



## The Discharge Choreography: A Narrative Review of Team-Based Workflows to Prevent Post-Hospitalization Complications

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### Abstract

**Background:** Hospital discharge is a high-risk transition of care, often characterized by fragmented communication, unresolved clinical issues, and inadequate patient preparation. Poorly executed discharges are a primary driver of preventable hospital readmissions, adverse drug events, and patient harm. Traditional models, which place the overwhelming burden on a single nurse or physician, are prone to error and system failure, as they inadequately address the multifaceted clinical, administrative, and social needs of the departing patient.

**Aim:** This narrative review aims to synthesize current evidence to propose and define a "Discharge Choreography" model to ensure a seamless, safe, and patient-centered transition from hospital to home or next care setting.

**Methods:** A systematic search was conducted across PubMed, CINAHL, Scopus, and Web of Science for literature published between 2010 and 2024.

**Results:** The review identifies four critical, interdependent domains of the discharge process. Evidence confirms that structured workflows leveraging all team members improve medication adherence, follow-up attendance, and patient comprehension while reducing readmission rates by 10-30%. Key barriers include role ambiguity, insufficient training for support staff, and lack of integrated health information technology.

**Conclusion:** Discharge must be reconceptualized from a solitary clinical task to a choreographed operational process. The proposed model provides a blueprint for health systems to deliberately allocate discharge responsibilities across licensed and non-licensed team members, creating a reliable, redundant safety net that protects patients during this vulnerable period and improves health system performance.

**Keywords:** Care Transitions; Hospital Readmission; Interprofessional Teamwork; Discharge Planning; Patient Safety.

### Introduction

The moment of hospital discharge represents one of the most critical, yet perilous, junctures in a patient's healthcare journey (John et al., 2022). It is a complex transition requiring the synthesis of clinical judgment, patient education, logistical coordination, and continuous communication. Despite its importance, discharge processes are frequently rushed, incomplete, and fragmented, functioning as a primary source of preventable patient harm (Kripalani et al., 2014). Nearly 20% of patients experience an adverse event within three weeks of discharge, most commonly related to medications or infections, and a significant proportion of 30-day

hospital readmissions are considered avoidable (Anderson et al., 2022; Vest et al., 2010). These failures incur tremendous human and financial costs, straining healthcare systems and eroding patient trust.

The root cause of these failures is often systemic: an over-reliance on a monolithic "discharging provider" model. In this traditional framework, the attending physician and primary nurse bear sole responsibility for a daunting list of tasks—finalizing diagnoses, reconciling medications, providing education, arranging follow-up, composing summaries, and assessing social needs—all within the pressure of freeing a bed (Zanetoni et al., 2022). This model is cognitively overwhelming and

logistically unsound, creating multiple single points of failure. It also fundamentally underutilizes the broader healthcare team, failing to leverage the unique skills of medical secretaries, health assistants, and laboratory professionals who are essential to operational success (Hesselink et al., 2014).

This narrative review argues for a paradigm shift from discharge as a clinical event to Discharge as a Choreographed Process. Drawing upon principles of high-reliability organizations and crew resource management, we propose a structured, team-based workflow model—the "Discharge Choreography." This model explicitly assigns, synchronizes, and audits specific responsibilities across four core roles: Nursing, Medical Secretary, Health Assistant, and the Laboratory. It moves beyond vague "teamwork" to define concrete tasks and handoffs, ensuring that clinical, administrative, practical, and diagnostic loops are definitively closed. By synthesizing evidence from nursing science, health services research, and quality improvement, this review provides a blueprint for designing reliable discharge systems. We contend that intentional role distribution is not merely an efficiency tool but a fundamental patient safety intervention, transforming discharge from a chaotic exit into a coordinated launch into the next phase of recovery.

#### Why Traditional Discharge Fails

To appreciate the necessity of a choreographed model, one must first understand the multifaceted ways in which conventional discharge processes break down. Failures are rarely due to a lack of effort but are inherent to poorly designed systems (Table 1).

