



## Care Transition Failures from Hospital to Outpatient Settings: A Multidisciplinary Analysis of Nursing, Health Administration, Medical Secretarial, and Health Informatics Roles

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### Abstract:

Care transitions from hospital to outpatient settings represent a critical vulnerability in modern healthcare, where failures in coordination lead to adverse events, high readmission rates, and escalating costs. This multidisciplinary analysis reveals that these failures are not attributable to any single profession but arise from systemic breakdowns at the intersection of nursing, health administration, medical secretarial, and health informatics roles. Nursing struggles with rushed discharge teaching and inadequate medication reconciliation due to understaffing and time pressures. Health administration prioritizes throughput and length-of-stay reduction over transitional care infrastructure, creating misaligned incentives. Medical secretaries, the invisible linchpins of coordination, face fragmented scheduling systems and lack of integration with clinical teams, leading to missed follow-up appointments and incomplete documentation transfers. Health informatics, despite its promise, often exacerbates fragmentation through non interoperable electronic health records, poorly designed patient portals, and insufficient clinical decision support. The path to improvement lies in a fully integrated, multidisciplinary approach where shared accountability, co designed workflows, and aligned administrative incentives transform the handoff from a moment of peril into a seamless continuum of care.

## 1. Introduction

The transition of a patient from the hospital to the outpatient setting is universally recognized as one of

the most perilous junctures in the healthcare continuum. It is a moment fraught with vulnerability, where the structured environment of acute care gives way to the relative autonomy and complexity of

home or community-based care. This handoff, far from being a simple administrative formality, is a complex, multi-layered process that, when executed poorly, serves as the primary catalyst for adverse events, hospital readmissions, and a profound erosion of patient trust in the healthcare system. The magnitude of this issue is not merely anecdotal; it is a central focus of healthcare policy, quality improvement, and financial reform globally. The consequences of a failed transition ripple outward, affecting not only the patient's clinical outcome but also their psychological well-being, the financial stability of healthcare institutions, and the overall efficiency of the healthcare system at large. In the United States alone, it is estimated that nearly one in five Medicare patients discharged from a hospital is readmitted within 30 days, with a significant portion of these readmissions being directly attributed to deficiencies in the discharge process and subsequent transitional care [1]. This statistic represents a failure of coordination, a breakdown in communication, and a systemic vulnerability that the healthcare industry has been grappling with for decades.

At the heart of this systemic vulnerability lies a fundamental paradox: modern medicine has achieved remarkable feats in acute care, yet it often stumbles in the post-acute phase. The hospital stay, with its 24/7 monitoring and immediate access to interdisciplinary teams, creates a safety bubble that is abruptly popped upon discharge. The patient and their family are suddenly thrust into the role of primary caregivers, often without the necessary knowledge, skills, or resources to manage complex medication regimens, interpret warning signs of deterioration, or navigate the labyrinthine outpatient follow-up system [2]. This abrupt shift in responsibility is compounded by the fragmentation inherent in modern healthcare delivery. The hospitalist who managed the patient's care during the admission may have no formal connection to the primary care physician (PCP) who is expected to assume care post-discharge. Specialists who consulted during the hospitalization may provide conflicting recommendations, and the patient is often left to reconcile these disparate instructions without a clear, unified care plan. This fragmentation is not an accident of circumstance but a reflection of a system that historically incentivizes volume over value, rewarding the performance of procedures and the occupancy of beds rather than the seamless integration of care across settings [3].

The economic implications of these transition failures are staggering, placing an immense burden on payers, providers, and patients. Hospital readmissions, often considered the most visible metric of transition failure, cost the U.S. Medicare system an estimated \$17 billion annually [4]. This

financial pressure has led to the implementation of punitive policies, such as the Hospital Readmissions Reduction Program (HRRP) in the United States, which financially penalizes hospitals with excess readmissions for conditions like heart failure, myocardial infarction, and pneumonia. While such policies have incentivized hospitals to pay closer attention to the discharge process, they have also inadvertently exposed the depth of the coordination problem, forcing institutions to innovate but often in silos. The focus on readmission rates, while important, is a lagging indicator of a much more complex and nuanced failure that begins the moment a patient is deemed medically stable for discharge. It is a failure that encompasses medication discrepancies, incomplete or inaccurate discharge summaries, missed follow-up appointments, lack of patient education, and a fundamental disconnect between the acute and ambulatory care ecosystems [5].

From a clinical perspective, the first 72 hours post-discharge are a period of extreme risk. This is the timeframe in which medication errors are most likely to occur, whether due to unintentional non-adherence, adverse drug reactions, or the patient's inability to reconcile pre-admission medications with new prescriptions. It is also the period when patients are most likely to experience complications from their underlying condition or the procedures they underwent. The inability to recognize these complications early—symptoms like shortness of breath, fever, or altered mental status—often leads to a preventable emergency department visit [6]. The root cause of these early post-discharge events is rarely a lack of clinical knowledge among hospital staff; rather, it is a failure to effectively transfer that knowledge to the patient, their caregivers, and the outpatient providers who will assume responsibility. The discharge summary, theoretically the cornerstone of this knowledge transfer, is often delayed, incomplete, or fails to clearly articulate the follow-up plan, including pending tests, changes to medications, and the specific actions to take in case of a problem [7].

