Role of Medical Secretaries and Health Information Management in Health Records Management

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ABSTRACT

This review investigates the essential role of medical secretaries in hospital environments, focusing on their responsibilities in patient scheduling, physician note transcription, and medical record management. The study explores the impact of implementing electronic health record (EHR) systems in Saudi Arabia, identifying challenges faced by medical secretaries that affect the workflows of doctors and nurses. The Danish context of EHR adoption aligns with global initiatives to enhance healthcare through technology. Previous research in computer-supported cooperative work (CSCW) has predominantly focused on doctors and nurses, with limited attention given to non-clinical professionals like medical secretaries. This study underscores their critical contributions within hospital settings and introduces the concept of "boundary-object trimming" to illustrate their pivotal role in maintaining and optimizing EHRs as boundary objects. The findings emphasize the importance of

integrating frontline staff into healthcare IT development and implementation strategies, acknowledging the diverse range of professionals involved in patient care. The study advocates for recognizing the vital role of medical secretaries in hospital operations and calls for their involvement in system design and implementation to foster a more holistic and effective approach to healthcare IT innovation.

KEYWORDS: Medical Secretaries, Electronic Health Records, EHR, Saudi Arabia, Health Information Management.

1. Introduction

This review investigates the essential role of medical secretaries in hospital environments, focusing specifically on their responsibilities in scheduling patient appointments, transcribing physician notes, and ensuring the completeness of medical records. The study explores the impact of implementing electronic health record (EHR) systems in Saudi Arabia, identifying challenges faced by medical secretaries in transcription tasks that affect the workflows of doctors and nurses. To address these challenges effectively, modifications were made to the implementation plan. The Danish context of EHR adoption aligns with global initiatives aimed at enhancing healthcare through technology, as demonstrated by national IT strategies worldwide. Countries such as the USA, Canada, Australia, and several European nations have made significant investments in EHR systems and health information technologies. By emphasizing the practical implications of EHR adoption and the importance of considering frontline staff like medical secretaries in the design and deployment of these systems, this study contributes to the ongoing discourse on healthcare IT systems (The National Programme for IT in the NHS, 2011).

Health Information Management (HIM), a field dedicated to health record science and the classification/terminology of medical data, continues to be pivotal in enabling the effective secondary use of patient information. Historically, the utilization of patient data was constrained by the limitations of paper-based medical records, which primarily served as sources for administrative and billing tasks or as a basis for research using diagnostic and procedural indices derived from coding systems for diagnoses and interventions.

The landscape of healthcare information technology and data processing is evolving rapidly and is expected to progress even faster. For instance, the volume of healthcare data, estimated at 153 exabytes in 2013, grew exponentially to approximately 2,314 exabytes by 2020. However, achieving key functionalities such as interoperability and predictive analytics depends significantly on robust data governance. Compounding this is the emergence of new data sources, such as wearable fitness trackers and home monitoring devices, which contribute to the generation of substantial healthcare data—or "big data," defined by Merriam-Webster as "an accumulation of data that is too large and complex for processing by traditional database management tools". A recent review by Gu et al. identified three primary areas of focus in big data research within healthcare over the past decade: 1) disease management and epidemiology; 2) advancements in data mining and machine learning technologies; and 3) health services, including personal health devices and electronic health records. Shah and Pathak argued that the healthcare

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sector may finally be poised to leverage big data, but they highlighted the need to translate this knowledge into actionable practices (Gu et al., 2017).

As the format and scale of data sources evolve alongside advancements in tools and methodologies, significant changes in HIM practices are anticipated to accommodate and optimize the secondary use of patient data. This paper aims to present the findings of a literature review and qualitative interviews with key opinion leaders regarding several pivotal topics expected to influence the HIM profession significantly in the coming years. Along with an extensive search of peer-reviewed literature, insights from key opinion leaders on selected topics were sought to provide a comprehensive understanding.

The focus topics include: 1) the growing demand for effective data and information governance; 2) the development of certification standards for terminology; 3) the introduction and implementation of the 11th edition of the International Classification of Diseases (ICD-11); and 4) the expanding role of data analytics. Interviews on information governance were conducted both in person and via email, where participants were asked for their perspectives on the relationship between data and information governance, cross-country similarities and differences, and strategies for building workforce and resource capacity. Face-to-face interviews regarding ICD-11 centered on its features, the potential standards different countries may adopt, considerations for parallel processing, mapping requirements, and other updates.

