CHAPTER 7
PMR-EMR-EHR

LEARNING OBJECTIVES

In this PowerPoint presentation, we will learn about:

- Electronic records versus paper-based records
- Types of electronic records
- Personal Medical Record (PMR) or Personal Health Record (PHR)
- Electronic Medical Record (EMR)
- Electronic Health Record (EHR)
- Difference between SaaS and standalone EMR/HER
- Advantages and disadvantages of EMR/EHR

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ELECTRONIC RECORDS

Medical records are a vital legal document that needs to be protected and preserved at any cost to render better patient care and avoid any medicolegal issues.

Historically, it has been seen that even with the finest paper-medical storage facility, there is always an imminent danger looming of medical records getting misplaced or destroyed.

Electronic record is the answer for the problem.

Developed countries have larger penetration of electronic records as compared to their developing counterparts.

The greater adoption of electronic records in developed countries is due to high literacy rate, accessibility to Internet and computers, etc.

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ELECTRONIC RECORDS

Information captured or recorded on electronic media is termed as electronic records.

If the information is in machine-readable format it is termed as electronic record irrespective of the electronic storage medium whether it is a hard disk drive, solid state drive, USB drive, CD, DVD, etc.

The Medicare and Medicaid Electronic Health Records (EHR) Incentive Programs will provide incentive payments to eligible professionals and eligible hospitals as they demonstrate adoption, implementation, upgrading, or meaningful use of certified EHR technology. (www.cms.gov)

Since the electronic records are in machine-readable format, to read the information suitable software and hardware are required and in absence of suitable software and hardware the information cannot be retrieved or accessed.

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ELECTRONIC RECORDS

A handwritten medical record or a typed medical record or print out of a medical report is not an electronic record as it can be easily read by any person without the use of any software or hardware.

Examples of electronic records:

- ✓ Patient's medical information stored in a USB drive.
- ✓ MS Word document containing sensitive information about patient's and doctor's encounter stored on computer.
- ✓ Medical record of a patient stored in the EMR.
- ✓ All the above examples will need the help of some hardware or software applications to access the information.

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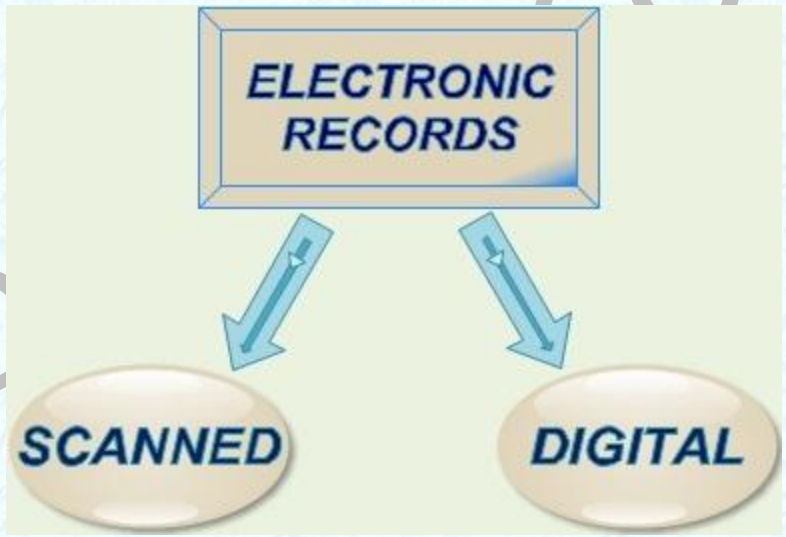
PRODUCTION OF ELECTRONIC RECORDS

There are two ways of production of electronic records:

- ✓ They may be produced electronically (Scanned)
- ✓ They may be created digitally (Digital)



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PRODUCTION OF ELECTRONIC RECORDS

SCANNED RECORDS

In a bid to create paperless environment, more and more hospitals are transitioning from paper-based records to electronic records.

The main hindrance in this transition is the conversion of the old medical records. Unless these paper-based records medical records are converted into electronic forms, the hospital records will remain in hybrid form (part on paper and part in electronic).

Many hospitals have implemented the process of scanning the old paper-based medical records and creating a database of the same.