The complexity of this problem necessitates a departure from siloed, discipline-specific interventions. For too long, the solutions to care transition failures have been designed and implemented within the confines of individual professions. Nursing has developed discharge planning protocols, health administration has focused on throughput and length-of-stay metrics, medical secretarial staff have been tasked with the logistical coordination of follow-up appointments, and health informatics has introduced electronic health records (EHRs) and patient portals. Yet, these efforts, while valuable in their own right, have often

occurred in parallel rather than in concert. The result is a system where the left hand often does not know what the right hand is doing. A nurse may provide excellent discharge teaching, but if the medical secretary cannot secure a timely follow-up appointment with a PCP, the teaching becomes irrelevant. A hospital administrator may successfully reduce length of stay, but if the discharge summary is not available to the outpatient provider in a timely manner, the gains in acute care efficiency are offset by costly readmissions. A sophisticated EHR system may contain all the data, but if it is not interoperable with the outpatient clinic's system, the information remains trapped in a digital silo [8].

## 2. The Nursing Role:

Nursing serves as the clinical backbone of the care transition process, acting as the primary conduit between the medical team, the patient, and the family. The role of the nurse, particularly the discharge planner or case manager, is ostensibly to ensure that the patient leaves the hospital with a clear understanding of their condition, their medications, their follow-up appointments, and the red flags that necessitate immediate medical attention. This responsibility is codified in the nursing process, which includes assessment, diagnosis, planning, implementation, and evaluation, with discharge planning theoretically commencing at the moment of admission [9]. In practice, however, the nursing role in care transitions is frequently reduced to a rushed, checklist-driven exercise that is performed in the final hours before discharge, rendering it ineffective and often incomplete. This failure is not a reflection of individual nurse competence but a systemic issue rooted in unrealistic workloads, inadequate staffing ratios, and a hospital culture that prioritizes bed turnover over comprehensive patient preparation.

One of the most significant nursing-related failures in care transitions is the inadequacy of patient and family education. Effective discharge teaching requires a dynamic, interactive process that assesses the patient's health literacy, learning style, and readiness to learn. However, in the fast-paced hospital environment, this process is often compressed into a brief, one-way delivery of information. A nurse may hand the patient a printed medication list and a binder of discharge instructions, verbally reviewing the key points while simultaneously being pulled in multiple directions by other responsibilities. This model of education fails to account for the cognitive load experienced by patients and families who are often anxious, sleep-deprived, and overwhelmed by the recent hospitalization [10]. The result is a profound knowledge deficit. Studies consistently show that a

majority of patients cannot accurately state their diagnosis, recognize their medications, or recall the signs of complications to watch for after discharge. When a patient is readmitted with a medication error or a delayed response to a complication, the failure can often be traced back to this inadequate foundational education, where the nurse did not have the time, resources, or support to employ teach-back methodology or to ensure that a caregiver was present and equally informed [11].

Furthermore, the nursing role in medication reconciliation—the formal process of compiling a patient's most accurate medication list—is fraught with challenges that directly contribute to transition failures. The ideal process involves comparing the patient's pre-admission medications with the medications prescribed during the hospitalization and creating a unified, post-discharge regimen. This task is deceptively complex. It requires gathering information from the patient, family, community pharmacy, and outpatient physicians, which is often fragmented and contradictory. In many hospitals, medication reconciliation is delegated to nurses, who may lack the full pharmacological training to resolve complex discrepancies, especially when multiple specialists have added, discontinued, or changed medications during a lengthy hospital stay [12]. The pressure to discharge the patient quickly often leads to a final reconciliation that is performed in a hurry, with discrepancies overlooked or undocumented. These discrepancies become dangerous upon discharge, as the patient leaves with an incorrect list, leading to scenarios where they resume a medication that was intentionally discontinued, or fail to start a new, critical medication. This represents a critical breakdown in safety, where the nursing role, intended to be the final safeguard against medication errors, is compromised by systemic pressures and a lack of integration with pharmacy and informatics systems.