Although numerous topics could have been explored, these four were selected due to their relevance to the expanded application of electronic health records and the increasing volume of digital data essential for global health maintenance and disease treatment. For instance, while HIM practices in the U.S. will undergo substantial changes due to the introduction of value-based purchasing, this initiative is not universally applicable internationally.

This review advocates for greater recognition of the role of medical secretaries in the design and implementation of healthcare IT systems, highlighting their critical contributions within hospital settings. While previous research in computer-supported cooperative work (CSCW) has predominantly focused on the collaborative efforts of doctors and nurses, this study underscores the importance of involving non-clinical professionals, such as medical secretaries, in the development and implementation of health IT solutions. Through a case study examining the activities of medical secretaries before and after the introduction of an EHR system, the study highlights the significance of medical secretaries in hospital work arrangements and identifies shifts in responsibilities among professional groups. The concept of "boundary-object trimming" is introduced to illustrate the pivotal role medical secretaries play in maintaining and optimizing the EHR as a boundary object within hospital systems. Additionally, the study emphasizes the importance of researchers being cognizant of their perspectives and positions during research and highlights the relative lack of visibility of medical secretaries in the fields of CSCW and medical informatics. Overall, the study calls for increased acknowledgment of the contributions of medical secretaries and their involvement in the design and

execution of healthcare IT systems (Dorda et al., 2008).

Given their prominent and symbolic roles in healthcare, it is understandable that physicians and nurses have been prioritized in the design and integration of EHR-related studies. Foundational works in healthcare literature and by institutions like the Institute of Medicine such as those by Anselm Strauss (Strauss et al., 1985) and Marc Berg (1997) frequently cited in CSCW, advocate for the development of IT systems to address inefficiencies and quality concerns in healthcare. However, medical secretaries are notably underrepresented in academic research. For instance, a search for publications with "medical secretaries" in the title yields only 41 results, compared to 35,900 and 54,600 results for physicians and nurses, respectively (Berg, 1997; Strauss, 1993).

Only a limited number of studies explicitly focus on medical secretaries. Searches in scholarly archives, such as the ACM Digital Library and two medical informatics journals (International Journal of Medical Informatics and Journal of the American Medical Informatics Association), reveal only three papers centered on medical secretaries. Spence and Reddy (2007), for instance, highlight the critical role that unit secretaries play in information-seeking activities conducted by multidisciplinary teams in emergency departments. Møller and Dourish (2010) describe the essential contributions of medical secretaries to hospital scheduling and interdepartmental coordination. Furthermore, Møller and Bjørn (2011) provide insights into the sorting procedures involving radiologists, physicians, and medical secretaries. Another study by Lium et al. (2006) examines the effects of EHR adoption in a Norwegian hospital, considering its impact on medical secretaries, as well as doctors and nurses. While collaborative information-seeking activities occasionally mention the role of medical secretaries, their contributions remain underexplored in academic discourse (N. Holten Møller & Bjørn, 2011; N. Holten Møller & Dourish, 2010; Lium et al., 2006; Spence & Reddy, 2007).

Medical secretaries are also included in research examining patient transfers alongside unidentified non-clinical staff (Abraham and Reddy, 2008). However, limited findings emerge from broader investigations involving medical secretaries and EHRs. According to Møller and Vikkelsø (2012), medical secretaries function at the intersection of clinical and administrative domains. Bertelsen and Nøhr (2005) provide insights into the roles of medical secretaries in managing paper-based patient data before the implementation of EHRs. Additionally, three studies by Laerum et al. (2004) include medical secretaries along with nurses and physicians in quantitative surveys assessing staff satisfaction with installed EHRs. Häyrinen et al. (2008) identified three relevant studies on secretarial roles within their review of EHR literature from 1982 to 2002. However, these studies predominantly focused on transcription errors rather than the specific responsibilities of secretarial staff (Abraham & Reddy, 2008; Bertelsen, 2005; Häyrinen et al., 2008; N. L. Holten Møller & Vikkelsø, 2012; Laerum et al., 2004).

Medical secretaries, like other non-clinical personnel in hospitals, appear to be largely overlooked, a trend they share with assistants and secretaries in general office settings (Karlsson, 2011). Erickson et al. (2008) note the limited focus on administrative assistant duties in computer-supported cooperative work (CSCW) and

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human-computer interaction (HCI) research. They emphasize the knowledge and skills required for administrative roles and propose the term "articulation workers" to underscore their significance. This neglect may stem from the perception that their tasks, akin to those of technicians, are monotonous, unskilled, or not classified as "knowledge work" (Barley, 1996). However, various studies in the CSCW field have explored routine roles and technician duties, such as those of telephone operators and photocopier technicians, demonstrating the expertise and competence necessary for these positions, which are essential for organizational functionality (Orr, 1996). The limited visibility of clerical roles presents a paradox, especially given CSCW's emphasis on making labor visible (Star and Strauss, 1999) and its foundational links to Office Automation (Barley, 1986; Erickson et al., 2008; Karlsson, 2011; Orr, 1996; Star, 2010).