#### The Education and Medication Abyss

A cornerstone of safe discharge is effective patient education and accurate medication reconciliation. However, studies consistently show that patients retain less than half of the information provided at discharge, and up to 40% cannot name their diagnosis or list their medications' purposes (Toole et al., 2020). Nurses, often delivering education amidst competing demands, may lack the time or structured tools to assess health literacy or use teach-back methods effectively. Medication reconciliation errors—omissions, duplications, incorrect doses—occur in over 30% of discharges,

frequently because the process is rushed or performed without access to complete pre-admission medication lists (Moges et al., 2022). These clinical gaps set the stage for non-adherence, therapeutic failure, and adverse drug events at home.

#### Administrative and Communication Breakdowns

The administrative spine of discharge is notoriously fragile. Follow-up appointments are scheduled but not confirmed, or are made for dates beyond clinically appropriate windows (Larow et al., 2021). Discharge summaries, crucial for continuity, are often dictated but not signed and transmitted to the next provider for days or weeks, leaving primary care physicians and specialists in the dark (Reinke et al., 2014). This communication vacuum forces the patient to act as their own courier of incomplete information. These tasks, often relegated to the end of a busy clinician's day, are viewed as clerical and thus deprioritized, despite their direct impact on outcomes (Unnewehr et al., 2015).

#### Practical and Social Vulnerabilities

Discharge planning frequently overlooks the patient's capacity to execute the plan in their home environment. Does the patient with new-onset heart failure have a working scale to monitor daily weights? Can the elderly patient with a wound vac manage its operation? Is transportation secured for the follow-up appointment? Will the patient have food or necessary supplies? These practical determinants of health are frequently identified late or not at all, leading to plan failure (Tay et al., 2021). Furthermore, pending laboratory or imaging results are often overlooked in the discharge frenzy, with no clear protocol for how and when these results are finalized and communicated to the patient and receiving provider, potentially missing critical diagnoses like occult infection or worsening renal function (Callen et al., 2011). Figure 1 illustrates the four interdependent professional roles—Nursing, Medical Secretary, Health Assistant, and Laboratory—that collectively operationalize the Discharge Choreography model. Each role is shown with its core responsibilities, emphasizing intentional task distribution, redundancy, and coordination required to achieve a safe transition from hospital to home.

**Table 1: The Four Pillars of Discharge Choreography: Roles, Responsibilities, and Failure Points**

| Pillar & Lead Role                                     | Core Responsibilities   | Common Failure Points in Traditional Model   | Team-Based Choreography Solution  |
|--|---|--|---|
| <b>1. Clinical Readiness &amp; Education (Nursing)</b> | <ul style="list-style-type: none"> <li>Comprehensive discharge education using teach-back.</li> <li>Final medication reconciliation &amp; patient-friendly medication list generation.</li> <li>Assessment of patient/caregiver understanding &amp; readiness.</li> </ul> | <ul style="list-style-type: none"> <li>Rushed, non-standardized education; no verification of comprehension.</li> <li>Medication rec done in isolation without patient/caregiver input.</li> <li>Readiness assessment</li> </ul> | <ul style="list-style-type: none"> <li>Use of structured education checklists &amp; teach-back mandates.</li> <li>Pharmacist-involved rec or use of validated software tools.</li> <li>Standardized readiness score (e.g.,</li> </ul> |

