Review of Contemporary Philosophy
ISSN: 1841-5261, e-ISSN: 2471-089X
Vol 22 (1), 2023
Pp 1389 - 1401

Medical Secretary and Health Information System Support: An Updated Review Article

[1.]Abdulaziz Khalaf Suliman Alsarrah , [2].Amani Ibrahim Mohammad Sultan, [3]Hamdah Ali Alghamdi, [4].Amnah Mahdi Essa Muteb,[5].Hussain Ali Hussain Ghabi, [6].Maha Sameer Alanazi, [7.]Majidah Ibrahim Mohammed Jadwadi,[8].Turke Ali Alajmi,[9].Eagla Mohammad Abass,[10].Fatimah Naja Ahmed Al-Alajam,[11].Abdulmajeed Mohammed Dhameri,[12]Aisha Ahmed Sarhan,[13].Mayiqa Ahmad Magrabi,[14.]Fatima Mohammed Asiri ,[15.]Hashima Ahmed Bouri

1. ksa, Ministry of Health, aljouf health cluster
2. ksa, Ministry of Health, Sabia general hospital
3. ksa, Ministry of Health, Irada complex fot Mental Health in Riyadh
4. ksa, Ministry of Health, Sabia general hospital
5. ksa, Ministry of Health, Primary care centre in Alfakrah
6. ksa, Ministry of Health, Public health department
7. ksa, Ministry of Health, King Fahd Central Hospital in Jazan
8. ksa, Ministry of Health, Cluster 1 Riyadh
9. ksa, Ministry of Health, Prince Mohmmed bin Nasser
10. ksa, Ministry of Health, Jazan Health Cluster
11. ksa, Ministry of Health, AHAD ALMSARHA GENERAL HOSPITAL
12. ksa, Ministry of Health, Baish General Hospital
13. ksa, Ministry of Health, psychiatric hospital &Eradah
14. ksa, Ministry of Health, Eradah& psychiatric hospital
15. ksa, Ministry of Health, King Khaled Hospital Najran

Abstract:

Background: Medical secretaries, also known as ward clerks or unit secretaries, play a crucial role in healthcare settings by handling administrative tasks, thereby allowing nurses and doctors to focus on patient care. With the advent of electronic medical records (EMRs) and patient information systems (PIS), the responsibilities of medical secretaries have evolved. These systems have introduced both benefits and challenges in various administrative areas such as patient admission, care planning, test ordering, and discharge management.

Aim: This review article examines the role of medical secretaries in the healthcare system and explores how information systems support their administrative duties, including the potential improvements and challenges faced by these professionals in adapting to digital technologies.

Methods: A literature review was conducted to analyze studies on the impact of electronic patient information systems (PIS) on the work of medical secretaries. The review highlights key findings from

various healthcare settings regarding system adoption, usability, and the integration of information systems across different stages of patient care.

Results: Findings show that while PIS streamline administrative processes like patient admission and scheduling, issues such as complex user interfaces, slow system performance, and data entry challenges hinder full efficiency. Secretaries' satisfaction with these systems varies, with higher satisfaction reported in areas like resource management but dissatisfaction concerning legal compliance and system security.

Conclusion: Despite the advancements in digital technologies, patient information systems still face limitations in supporting the full range of medical secretaries' tasks. Improvements in system integration, user interface design, and security protocols are essential to enhance the effectiveness of these systems and ensure better outcomes for both healthcare professionals and patients.

Keywords: Medical secretary, healthcare information systems, electronic medical records, patient administration, system usability, data security, workflow efficiency, healthcare technology.