Another critical nursing-related failure lies in the inadequate assessment of the patient's post-discharge environment and support system. The ideal discharge plan is tailored to the patient's home situation, considering factors such as living alone, functional limitations, caregiver availability, and financial resources. However, comprehensive social and environmental assessments are often deprioritized or conducted superficially. A nurse may document that a patient lives with a spouse, but may not assess the spouse's own health status or capacity to provide care. The nurse may note that the patient has stairs at home, but may not verify if durable medical equipment like a walker or commode has been arranged and delivered before discharge [13]. These omissions can lead to catastrophic failures. A patient discharged after a hip

replacement, for example, may return to a home with stairs and no caregiver, resulting in a fall and a return to the emergency department within days. The nurse's assessment, if performed thoroughly, could have triggered a referral to home health services, physical therapy, or a skilled nursing facility, but the lack of time, the absence of dedicated discharge planning resources, and the pressure to free up the bed often result in a plan that is clinically sound on paper but operationally unworkable in reality.

The nursing profession is also uniquely positioned to provide continuity through the transitional care model, such as the role of the transitional care nurse (TCN) who follows the patient into the home or ambulatory setting. This model has been proven to dramatically reduce readmissions and improve outcomes, as it bridges the gap between the hospital and the outpatient provider [14]. Yet, despite the evidence, such roles are not universally implemented. The financial model of most hospitals does not reimburse for the cost of a nurse who works outside the hospital walls, and the value of this continuity is not captured in traditional fee-for-service reimbursement structures. Consequently, the nursing contribution to safe transitions remains confined to the hospital, ending at the curb, leaving a critical gap in the first vulnerable days post-discharge. Without this follow-up, the discharge teaching, even if perfectly executed in the hospital, fades as patients encounter real-world challenges that the hospital-based nurse could not have anticipated. This reveals a systemic failure where the nursing profession's potential to be the orchestrator of seamless transitions is systematically underutilized due to administrative and financial constraints that exist outside of nursing's direct control.

### **3. The Health Administration Role: Misaligned Incentives and Operational Bottlenecks**

If nursing represents the clinical front line of care transitions, health administration constitutes the strategic and operational command center that determines whether the transition process will be resourced, prioritized, and measured effectively. Health administrators—including hospital executives, department managers, and quality improvement directors—are responsible for shaping the policies, allocating the budgets, and defining the metrics by which success is evaluated. The failures in care transitions, when viewed through an administrative lens, are fundamentally failures of strategic prioritization and operational design. The persistent misalignment between financial incentives, operational pressures, and patient safety goals creates an environment where the safe

transition of care is often subordinated to the immediate demands of hospital throughput and financial performance.

The most profound administrative failure is the prioritization of bed management and length of stay (LOS) reduction over the quality of the discharge process. In the acute care setting, the primary operational metric is often patient flow—the speed at which patients are admitted, treated, and discharged to free up beds for new admissions. This focus is driven by economic necessity; hospitals, particularly those operating under fee-for-service models, rely on high occupancy rates and rapid turnover to remain financially viable. However, this creates a fundamental conflict of interest. The discharge process, when done correctly, requires time. It requires a nurse to conduct a thorough teaching session, a physician to finalize and communicate a clear post-discharge plan, a social worker to arrange for home services, and a medical secretary to coordinate a follow-up appointment. When the administrative mandate is to discharge a patient by 11:00 AM to open a bed for an incoming surgery, every one of these steps is compressed, shortcut, or outright skipped [15]. The result is a classic “squeeze” where the quality of the discharge is sacrificed for the quantity of throughput. Administrators may celebrate a reduced average LOS as a sign of efficiency, but this metric fails to capture the downstream costs of the readmissions that inevitably result from rushed, incomplete discharges. This represents a perverse incentive structure where the administrative focus on a short-term operational metric directly undermines the long-term goal of effective care coordination.

Another critical administrative failure is the underinvestment in transitional care infrastructure. While hospitals have invested heavily in high-technology acute care services—new operating rooms, advanced imaging, and intensive care units—the infrastructure required to support safe transitions is often woefully underfunded. This includes insufficient staffing for case management and discharge planning departments, a lack of dedicated transitional care nurses, and a failure to establish robust partnerships with community-based providers, skilled nursing facilities, and home health agencies [16]. Administrators often view these functions as cost centers rather than strategic assets. A case manager's salary is a direct expense, whereas a readmission is a cost that may be attributed to a different department or, in the case of Medicare patients, may not be fully accounted for in the hospital's immediate budget. This fragmented financial view leads to chronic understaffing. A hospital may employ a ratio of one case manager for every 30 or 40 patients, making it impossible to

perform the deep, individualized discharge planning required for complex patients. The administrative decision to understaff these roles is a direct cause of transition failures, as it creates a system where even the most well-intentioned clinicians are overwhelmed and unable to perform their duties effectively.