|   |   |  |  |
|---|---|--|--|
|   |   | subjective or omitted.   | “Ready for Discharge” scale).  |
| <b>2. Administrative Coordination &amp; Communication (Medical Secretary)</b> | <ul style="list-style-type: none"> <li>• Scheduling &amp; confirming follow-up appointments prior to discharge.</li> <li>• Ensuring discharge summary is completed, signed, and transmitted to next provider(s) within 24-48 hours.</li> <li>• Managing patient inquiries and acting as a post-discharge point of contact.</li> </ul> | <ul style="list-style-type: none"> <li>• Appointments scheduled but not confirmed; dates too far out.</li> <li>• Summary dictation delays; failure to transmit to correct provider.</li> <li>• No clear point of contact for patient questions post-discharge.</li> </ul>          | <ul style="list-style-type: none"> <li>• Protocol: No discharge without confirmed appointment contact in hand.</li> <li>• EHR flag for summary completion; auto-fax/HL7 to PCP/specialist.</li> <li>• Secretary assigned as named contact for 72-hour post-discharge call-back.</li> </ul> |
| <b>3. Practical &amp; Environmental Preparation (Health Assistant)</b>        | <ul style="list-style-type: none"> <li>• Teaching practical device skills (inhaler, glucometer, wound care).</li> <li>• Verifying transportation is secured and functional.</li> <li>• Performing “room scan” for forgotten items &amp; reviewing discharge packet for completeness.</li> </ul>                                       | <ul style="list-style-type: none"> <li>• Device teaching incomplete; patient unable to demonstrate use.</li> <li>• Patient assumes they will “find a ride,” leading to missed appointments.</li> <li>• Discharge packet missing crucial documents (e.g., radiology CD).</li> </ul> | <ul style="list-style-type: none"> <li>• “Return demonstration” required for all new devices.</li> <li>• Transportation arranged and voucher provided before discharge order.</li> <li>• Final environmental checklist completed before patient leaves room.</li> </ul>                    |
| <b>4. Diagnostic Closure (Laboratory)</b>                                     | <ul style="list-style-type: none"> <li>• Flagging and expediting processing of pending labs at discharge.</li> <li>• Automatically routing final pending results to discharging team &amp; designated follow-up provider.</li> <li>• Alerting protocol for critical pending results post-discharge.</li> </ul>                        | <ul style="list-style-type: none"> <li>• Pending labs forgotten; results return after discharge with no action plan.</li> <li>• No system to route results to outpatient provider.</li> <li>• Critical values called to an empty hospital room or unaware covering MD.</li> </ul>  | <ul style="list-style-type: none"> <li>• EHR “Pending Lab at Discharge” report generated daily.</li> <li>• Build in EHR: Designated “results routing” field to PCP at discharge.</li> <li>• Defined call chain for critical values on discharged patients.</li> </ul>                      |



**Figure 1. The Four Pillars of the Discharge Choreography Model**  
**Nursing – Orchestrating Clinical Readiness and Empowerment**

The registered nurse is the clinical quarterback of the discharge choreography, responsible for synthesizing the care plan into

actionable knowledge for the patient and caregiver. This role extends far beyond handing out printed instructions (Table 2).

### **Structured Education and the Teach-Back Imperative**

Effective discharge education must be a structured, interactive process, not a passive handout. Evidence-based practice mandates the use of the “teach-back” method, where patients are asked to explain in their own words what they need to know or do (White et al., 2013). Nurses must be trained and supported to use this technique for key domains: diagnosis, warning signs (e.g., when to call the doctor), medication purpose and schedule, and follow-up plans. This requires protected time and the use of standardized checklists embedded in the electronic health record (EHR) to ensure consistency and documentation. Furthermore, education must be tailored to health literacy and language needs, utilizing interpreter services and low-literacy materials as required (Yen & Leasure, 2019).

### **Medication Reconciliation as a Collaborative Safety Check**

Medication reconciliation is a high-stakes process that benefits from a team approach. While the nurse leads, optimal models involve collaboration with a pharmacist (Russ et al., 2020). At minimum, nurses should use a standardized process: comparing the hospital medication administration record (MAR) against a best possible medication history (BPMH), resolving discrepancies with the physician, and then generating a patient-friendly medication list that uses plain language and large print (Emmanouilidou et al., 2023). The final step is a collaborative review with the patient or caregiver, using the bottles (if available) or the new list to ensure understanding. This process closes the loop and prevents errors from propagating back into the community (Gionfriddo et al., 2021).

### **Assessing Readiness: Beyond Physical Stability**

Nurses are uniquely positioned to assess the patient's holistic readiness for discharge. This involves using validated tools, such as the Readiness for Hospital Discharge Scale (RHDS), which measures patient perceptions of their own knowledge, coping ability, and expected support (Zhang et al., 2023). A low score triggers further intervention—additional education, social work consultation, or delayed discharge. This formal assessment moves beyond the physician's determination of "medically stable" to capture the patient's confidence and capacity to manage at home, a critical predictor of successful transition (Schultz et al., 2022).