This study underscores the critical role medical secretaries play in hospital environments, particularly regarding the use of electronic health records (EHRs). The findings emphasize the importance of integrating frontline staff, such as medical secretaries, into healthcare IT development and implementation strategies. By examining their responsibilities, including patient scheduling and record management, and evaluating the impact of EHRs on their workflows, the study demonstrates the need to acknowledge non-clinical professionals' contributions to enhancing healthcare delivery. Despite the traditional focus on physicians and nurses in healthcare IT research, this study highlights the essential contributions of medical secretaries and other non-clinical professionals.

The study's conclusions advocate for recognizing the vital role medical secretaries play in hospital operations, contributing to ongoing discussions about healthcare IT. By presenting evidence of their involvement and the challenges faced during EHR adoption, the research underscores the need for inclusive approaches to system design that account for the diverse range of healthcare professionals involved in patient care. Additionally, the study emphasizes the broader importance of making invisible labor visible within CSCW. It calls for a deeper appreciation of the expertise and skills required for roles often perceived as routine or unskilled, such as administrative assistants and medical secretaries.

In sum, this paper argues for a paradigm shift in healthcare IT research, promoting inclusivity and acknowledging the various contributions of medical secretaries and other healthcare workers in shaping the future of healthcare delivery. By elevating the perspectives of frontline staff and advocating for their involvement in system design and implementation, this research aims to foster a more holistic and effective approach to healthcare IT innovation.

Medical Secretary Occupations, Cooperative Work, and Tasks

Within the organizational dynamics of hospitals, medical secretaries are recognized as integral components of the continuous exchanges and technological infrastructures that sustain complex cooperative endeavours. Grounded in Strauss's theoretical framework which emphasizes the visibility of actors' efforts in shaping organizational order cooperative action in healthcare is conceptualized as the

alignment of work trajectories to meet group endeavor requirements, articulate tasks, and synchronize individual actions with those of other actors. Efforts to streamline collaboration often involve the routinization of interactions and the creation of standard operating procedures (SOPs) and standard operating configurations (SOCs). SOPs define recommended actions and interactions, while SOCs enable spatial configurations designed to optimize resource utilization and minimize tasks related to mobility. Whether formalized in written agreements or embedded within technological systems, these arrangements serve as coordination tools that foster collaboration among various stakeholders, facilitate communication, and provide real-time updates on task status. These coordination mechanisms are further integrated into broader ordering systems, which encompass related activities and artifacts, thereby enabling cooperative interactions of greater complexity and scope. Through the interaction of actors, technologies, and established practices, hospitals form organizational landscapes that support teamwork and the achievement of shared objectives (Bossen et al., 2014).

Collaborating groups often have differing perspectives and roles, frequently possessing less awareness of the goals and scope of other participants' activities than is necessary for effective collaboration. In this context, the concept of boundary objects introduced by Star and Griesemer in 1989 explains phenomena that enable coordination and communication between disparate social domains. These boundary objects, typically artifacts, are characterized by their flexibility, allowing adaptation to specific needs and constraints while maintaining a consistent identity across diverse contexts. As boundary objects, coordination mechanisms play a crucial role in fostering and maintaining collaboration among actors situated within different social domains. While these boundary objects may be interpreted or utilized differently by various actors or groups, their significance as work objects can vary. For example, pregnant patients undergoing fetal surgery simultaneously serve as dual work objects. Surgeons prioritize the fetus as their primary focus, viewing the mother as a secondary concern and a potential legal and practical obstacle. Conversely, nurses prioritize the mother, dedicating their attention to ensuring her survival and well-being (Casper, 1998).

From this perspective, hospitals are depicted as temporarily stable systems comprising diverse individuals and technologies. Within this framework, organizational structures and coordination mechanisms facilitate the collaborative establishment of roles, groups, and divisions of labor. Medical professionals, including doctors, nurses, laboratory personnel, and medical secretaries, rely on SOPs, SOCs, and protocols recorded on paper documents, whiteboards, and electronic health records (EHRs). These tools act as boundary objects that serve as "clinical channels," fostering collaboration across different departments and professional domains (Schmidt & Wagner, 2004).