The administrative failure also extends to the management of post-discharge follow-up appointments, a process that is often overlooked in strategic planning. While hospitals are heavily focused on the inpatient experience, the handoff to the outpatient clinic is frequently treated as an administrative afterthought. There is often a lack of clear accountability for ensuring that the first follow-up appointment is not only scheduled but also attended. Administrators may track readmission rates but fail to track the intermediate metrics that predict readmissions, such as the percentage of patients who are seen by a PCP within 7 to 14 days of discharge [17]. Without this granular data, there is no feedback loop to identify and correct failures in the scheduling process. Furthermore, administrators often fail to create formal agreements or service-level expectations with outpatient clinics, whether within the same health system or in the community. When a patient is discharged, the hospital administrator's responsibility may end at the hospital's front door, leaving the outpatient clinic to manage a potentially complex patient without any prior coordination or resource sharing. This administrative silo between inpatient and outpatient operations is a major structural contributor to transition failures, as it perpetuates a culture where the acute and ambulatory sides of the healthcare system operate as separate entities rather than a unified continuum.

Furthermore, health administration plays a pivotal role in shaping the culture of safety and accountability. In organizations where leadership does not explicitly prioritize care transitions as a strategic goal, the message trickles down that discharge quality is secondary to other objectives. Administrators who do not create systems for peer review of readmissions, who do not allocate resources for patient follow-up phone calls after discharge, or who do not empower nursing and case management staff to escalate concerns about unsafe discharges are, by their inaction, enabling failures to occur. The failure to implement evidence-based transitional care models, such as the Coleman Care Transitions Program or the Naylor Transitional Care Model, is often an administrative decision rooted in a short-term cost-benefit analysis that fails to account for the long-term financial and reputational benefits of reducing readmissions [18]. In this way, the health administration role is not merely a

supporting actor in the care transition story but a primary determinant of whether the necessary structures, staffing, and incentives are in place to enable safe handoffs. When these elements are absent, the best efforts of nurses, secretaries, and informaticists are rendered futile, and the system remains locked in a cycle of reactive, fragmented care.

#### **4. The Medical Secretarial Role: The Invisible Linchpin of Coordination**

Beneath the clinical and strategic layers of care transitions lies the operational layer, where the actual work of coordination is often executed by medical secretaries, also known as medical administrative assistants, patient access representatives, or unit clerks. This professional group represents the invisible linchpin of the transition process, responsible for the tangible tasks that make a discharge plan operational: scheduling follow-up appointments, coordinating referrals to specialists, communicating with outpatient clinics, ensuring that required documentation is transmitted, and serving as a primary point of contact for patients who have questions about their post-discharge logistics. Despite the critical nature of these functions, the medical secretarial role is consistently undervalued, under-trained, and under-resourced, creating a significant and often unacknowledged source of transition failures. The assumption that these tasks are purely clerical belies their complexity and their direct impact on patient safety and continuity of care.

The primary failure associated with the medical secretarial role is the breakdown in appointment scheduling. A discharge plan is only as good as its execution, and the execution hinges on the ability to secure a timely follow-up appointment with the appropriate outpatient provider. The ideal scenario is for the patient to leave the hospital with a confirmed appointment date and time, preferably within 7 days for high-risk patients, and with all the necessary information about the location, time, and any preparation required. In practice, medical secretaries face immense barriers to achieving this. They often work with multiple, disconnected scheduling systems, as the hospital's EHR may not seamlessly interface with the scheduling systems of affiliated outpatient clinics, let alone independent community providers. Scheduling an appointment can involve making multiple phone calls, navigating automated phone trees, and holding for long periods, all while managing the constant interruptions and urgent demands of a busy hospital unit [19]. When a secretary is unable to secure an appointment, the patient is often discharged with instructions to "call

the office to schedule an appointment,” a task that is highly unlikely to be completed. Studies have shown that a significant proportion of patients, particularly those with low health literacy or limited social support, never schedule or attend these follow-up appointments, directly leading to missed opportunities for early intervention and subsequent readmission [20].

Compounding the scheduling challenge is the failure in the transmission of critical documentation. For an outpatient provider to effectively manage a patient after discharge, they must have timely access to the discharge summary, the medication list, the results of pending tests, and the follow-up plan. Medical secretaries are often tasked with ensuring that these documents are faxed or electronically transmitted to the receiving provider’s office before the patient’s appointment. This process is fraught with risk. Fax numbers can be incorrect, documents can be lost, and electronic transmissions can fail due to interoperability issues. Even when the documents are successfully transmitted, they may arrive days after the patient’s appointment, rendering them useless for the visit. The secretary’s role in this process is critical, yet they are rarely provided with robust systems to track the successful delivery and receipt of these documents, nor are they empowered to follow up when transmission fails [21]. This results in a scenario where the outpatient provider sees a patient for a post-discharge visit with little to no information about what happened in the hospital, forcing them to rely on the patient’s often incomplete recollection, which is a recipe for medical error and redundant, costly testing.

