

PACS, DICOM, HL7 & EHR

DUBAI APR 8-11, 2012 EHR/PACS/DICOM/HL7 Training Seminar & Workshop



About the Seminar

ICT for Health along with its US partner OTech is organizing its 6th PACS seminar in the Middle East with a special emphasis on advanced DICOM troubleshooting, EHR implementation & strategies. OTech is industry leader in PACS and carries over 25 years of experience in PACS training and consulting.

You will get a thorough understanding of all the aspects of a PACS system, the typical PACS System Administrator's job, learn advanced troubleshooting techniques & EHR implementation. Attendance to the seminar is limited in order to provide an optimal learning experience. Specifically, the troubleshooting is very interactive with a great deal of hands-on.



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Detailed Learning Objectives:

Participants will understand the basic components of Electronic Health Record, Picture Archiving and Communication System (PACS), the associated clinical workflow, and the technical aspects to exchange the image and information management between digital modalities, PACS and Radiology Information Systems (RIS) using DICOM & HL7. This will allow the participants to assist in:

- Planning, preparing and supporting the implementation of a comprehensive Electronic Health Record (EHR)
- Preserving the image and information integrity, including image quality.
- Managing the installation and/or enhancements of a PACS system.
- Continuously improving the system efficiency and integrity.
- Assisting PACS and EHR users such as physicians and technologists through training and support.
- Troubleshooting of connectivity, image quality and data integrity issues.



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WHAT IS INCLUDED?

- A binder with handouts of the slides
- Electronic Textbooks: i.e., PACS Fundamentals & DICOM Basics
- A copy of the DICOM Reference guide
- A CD with SA resources including several DICOM viewers and tools
- Certificate of participation

Last but not least, morning and afternoon refreshments, and lunch

Registration closes on March 15, 2012



Schedule & Venue

9:00am – 4: 30pm Daily

Day 1: PACS Theory & Implementation

Day 2: PACS Interfacing, Integration & HL7 Standards

Day 3: Advanced DICOM Troubleshooting (hands-on)

Day 4: Electronic Health Record

Detailed Curriculum on the Second Page

Seminar Venue: Dubai (Location to be announced)

Registration Fee:

Day 1&2:	→	1000 USD
Day 3&4:	→	1000 USD
(package) All 4 days:	→	1800 USD

For Group deals, please contact us at
info@ictforhealth.com

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Detailed Curriculum

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EHR/PACS/DICOM Training Seminar & Workshop

Day 1: PACS Theory & Implementation

- **PACS and system administration introduction:**
- Illustrative PACS examples
- **Features of a PACS**
- Acquisition of imaging data
- Image archiving
- Workstations
- Networking
- Hardcopy recorders
- HIS-RIS interfacing
- **How to buy a PACS**
- **PACS System Administration activities**
- Project Management
- Workflow support
- Training
- First line of support
- Configuration Control
- Maintenance
- Acceptance testing
- **Workflow**
- Workflow tools
- Workflow management support in PACS

Day 2: PACS Interfacing, integration & HL7 Standards

- **Integration**
- Seven levels of integration
- PACS vs RIS driven worklists
- Speech recognition, RIS information
- **HL7 Introduction**
- HL7 V 2 standard characteristics.
- Message structure: segments, delimiters and trigger events.
- Admission (ADT).
- Orders (ORM).
- Results (ORU).
- Interpret HL7 specifications.
- Map HL7 into DICOM worklists.
- HL7 V3 introduction.
- CDA sample
- **IHE introduction**
- IHE important profiles
- **HIPAA for PACS**
- Terminology
- **Zones for HIPAA implementation**
- Privacy
- Security
- Administrative, technical and physical safeguards

Day 3: DICOM Advanced Troubleshooting (hands-on)

- **DICOM troubleshooting**
- Systematic elimination of DICOM errors following a decision tree
- Solve connectivity issues by simulating error conditions
- Use of validation tools to validate DICOM protocol and images
- Detailed analysis of simulated error conditions using sniffers
- **Image Quality**
- Image Quality factors
- Pixel pipeline
- Look Up Tables
- Monitor and calibration
- **Troubleshooting tools**
- AAPM standard
- IHE consistent pres state tests
- Networking
- Different test tools
- Understanding logs
- Use of troubleshooting tools: sniffers



Day 4: Electronic Health Record (EHR)

- EHR background and relationship with EMR, CPR, PHR as well as PACS
- Architecture and interfaces
- Encounter records
- System aspects and interoperability
- External interfaces
- Main architecture
- Input sources
- EDMS
- Smart peripherals
- Clinical messaging and critical results
- Specialties and departments usage
- VistA: an implementation example
- EHR standards: direct care, supportive and infrastructure
- Clinical decision support and operations mgt
- PHR: characteristics and attributes
- PHR dimensions, contents
- PHR types
- PHR implementation issues



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