Organizational structures, whether in the public or private sectors, often perpetuate themselves along gender and racial lines, despite being perceived as neutral. The allocation of work roles, tasks, and responsibilities typically results in distinct positions for men and women within organizational hierarchies. Supervisory, managerial, or authoritative roles are often occupied by men, leading to gendered hierarchies. Such dynamics, though complex, are pervasive. In the healthcare sector,

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gender dynamics and professional norms significantly influence the assignment of tasks and responsibilities. Although some nations exhibit gender parity in medicine, disparities persist in certain specialties. For instance, women dominate pediatrics, while men prevail in surgery. Fields such as nursing and midwifery continue to attract predominantly female practitioners. Furthermore, the introduction of new technologies often reshapes work configurations, potentially redefining roles, task allocations, and accountabilities. The outcomes of such changes are influenced by factors like power dynamics and the relative influence of stakeholders, including management.

Technological advancements such as typewriters, dictaphones, photocopiers, and computers have presented opportunities for administrative personnel, including clerks and secretaries, to enhance their skills, while simultaneously posing risks of deskilling or redundancy. Outcomes have generally varied, with some individuals experiencing deskilling and others benefitting from upskilling. Similarly, innovations like voice recognition software and EHRs, which can automate transcription and data entry, threaten to disrupt traditional roles associated with medical secretaries (Acker, 2006).

Research Data about Medical Secretaries

The qualitative and quantitative research on the restructuring of medical secretaries' work following the implementation of an Electronic Health Record (EHR) system was conducted in two departments the endocrinology and emergency departments of the Regional Hospital in the Central Region, one of Denmark's five administrative divisions. The Regional Hospital employs approximately 2,000 staff members, including 300 doctors, 970 nurses, 130 medical secretaries, and 80 physiotherapists. Recognized as one of the most efficient hospitals in Denmark, it houses 360 beds and manages about 30,000 annual admissions, 85% of which are acute cases. The hospital's outpatient clinics serve approximately 110,000 patients each year. The endocrinology department operates 167 beds and handles around 12,500 admissions annually, 90% of which are acute. This department employs 30 medical secretaries, eight physiotherapists, 169 nurses, and 65 doctors, with its eight wards specializing in areas such as stroke services, dialysis, cardiology, rheumatology, gastroenterology, diabetes, outpatient cardiac care, and respiratory medicine. Additionally, its outpatient clinic accommodates about 15,000 annual visits. The emergency department, another critical unit of the hospital, processes 32,000 acute cases each year and employs 40 nurses, 12 healthcare workers, and five medical secretaries (Aydin & Rice, 1992).

The data on medical secretaries for this study was part of a broader examination of the implementation of a "comprehensive" EHR system. The EHR incorporates modules for booking, prescription management, test requisitions and results, patient administration, and clinical documentation. Before this implementation, the hospital had already adopted the Medication, Requisition/Results, and Booking modules. The newly introduced "PAS" module replaced the previously used patient administrative system, GREEN SYSTEM. Additionally, the newly implemented CLINICAL PROCESS module replaced all paper-based records previously maintained by

healthcare professionals, including doctors, nurses, physiotherapists, and midwives, marking the first deployment of an EHR with such an extensive range of integrated features in the Central Region. However, the microbiological system and the photo archiving and communication systems were not integrated into the EHR, leading the region to label it "comprehensive" rather than "complete" (Yin, 2003).

The PAS module is particularly significant for this study, as patient administration forms a primary aspect of medical secretaries' responsibilities. Within the PAS, patient data such as name, civil registration number, address, and information about family members is recorded alongside details about admissions, discharges, and inter-departmental transfers. The CLINICAL PROCESS module, requiring physicians to utilize various menus and fields to document care and treatment systematically, is also relevant. Text fields and menus within the module are linked to codes for recording care and treatment when applicable. For instance, the EHR automatically transmits Diagnosis Related Group (DRG) codes to the National Board of Health, which uses them to reimburse the hospital for its services. The registration and reporting of DRG codes remain key responsibilities of medical secretaries ("The DeLone and McLean Model of Information Systems Success," 2003).

The EHR was implemented in three phases during the spring of 2010, with the first phase focused on the endocrinology and emergency departments, which employed nearly half of the hospital's workforce. These two departments were selected for the initial phase because they shared physicians and frequently transferred patients between them. The study aimed to identify differences between the two departments while ensuring consistency in findings. Despite collaboration between physiotherapists and doctors across departments, neither the interviews nor the questionnaire revealed significant disparities. Observations and interviews with medical secretaries indicated that their daily tasks and routines were remarkably similar across the endocrinology and emergency departments (Spence & Reddy, 2007).