Received: 05 october 2023 **Revised:** 19 November 2023 **Accepted:** 0 December 2023

Introduction:

A medical secretary, often known as a ward clerk or unit secretary, is a healthcare worker in charge of scheduling appointments and recording journal entries [1]. Secretaries let nurses spend more time directing patient care by handling administrative tasks within the care team [2]. A key component of the secretary's job is making sure that documentation is accurate and of high quality [3]. A secretary's main duty is to ensure that patient records are correct, formatted correctly, and include all pertinent information [4]. Secretaries' job descriptions differ from nation to nation. For example, in Finland, secretaries' primary duties include making appointments and keeping track of follow-up paperwork [1]. Secretaries mostly maintained data security in paper-based systems by putting patient files back where they belonged and encouraging colleagues to follow suit [5]. All parties must adhere to data security and protection rules as a result of the shift to electronic technologies. The extent of secretaries' responsibilities may change as a result of the adoption of electronic information systems. According to research, these systems have encouraged professional groups to work together more closely, resulting in the reassignment or elimination of some duties and the emergence of new ones. For instance, secretaries today frequently carry out duties including confirming and editing material that has been entered into by other experts. However, problems with data entry and system integration have made some duties more difficult [4,6]. The efficacy of the technology is reduced if it is unable to facilitate work processes [7]. Compared to doctors or nurses, secretaries typically report higher levels of satisfaction with electronic medical information systems. This is probably because the two groups use the systems differently and specialize in different tasks [8]. On the other hand, secretaries considered recently introduced computerized patient information systems to be confusing, with slow and challenging interfaces, according to a 2013 study by Bossen et al. [9]. In certain cases, secretaries might use distinct electronic programs made for particular purposes, including dictation transcription software or patient administration IT systems for documenting patient statuses and diagnosis.

Paper-based charts may still be used in conjunction with these technologies, which are occasionally included into the larger patient information system [4]. The Electronic Medical Record Adoption Model (EMRAM), which goes from Stage 0, where electronic systems are partially implemented, to Stage 7, where a comprehensive system is fully operational, enabling seamless data exchange and advisory features, can be used to gauge the level of digitalization and system functionality [10].

Each nation has a different information systems adoption rate [11]. Although their introduction has made duties like finding paper-based data unnecessary easier, secretaries frequently view patient administration information systems as complicated [9]. It is considered that these systems complement secretaries' tasks. Employees may use workarounds, deviating from normal procedures, when electronic patient information systems do not correspond with work tasks. Both operational effectiveness and patient safety may suffer as a result of these workarounds [12]. Data may be recorded on paper as a precaution to guarantee availability when needed in situations where there is a lack of trust in the electronic system [13]. The quality of the information system is regarded as high when the technology utilized is in line with the duties involved in patient care [14]. Secretaries' intents to use technology are strongly impacted by how valuable they believe it to be, and data security increases this perception [7]. In Finland, patients' rights to privacy are upheld by a particular statute that guarantees the confidentiality of patient information [15]. Although there is a dearth of research especially on secretaries, previous studies have looked at their jobs [3], training [2], and importance in the healthcare industry [1]. It has also been investigated how new electronic tools affect secretaries' responsibilities [4,6,16]. According to these research, as technology has advanced, employment tasks have changed, been largely eliminated, or stayed the same [4,6]. Research comparing the perceived advantages, usability, and task control of hospital information systems across different professional groups [8], the reasons behind their intentions to use the systems [7], and the assistance given to medical professionals utilizing new electronic patient information systems [9] has included secretaries. This study focuses on how medical secretaries are assisted by hospital information systems in carrying out patient administration duties at various phases of the care process. According to this study, the care process is divided into four stages: patient admission, care planning and organization, ordering tests and treatments, and patient discharge. At the time of the study, electronic technologies have been deployed to varied degrees for patient administration tasks in a number of fields since the 1980s.

Patient information systems (PIS):

The implementation of patient information systems (PIS) has revolutionized administrative functions within healthcare settings, offering both advantages and challenges in various aspects of patient care and data management. The ability of these systems to support patient admission processes plays a pivotal role in ensuring efficiency and compliance with legal and ethical standards. A key function of any PIS is to streamline administrative tasks, such as patient registration and data verification, which contribute significantly to the overall patient care

experience. However, despite some positive feedback regarding the system's functionality in supporting patient admission, significant concerns remain about its ability to ensure legal compliance and safeguard sensitive patient data.