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PRODUCTION OF ELECTRONIC RECORDS

SCANNED RECORDS

When a paper-based medical record is scanned with the help of a scanner, an image is generated. This image of the document with the help of the software integrated in the scanner can basically be saved in one of the two formats, a TIFF (Tag Image File Format) or a scanned PDF (Portable Document Format).

While the image may be a file that contains texts, the computer is not able to distinguish those texts from the image. This is one of the main disadvantages of scanned documents either in TIFF or in scanned PDF.

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PRODUCTION OF ELECTRONIC RECORDS

SCANNED RECORDS

- **TIFF (Tag Image File Format):** TIFF is a standard format for most of the scanners all over the world and was originally designed to store only images, hence, it lacks the ability of text-based search in the file.

- **Scanned PDF (Portable Document Format):** The file size of PDF and TIFF does not differ a lot, but there are other features of PDF that is slowing making it as the preferred format to store electronic records across all domains.

Both TIFF image as well as scanned PDF document can only be made searchable by performing an optical character recognition (OCR) process on the file which is not fully accurate.

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PRODUCTION OF ELECTRONIC RECORDS

DIGITAL RECORDS

Documents that created from an electronic source such as word processing documents (Microsoft Word or Word Perfect), Microsoft Excel, native PDF, or other databases constitute the digital records.

These documents are created in digital format, therefore, they have electronic character information embedded into the document. These character or texts can be easily read by the computer and hence a text-based search is possible in digital records.

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PRODUCTION OF ELECTRONIC RECORDS

Native PDFs are those PDFs that are generated from Microsoft Word, Microsoft Excel, etc., and hence have the ability to provide text-based search in these documents, which is one of the significant features of native PDF over TIFF.

Advantages of PDF over TIFF in storing records.

- Portability across all operating systems and all platforms.
- Robust security.
- Ability to perform text-based search (Native PDF).

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TRANSITION FROM PAPER RECORDS TO ELECTRONIC RECORDS

1) **SCANNING OF VITAL DATA:**

Initially only the important data required to start servicing the patient can be scanned and entered into the electronic records (Data such as current problems, past medical/surgical history, medication list, lab data, allergies, etc).

The remaining portion of the medical information can be entered into the system as and when required over a period of time avoiding initial burden of transferring the entire patient's file instantly.

Once all the details are successfully transitioned into the electronic records, the paper records should be appropriately destroyed by incinerating or shredding under supervision.

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TRANSITION FROM PAPER RECORDS TO ELECTRONIC RECORDS

2) **PIECEMEAL FASHION SCANNING**:

Hospitals or medical facilities can set-up a system where only the data of certain class of patients needs to be transferred in a specified time frame.

Criteria for the piecemeal fashion can vary from facility to facility depending on the amount of patients they see and other requirements:

- ✓ Transfer records of a class of patients at a time, elderly, pediatrics, female, males, etc.
- ✓ Transfer records of those patients who are scheduled to be seen the next day, in a week, in a fortnight, etc., depending on the size of the facility.

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TRANSITION FROM PAPER RECORDS TO ELECTRONIC RECORDS

3) OUTSOURCING:

Outsourcing the scanning work to a third-party contractor can also be looked as an option.

Following steps needs to be taken for outsourcing to a third-party contractor:

- ✓ Ensure that the contractor is HIPAA compliant
- ✓ Sign agreement explaining the terms and conditions of providing the service, failure to provide the service, and data breaches.
- ✓ An onsite vendor should be favored rather than an offsite vendor as it would add an extra layer of security of the confidential medical records.

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TRANSITION FROM PAPER RECORDS TO ELECTRONIC RECORDS

4) QUALITY CONTROL:

This is an important step that needs to be put in place irrespective of the method adopted by the medical facility for conversion of its paper records into electronic records.

Usually the scanning of the paper records in any facility is undertaken by medically unknowledgeable staff or unskilled staff, the possibilities of occurrence of an error is quite high. These errors may include vital papers of medical documents not being scanned, saving scanned papers of one patient's records into another patient's electronic file, overwriting of one patient's electronic records with another patient's records, etc.

A medically sound staff has to be appointed from the facility to oversee that the patient's medical records are scanned and filed correctly.

