



REVIEW; ROLE OF MEDICAL RECORDS STAFF WITH NURSES IN MANAGEMENT OF MEDICAL LABORATORY ELECTRONIC DATA

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Abstract:

In this day and age of electronic health records, the success of laboratories and pathologists will be contingent on the efficient presentation and management of laboratory information, which includes test orders and results, as well as the efficient exchange of data between the electronic health record and the laboratory information system. Described here are the problems that arise with electronic order-entry and results-reporting interfaces, as well as the factors that should be taken into account while establishing these interfaces. Also discussed is the role that the laboratory medical staff, nurses, and data recording play in the process of electronic data recorders.

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Introduction:

Electronic health records (EHRs) are digital repositories of health-related data that are utilized for the storage and retrieval of patients' information [1]. Electronic Health Records (EHRs) allow medical personnel to conveniently access patient information from any location and at any time. They also facilitate several tasks, including scheduling, making requests, reviewing laboratory and radiology results, and updating and prescribing clinical notes. Using electronic health records (EHRs) has several benefits, including enhancing the accuracy of medical and nursing documentation. This, in turn, reduces the likelihood of medical errors caused by misinterpretation and ultimately improves the quality of medical and nursing care. In order to achieve optimal patient safety and health outcomes, nurses must enhance their skills in producing and implementing high-quality documentation [2].

The evaluation and understanding of nurses' attitudes towards EHRs is crucial, since it can significantly impact the improvement or hindrance of EHR deployment. Consequently, the enhancement and robustness of Electronic Health Records (EHRs) primarily rely on nurses embracing their utilization, as this can serve as a catalyst for their ongoing education and proficiency in operating them [3].

The Saudi Arabian government introduced Electronic Health Records (EHRs) at select healthcare facilities some decades ago. At a national level, the adoption of these systems has been gradual and their acceptability and implementation has been delayed due to difficulties [4]. The sluggish acceptance of this technology may be attributed to a deficiency in computer proficiency, high expenses, apprehensions over security, difficulties in adapting to new workflows, and time constraints. Saudi Arabia is making a substantial effort to offer patients contemporary healthcare [5]. When a patient's medical history is stored electronically, it can contain important administrative, clinical, laboratory, and radiological information. This makes it simpler for various healthcare professionals to save and exchange critical health data. It improves patient care by increasing the precision of medical records and reducing the likelihood of medical mistakes, while also expanding healthcare personnel' capacity to provide care to patients [6].

Review:

In order to fulfill their objective of restoring patients' health, health care institutions require medical data that is both effective and efficient in order to implement evidence-based interventions. The installation of a suitable health care data management system that includes a valid case definition makes it possible to extract data in an effective manner, enhances communication for clinical decision making in medical practice and clinical research, and improves the overall quality of health care services. Professionals in the healthcare industry are attentive to the need to improve recording, distribution, monitoring, and the implementation of preventative interventions in order to reduced morbidity. In order to accomplish this, it is necessary to have information that is consistent, complete, comprehensive, and accurate, which calls for more focus within the health care business [7].

Data pertaining to patients is managed by the health care industry through the utilization of either a paper-based record (PBR) or an electronic health record (EHR) system. The electronic health record (EHR) has become an indispensable component of medical treatment, thereby enhancing the quality of health care services, enhancing the satisfaction of physicians, and making it easier for patients to make decisions. Accurate information obtained from electronic health records (EHR) makes it possible for physicians to enter orders and measures clinical validity, which ultimately results in an improvement in the quality of care provided to patients. It is essential to have this capacity during the diagnostic and therapeutic processes, which is beneficial to both medical and legal professions [8].

Assisting with judgment embedded characteristics For the purpose of motivating and encouraging executives of health care organizations, as well as convincing physicians to make better use of best practice alerts (BPAs) in a manner that is both more effective and efficient, standardized checklists, alert signals, prediction tools, and guidelines are necessary. In line with this, research studies supported the position that health care practices are transitioning from provider-based record (PBR) systems to electronic health record (EHR) systems. However, a report found that EHR is less adaptable for recording in the eye care practice [9].

Data about patients were easily available and could be transferred from the electronic health record system. This makes it easier to make an accurate diagnostic and decision by decreasing the amount

of time and effort required to get the information. Reviewers of patient data are alerted by notification signal flags or BPAs, which prompt them about "what content" and "with whom" to disclose that could potentially cause adverse events (AEs). These displays are immediately identifiable and notify healthcare professionals. By doing so, patients are more likely to participate in the provision of health care services and the decision-making processes. This is because it helps to create trust and confidence, which in turn assists in identifying specific and actionable barriers to adherence. Furthermore, in order to inspire patients and ensure that they comply with their treatment, it is possible to send them reminders via email, text message, or telephone [10].

The adoption of electronic health records (EHR) enhances the process, trustworthiness, safety, and efficiency of the delivery of patient care. Therefore, the implementation of standardized rules, methods, and procedures for an adequate health care data management system that improves the quality of health services and efficiency, avoids activities that do not add value, and guarantees a significant improvement in both quality and safety [11].