Another significant failure lies in the lack of standardized training and role clarity for medical secretaries regarding their responsibilities in care transitions. The tasks performed by these professionals are frequently viewed as low-skill, on-the-job training functions. However, the modern care transition environment requires a sophisticated skill set: knowledge of medical terminology to accurately communicate with clinical staff, proficiency in multiple software systems, an understanding of insurance prior authorization requirements, and highly developed communication skills to interact with anxious patients and busy clinical offices. In many healthcare organizations, medical secretaries receive minimal formal training on these complex tasks. They are not trained to recognize the urgency of certain follow-up appointments, nor are they given the authority to escalate issues when a patient cannot get a timely appointment. This lack of training and empowerment means that when a secretary encounters a barrier—such as a specialist’s office refusing to schedule a patient without a referral that

hasn’t been processed—they have no structured pathway to resolve it, and the patient falls through the cracks [22].

Furthermore, the medical secretarial role is often isolated from the clinical team, creating a communication gap that directly harms the transition. In an ideal model, the medical secretary would be an integral member of the interdisciplinary discharge planning team, attending huddles or rounds to understand the nuances of each patient’s post-discharge needs. For example, a secretary who knows that a patient is being discharged after a stroke would understand the urgency of scheduling a neurology follow-up and ensuring that the patient’s transportation needs are addressed. However, in many settings, secretaries work in a reactive mode, receiving orders for appointments without context or understanding of the clinical priority. They are not included in team meetings, and their insights about scheduling barriers or patient communication challenges are not solicited by the clinical team. This siloing of the secretarial function ensures that the logistical component of care transitions remains disconnected from the clinical component, resulting in plans that are clinically sound but logistically impossible to execute. The failure to recognize and elevate the medical secretarial role as a critical component of the multidisciplinary transition team is a systemic oversight that undermines the entire process, leaving the final step of coordination to the most under-resourced members of the healthcare workforce.

## **5. The Health Informatics Role: Technology as a Barrier, Not a Bridge**

In an era of widespread electronic health record (EHR) adoption, the promise of health informatics has been to serve as the great integrator—the technological bridge that connects disparate providers, settings, and data streams into a unified, accessible, and actionable information ecosystem. For care transitions, this promise is more critical than anywhere else. The safe handoff of a patient from hospital to home depends on the seamless flow of information from the inpatient team to the outpatient providers, from clinicians to patients, and across various post-acute care entities. Yet, the reality of health informatics in practice has fallen far short of this promise. Instead of acting as a bridge, health information technology (HIT) has often become a significant barrier to effective transitions, creating new forms of fragmentation, generating information overload, and introducing usability challenges that actively contribute to communication failures. The failures in this domain are not technological per se, but rather failures of design, implementation, and

interoperability that turn powerful tools into obstacles.

The most glaring failure of health informatics in care transitions is the lack of true interoperability between inpatient and outpatient EHR systems. Despite the billions of dollars invested in EHRs following the HITECH Act, the healthcare landscape remains a patchwork of disparate systems from different vendors that do not communicate effectively with one another [23]. A patient may be discharged from a hospital that uses Epic, only to follow up with a primary care physician who uses Cerner or a smaller ambulatory system. In such cases, the inpatient record does not automatically flow to the outpatient provider. Instead, the burden of data transfer falls back onto manual processes—faxing, emailing, or having the patient physically carry a paper copy of their discharge summary. This creates a critical information gap during the vulnerable post-discharge period. The outpatient provider often begins the first follow-up visit with a blank slate, lacking access to the hospital course, the final diagnosis, the results of tests performed during the admission, or the rationale behind medication changes. This lack of information forces the outpatient provider to rely on the patient’s memory, which is often unreliable, or to spend valuable visit time reconstructing the hospital course rather than focusing on recovery and prevention. The promise of a connected health system is betrayed by this interoperability failure, which is fundamentally a failure of policy and vendor collaboration to prioritize open standards and data liquidity [24].

Even when the technological infrastructure exists to share data, the design and usability of EHR systems often undermine effective communication. The discharge summary, the primary document for handoff, is a case in point. In theory, the discharge summary should be a concise, structured, and actionable summary of the admission, the follow-up plan, and the pending tasks. In practice, however, the discharge summary has become a bloated, templated document filled with auto-populated text, redundant information, and buried critical details. The design of many EHRs encourages “note bloat,” where clinicians include vast amounts of copied-forward text to satisfy billing and regulatory requirements, making it difficult for the receiving provider to quickly identify the most salient information [25]. A systematic review of discharge summaries found that they frequently lack critical elements such as explicit follow-up plans, pending test results, and a clear medication list, and that their quality is highly variable. This is not a failure of the clinician but a failure of the informatics system to provide a user interface that supports the creation of high-quality, concise handoff documentation. The EHR, intended

to be a tool for communication, instead becomes a source of cognitive burden for both the sender and the receiver, increasing the likelihood that essential information will be missed.