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ELECTRONIC RECORDS VERSUS PAPER RECORDS

There are various benefits of electronic records over paper records. Some of them are mentioned below:

1) Improved patient's care:

The best feature of electronic records over traditional paper medical records is the ability to glean vital medical information of the patient and provide them to the physician to make an informed clinical decision.

Example:

- Adverse Drug Events Alerts
- Data integration
- Reminders

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ELECTRONIC RECORDS VERSUS PAPER RECORDS

2) **Handiness**:

Accessibility of electronic records is exceptionally faster than searching for paper-based medical records from the medical storage cabinets.

The search can be performed on many parameters such as name, date of birth, phone number, medical record number, or any other unique number prevailing in the country.

3) **Low storage space**:

Electronic records require fairly low amount of storage space as compared to the paper medical records.

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ELECTRONIC RECORDS VERSUS PAPER RECORDS

4) Cost effective:

The cost incurred on implementation and running of the electronic medical records is less when equated to paper-based medical records over the long run.

EMRs have high implementation costs, but low maintenance cost, whereas paper-based medical records have initial costs, personnel-to-manage cost, storage costs, etc., and these costs are ongoing hence surpasses the EMRs costs over longer period.

The electronic records also have some risks, but the benefits of electronic records far outweigh the risks.

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TYPES OF ELECTRONIC RECORDS

Electronic records are capable of accumulating and storing medical records that can later on be utilized for reference of the patient's medical history.

Electronic records can be divided into three main categories, viz,

- Personal Health Record (PHR)/Personal Medical Record (PMR)
- Electronic Medical Record (EMR)
- Electronic Health Record (EHR).

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PERSONAL MEDICAL RECORD (PMR)/PERSONAL HEALTH RECORD (PHR)

The concept of patient health record was first introduced by AHIMA.

It is a type of electronic record that contains the health-related data and information specific to a patient.

According to NAHIT (The National Alliance for Health Information Technology), PHR is defined as:

An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

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PERSONAL MEDICAL RECORD (PMR)/PERSONAL HEALTH RECORD (PHR)

New age personal medical record can interchange information with other healthcare monitoring devices and conform to globally adopted interoperability standards.

It can be accessed 24x7 from anywhere around the world.

Personal medical records (PMR) if managed properly will improve a patient's healthcare by providing easy access of the health-related information to the physicians that would in turn help them to make informed decisions regarding the care of the patient.

The penetration of personal medical records or personal health records has significantly increased across the globe, although more so in the western countries on account of more patient awareness as compared to its eastern counterparts where patient awareness if any is very limited.

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REQUIREMENTS OF AN IDEAL PMR/PHR

An ideal PHR should contain at least the following information:

- ✓ Personal demographics, such as name, date of birth, and address.
- ✓ Immediate relative or friend to be contacted in case of an emergency.
- ✓ Name and contact details of primary care physician.
- ✓ Health insurance information
- ✓ Medical power-of-attorney and advanced directives (DNR/DNI/No blood transfusion)
- ✓ Organ donor authorization
- ✓ Chronologically listed past medical and surgical history
- ✓ Current medications and dosages
- ✓ Immunizations
- ✓ Intolerances and allergies (environmental, food, or drug)
- ✓ Family and social history
- ✓ Lab results (recent)
- ✓ Permission forms for release of medical information and medical procedures.

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TYPES OF PMR/PHR

It can be broadly classified into two major types, namely,

- Patient-based personal medical record
- EMR-based personal medical record

Patient-based personal medical record:

Records which are created, maintained, and updated by the patient are known as patient-based personal medical record.

The patient has the authority to decide what all information he or she needs to include in the medical record and with whom he or she wants to share the information.

The most common problem with the patient-based records of late has been the timely updation of the medical information.

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TYPES OF PMR/PHR

PATIENT-BASED PERSONAL MEDICAL RECORD:

The patient-based personal medical record is sub-divided into two categories:

- Online patient-based personal medical records
- Offline patient-based personal medical records

Online patient-based personal medical records:

In online patient-based personal medical records, the medical information of the patient is stored online, that is, on the cloud. The cloud is an interconnected system of computer servers which are used for storage of data and can be accessed via Internet.