Medical Records and Medical Secretary

Medical secretaries play a significant role in the teamwork associated with patient care. Although their direct interactions with patients are limited, they are instrumental in maintaining patient records in adherence to departmental schedules. One of their key responsibilities involves "tidying" the records of discharged patients before these are archived. This process encompasses several tasks: ensuring that the folder contains all transcribed doctor's notes and test results and entering the final diagnoses, as documented in discharge summaries, as DRG codes into the GREEN SYSTEM. From the hospital administration's perspective, recording these codes is among the secretaries' most critical tasks, as the GREEN SYSTEM compiles and submits these codes monthly to the National Board of Health for hospital reimbursement. Furthermore, medical secretaries document the patient's status in the GREEN SYSTEM and note it in a table at the front of the paper-based record. To facilitate a quality-control mechanism, records are categorized into two stacks: junior physicians draft discharge summaries while senior physicians review and evaluate them. For one week following discharge, all records are stored in Ruth's office to accommodate any pending test results that need to be included in the file. Ruth and

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her colleagues are also responsible for requesting and returning records for nurses and doctors and serving as liaisons between her department and the archive (Goodman & Perby, 1985).

To accomplish her work, Ruth employs various organizational methods. One system consists of physical records, such as A4-sized folders, drawers, binders, and trolleys, while another comprises digital tools, including the GREEN SYSTEM, which tracks admissions, diagnosis codes, and patient information. Medical secretaries primarily use the GREEN SYSTEM to document admissions, discharges, and bookings and to preserve transcribed physician notes. In contrast, clinicians predominantly rely on paper-based records for patient care. Nurses occasionally use the GREEN SYSTEM during busy periods. Ruth humorously refers to the archive staff as "archive girls" and the record folders as "the bag." This terminology serves as a reminder to the archive staff to label the folder with its destination. Sending a record directly to another department saves time and effort, but the archive staff must know the record's location in case it is needed elsewhere. Locating records can sometimes be challenging due to patients being admitted multiple times, moving between departments, and incomplete information on "the bag." Ruth explains that there are two common approaches to locating a missing record: contacting the last known department or using the GREEN SYSTEM to check for recent admissions or bookings (Goodman & Perby, 1985).

A core duty of medical secretaries involves transcribing doctors' notes, which requires navigating between three digital systems. The SPEECH DICTATE SYSTEM stores audio recordings of doctors' dictations in a shared database organized by department and priority. This system enables secretaries to assist colleagues in other departments when needed while also handling dictation for their own department. Consequently, transcription duties are shared among medical secretaries across departments. Physicians use number codes on the recorder to specify the type of note, such as '11' for new or acute patients, '12' for forward round dictation, '22' for outpatients, and '14' for discharge summaries, listed in priority order. These codes, displayed in the SPEECH DICTATE SYSTEM, allow medical secretaries to prioritize transcriptions while managing their workload within their ward (Goodman & Perby, 1985).

While transcribing, medical secretaries often encounter situations that demand precision. They may consult medical dictionaries to verify terminology or seek advice from colleagues with specialized knowledge. Accuracy is crucial, as minor differences in terminology can significantly alter diagnoses. For instance, a doctor clarified that "encephalitis" refers to brain inflammation, while "(hepatic) encephalopathy" stems from liver dysfunction, requiring distinct treatments. Differentiating such terms requires expertise and a trained ear. Transcription, akin to typing as described by Goodman and Perby (1985), demands proficiency. Secretaries must simultaneously navigate digital platforms, listen, type, and operate a pedal while distinguishing between similar or nonsensical medical terms.

In her role at an outpatient clinic, Ruth also schedules patient exams. After scheduling, she prints and mails notification letters along with information packets

containing exam details, dietary restrictions, and fasting instructions. Patients may later call to inquire about appointments, reschedule, or cancel. Medical secretaries respond to a wide array of inquiries from physicians, staff, family members, and external parties. These queries often pertain to bookings, non-clinical data (e.g., addresses, DRG codes), record locations, or more general questions requiring redirection. Consequently, medical secretaries function as information gatekeepers, as described by Spence and Reddy (2007). They oversee the non-clinical aspects of patient care and medical records, such as registering and submitting DRG codes, managing admissions, bookings, and discharges, locating records, retrieving them from archives, and transferring them to other staff members. Additionally, they transcribe medical notes and mediate communication between patients, relatives, and staff. Their work, while repetitive, necessitates both expertise and practical knowledge, positioning them as both articulation workers and information gatekeepers (Spence and Reddy 2007; Erickson et al., 2008).