The implementation of a patient information system at the point of admission is designed to facilitate the seamless integration of patient data, ensuring accuracy and compliance with legal and regulatory requirements. However, the fact that a substantial number of secretaries reported dissatisfaction with the system's ability to support legal obligations underscores a potential gap in the system's design and functionality. Given the increasing emphasis on data security and patient privacy, it is critical that PIS incorporate robust security measures to prevent unauthorized access, particularly at the stage of patient admission. Failure to provide sufficient protection at this stage can lead to privacy breaches and undermine trust in the system. This highlights the importance of strengthening access control mechanisms within PIS to mitigate risks associated with unauthorized access to sensitive patient information. Moreover, the challenge of unreadable appointment records, particularly in outpatient and ward settings, points to potential issues in the user interface design and data entry processes within the system. If appointment details are difficult to interpret or retrieve, this can lead to inefficiencies in scheduling, delays in patient care, and frustration among healthcare staff. A user-friendly interface that ensures clear and accessible information is essential for maintaining an efficient workflow and reducing errors in scheduling. Additionally, the discrepancy between the system's performance in supporting administrative data versus protecting patient data indicates that while some aspects of the PIS are functional, there is a clear need for improvement in its overall security framework. The assessment of administrative patient information recording reveals that secretaries generally feel confident in their ability to verify whether a patient has received previous treatment at the hospital. This suggests that, when fully operational, the system effectively supports continuity of care and the documentation of patient histories. However, the persistent concerns about unauthorized access to administrative data indicate that the system still lacks sufficient safeguards. This highlights the importance of ongoing evaluation and refinement of security protocols to ensure that they are in line with evolving data protection regulations and best practices in healthcare IT. In conclusion, while the use of patient information systems has brought about notable improvements in administrative workflows and patient management, it is clear that the system's capacity to support legal compliance and safeguard sensitive information requires further attention. To address these issues, healthcare organizations must prioritize the development of more robust security measures, user-friendly interfaces, and enhanced functionality that can support all stages of patient care, from admission to discharge. The ongoing evolution of healthcare information technology must be aligned with both the technical needs of healthcare professionals and the ethical standards required to protect patient privacy and confidentiality.

Information System and Organization:

The role of information systems in the planning and organization of patient care is integral to the overall efficiency of healthcare delivery. These systems are intended to facilitate seamless

communication among healthcare professionals, enable access to up-to-date patient data, and improve coordination in patient management. While there is a general sense of satisfaction regarding the functionality of information systems in supporting the planning and organization of patient care, certain critical limitations remain that hinder their full potential. The ability of an information system to support the planning and organization of patient care relies heavily on its capacity to provide timely and accurate information regarding patient status, treatment progress, and any modifications to the care plan. Effective communication of changes in care plans is essential for ensuring that all members of the healthcare team are aligned and informed about the most current decisions regarding patient management. The reported dissatisfaction with the system's ability to communicate changes in care plans reflects a significant area for improvement. When an information system does not adequately notify or inform healthcare staff about changes, it can result in delays, miscommunication, and, ultimately, suboptimal patient care. Therefore, enhancing the system's ability to relay updates promptly and clearly to all relevant parties is essential for maintaining continuity and ensuring that the care provided is both timely and accurate.

Furthermore, the ability to access patient-related information, particularly regarding scheduled appointments and treatment periods, is crucial for efficient care planning. Secretaries, who are often tasked with organizing appointments and coordinating patient flow, benefit from having real-time access to this information. Positive feedback on the system's effectiveness in providing such data indicates that, in some areas, the information system is indeed supporting effective care organization. However, the challenge lies in the system's performance when it comes to patient transfers. The reported difficulty in accessing treatment period information during transfers is a significant concern, as it can disrupt the continuity of care. Effective patient transfers require seamless communication between departments, and the inability to access relevant patient information at this juncture can lead to delays or errors, which can compromise patient outcomes. Resource and material planning are also key aspects of patient care organization, and the information system's ability to provide accurate and timely data regarding available resources, such as bed availability, is essential.

