# A STUDY ON COMPLAINCE OF ELECTRONIC MEDICAL RECORDS AT ONE OF THE LEADING HOSPITAL IN COIMBATORE

## Mrs.U.Suji[1], R.Nirmala[2]

[1]
*Assistant professor, Department of Hospital Administration, Dr.N.G.P. Arts and Science College*

[2]
*Student, Department of Hospital Administration, Dr.N.G.P. Arts and Science College*

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**Abstract -**The employment of Electronic Medical Record is anticipated to upgrade health care quality and to diminish increased financial pressure; EMR may be likely at risk to security breaches that may result in increase of patient's privacy concerns. The reason of the study was to inspect the factors that motivate hospital information technology staff's compliance with EMR privacy policy. The study collected data using survey method. Result revealed that encompass vulnerability &serenity of threats from EMR breaches may be used to forecast the information technology staffs. Based on finding, suggestion was given to hospital to plan and design effectual strategies such as creating awareness of protection& privacy of records, to train the staff.

Key Words: Electronic Medical Records, Privacy, Technology, Vulnerability & serenity.

## 1. INTRODUCTION
### 1.1. Definition:

**(a) Electronic Medical Records(EMR):**

An Electronic Medical Record is the systematize collection of patient and population electronically stored health information in a digital format.

**(b) EMR Compliance :**

EMR compliance is the problem undergone while converting the Manual Medical Records to Electronic Medical Records.

### 1.2. About the Study

Electronic Medical Record is playing important role in hospital and healthcare sectors. It is a record of patient history, test results, prescription notes, clinical remains etc. Electronic Medical Record is mainly used to reduce the medical errors and patients documentation.

The medical record is of value to the hospital in evaluating the competency of the medical staff and the end results of treatment. Good medical records are essential for rendering efficient patient care at minimum cost, therefore, increasing attention is bestowed upon the proper administration of medical record departments.

A scientifically formulated medical record not only provides vital statistical information but assists the efficient provision of patient care, and enables the analysis of the quality of the patient care services. The medical record is principal document by which the performance of health care professionals is measured. There are large number of issues in a hospital that result in dissatisfaction of patients and their visitors.

Most frequently occurring problems are system failure, staff unavailability, bulk file scanning. Not all patients who undergo the issue will come up complaint; however they might opt other hospitals and pass on the negative impression to the public.

Henceforth, proper study on compliance of electronic medical records made demand on regular basis. In proportion of errors of Electronic Medical Records, the chart was prepared and analysed.

### 1.3 Objective of the Study

- To study the compliance of Electronic Medical Records (EMR) at one of the leading eye hospital.
- To identify the factors causing problems in converting Manual Medical Records to Electronic Medical Records.
- To suggest measures to minimize the error in EMR conversion.

## 2. LITERATURE REVIEW

According to Robert H. Millar and Ida Sim (2014), the electronic medical record (EMR) is an enabling technology that allows physician practices to pursue more powerful quality improvement programs than is possible with paper-based records. However, achieving quality improvement through EMR use is neither low-cost nor easy. Based on a qualitative study of physician practices that had implemented an EMR, we found that quality improvement depends heavily on physicians' use of the EMR and not paper for most of their daily tasks. We identified key barriers to physicians' use of EMRs. We then suggest policy interventions to overcome these barriers, including providing work/practice support systems, improving electronic clinical data exchange, and providing financial rewards for quality improvement.

According to Omri Gottasman MD, Helena Kuivaniemim MD, PhD, (2013), the Electronic Medical Records and Genomics Network is a National Human Genome Research Institute–funded consortium engaged in the development of methods and best practices for using the electronic medical record as a tool for genomic research. Now in its sixth year and second funding cycle, and comprising nine research groups and a coordinating center, the network has played a major role in validating the concept that clinical data derived from electronic medical records can be used successfully for genomic research. Current work is advancing knowledge in multiple disciplines at the intersection of genomics and health-care informatics, particularly for electronic phenotyping, genome-wide association studies, genomic medicine implementation, and the ethical and regulatory issues associated with genomics research and returning results to study participants. Here, we describe the evolution, accomplishments, opportunities, and challenges of the network from its inception as a five-group consortium focused on genotype–phenotype associations for genomic discovery to its current form as a nine-group consortium pivoting toward the implementation of genomic medicine.