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TYPES OF PMR/PHR

Online patient-based personal medical records:

The major benefit of online patient-based personal medical records is that it can be accessed anytime 24x7 from anywhere around the world. This feature complements to the portability of personal health record as well as its availability round the clock.

As the medical information is stored online, care should be taken to ensure that the information remains secure and it cannot be sneaked into by a hacker.

To maintain or create an online patient-based personal medical record a person has the option to either choose a paid service or choose a free service.

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TYPES OF PMR/PHR

Online patient-based personal medical records:

Paid service: A monthly or annual charge has to be paid by the patient to avail the service.

Free service: The company provides the online patient-based personal medical record service and do not charge any fee to the person, but it may generate revenue by showing advertisements on the online web pages or selling generic information/impersonal information from the medical records to pharmaceutical and research companies.

Two of the most famous free online patient-based personal medical records are Microsoft HealthVault and Google Health (discontinued).

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TYPES OF PMR/PHR

Online patient-based personal medical records:

Microsoft HealthVault:

Microsoft HealthVault was started in 2007.

It is the most famous free online patient-based personal medical record developed by Microsoft that can be used to store and maintain health information.

Originally, it was started to cater the United States people, but in June 2010, Microsoft HealthVault expanded its services to include the United Kingdom.

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TYPES OF PMR/PHR

Online patient-based personal medical records:

Microsoft HealthVault:

Some of the salient features of Microsoft HealthVault as follows:

- It has the ability to communicate with a gamut of health monitoring devices such as blood pressure monitor, blood glucose monitor, peak flow meter, pulse oximeter, weighing scale, pedometers etc.
- Microsoft has developed applications for Windows, I-Phone, and Android platforms to help access the Microsoft HealthVault using smart phones.
- Microsoft HealthVault now also allows uploading of medical images, such as x-rays, MRIs, ultrasounds, etc.
- Microsoft HealthVault can be integrated with various other online PHRs.

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TYPES OF PMR/PHR

Online patient-based personal medical records:

Google Health:

Google Health was launched in 2008.

Due to poor awareness and lack of widespread adoption Google announced the discontinuation of Google Health in 2011.

It provided ways to continue to maintain the online records by importing the medical information to other personal health record such as Microsoft HealthVault or to download them.

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TYPES OF PMR/PHR

Offline patient-based personal medical records:

In offline patient-based personal medical records, the medical information of the patient is stored offline, that is, on the patient's personal computer or any other storage medium, for example, USB flash drive, mobile application.

The main disadvantage of the medical records being stored on a personal computer is that it is not portable and can only be accessed locally by the person himself.

Lately, companies have started to update their technology in order to provide a hybrid kind of solution where the personal medical record while being maintained on the local computer can also be uploaded to a secure web server. Example: SynChart

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TYPES OF PMR/PHR

Offline patient-based personal medical records:

Providers of personal health records (either online or offline) are not regulated by any medical body, therefore, a due-diligence approach needs to be exercised before signing up for any PHRs.

The advantage of medical record present on the USB flash drive is its handiness and portability because it can be carried around in a keychain, pendant, wallet, etc.

At the same time, there is a danger to the security of the medical records as an USB flash drive can easily be misplaced or lost. Therefore, encryption with at least 128-bit SSL is of essence.

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MEDICAL IDENTIFICATION SYMBOL

Medical identification symbol is a symbol usually carried by individuals who suffer from an ailment and it acts as a medium to inform about the medical condition of individual to either emergency medical technician (EMT) or anyone who is near the person in case of an emergency.

The above symbol is usually red in color, occasionally blue.

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MEDICAL IDENTIFICATION SYMBOL

Medical identification symbol printed or engraved on jewellery is known as medical identification tag.

Emergency medical technicians (EMT) or emergency medical personnel (EMP) are the paramedical staff who are first to reach in a case of medical emergencies or accidents.

There are various forms in which the medical identification tag is available in the market.

Card: It is known as medical identification card or emergency wallet card and can be easily carried in a wallet.

It generally has the personal information of the patient, contact information of someone in case of emergency, and comprehensive medical history of the patient.

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MEDICAL IDENTIFICATION SYMBOL

Wrist band: Medical identification tags are also available in form of wrist bands which can be worn on the wrist and will be easily visible to the emergency responders in case of any adversity.