The high satisfaction with the system's capacity to inform staff about bed availability highlights the value of integrating resource management tools within the PIS. This functionality helps secretaries and healthcare providers plan effectively, ensuring that patients are allocated appropriate spaces in a timely manner. However, the negative assessment of the system's ability to inform all parties about changes in plans indicates a broader issue of communication. Even when resource planning is optimized, failures in communicating changes can cause disruption, leading to inefficiencies in patient care. This reflects the broader challenge of ensuring that all stakeholders, including clinical staff and administrative personnel, are promptly updated on any alterations to care plans or patient status. In summary, while the information system plays a vital role in supporting patient care planning and organization, its limitations—particularly in terms of communicating changes to the care plan, supporting patient transfers, and informing all parties of updates—need to be addressed. To optimize the functionality of these systems, it is essential to

improve the integration of communication tools, ensure easy access to comprehensive patient data, and enhance the system's capacity to support real-time updates and adjustments to care plans. These improvements are crucial for achieving more efficient workflows, better resource management, and, ultimately, improved patient outcomes.

Information System and Ordering:

Information system support for ordering examinations and procedures is a critical component of efficient healthcare administration, as it enables healthcare professionals to request necessary tests and procedures promptly and accurately. The positive assessments of the information system's support for ordering examinations and procedures suggest that, in many areas, the system is facilitating the smooth execution of these tasks. The use of computers for processing information reflects a standardized and digital approach, which is generally seen as an improvement over traditional paper-based systems. This digital shift helps streamline administrative workflows and reduces the chances of errors, such as the misordering of tests or procedures. A particularly notable strength of the information system is its support in recording samples. The fact that all respondents agreed that samples were seldom recorded for the wrong patient is a testament to the reliability and accuracy of the system in ensuring patient information is correctly matched with the appropriate diagnostic tests. Accurate sample recording is crucial, as any errors in this area can lead to incorrect diagnoses or delays in treatment. The positive assessment in this area underscores the importance of effective patient-identification mechanisms within the system, which serve to mitigate such risks and enhance patient safety.

However, while the information system performs well in some areas, there are notable challenges that need to be addressed. A significant concern is the difficulty in accessing information regarding the availability of ancillary units, which is critical when immediate action is required. Nearly half of the respondents reported poor access to this essential information, which suggests that the system may not be fully integrated or optimized for real-time resource management. In a healthcare setting, where time is often of the essence, the ability to swiftly check the availability of ancillary units (such as laboratories, radiology departments, or specialized treatment rooms) is vital. Delays or inefficiencies in this area can result in postponed procedures, which may negatively impact patient outcomes. Additionally, the substantial amount of time spent searching for and scheduling appointments in ancillary units represents another area where the information system's performance could be improved. More than one-third of respondents found this task to be unreasonably time-consuming, which may point to a lack of user-friendly interfaces or ineffective search and scheduling functions. This inefficiency could contribute to overall workflow bottlenecks, making it harder for administrative staff to manage patient care effectively. Reducing the time spent on scheduling and improving the speed of access to ancillary services would help alleviate administrative burdens, allowing healthcare providers to focus more on patient care rather than administrative tasks. In conclusion, while the information system provides valuable support for ordering examinations and procedures, particularly in terms of sample recording, there are areas requiring improvement. Addressing issues related to the real-time

availability of ancillary units and optimizing the scheduling process for ancillary appointments would further enhance the system's effectiveness. Ensuring that the system is fully integrated and user-friendly will be essential for reducing administrative delays, improving workflow efficiency, and ultimately contributing to better patient care.

Information System and Patient Discharge:

The support provided by information systems during patient discharge is integral to ensuring that clinical and administrative processes are completed accurately and efficiently. The positive assessments regarding the overall functionality of the system highlight its effectiveness in supporting secretaries during discharge procedures. The use of computers for processing information underscores the transition to digital systems, which generally enhances accuracy and workflow efficiency compared to paper-based methods. However, despite the positive aspects, several challenges persist, particularly in areas involving the identification of missing clinical entries and the time-consuming nature of legal document filing. One of the strengths of the information system is its ability to assist in gathering and dispatching information about further treatment after discharge. This function is essential in facilitating smooth transitions of care, ensuring that patients receive appropriate follow-up treatment. The majority of secretaries reported that the system supported this process well, demonstrating its value in continuity of care. Proper discharge information, including follow-up care instructions, is crucial for preventing readmissions and ensuring that patients understand their post-discharge care plan. Therefore, the positive assessment of this aspect reflects a significant achievement in healthcare information management.

