



## **3iCare Practice Manager eMR – Digital Patient Record Management for Hospitals**

3iCare Practice Manager eMR (Electronic Medical Records) is a product that has been specifically developed to address this growing need of paper based patient records' management in hospitals. 3iCare Practice Manager eMR handles compound document management wherein the document can be a sheet of paper, an x-ray, an ECG, etc., which is scanned using a flat-bed scanner or an electronic file such as a MS-WORD, a MS-EXCEL spread sheet, a voice file (recording of the conversation between the doctor and the patient), a video clip etc.

3iCare Practice Manager eMR involves 'scanning' of documents like x-rays, case sheets, prescriptions, ECG's, etc. to be filed using a flat bed scanner and storing the same into corresponding electronic cabinets/folders - it is as simple as physically filing the document into the patients' file.

The patients' data thus stored electronically can be retrieved using a variety of methods, just at the touch of a button. Hence, when a patient comes in for consultation, his / her previous medical records can be made available to the consulting doctor on his desktop, without having to go through the elaborate procedure of searching for the patient's file in the records' room and then sending it across to the consulting doctor.

3iCare Practice Manager eMR can work

- (i) Independently as a stand-alone application or
- (ii) Can be integrated with any Information System software that may be in use at the hospital.

3iCare Practice Manager eMR uses advanced image compression techniques thus reducing the amount of storage space required on the users' computer hard disk. Moreover, when the size of the database becomes large or the data crosses a period of validity, it can be archived on Compact Disks (CD) thus releasing space on the computer hard disks.

Patient Records Retrieval is keyword based i.e. whenever any patient record is to be retrieved, it can be done using the patient ID or any keyword that has been defined at the time of archiving those patient records.

Another optional add-on is a facility for Optical Character Recognition & Text Search, which would enable conversion of these images to text. Using Text Search, the user can search for any text, which may be in the document.

The software provides a comprehensive CD Catalogue (along with the relevant CD number to be mounted) to the operator wherein, those patient records that are not on the computer hard disk and have been archived on to CDs are indicated. Data is retrieved from those CDs to the computer hard disks and is made available on the computer network.

Another added feature of the 3iCare Practice Manager eMR product is an add-on module provided, to scan & file articles from medial journals, which are of interest to the doctors so that these can be viewed on their desktops. If the hospital is networked and 3iCare Practice Manager eMR is installed on a LAN, multiple doctors can view the same article simultaneously at their work places whenever they have time, without having to go to the library. And, there would be no need to buy more than one copy of the journal or make photocopies.

### **Features of 3iCare Practice Manager eMR**

#### Records filing in 3iCare Practice Manager eMR

3iCare Practice Manager eMR allows the user to mimic real life filing system of patients' records at hospitals / Clinics. A typical hierarchy would be to create main cabinets as the Hospital's Specialties. Departments under each Specialty can be the sub-cabinets. There could be a number of doctors in each department and each doctor can be assigned next level of sub-cabinet. Each doctor will have a number of patient files, each patient file consisting of multiple sheets of medical records' information such as X-rays, ECG, Blood Test Report, and Discharge Summary etc.

Each of these cabinets can have any number of folders and each of these folders can have any number of documents. Documents can be scanned images, electronic files or matter written using Electronic Scribbling Pad including voice and video files.

For scanning x-rays, a transparency adapter is recommended – this will improve the quality of the scanned image.

### Batch Scanning

Multiple pages can be scanned at once using ADF scanner and indexed.

### Keywords

Keywords are textual information that is entered during storing of patient records. These keywords help in fast & efficient retrieval of relevant patient records. These keywords are user defined and user entered.

### Voice

Conversation with the patient during consulting sessions can be recorded and those voice files can be stored as part of that patient's record. These files can be played-back during subsequent sessions, if necessary.

### Retrieval of the patients record

Any patient record in any folder can be retrieved using keywords. An important use for this, in addition to fast & efficient retrieval of the concerned patient record, is to retrieve records in total or in part for scientific, epidemiological or statistical purposes. By typing the keywords, say, Ischemic heart diseases, all documents that are scanned with Ischemic as the keyword can be retrieved. A pathologist can give a keyword for all the breast tissues reports scanned and retrieve them whenever required.

Alternatively if the doctor wants to view documents scanned between two specific dates, he/she just needs to mention the dates, which then prompts EDICT to show the documents scanned within those details.

### Rearrangement of Patient Folder / Document between Cabinets / Folder

Patient folder or documents can be moved to different cabinets or folders whenever required. When an Outpatient gets admitted for further treatments, his / her folder can be moved to the In-patient cabinet. After discharge the patient folder can be moved to the 'Discharged Patients Records' cabinet. A discharge summary can be added to the folder on discharge.

### Mailing System

If the computers in the hospitals, clinic and labs are networked, documents and messages can be exchanged between doctors or departments who have access via email feature.

### Image Manipulations

Images of the patients' records can be

- Rotated by 90°, 180° or 270°.
- Zoomed to get a clear view. for e.g. handwritten sheets can be magnified many fold to improve readability
- color images can be converted to Black & White images

### Collations

A doctor may want to create a folder containing documents picked from many other cabinets/folders, which are related to a particular disease. For e.g. if the doctor wants to create a folder which contains details say the family history of all the patients who underwent a CABG, all he/she would need to do is just drag the required documents from various folder and drop them into that folder. A collection of such documents from different cabinets or the folder is called Collation.

### Notebook computer deployment

A doctor may want to take folders or the documents out of the hospitals/clinics, say for a conference. If he/she has a Notebook computer, eMed Records allows the folder(s) to be transferred to the Notebook. Collations can also be exported to a Notebook. A special eMed Records Viewer will allow viewing of these records on his / her notebook.

## **Future of 3iCare Practice Manager eMR**

The healthcare industry is very well advanced and is continuously gearing up to meet the demands of the patients. Future versions of eMed Records would provide:

- Document Collaboration wherein multiple doctors can discuss a patient's case from different locations, while viewing the same patient record details which are published securely (with restricted access) on the web.