Furthermore, health informatics failures extend to patient-facing technologies, such as patient portals, which are increasingly relied upon as a mechanism for engaging patients in their transitions. The vision of the patient portal is that patients will have immediate, 24/7 access to their discharge instructions, medication lists, test results, and follow-up appointments, empowering them to take an active role in their care. However, the reality is that these portals are often underutilized and poorly designed for the post-discharge context. Many patients, particularly the elderly, those with low health literacy, and those from socioeconomically disadvantaged backgrounds, lack the digital literacy or access to use these portals effectively [26]. A patient who is discharged with instructions to “check your portal for your test results” may have no idea how to log in, may not have a computer, or may find that the results are presented in a complex, jargon-filled format that they cannot interpret. The portal, which could be a powerful tool for education and engagement, instead becomes another source of frustration and a potential cause of missed information. The failure here is one of human-centered design; the informatics systems are built with the assumption of a tech-savvy user, which does not reflect the demographic reality of the hospitalized patient population.

Another significant informatics-related failure is the absence of robust clinical decision support (CDS) integrated into the transition workflow. In an ideal system, the EHR would actively support the care transition by alerting the care team when a high-risk patient is being discharged without a scheduled follow-up appointment, flagging medication discrepancies that need resolution, or providing checklists to ensure that all elements of the discharge plan are complete. While some EHRs have these capabilities, they are often not implemented or are configured in a way that leads to “alert fatigue,” where clinicians become desensitized to the sheer volume of notifications [27]. The failure to strategically deploy CDS for care transitions means that the EHR remains a passive repository of data rather than an active tool for safety. For example, a patient discharged on a high-risk medication like warfarin or insulin may not automatically trigger a reminder for the nurse to conduct a follow-up call, or a system may not flag that a pending culture result was never reviewed post-discharge. These are preventable errors that the technology could address, but the failure to design and implement the system

with transitions in mind leaves these safety gaps wide open.

Finally, the health informatics field has largely failed to provide adequate analytics and feedback loops to clinicians and administrators regarding transition performance. While hospitals can easily track readmission rates, they often lack the granular data needed to understand *why* readmissions are occurring. Informatics systems should be able to identify patterns: are readmissions concentrated among patients discharged from a particular unit? Are they linked to a failure to schedule a timely follow-up? Are they associated with a specific prescribing pattern? Without this level of detailed, actionable data, quality improvement efforts remain generic and untargeted [28]. The failure to build robust, user-friendly analytics dashboards that provide real-time feedback on transition processes means that healthcare organizations are operating in the dark, unable to identify and correct the specific breakdowns in their unique workflows. In this sense, the informatics function, which holds the key to data-driven improvement, is often the missing link that prevents the multidisciplinary team from learning from its failures and iterating toward safer systems.

## **6. The Multidisciplinary Imperative: Integration, Interdependence, and Solutions**

Having dissected the distinct yet interconnected failures of nursing, health administration, medical secretarial, and health informatics, it becomes unequivocally clear that no single discipline can solve the care transition crisis in isolation. The failures are not additive but multiplicative; a deficiency in one domain amplifies the weaknesses in others, creating a system that is more fragile than the sum of its parts. A nurse cannot provide safe discharge teaching if the medical secretary has not scheduled a follow-up appointment, and the appointment cannot be meaningful if the informatics system has not transmitted the discharge summary. An administrator cannot reduce readmissions without empowering nursing and secretarial staff, and the most sophisticated EHR is useless if it is not designed to support the workflows of those on the front lines. The path forward, therefore, lies not in optimizing individual disciplines in silos but in fostering a deeply integrated, multidisciplinary approach where the roles, responsibilities, and workflows are co-designed to create a seamless handoff. This requires a fundamental shift in how healthcare organizations structure their transitional care processes, moving from a linear, handoff-based model to a collaborative, team-based model where accountability is shared.

The first step in this multidisciplinary integration is the establishment of a formal, interdisciplinary Transitional Care Team (TCT) that meets daily to review the discharge plans for high-risk patients. This team must include, at a minimum, a nurse case manager, a physician or advanced practice provider, a medical secretary or patient access representative, a pharmacist, and a health informatics specialist or clinical informaticist [29]. The daily huddle is not merely a status update but a forum for collaborative problem-solving. The nurse can identify patients with complex teaching needs or inadequate home support; the secretary can immediately work to secure a follow-up appointment, escalating to the team if barriers exist; the pharmacist can perform a final, high-quality medication reconciliation; and the informaticist can ensure that the necessary templates and data-sharing protocols are in place to support the plan. This structure breaks down the silos that currently exist, making the work of transitions a shared responsibility rather than a series of disconnected tasks. It also creates a culture of mutual accountability, where the medical secretary is no longer isolated from the clinical consequences of a failed appointment, and the nurse is supported by administrative and technological resources to do their job effectively.