The information on the wrist band is not as exhaustive as the medical identification card and may have just the vital details engraved on the underside of it such as allergies or any advanced directives or diagnosis of the person.

Miscellaneous Jewellery: Medical identification tags can also be customized according to the person's need into various other forms of jewellery such as shoe tag, pendants, necklace, bracelet, etc.

The main function of medical identification tag is it should be easily visible to the emergency care team and convey the medical information or the contact number of a person who could provide the same to the emergency responders.

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MEDICALERT FOUNDATION

It was founded in 1956 by Dr. Marion and Chrissie Collins.

It is a non-profit, charitable, and membership-based organization dedicated to the well being of others.

They issue a medical information tag (wallet card, wrist band, jewellery, etc.) called as MedicAlert®.

MedicAlert® is the only medical identification and information network with medically trained staff that reviews and prioritizes your health information, ensuring the most important details are delivered first.

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MEDICALERT FOUNDATION

MedicAlert Foundation as of year 2014 provides its service in the following ten countries:

- United States
- Australia
- Canada
- Cyprus
- Iceland
- Malaysia
- New Zealand
- South Africa
- United Kingdom
- Zimbabwe

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TYPES OF PMR/PHR

EMR-based personal medical records:

In EMR-based personal medical record, the data is not created or managed by the individual instead the individual is only entitled to view the data of the electronic medical records which is maintained by the servicing physician, hospital, any healthcare agency, or even an insurance company.

The individual can access only certain sections of medical records such as scheduling the appointment or ordering the medicines through e-pharmacy, however, more and more EMR-based personal medical records have started adding several other features in order to capitalize the market.

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TYPES OF PMR/PHR

EMR-based personal medical records:

Some of the new distinct features are as follows:

a) Individuals can enter any relevant health information into the system.

b) Uploading of data from the home healthcare monitoring devices such as blood pressure, blood sugar, pulse oximeter, etc.

c) Ability to exchange healthcare information from other sources such as the pharmacies or other healthcare providers.

Individuals can gain access to their medical records through web browser and in some cases even through mobile applications on the smartphones.

Singapore's National Skin Center was the first healthcare institution in South East Asia to introduce the free online patient health record.

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ELECTRONIC MEDICAL RECORD (EMR)

EMR is a type of electronic record that assimilates all the paper-based medical records of a patient in an electronic form.

This information is created and managed by and for the physicians for diagnosis and treatment of the patient.

It is specific to and controlled by a single medical facility and can be accessed only by the physician and staff of that medical facility.

An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization. (NAHIT)

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ELECTRONIC MEDICAL RECORD (EMR)

Adoption of EMR has been far slower than expected by researchers owing to the following factors:

Huge amount of initial investment required for implementation. Many providers feel that the benefit achieved from implementation of EMR does not justify the huge cost associated with it.

More time is required by the providers to input the data into the EMR. This leads to decrease in productivity of the providers and overall decreasing the number of patients seen in the medical facility.

While protagonists of EMRs have categorically criticized paper medical records for their limited accessibility, ambiguity, and illegibility, antagonist still believe that paper records are far more secure in terms of protecting the PHI as compared to the electronic medical records.

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ELECTRONIC MEDICAL RECORD (EMR)

One of the first electronic medical records developed in India was e-Sushrut in 2002. It was developed by the Center for Development of Advanced Computing (CDAC), Govt. of India.

Selection of an EMR should be meticulous and customized as per the requirements of the hospital.

Basic requirements of an ideal EMR

- First and foremost it should be fairly priced as cost has been the main factor interfering with widespread adoption of EMR.
- The EMR should meet all the certification criteria of the local and global governing bodies.
- The EMR vendor should provide any future updates for the EMR software as and when required in order to meet the meaningful use requirement. (For example the transition from the existing ICD-9 to ICD-10)

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ELECTRONIC MEDICAL RECORD (EMR)

Basic requirements of an ideal EMR

- It should be coherent and should complement in productivity enhancement of the hospital.
- It should have the capability of customization as per the size of the medical facility and medical specialty.
- The EMR software should be able to easily integrate with the existing healthcare monitoring devices/softwares used in the hospital.
- It should provide a robust security for the medical database storage.
- The EMR provide should have provide an onsite training team during the implementation process and a 24x7 technical support team available during the live process to answer any queries promptly.
- It should have some backup system in place in case of any kind of system failure.

