multiple disparate sources to properly authorized users. Integrated Electronic Health Record applications address key challenges, such as the provision of a framework for the integration of a diverse set of heterogeneous and distributed information sources into a seemingly uniform collection of data and knowledge, thus increasing the availability of previously inaccessible information.

The Integrated Electronic Health Record applications constitute the integrated electronic health record family (ICS – I) 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 Integrated Electronic Health Record applications are:

- They can be installed in combination with other ICS applications.
- They support automation of business processes both within and between healthcare facilities.
- They can electronically interface with eGovernment services, 3rd party applications and open devices. All interfaces are based on standards such as HL7, FHIR, 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 – I is suitable for the development of integrated health information systems to support cross-enterprise cooperation.
Description

In order to support seamless and personalized information delivery, services and information must be accessible without visible organizational boundaries.

The Integrated Electronic Health Record family of ICS products have been designed for health care professionals and citizens who want to access systematic collections of electronic health information about individual patients or populations. The approach followed does not focus on the standardization of the content of the EHR, but rather tries to provide access to already existing EHR systems. As such, the federated approach selected is based on a set of already available Health Information Infrastructure components that deal with inter-enterprise integration issues, and imposes a level of common design that varies according to the actual composition of the end-user requirements.

**Integrated Electronic Health Record** applications include the following:
- Master Patient Record Management (MPR)
- Integrated Electronic Health Record Viewer (I-EHR Viewer)
- Integrated Booking System (IBS)

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), citizen self-management (ICS-C), 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.). The technology has been tested under different settings in Greece since 1998.