Second, a multidisciplinary approach necessitates a reimagining of the roles and responsibilities to leverage the unique strengths of each profession in a more integrated way. For nursing, this means expanding the role beyond bedside discharge teaching to include a follow-up phone call within 48 hours post-discharge, a practice that has been shown to reduce readmissions by identifying and resolving problems early [30]. However, this expansion must be supported administratively through appropriate staffing models and compensated time, and technologically through informatics systems that provide structured call scripts and documentation templates. For the medical secretary, this means elevating the role to that of a “transition coordinator” or “patient navigator” who receives specialized training in care transition protocols, is integrated into the clinical team, and is given the authority and resources to resolve scheduling and documentation barriers in real time. This requires an administrative investment in training and a cultural shift that recognizes the secretary’s role as a clinical partner rather than a clerical assistant [31].

Third, the integration of health informatics must be woven into the fabric of the transition process, not treated as an afterthought. This requires a collaborative design process where informaticists work directly with nurses, secretaries, and administrators to build EHR tools that match the real-world workflow. This includes developing

standardized, user-friendly discharge summary templates that prompt the user to include critical elements like pending tests and explicit follow-up plans. It also involves creating closed-loop referral systems where a medical secretary can schedule an appointment, transmit the documentation, and receive confirmation of receipt within the EHR, with automated alerts if the process fails. Patient portals must be redesigned with the post-discharge patient in mind, offering simplified, plain-language summaries and utilizing multi-modal communication (text, phone, email) to reach patients where they are. Furthermore, informaticists must work with administrators to develop dashboards that provide real-time data on transition metrics—not just readmissions, but also timely follow-up rates, discharge summary timeliness, and patient feedback—enabling continuous quality improvement [32].

Finally, the multidisciplinary analysis reveals that the ultimate solution lies in aligning administrative incentives with clinical safety goals. Administrators must broaden their focus from short-term metrics like length of stay to include long-term value metrics like total cost of care and patient outcomes across the continuum. This may involve adopting value-based payment models that reward hospitals for keeping patients healthy post-discharge, thereby creating a financial incentive to invest in transitional care infrastructure. Administrators must also champion the development of formal integration between inpatient and outpatient settings, whether through ownership, formal partnerships, or shared EHRs, to eliminate the administrative and informational chasms that currently exist. The administrative role is to create the conditions in which the multidisciplinary team can succeed, providing the resources, the culture of safety, and the strategic focus on care transitions as a core organizational priority [32].

## 7. Conclusion:

In conclusion, the failure of care transitions from hospital to outpatient settings is a complex, multifactorial problem that defies simple solutions. It is a problem born at the intersection of clinical practice, operational management, logistical coordination, and technological infrastructure. A nursing profession stretched too thin, an administrative focus on throughput, an undervalued secretarial workforce, and an informatics landscape that prioritizes data capture over data usability have collectively created a system where the most vulnerable moment of a patient's healthcare journey is also the most dangerous. The path to meaningful improvement lies not in blaming any one discipline

but in recognizing the deep interdependence that exists between them. It requires a multidisciplinary approach where nursing, health administration, medical secretarial, and health informatics functions are not merely coordinated but fully integrated, with shared goals, shared accountability, and a shared commitment to ensuring that the handoff is not a moment of peril but a bridge to sustained health and well-being. Only through such a unified, systemic transformation can we hope to close the gaping chasm that currently exists between hospital and home, fulfilling the fundamental promise of healthcare to provide not just healing in the acute moment, but safety and support throughout the entire continuum of care.

## Author Statements:

- **Ethical approval:** The conducted research is not related to either human or animal use.
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## References

1. Naylor M, Keating SA. Transitional Care: Moving Patients from One Care Setting to Another. *American Journal of Nursing*. 2008;108(9):58–63.
2. Centers for Medicare and Medicaid Services. Hospital Readmissions Reduction Program (HRRP). Published 2020.
3. Agency for Healthcare Research and Quality. Strategy 4: Care Transitions from Hospital to Home: Ideal Discharge Planning. Published 2017.
4. Liu VC, Mohammad I, Deol BB, Balarezo A, Deng L, Garwood CL. Post-Discharge Medication Reconciliation: Reduction in Readmissions in a Geriatric Primary Care Clinic. *Journal of Aging and Health*. 2019;31(10):1790–1805.

