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Review Paper on Implementation of Management of Patient Data Records using Web Application

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Abstract: ***This study explains how a strategy for identifying and preventing patient-related data transfer theft at academic institutions was designed and implemented. To deliver remote services to its patients, every healthcare establishment cannot afford to modernise or digitise. As an outcome, patients and healthcare professionals must travel to a healthcare institution for diagnostics, extending their travel time and raising their expenditures. As a result, programmers devised the concept of developing a Web-based application system that keeps track of all credentialed physicians and their contact details. The web application will produce a unique user ID for each user using the information on their Aadhaar card. This is a straightforward method of obtaining digital access to your medical information. This paper having proper study over how different methods are managing their all the records between patients, admin and doctors.***
Keywords: patient data transfer, patient records, web application-based system, patient data monitoring.

I. INTRODUCTION

"Implementation and Design of patient data management systems" By incorporating digital technology into the healthcare system, health records may be simply and swiftly transferred between medical facilities, according to "An Approach towards Automation of Patient Related Data Transfer." Patients who have access to their own health records are more involved in their own treatment, which strengthens the patient–provider relationship. As a result of this study, the efficacy of healthcare management will be upgraded and increased. Healthcare organizations everywhere around the world are developing health record management software or systems.

One of the ways to help the individual with their own healthcare is to use patient records management systems that track all of this data from various contacts with a variety of health specialists throughout time. This system is an electronic application that allows users to secure and confidentially access, manage, and share their health information. Every healthcare facility that cannot afford to modernise or digitise in order to provide remote services to its patients. As a result, patients and health professionals must go to a healthcare facility for diagnostics, adding to their travel time and costs. Developers have come up with the idea of creating a Web-based application system that maintains track of all authenticated physicians and their contact information. With the aid of the Aadhaar card number, the web application will generate a unique user ID for each user. This is a simple way to get digital access to your medical records. You can build an easy-to-remember HealthID and link it to your Aadhaar. Even without user's consent, no one in the hospital can view his data. All of the users' health records will be stored in this project. By providing the user's unique ID, you may view their medical records. Save all of the patient's records in an encrypted md5 database. Whenever someone wants to go to the hospital.

II. LITERATURE SURVEY

Rifat Shahriyar et al. in 2019 [1] This paper shows mobile phones have become an inseparable part of our lives; health care may be more effortlessly integrated into our daily lives. It allows for the delivery of reliable medical information via mobile devices at any time and from any location. Sensors, low-power integrated circuits, and wireless transmission advancements have made it possible to create low-cost, compact, lightweight, and intelligent bio-sensor nodes. These nodes may be effortlessly incorporated into wireless personal or body area networks for mobile - based monitoring, as they are capable of sensing, processing, and broadcasting one or more vital signs. In this study, we describe the Intelligent Mobile Health Monitoring System (IMHMS), which uses biological and environmental data acquired by deployed sensors to deliver medical feedback to patients via mobile devices.
M.V. patil et al. 2001 [2] This paper demonstrates the remote usage of a patient monitoring system employing VLSI technology, as well as providing clinicians with new alternative user interfaces. We investigate the prospects for patient monitoring using GSM technology. The goal is to come up with solutions for using a remote patient monitoring system.

The goal of the Patient Monitoring System is to get a quantitative evaluation of patients' essential physiological characteristics throughout critical times of biological function.

Baki Koyuncu et al. 2015 [3] In this paper they developed system is an integrated information system for managing a hospital's administrative, economic, and medical elements. As a subject of study, the system's goal in health informatics is to accomplish the patient care and administration with the finest possible assistance processing of electronic data This includes all paper-based products. Machines that process data as well as machines that process data A laboratory information system is a type of software that allows you to keep track of your results in the lab. is in charge of receiving, processing, and storing data Produced as a result of medical laboratory procedures The majority of people are unaware of hospital processes. They are unsure which department they should go to for their research. medical issues that are specific. As a result, an intelligent system it is necessary to assist them.

Carmelo Militello, et al. in 2015 [4] EHR 2.0 is an evolution of existing Electronic Health Records (EHR) that provides intelligent assistance for all healthcare practitioners and patients in the National Health System, with the goal of enhancing treatment quality and boosting patient participation in the health-care and preventative process. The Virtual Health Record (VHR), an intelligent resource on the networks that comprises all the digital information accessible about the patient's health, is at the heart of EHR 2.0, according to the report. The main services of the VHR are presented as a result of an analyzation of some innovative medical scenarios.