The adaptation of physicians to electronic record systems that need prior computer knowledge from using the EHR system in Saudi Arabian healthcare institutions has been the subject of a number of investigations, and these investigations have also encouraged changes in the attitudes of health care workers toward the system [11]. On the other hand, the Saudi Ministry of Health (MoH) has built an electronic health record (EHR) system in each and every primary healthcare center (PHC) as part of their attempts to significantly improve the effectiveness with which PHCs treat chronic diseases. This is to improve the quality of healthcare services and to realize its proactive vision for e-health: a "safe, efficient health system, based on the care centered on a patient, standard-oriented, and supported by the e-health" is what has motivated the adoption of electronic health records in Saudi Arabia [12]. The National E-Health Strategy was developed by the Ministry of Health in order to make it simpler for the healthcare sector to transition from a paper-based platform to an electronic one.

Although there are numerous benefits associated with utilizing electronic health record (EHR) systems in medical and healthcare operations, the adoption of such systems is still slower than expected and is met with resistance from healthcare professionals. The perspectives and attitudes of

nurses regarding the utilization of electronic health records (EHRs) are a very essential component that have to be explored in order to increase their adherentness to the utilization of such technology in their practice. A recent study [13] shown that nurses in Jordan have positive sentiments toward the utilization of electronic health records. The employees in the health care industry reported having a satisfactory attitude and level of satisfaction about the utilization of electronic medical records. A systematic review study, on the other hand, was conducted to demonstrate the difficulties and obstacles that are affecting the usage of electronic health records (EHRs) in Saudi Arabia. These include poor computer expertise, a lack of system customisation to hospital requirements, and improper training by the information technology staff. Depending on the circumstances, these challenges could be social, managerial, organizational, or even political [14].

When it comes to the possible users of electronic medical record systems in healthcare settings, nurses are among the most significant potential users [14]. In accordance with the findings of a Palestinian study, the majority of these nurses believed that electronic documentation is both required and acceptable. This conclusion was reached based on the results of an attitude questionnaire. As a result of the apparent utility and ease of use of electronic health records (EHRs), nurses in Jordan have embraced them. It was more likely that nurses who reported that the electronic health record (EHR) system assisted them in doing better in their clinical nursing employment would also believe that the EHR system assisted them in performing better in their clinical nursing careers [15]. Positive insights were also expressed by nurses in Australia regarding the adoption of electronic medical records (EMR) in their workplace environment. This was due to the nurses' expectations that EMR may assist them in significant ways, such as providing documentation that is both timely and legible, as well as providing assistance in improving patient safety and care delivery [15]. Other positive insights were also expressed.

One piece of research suggests that the transition from paper to digital documentation encompasses a number of overarching objectives, including the enhancement of communication, the reduction of errors, and the guarantee that patients receive consistent care [16]. The authors came to the conclusion that nursing records ought to be upgraded in a manner that takes into account the

desires and requirements of nurses, the effects of any new capacity on the workflows that are already in place, and the significance of maintaining consistency with domain-specific representation models of standardized data.

If this is acknowledged, then an increase in the utilization of digital technology, such as clinical decision support systems and electronic health records, has the potential to improve the quality of patient care as well as its overall effectiveness [16]. The eagerness to embrace computerization is also symptomatic of an openness to change, which is especially crucial in the current era of quickly changing healthcare technologies. From a pedagogical point of view, nursing schools ought to make it a top priority to instruct students in the most efficient ways to use computers and the Internet. By placing an emphasis on the significance of computer literacy, nursing education may provide future nurses with the skills necessary to be successful in a healthcare system that is becoming increasingly dependent on information technology [16].

It was shown that there was a substantial association between the views that nurses had regarding electronic health records (EHRs) and their gender, with males rating their opinions more positively than females. Consequently, this indicates that there is a large gender gap in the viewpoints that nurses have regarding electronic health records (EHRs), with male nurses generally having a more favorable attitude of these systems. In addition, being a man was a significant determinant in the preparation of the provider, lending validity to the notion that men are more at ease and passionate about utilizing technology than women are. A number of sociocultural factors, including historical gender norms, preconceived notions, and biases, are factors that contribute to the effort to close the gender gap in the adoption and utilization of technology by nurses [16]. These variables may have an impact on a variety of factors, including educational and occupational opportunities, access to technology, and societal norms about the utilization of technology. These kinds of prejudices and biases need to be called into question and fought against if we want to create an atmosphere in which people of all genders have the opportunity to achieve success in the field of technology. We must promote equal chances, provide education and training, and address institutional impediments in order to close the gap and make it possible for everyone, regardless of gender, to have the opportunity to achieve based on their interests and skills [17].

Conclusion:

A paradigm shift has occurred in the manner in which nurses communicate and interpret test results as a result of the environment of electronic health records (EHR). In electronic health record (EHR) systems, the display of laboratory findings that is either misleading or poor raises possible dangers for patient treatment. Clinical decision making is dependent on correct information, and the electronic health record (EHR) changes the conventional flow of information between the laboratory and the nurses. This changes the flow of information, which might result in decisions that are less than ideal owing to information that is either absent, misrepresented, or misread. The use of electronic medical records (EMR) provides CPOE as the mechanism for beginning the cycle of laboratory tests. As a consequence of this, pathologists and laboratories may lose the power to manage certain aspects of the ordering process if particular attention is not paid to the construction of the EHR/LIS interface. This is necessary in order to guarantee that laboratory test orders are comprehensive, correct, and sufficient to support effective workflow processing in the laboratory.

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