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ELECTRONIC HEALTH RECORD (EHR)

EHR is a type of electronic record that that constitutes of all the paper-based medical records of a patient in electronic form.

It is not controlled by a single medical facility, instead, it can be shared among multiple healthcare providers and multiple medical facilities.

Electronic Health Record (EHR) is an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization. (NAHIT)

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PMR-EMR-EHR

EMR versus EHR

Generally EMR and EHR are used interchangeably, but there is very fine but prominent difference between the two.

EMR is controlled by a single medical facility whereas EHR securely share the patient's health data across multiple healthcare organizations.

In addition to all of the requirements of an ideal EMR, EHR should also conform to globally or nationally adopted interoperability standards.

EHR provides a more comprehensive patient health record as compared to EMR.

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PMR-EMR-EHR

TYPES OF EMR/EHR

There are two types of EMR/EHR, viz,

1) Client-server installation
2) Software-as-a-service (SaaS) system

Client-server installation

This is the most basic type of installation seen in the hospitals. It is also known as local system or standalone system. In India basically all the hospitals utilize this type of client-server installation as the data is not required to be shared with other institutions.

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TYPES OF EMR/EHR

Client-server installation

In client-server installation system, the server which is used to store the electronic medical database is installed locally within the premise of the hospital.

This type of setting requires a huge upfront and recurring maintenance cost as the hospital,

- ✓ Needs to purchase the software
- ✓ Procure the required hardware
- ✓ Install in its own premise
- ✓ Perform regular maintenance

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TYPES OF EMR/EHR

Software-as-a-service system (SaaS)

SaaS is a software delivery method that provides access to software and its functions remotely as a web-based service.

In this system, the data is not stored on local server or within the hospital premise, but instead, it is stored in the cloud (Internet) which can be easily shared between health organizations.

The main benefit of this system is that the providers do not have to pay a hefty price to purchase the licensed software but can use the software by paying a monthly or an annual fee.

One drawback of this system is that the providers do not have total control over the medical database and are totally dependent on the vendor for the security of the data.

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DIFFERENCE BETWEEN SAAS AND STANDALONE INSTALLATION

	SaaS system	Client-Server installation
Cost	Low as providers have to pay a nominal monthly or annual fees depending upon their usage.	High as hospitals have to pay for initial implementation and ongoing maintenance and upgradation of the hardware.
Accessibility	Accessible using a host of devices desktop, laptop, smart phones, tablets, etc.	Accessibility is limited to only desktops and laptops within the hospitals.
Customization	An out-of-the-box application is provided with limited to no customization.	It can be customized depending upon the product vendor.
Upgradation	The SaaS provider implements the required hardware and software upgrades.	Hospitals have to bear the cost of the new software and hardware upgrades.
Security	Security is a concern in SaaS as the data at rest is stored on the cloud and also is accessed through Internet.	Security is far better than SaaS as the data is within the safeguard of the hospital.

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DIFFERENCE BETWEEN SAAS AND STANDALONE INSTALLATION

	SaaS system	Client-Server installation
Scalability	With increase in business, only the subscription plan needs to be increased and you are ready to go.	With increase in business, hospital needs to invest in more hardware and software to handle the increased workload.
Downtime	SaaS is accessed through Internet hence any downtime will affect the medical practice.	Being connected within the LAN, there is no downtime except for any system failure.
Interoperability	SaaS providers usually take care of the interoperability standards set in place.	Hospitals would have to invest in appropriate technology to abide by the interoperability
Speed	SaaS is accessed over the Internet hence the speed is depends on the broadband speed.	Since the software is hosted over LAN, the speed is good.
Database control	SaaS provider controls and database.	Hospital owns and controls the database.