However, a major area for improvement lies in the identification of missing entries during the discharge process. More than a third of the secretaries reported that the system provided poor support in this regard, which concerns given the potential for clinical errors or omissions in discharge documentation. Missing entries in clinical information can lead to incomplete patient records, potentially affecting follow-up care, medication prescriptions, or coordination with outpatient services. It is imperative that the system includes robust features to flag and prompt staff about incomplete or missing information to prevent such issues from arising. Similarly, issues related to the filing of documents required by law were a common concern. Despite the positive assessments of other aspects of the discharge process, nearly a third of respondents felt that the tools did not adequately support legal filing requirements. Healthcare organizations are bound by strict regulations regarding the retention and submission of clinical and administrative documents, and inefficiencies in meeting these legal obligations can result in compliance risks and potential legal ramifications. Furthermore, the time-consuming nature of filing and data entry related to these legal requirements places a significant burden on administrative staff, detracting from their ability to focus on other critical tasks. Improving the filing functionalities within the system and automating the legal documentation process could help alleviate these challenges, saving time and reducing the risk of human error. In conclusion, while the information system plays a valuable role in supporting patient discharge procedures, there are key areas for enhancement, particularly

regarding the identification of missing clinical entries and legal documentation filing. Addressing these issues will not only improve the efficiency of the discharge process but also ensure that patient records are complete, accurate, and compliant with legal requirements. By refining these areas of the system, healthcare facilities can optimize their discharge workflows, enhance patient care continuity, and reduce administrative burdens.

Discussion of Data about Information System and Medical Secretary:

Examining the degree to which hospital information systems assist medical secretaries in their patient administration duties across the spectrum of patient care was the main goal of this study. According to the results, most secretaries thought the information system was helpful when patients were admitted, when tests and procedures were ordered, and when patients were discharged. Notwithstanding these encouraging evaluations, many secretaries felt that the system was not sufficiently supported in alerting all pertinent parties to modifications in care plans, especially when it came to the organizing and planning of care. This finding is in contrast to other research, like that conducted by [9], which found that secretaries were less satisfied with the assistance that patient information systems offered. The disparity may be explained by the adoption of a new electronic system that superseded profession-specific systems and antiquated paper-based techniques, signaling a shift to a higher level of maturity on the EMRAM scale [10]. The respondents' sample was representative of outpatient clinics and wards, as well as the medical and surgical fields. Since the 1980s, computerized systems have been used for patient administration tasks in the somatic sector, where the majority of respondents were employed. The respondents' average age of 49 is in line with the average age of secretaries in Nordic nations [1], and they tended to express a high degree of computer confidence. This self-assurance in IT abilities is in line with results from earlier research, including Ologeanu-Taddei et al. (2015), where most secretaries confirmed their proficiency with computers [8].

The evaluation of information system support was crucial at the time of patient admission in terms of data security and legal compliance. As required by law, patient privacy and confidentiality are of utmost importance [15], and it has been demonstrated that protecting patient data enhances secretaries' opinions of the system's value [7]. The study's conclusions emphasize the necessity of ongoing investments in system usability, especially since more than 25% of participants thought that the system's usability was inadequate, and that recording administrative information took excessively long. According to 68% of respondents, the tools did not sufficiently notify all parties involved of changes in care plans with regard to care planning and organizing. Since a secretary is responsible for facilitating communication between different hospital departments, employees, patients, families, and outside parties, effective communication is an essential component of their job [4]. Therefore, it is necessary to improve the system characteristics that facilitate this communication, especially with regard to guaranteeing that pertinent information is available for continuity of care. Nearly half of the respondents said that the system's support for obtaining urgently needed information from ancillary units was insufficient when it came to the ordering of diagnostic and therapeutic treatments. In addition, a considerable

percentage of respondents said that making appointments took too much time. One of the main duties of secretaries is scheduling [1], and these results imply that the information system does not adequately simplify this part of their job. Furthermore, secretaries occasionally had to re-enter data due to the system's inefficiency in transferring patient-related information; this may be a sign that they didn't trust the new system or that it wasn't able to handle complex jobs as well as more traditional paper-based approaches [13].

