

210 UTILIZATION OF MEDICAL IMAGES OF PACS FOR EVIDENCE BASED TRAINING

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Background and aims: The more evidence the better decision making. Diagnosis is one of the medical determinants that seriously depend upon the evidence. Treatment and care as the other significant arms of medical practice relies on the right diagnosis. Medical education system tries to track whole capacity of health system to bring more evidence for education, comparison and critical thinking. Picture archiving and communication system (PACS) is used as a tool for providing, processing transferring and displaying the digital images in hospitals information system. Once the medical images stored in the PACS can be retrieved and used several times for different purposes by adding value with no more cost for system.

Methods: The PACS system consists of a main PACS server which is used for storing the pictures and multiple clients in different places that can communicate with PACS central database through DICOM protocol. Clients can query the system, retrieve the images stored in the database, and show the images by using medical imaging software like DICOM viewer. Open sources software enable the user add/change the source for internal utilization purposes. If medical images

is stored by additional metadata i.e. ICD codes and the Mesh /USML keywords along with the patients personal information, the system will be used as a source of evidence for educational propose. DICOM software will query the main database using the keywords and ICD codes that already have been attributed to the images to retrieve all the related images in the system for specific case. For ethical issues the personal information can be concealed when it is retrieved for education purpose.

Results and Conclusion: By adding metadata through mesh/USML and ICD the images will become a source of evidence instead of being just a temporary diagnoses tool archived in patient's personal records. This method is a simple and cost less way of use of medical images in health system and medical education. It also makes the investments return to the system by multiple use of images