The GREEN SYSTEM, SPEECH DICTATE SYSTEM, and NOTE EDITOR exemplify the computerization of medical secretaries' work since the 1980s. Although these systems are part of departmental operations, they are not integrated into patient records. Medical secretaries primarily collaborate with doctors and nurses to coordinate work, while also supporting fellow secretaries with tasks like record handling and transcription. While all these groups interact with patient data, their perspectives differ. For doctors and nurses, the patient is the central focus, with records serving a secondary role in documenting care. Embedded guidelines and care pathways further shape their work. In contrast, medical secretaries prioritize the completeness, integrity, and formal structure of records and related information channels. This distinction underscores their role as record keepers, while clinicians are caregivers.

The most significant change for medical secretaries was the replacement of the GREEN SYSTEM with the PAS module integrated into the EHR. Since the late 1980s, Danish hospitals, including the Regional Hospital, had used the GREEN SYSTEM, with medical secretaries becoming highly proficient in its use. The transition to the EHR was anticipated to be challenging, requiring time for secretaries to regain their previous efficiency. The implementation plan emphasized minimal pre-deployment training and substantial local support during the initial two weeks. Despite this, medical secretaries received more training than other groups due to their steeper learning curve. This prediction proved accurate, as secretaries emerged as a pivotal group in the implementation process, alongside doctors. Challenges faced by secretaries impacted other groups, leading to role eliminations, job transitions, and shifts in responsibilities.

2. Conclusion

The role of medical secretaries in the healthcare environment is both intricate and indispensable. Their contributions, ranging from patient record maintenance to transcription and information gatekeeping, underscore their importance in ensuring the smooth operation of hospital workflows. The implementation of electronic health record (EHR) systems has introduced significant changes to their responsibilities,

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particularly in transitioning from traditional paper-based records to digital systems like PAS and GREEN SYSTEM. Despite challenges such as adapting to new technologies and shifts in responsibilities, medical secretaries have proven to be vital in supporting the integration of these innovations.

This review highlights the need for greater acknowledgment of medical secretaries' contributions within healthcare systems. Their role as articulation workers and custodians of patient records is critical in bridging the gap between clinical and administrative domains. Moreover, the findings suggest that their involvement in the design, deployment, and optimization of EHR systems is essential for achieving efficient and effective healthcare delivery.

As technology continues to evolve, medical secretaries must receive adequate training and support to adapt to new tools and systems. This not only ensures their efficiency but also enhances collaboration among healthcare professionals. Recognizing their expertise and integrating their feedback into system development will foster more inclusive and sustainable healthcare IT strategies.

3. Recommendations

- Provide comprehensive training programs focused on Electronic Health Record (EHR) systems to ensure medical secretaries are proficient in emerging technologies like PAS and GREEN SYSTEM.

- Develop ongoing training modules to keep medical secretaries updated on system upgrades, data security protocols, and best practices in health information management.

- Acknowledge the critical contributions of medical secretaries in healthcare workflows by incorporating their insights into organizational decision-making processes.

- Establish formal channels for medical secretaries to provide feedback on the design and deployment of health information systems.

- Expand the scope of responsibilities for medical secretaries to include active participation in the optimization and customization of EHR systems.

- Create career pathways that enable medical secretaries to specialize in health information management or transition into roles such as EHR system analysts.

- Allocate sufficient resources to equip medical secretaries with tools and technology that facilitate their work, such as user-friendly software interfaces and efficient data entry systems.

- Ensure access to IT support and resources to address technical challenges promptly.

- Encourage stronger collaboration between medical secretaries, healthcare providers, and IT teams to bridge the gap between clinical and administrative

domains.

-        Organize interdisciplinary workshops and meetings to foster a collaborative environment where medical secretaries can share insights and contribute to problem-solving.

-        Include medical secretaries in strategic planning related to health information management to ensure policies reflect their on-the-ground experiences and expertise.

-        Advocate for standardized job descriptions and responsibilities to highlight the importance of their role within healthcare systems.

-        Implement mechanisms to regularly assess the impact of medical secretaries' contributions on hospital efficiency, data accuracy, and patient care outcomes.

-        Use these assessments to refine training, support, and recognition programs for continuous improvement.

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