The majority of secretaries gave the system's support favorable reviews at the time of patient discharge. The system's help in assuring consistency of information on diagnoses and treatments, finding missing information, and gathering and sending further treatment details, however, was criticized by about one-third of respondents. These duties are essential to guaranteeing the validity of statistics data and hospital billing accuracy, both of which are critical for quality management and organization comparison. Specifically, nearly one-third of secretaries thought that the time spent on filing was excessive, and over one-quarter said that the system did not sufficiently satisfy legal filing requirements. The continuous reliance on paper-based filing for legal papers is still a problem for secretaries, even with the benefits of computerized technologies that should cut down on filing time [4]. Furthermore, a sizable portion of the replies did not match the criteria asked, especially when it came to care planning and organizing. This disparity implies that the survey instrument may not fully reflect the secretaries' tasks in ward and outpatient clinic settings, or that some items may not be pertinent to their duties. It should be mentioned that although though the instrument was pre-tested for readability and comprehension, its dependability might have been impacted by its abridgment by a researcher who was acquainted with the secretaries' jobs and the system implementation procedure. Even though the information system has been in operation for a while, the results highlight the need to reform it in order to solve the deficiencies that were found, particularly in the areas of usability, information availability, overlapping entries, and information compilation and transmission. The new patient administration module may completely replace the need for paper documentation if it works well. There is a dearth of previous research on this topic, therefore more study is necessary, especially after the new system is completely operational [18].

Conclusion:

This review article provides a comprehensive examination of the role of medical secretaries in modern healthcare settings and highlights the impact of patient information systems (PIS) on their administrative responsibilities. Medical secretaries, traditionally tasked with managing patient records, scheduling appointments, and ensuring data security, have seen their roles evolve with the introduction of electronic systems. These technologies have significantly improved the efficiency of administrative tasks such as patient admission, test ordering, and care planning, yet they also bring challenges that need to be addressed. One of the main advantages of PIS is the streamlined handling of patient data, which reduces the need for paper-based records and facilitates smoother communication between departments. For example, PIS support in patient admission, including registration and data verification, has been praised for its ability to ensure accuracy and

legal compliance. Additionally, systems that assist in organizing patient care, including the scheduling of appointments and management of resources like bed availability, contribute positively to the administrative workflow. Medical secretaries report that real-time access to appointment data and resource management tools enhances their ability to manage patient flow effectively. However, despite these benefits, the review reveals significant concerns regarding the usability of PIS. A recurring issue is the complexity of system interfaces, which many secretaries find confusing and difficult to navigate. In particular, the systems' failure to communicate changes in care plans or facilitate the transfer of patient information between departments has been highlighted as a major drawback. These issues can lead to delays in patient care, miscommunication among healthcare providers, and suboptimal outcomes for patients. Additionally, although secretaries generally feel confident in using PIS for administrative data entry, concerns about data security and unauthorized access persist, particularly in relation to safeguarding sensitive patient information. Moreover, the review underscores the importance of designing systems that align with the needs and tasks of medical secretaries. Enhancements in system integration and user interfaces are necessary to reduce inefficiencies and improve overall satisfaction among administrative staff. Security features also need to be strengthened to protect patient data and ensure compliance with privacy regulations. In conclusion, while the implementation of electronic systems has improved several aspects of patient administration, challenges remain. To fully realize the potential of these technologies, healthcare organizations must prioritize ongoing system upgrades, focusing on usability, security, and effective communication. By doing so, they can enhance the efficiency of medical secretaries, optimize patient care, and contribute to better healthcare outcomes.