Kissi Mireku, et al in 2019 [5] This portion of the study explains how data was collected and analyzed in order to arrive at the study's conclusions. To fulfil the goal of this research, which is to explore the effects of client knowledge on data System for maintaining privacy and health data. The research used a method of data collecting and analysis that is quantitative. A To obtain data from the participants, a random sampling strategy was used. main major sources of information After gathering and saving data in Microsoft Excel, the statistics programmed SPSS version 22 is compatible with Excel version 2013.a tool for analyzing data A Pearson correlation analysis is a method of determining the relationship between two variables. a study was carried out to look at the link between the the dependent variable as well as the independent factors were investigated. That is data security and privacy.

van Ginneken, A.M., et al. by 2002 [6] The belief that the computerized patient record (CPR) will be the technology of the future is no longer limited to a small group of visionaries. The paper record, it is widely believed, can no longer match the demands of modern health care. Even those professionals who are resistant to change recognize the CPR's additional potential. Regardless of the fact that several healthcare practitioners are aware of the benefits of CPR, and the Institute of Medicine recommended it as a critical healthcare technology in 1991. The above-mentioned advantages come with a set of conditions. A major amount of these criteria can be separated into two categories: record consultation criteria and computer-assisted translation requirements.

M.AZHAGIRI et al. in 2018 [7] In this paper, EHR is widely used in the medical field. An electronic health record (EHR) is a digital version of a medical record that makes medical reports easily accessible. EHRs provide the potential to provide data about a patient's treatment to many authorized individuals in a secure format.

Despite the fact that EHRs vary in context and systematic approach towards the record, they are frequently created to contain the patient's medical and treatment history records, as well as the patient's prescribed medication, diagnoses, diagnostic images, immunization dates, allergies, and laboratory results, among many other things. Although this has proven to be exceedingly difficult, electronic records have the capacity to consolidate information from numerous registered resources and give a more holistic view of patient facts.

Dr. Vivek kadambi et al. in 2018 [8] The major goal of electronic health record (EHR) technology is to improve healthcare delivery quality, safety, and efficiency. This technical paper examines the "mNotes" electronic health record (EHR) system from the standpoint of Remote Patient Management (RPM) for metabolic disorders and lifestyle diseases treated with nutrient supplementation and Bioidentical Hormonal Replacement Therapy (BHRT). The goal was to conduct a review. The structure for keeping health records. The model that was utilized to make the best use of M-notes in remote patient monitoring. The Healthcare Coordination Model is a model for coordinating the activities of the many entities involved in healthcare delivery. Interoperability between EHRs is a possibility. Working models for RPM using the EHR and readily available IT technologies were created based on the features given by mNotes.

Erwin halim et al. in 2020 [9] The goal of this research was to find out what challenges developers experience while creating a medical record system for hospitals. The level of care provided to patients will be influenced by the use of high-quality medical records. The orderly administration of health care becomes effective and efficient when a competent medical record management system is used. The proposed systems in this study are web-based and mobile applications. Architectural design, flow chart design, data flow diagram design, database design, and system interface design are all included in the scope of the evaluation.

The exploratory technique was used to corroborate the findings of this study, which involved five physicians and nurses working in Jakarta hospitals, as well as 72 road victims who were being treated.

Blobel, B et al. by 2006 [10] For EHCR specifications and implementations, three standard ideas have been established: the component-oriented single model approach, the component-oriented dual model approach, and the multi-model approach of component-oriented services. The first two techniques aim to integrate data, embed concepts into structures (in the case of the single model approach) or describe and implement them using archetypes (in the case of the dual model approach), and provide data-driven features such as workflow concepts and alert systems. Because of the architectural paradigm used, the third method emphasizes functional integration, i.e., interoperability. This degree of integration is also known as semantic integration.

III.DISCUSSION

After reading through various papers, in this age, EHR is widely used in the medical field. An electronic health record (EHR) is a digital version of a medical record that makes medical reports easily accessible.

EHRs provide the potential to provide data about a patient's treatment to many authorized individuals in a secure format. Despite the fact that EHRs vary in context and systematic approach towards the record, they are frequently created to contain the patient's medical and treatment history records, as well as the patient's prescribed medication, diagnoses, diagnostic images, immunization dates, allergies, and laboratory results, among many other things. Although this has proven to be exceedingly difficult, electronic records have the capacity to consolidate information from numerous registered resources and give a more holistic view of patient facts.

IV.FLOWDIAGRAM

Flow diagram of Model for pharma interaction in HER system as discussed in paper [8] remote patient management system, below fig 1.0.