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ADVANTAGES OF EMR/EHR

When implemented properly, EMR/EHR can improve the efficiency of the providers by,

- ✓ Integrating all the patient data to create a comprehensive patient medical history.
- ✓ Avoiding any drug-to-drug interaction by generating adverse drug events alerts.
- ✓ Sending automatic reminders to patients for appointment schedule, immunization, follow-up, lab tests, etc., and eliminating the risk of missing any reminder.
- ✓ Effectively reducing the revenue spent on medical transcription.
- ✓ Avoiding duplication of any diagnostic tests by integrating medical data from various other sources, such as labs, diagnostic center, and pharmacies.
- ✓ Analysing the data over a period of time of a specific disease and providing a statistical data that can be used for research purpose.

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DISADVANTAGES OF EMR/EHR

EMR/EHR also has a couple of disadvantages as follows:

- Many physicians complain about the decrease in their productivity after implementation of EMR as they need to learn the software and input data of the patient on their own into the software.
- In the event of a system failure, data stored on the EMR/EHR will not be available to the providers.

EXAMPLES OF EMR

1) eClinicalWorks (http://www.eclinicalworks.com)
   Subscription Based
2) McKesson (http://www.mckesson.com)
   Subscription Based
3) OpenEMR (http://www.open-emr.org)
   Free

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EXAMPLES OF EMR

eClinicalWorks

eClinicalWorks' award-winning Electronic Medical Record (EMR) system offers the following features:

Improved workflow, Customizable, Access clinical content, Communication, Unification, and ARRA Meaningful Use

McKesson

The InteGreat EHR (Cloud Based) is implemented as an affordable Software as a Service (SaaS) installation and deployed as a browser-based solution.

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EXAMPLES OF EMR

McKesson

Practice Partner (Server Based) is a fully-integrated electronic health record (EHR) and practice management (PM) software. It includes three powerful applications, which are available individually or together: Patient Records, Medical Billing and Appointment Scheduler.

OpenEMR

OpenEMR is a free and open source electronic health records and medical practice management application that can run on Windows, Linux, Mac OS X, and many other platforms.

OpenEMR is ONC Complete Ambulatory EHR certified and is one of the most popular open source electronic medical records in use today.

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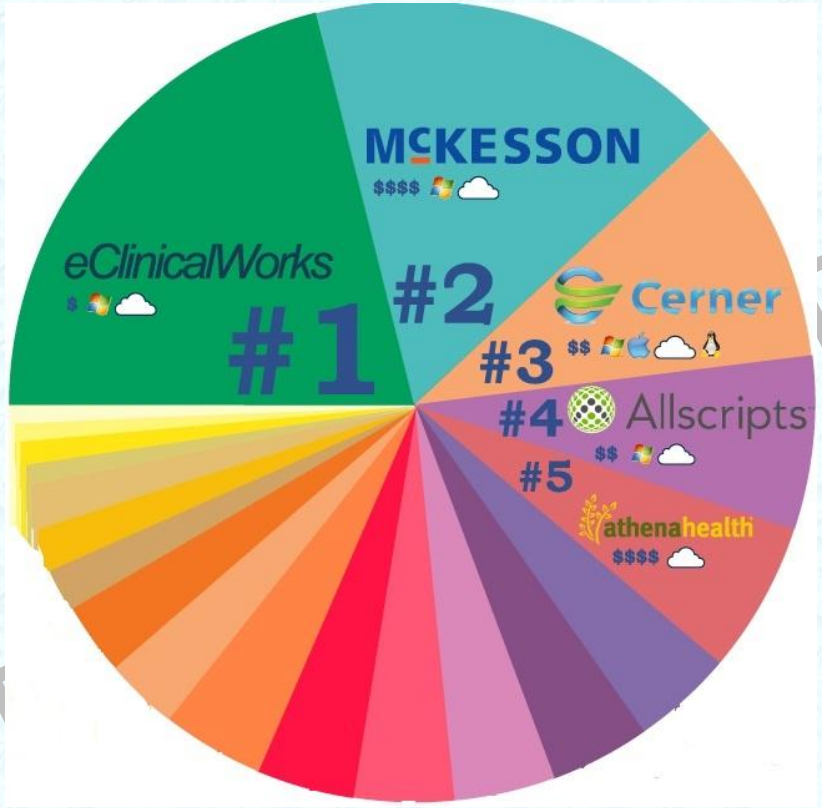
MOST PREFERRED EMR/EHR SOFTWARE INFOGRAPHICS



http://www.capterra.com/infographics/top-emr-software