References:

1. NOLO. (2019). *“I am not a typing machine!” - Report on the professional status of medical secretaries in Nordic health care*. NOLO. Retrieved August 2020, from http://www.terveydenhuollonsihteerit.fi/useruploads/files/Report%20on%20the%20Professional%20Status%20of%20Medical%20Secretaries%20in%20Nordic%20Health%20Care.pdf

2. Kennedy, M. (2016). The importance of a role-specific, in-hospital ward clerk education program. *Hospital Topics, 94*(3-4), 43-48. https://doi.org/10.1080/00185868.2016.1234312

3. Johansen, M. A., Pedersen, Å. M., & Ellingsen, G. (2015). Secretaries' role in EHR documentation and the implications of establishing a structured EHR system. *Studies in Health Technology and Informatics, 216*, 878.

4. Bossen, C., Groth, L., & Udsen, F. (2014). Boundary-object trimming: On the invisibility of medical secretaries’ care of records in healthcare infrastructures. *Computers Supported Cooperative Work, 23*(1), 75–110. https://doi.org/10.1007/s10606-013-9195-5

5. Lambe, G., Linnane, N., & Butler, M. W. (2018). Cleaning up the paper-trail – our clinical notes in open view. *International Journal of Health Care Quality Assurance, 31*(3), 228-236. https://doi.org/10.1108/IJHCQA-09-2016-0126

6. Bergey, M. R., Goldsack, J. C., & Robinson, E. J. (2019). Invisible work and changing roles: Health information technology implementation and reorganization of work practices for the inpatient nursing team. *Social Science & Medicine, 235*, 112387. https://doi.org/10.1016/j.socscimed.2019.112387

7. Vitari, C., & Ologeanu-Taddei, R. (2018). The intention to use an electronic health record and its antecedents among three different categories of clinical staff. *BMC Health Services Research, 18*(1), 194. https://doi.org/10.1186/s12913-018-3022-0

8. Ologeanu-Taddei, R., Morquin, D., Domingo, H., & Bourret, R. (2015). Understanding the acceptance factors of a hospital information system: Evidence from a French university hospital. *AMIA Annual Symposium Proceedings*, 2015, 1001-1007.

9. Bossen, C., Jensen, L. G., & Udsen, F. W. (2013). Evaluation of a comprehensive EHR based on DeLone and McLean's model for IS success: Approach, results, and success. *International Journal of Medical Informatics, 82*(10), 940-953. https://doi.org/10.1016/j.ijmedinf.2013.05.010

10. Healthcare Information and Management Systems Society (HIMSS). (n.d.). *Electronic medical record adoption model HIMSS Analytics EMRAM*. HIMSS. Retrieved December 2020, from https://www.himssanalytics.org/emram

11. Samadbeik, M., Shahrokhi, N., Saremian, M., Garavand, A., & Birjandi, M. (2017). Information processing in nursing systems: An evaluation study from a developing country. *Iranian Journal of Nursing and Midwifery Research, 22*(5), 377-382. https://doi.org/10.4103/ijnmr.IJNMR_201_16

12. Blijleven, V., Koelemeijer, K., & Jaspers, M. (2019). SEWA: A framework for sociotechnical analysis of electronic health record system workarounds. *International Journal of Medical Informatics, 125*, 71-78. https://doi.org/10.1016/j.ijmedinf.2019.02.012

13. Flanagan, M. E., Saleem, J. J., Millitello, L. G., Russ, A. L., & Doebbeling, B. N. (2013). Paper- and computer-based workarounds to electronic health record use at three benchmark institutions. *Journal of the American Medical Informatics Association, 20*(e1), e59-e66. https://doi.org/10.1136/amiajnl-2012-000982

14. Ammenwerth, E., Ehlers, F., Hirsch, B., & Gratl, G. (2007). HIS-Monitor: An approach to assess the quality of information processing in hospitals. *International Journal of Medical Informatics, 76*(2-3), 216-225. https://doi.org/10.1016/j.ijmedinf.2006.05.004