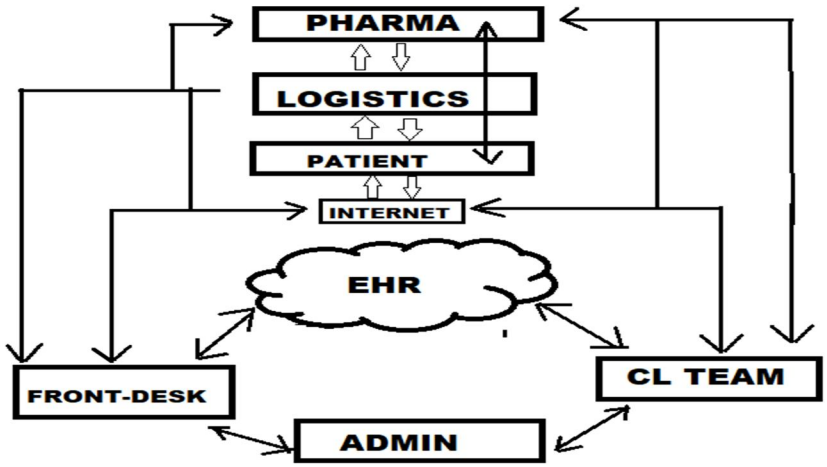

Fig. 1.0 Model for pharma interaction

V. CONCLUSIONS

The concept was proven to be effective in treating local and long-distance patients using the EHR, which was backed up by a clinical team utilizing widely available IT technologies. Integration of these technologies into the EHR system, as well as direct integration with LIS into the EHR system, is the next natural step in the system's growth “mNotes" EHR is a valuable platform for Remote Patient Management of chronic metabolic and lifestyle illnesses, including clinical treatment and documentation, as well as collecting usable data from its Health Information System. Interoperability with other cloud-based EHRs, as well as medical information systems, laboratories, pharma, and other elements, will be a logical progression for the EHR.

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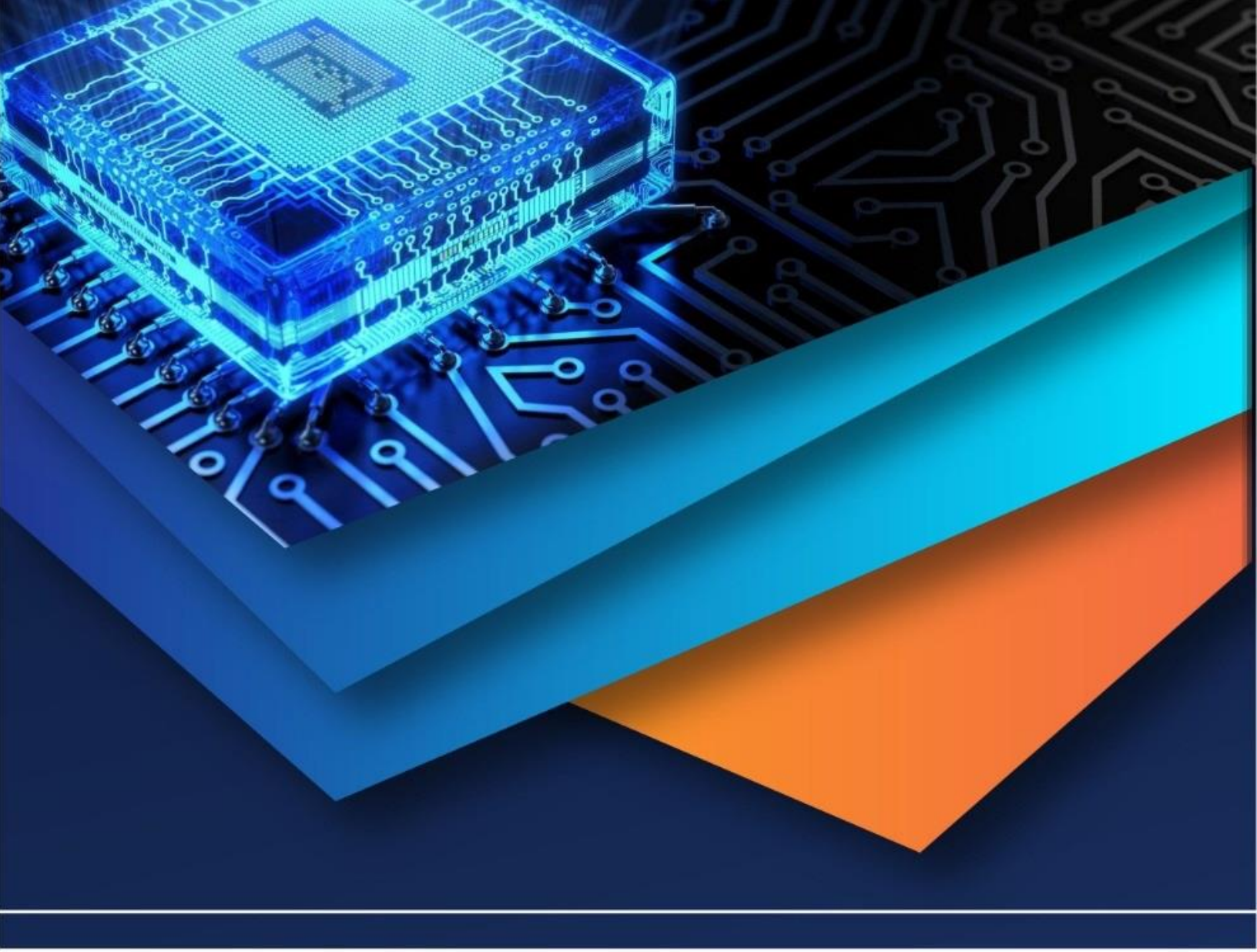

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