According to Shabbir, Syed Abdul, Luai A.Ahmed, RachapalleReddi sudhir, Jeremiah Scholl, Yu- Chuan Li, Der-Ming Liou (2010), the adoption of electronicmedicalrecord

(EMR) system is gradually increasing. However, various time–motion studies reveal conflicting data regarding time effectiveness on workflow due to computerization. One of the major issues for physicians is their uncertainty with EMRs' potential impact of time on workflow. A tertiary eye hospital in south India was in the process of implementing an EMR system in their ambulatory care unit. Many of the staff did not have previous computing experience and there were conflicting views on the time effectiveness of the computerized system after implementation. The management was thus interested to know the real time effectiveness of EMR in their hospital. The study compliments existing studies of this type by comparing the time efficiency of documentation time using EMR system with paper documentation in a hospital in a developing country where a transition between paper and EMR documentation was currently in progress.

## 3. METHODOLOGY

This is an observational research that employs the Electronic Medical Record. The checklist was used for collecting data and the method of data is primary. Sample size is 310, based on Morgan's table. The survey method is used for the study.
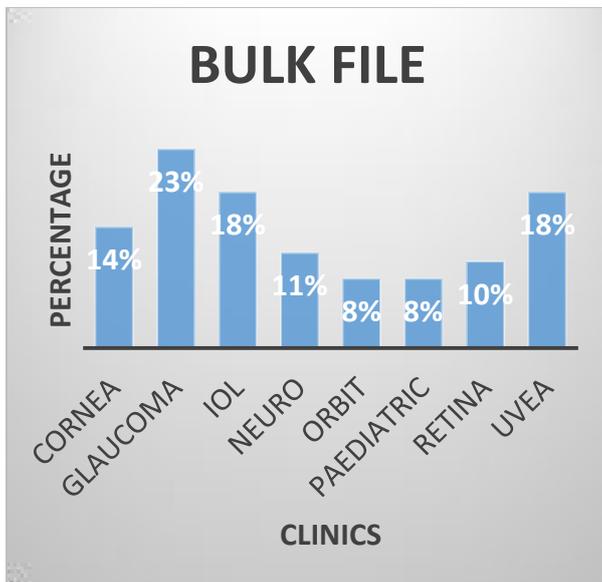
## 4. ANALYSIS

CHART 1.1.1 CHART SHOWING THE OVERALL PERCENTAGE OF ERRORS OCCURRED IN ALL CLINICS
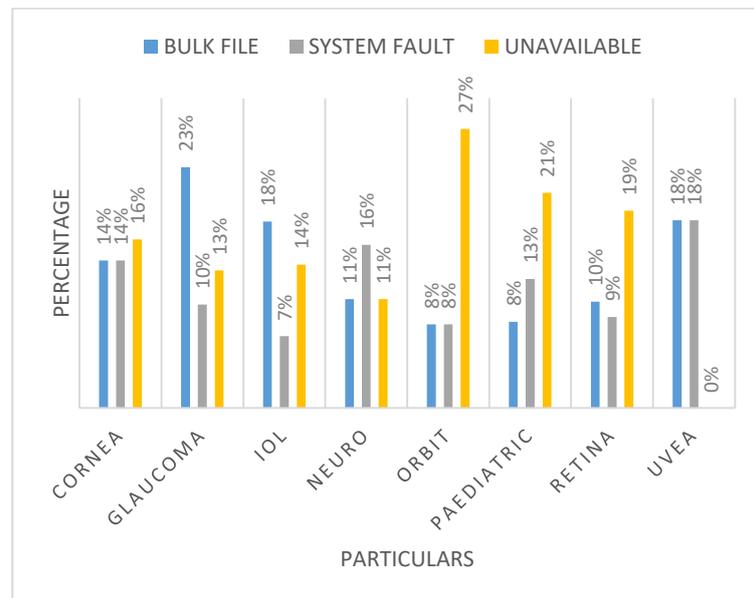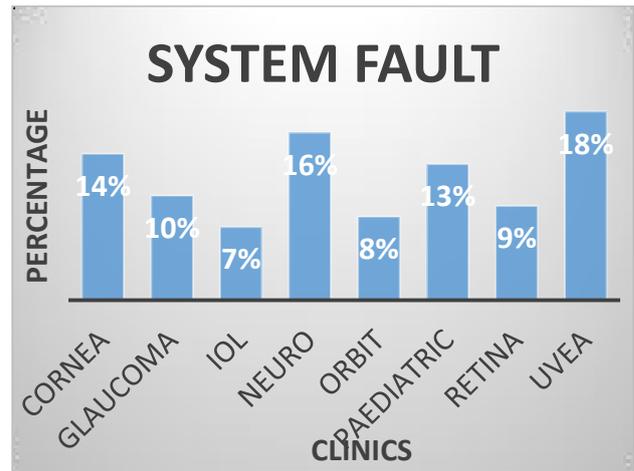