5. Coppa K, Kim EJ, Oppenheim MI, Bock KR, Conigliaro J, Hirsch JS. Examination of Post-Discharge Follow-up Appointment Status and 30-Day Readmission. *Journal of General Internal Medicine*. 2021;36:1214–1221.
6. Kind AJ, Smith MA. Documentation of Mandated Discharge Summary Components in Transitions from Acute to Subacute Care. In: *Advances in Patient Safety: New Directions and Alternative Approaches Vol 2: Culture and Redesign*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2011.
7. Balaban RB, Galbraith AA, Burns ME, Vialle-Valentin CE, Larochelle MR, Ross-Degnan D. A Patient Navigator Intervention to Reduce Hospital Readmissions among High-Risk Safety-Net Patients: A Randomized Controlled Trial. *Journal of General Internal Medicine*. 2015;30:907–915.
8. Einstadter D, Cebul RD, Franta PR. Effect of a Nurse Case Manager on Postdischarge Follow-Up. *Journal of general internal medicine*. 1996;11:684–688.
9. Family & Children's Counseling Services. *Health Coach Services Added*. Published 2017.
10. Jencks SF, Williams MV, Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. *New England Journal of Medicine*. 2009;360(14):1418–1428.
11. Centers for Medicare and Medicaid Services. *Frequently Asked Questions About Billing the Medicare Physician Fee Schedule for Transitional Care Management Services*. Published 2016.
12. Marcotte LM, Reddy A, Zhou L, Miller SC, Hudelson C, Liao JM. Trends in Utilization of Transitional Care Management in the United States. *JAMA Network Open*. 2020;3(1):e1919571–e1919571.
13. Bindman AB, Cox DF. Changes in Health Care Costs and Mortality Associated with Transitional Care Management Services after a Discharge among Medicare Beneficiaries. *JAMA Internal Medicine*. 2018;178(9):1165–1171.
14. Bindman AB, Blum JD, Kronick R. Medicare's Transitional Care Payment--a Step toward the Medical Home. *New England Journal of Medicine*. 2013;368(8):692–694.
15. Verhaegh KJ, MacNeil-Vroomen JL, Eslami S, Geerlings SE, de Rooij SE, Buurman BM. Transitional Care Interventions Prevent Hospital Readmissions for Adults with Chronic Illnesses. *Health Affairs*. 2014;33(9):1531–1539.
16. Agarwal SD, Barnett ML, Souza J, Landon BE. Adoption of Medicare's Transitional Care Management and Chronic Care Management Codes in Primary Care. *JAMA*. 2018;320(24):2596–2597.
17. Hoyer EH, Odonkor CA, Bhatia SN, Leung C, Deutschendorf A, Brotman DJ. Association between Days to Complete Inpatient Discharge Summaries with All-Payer Hospital Readmissions in Maryland. *Journal of Hospital Medicine*. 2016;11(6):393–400.
18. Fisher ES, Shortell SM, O'Malley AJ, et al. Financial Integration's Impact on Care Delivery and Payment Reforms: A Survey of Hospitals and Physician Practices: Based on Survey Results, the Study Examines the Impact of Financial Integration on Care Delivery and Payment Reforms among Hospitals and Physician Practices. *Health Affairs*. 2020;39(8):1302–1311.
19. O'Malley AJ, Park S. A Novel Cluster Sampling Design That Couples Multiple Surveys to Support Multiple Inferential Objectives. *Health Services and Outcomes Research Methodology*. 2020.
20. Dartmouth College Center of Excellence. *Comparative Health System Performance*. Published 2019.
21. U.S. Department of Agriculture-Economic Research Service. *Rural-Urban Commuting Area Codes*. Published 2020.
22. U.S. Census Bureau. *Census Regions and Divisions of the United States*.
23. The Dartmouth Institute for Health Policy and Clinical Practice Center of Excellence. *National Survey of Healthcare Organizations*. Published 2017-2018.
24. Krumholz HM, Lin Z, Drye EE, et al. An Administrative Claims Measure Suitable for Profiling Hospital Performance Based on 30-Day All-Cause Readmission Rates among Patients with Acute Myocardial Infarction. *Circulation: Cardiovascular Quality and Outcomes*. 2011;4(2):243–252.
25. Centers for Medicare and Medicaid Services. *Archived Measure Methodology*. Published 2021.
26. Keenan PS, Normand S-LT, Lin Z, et al. An Administrative Claims Measure Suitable for Profiling Hospital Performance on the Basis of 30-Day All-Cause Readmission Rates among Patients with Heart Failure. *Circulation: Cardiovascular Quality and Outcomes*. 2008;1(1):29–37.
27. Lindenauer PK, Bernheim SM, Grady JN, et al. The Performance of US Hospitals as Reflected in Risk-Standardized 30-Day Mortality and Readmission Rates for Medicare Beneficiaries with Pneumonia. *Journal of Hospital Medicine*. 2010;5(6):E12–E18.
28. Naylor MD, Aiken LH, Kurtzman ET, Olds DM, Hirschman KB. The Importance of Transitional Care in Achieving Health Reform. *Health affairs*. 2011;30(4):746–754.
29. Centers for Medicare and Medicaid Services. *Medicare Shared Savings Program Shared Savings and Losses and Assignment Methodology Specifications: Applicable Beginning Performance Year 2016*. In: 2015.
30. American Academy of Family Physicians. *Transitional Care Management*. Published 2021.
31. U.S. Census Bureau. *How the Census Bureau Measures Poverty*. Published 2020.
32. Ouayogodé MH, Mainor AJ, Meara E, Bynum JP, Colla CH. Association between Care Management and Outcomes among Patients with Complex Needs in Medicare Accountable Care Organizations. *JAMA Network Open*. 2019;2(7):e196939–e196939.