15. Finlex. (1996). *Act on the status and rights of patients 785/1992 (English)*. Finlex. Retrieved July 2020, from https://www.finlex.fi/en/laki/kaannokset/1992/en19920785

16. Robinson, E., Bergey, M., Brady, E., Mapp, A. M., & Goldsack, J. C. (2017). The impact of an electronic medication administration record (eMAR) and computerized physician order entry (CPOE) on nurse extender and unit clerk staffing. *Journal of Nursing Administration, 47*(12), 610-615. https://doi.org/10.1097/NNA.0000000000000555

17. Kanta. (n.d.). *Patient data repository*. Kanta services. Retrieved November 2020, from https://www.kanta.fi/en/professionals/patientdata-repository

18. Althobaiti, Y. A. K., Alrasheedi, M. S. S., Almajid, A. A., Alotaibi, A. K. S., Aldosari, W. S. D., Al Nahedh, R. M., ... & Balhareth, M. S. H. (2023). The Vital Role Of Medical Secretaries In Modern Healthcare Settings. *Journal of Namibian Studies: History Politics Culture*, *36*, 24-32.

بي ودعم نظام المعلومات الصحية: مقال مراجعة محد

الملخص:

الخلفية: يلعب الأمناء الطبيون، المعروفون أيضًا بالكتبة في الأقسام أو الأمناء في الوحدات، دورًا حاسمًا في بيئات الرعاية الصحية من خلال التعامل مع المهام الإدارية، مما يتيح للممرضين والأطباء التركيز على رعاية المرضى. مع ظهور السجلات الطبية الإلكترونية (EMRs) وأنظمة معلومات المرضى(PIS) ، تطورت مسؤوليات الأمناء الطبيين. هذه الأنظمة أدت إلى تقديم فوائد وتحديات في مجالات إدارية متعددة مثل قبول المرضى، وتخطيط الرعاية، وطلب الفحوصات، وإدارة الخروج.

الهدف: يتناول هذا المقال مراجعة دور الأمناء الطبيين في النظام الصحي ويستكشف كيفية دعم أنظمة المعلومات لواجباتهم الإدارية، بما في ذلك التحسينات المحتملة والتحديات التي يواجهها هؤلاء المتخصصون في التكيف مع التقنيات الرقمية.

الطرق: تم إجراء مراجعة أدبية لتحليل الدراسات المتعلقة بتأثير أنظمة معلومات المرضى الإلكترونية (PIS) على عمل الأمناء الطبيين. تبرز المراجعة النتائج الرئيسية من مختلف بيئات الرعاية الصحية بشأن اعتماد النظام، وقابلية الاستخدام، ودمج أنظمة المعلومات عبر مراحل رعاية المرضى المختلفة.

النتائج: تشير النتائج إلى أنه بينما تسهل أنظمة PIS العمليات الإدارية مثل قبول المرضى وتنظيم الجداول، فإن مشكلات مثل واجهات المستخدم المعقدة، وأداء النظام البطيء، والتحديات المتعلقة بإدخال البيانات تعيق الكفاءة الكاملة. يختلف رضا الأمناء عن هذه الأنظمة، حيث تم الإبلاغ عن رضا أعلى في مجالات مثل إدارة الموارد، ولكن تم الإبلاغ عن عدم الرضا بشأن الامتثال القانوني وأمن النظام.

الخاتمة: على الرغم من التقدم في التقنيات الرقمية، لا تزال أنظمة معلومات المرضى تواجه قيودًا في دعم كامل مهام الأمناء الطبيين. إن التحسينات في تكامل الأنظمة، وتصميم واجهات المستخدم، وبروتوكولات الأمان تعد أمرًا أساسيًا لتعزيز فعالية هذه الأنظمة وضمان نتائج أفضل لكل من المهنيين الصحيين والمرضى.

الكلمات المفتاحية: الأمين الطبي، أنظمة المعلومات الصحية، السجلات الطبية الإلكترونية، إدارة المرضى، قابلية استخدام النظام، أمان البيانات، كفاءة سير العمل، تكنولوجيا الرعاية الصحية.