From the above chart is inferred that the errors occurred rate is (27%) which is higher in orbit clinic and it is lower in uvea clinic (0%).

CHART 1.1.2 CHART SHOWING THE PERCENTAGE OF BULK FILE ERRORS IN CLINICS



From the above chart its inferred that the errors occurred rate is (23%) which is higher in glaucoma clinic and it is lower in orbit and pediatric clinic (8%).

1.1.3 CHART SHOWING THE PERCENTAGE OF SYSTEM FAULT ERRORS IN CLINICS





From the above chart its inferred that the errors occurred rate is (18%) which is higher in uvea clinic and it is lower in IOL clinic (7%).

CHART SHOWING THE PERCENTAGE OF UNAVAILABLE ERRORS IN CLINICS
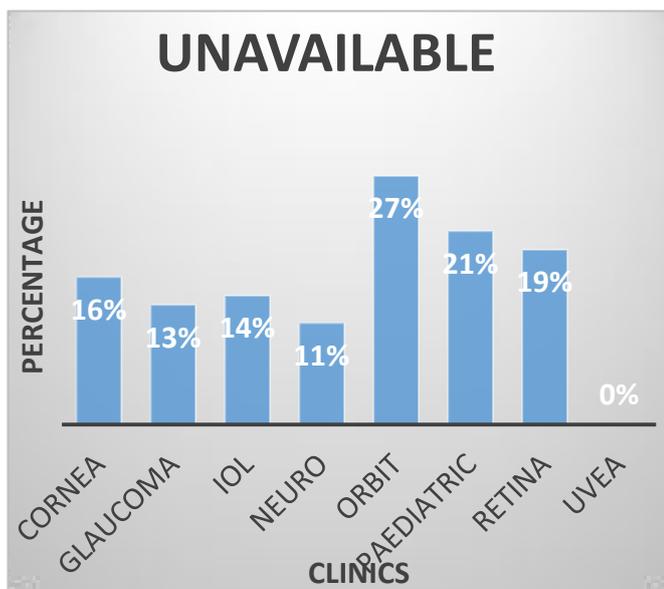
From the above chart its inferred that the errors occurred rate is (27%) which is higher in orbit clinic and it is lower in uvea clinic (0%).

**5. MAJOR FINDINGS & RECOMMENDATIONS**

- Technical faults cause the delay in conversion of electronic medical record.
- Segregation of various files and scheduling the timing streamlines the process flow.
- Establish & develop a training program for the implementation and incorporate that into new employee orientation for future training.
- Keep a designated area with test applications for training.
- Checkout the sources like system slow, software installation etc.
- To monitor the staff those involved in scanning the patients.
- To avoid use of scissors to cut the case sheets.

## 6. Conclusion

There are various advantages on implementation of an electronic medical records system. There are some disadvantages associated with it too. An electronic medical record helps to improve patient healthcare. Electronic Medical records are not misplaced like paper files or records. The information kept in electronic medical records is far more accurate compared to paper records ones.

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