Radiology Information System (RIS)

Overview

The Radiology Information System supports all business processes of the radiology departments in a healthcare facility, such as patient registration and scheduling of imaging services for inpatients and outpatients, custom report creation, appointment booking and management of waiting lists. It complements a hospital information system (e.g., for billing, electronic health record, order management and picture archiving and communication) and is critical to efficient workflow to radiological practices.

The Radiology Information System application belongs to the nursing and medical applications family (ICS-M) of FORTH-ICS’ Integrated Care Solutions suite. It is 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, it encompasses both state of the art trends and real-world requirements for effective use.

The main characteristics of the Radiology Information System application are:

- It is fully configurable and adaptable to any hospital’s workflows using intuitive user-friendly interfaces.
- It is a subsystem of an integrated solution. It can be installed either as stand-alone system or in combination with other ICS or 3rd party applications.
- It supports automation of business processes both within and between healthcare facilities.
- It 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.
- It is customizable and scalable according to the needs of each institution.
- It supports role based access control.

Target Domains

The application is suitable for radiology departments in healthcare facilities.
Description

Main Functionalities
The supported functionalities of the Radiology Information System application include: patient management, encounter creation (scheduled or unscheduled), recording of radiology exam findings, access and update of patient history, recording of drugs/materials used during the imaging examinations, and medical reports on imaging examinations. The application communicates with information systems for:

- Patient Admissions Office for electronic sending and receiving of patient and encounter data.
- Patient Accounting for electronic transmission of billing data.
- Business Intelligence/MIS for the electronic transmission of data for statistical analyses.

State-of-the-art Technology
The Radiology Information System is a robust and reliable system that delivers state-of-the-art performance using 64-bit architecture and web technologies. It is compatible with major database management systems and with the latest versions of all popular web browsers.

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.). This system has been deployed in more than 20 Hospitals in Greece since 2001.

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