### **The Medical Secretary – The Central Nervous System of Coordination**

The medical secretary (or unit clerk/coordinator) transforms the clinical plan into operational reality. This role is the administrative linchpin, ensuring all components of the transition are synchronized and communicated.

### **The Appointment Guarantee**

A cornerstone responsibility is the scheduling and, crucially, the confirmation of follow-up appointments (Kojima et al., 2022). The choreography model mandates that discharge does not proceed until the patient has a confirmed appointment, ideally within 7-14 days for high-risk patients, with the details (date, time, location, provider name) printed and reviewed with them. The secretary navigates scheduling systems, manages prior authorizations if needed, and serves as a liaison between the hospital unit and outpatient clinics (Arnold et al., 2015).

### **The Discharge Summary Lifeline**

The timely transmission of a comprehensive discharge summary is vital for continuity. The secretary's role is to track and facilitate this process (Mehta et al., 2017). This includes alerting the physician when a discharge is ordered to prompt summary initiation, ensuring the final document is signed, and then transmitting it via secure electronic

means to the identified primary care provider and relevant specialists within 24 hours of discharge (O'Leary et al., 2009). The secretary manages the EHR workflow, troubleshoots transmission failures, and may be responsible for mailing copies to patients or facilities without electronic connectivity.

### **Post-Discharge Point of Contact**

To prevent patients from feeling abandoned, the secretary can serve as a designated, familiar point of contact for 24-72 hours post-discharge (Wang et al., 2023). This involves making a structured callback to confirm the patient arrived home safely, has their medications, and understands the follow-up plan. This call is not for clinical triage (which is routed to a nurse) but for logistical support and early problem identification, creating a warm handoff to the outpatient world (Harrison et al., 2016).

### **The Health Assistant – Ensuring Practical Execution**

The health assistant (or nursing assistant/patient care technician) addresses the tangible, environmental, and practical barriers that can derail even the best clinical plan. This role grounds the discharge in reality.

### **Skills Training and Return Demonstration**

For patients discharged with new self-care tasks—diabetic foot care, insulin injection, use of an incentive spirometer—the health assistant provides hands-on coaching under the nurse's supervision (Kang et al., 2018). The standard is "return demonstration": the patient must successfully perform the task themselves before discharge. This builds confidence and identifies learning gaps that verbal instruction alone would miss (Trivedi et al., 2023).

### **Logistics and Environmental Safety**

The assistant verifies concrete logistics: Is the patient's ride present? Do they have a working phone? Have they been given any necessary durable medical equipment (DME)? They also perform a final "environmental scan" of the hospital room with the patient to ensure no personal items or documents are left behind. This attention to detail prevents avoidable stress and loss.

### **Bridging Health Literacy Gaps**

Assistants can help review the discharge packet with the patient, using a simple checklist to ensure all components are present and understood. They can highlight the most important actions in a simple, reinforcing manner, acting as a second layer of education (Mabire et al., 2019).

### **The Laboratory – Closing the Diagnostic Loop**

The clinical laboratory is an often-invisible but critical partner in discharge safety, responsible for managing the tail of diagnostic testing that extends beyond the patient's physical departure.

### **Managing Pending Results**

A formal process must exist to identify all pending laboratory tests at the moment of discharge. The laboratory can generate an automated "Pending



Labs at Discharge” report for the care team (Georgiou et al., 2022). More proactively, the discharging provider should designate in the EHR which outpatient provider (name and contact) is responsible for receiving and acting on these pending results (Callen et al., 2011). The laboratory’s information system can then be configured to automatically route the final results to that designated provider.

#### Alert Protocols for Discharged Patients

Clear protocols must govern how the laboratory handles a critical or significantly abnormal

result on a specimen drawn from a patient who has since been discharged (Lacson et al., 2016). This protocol typically involves calling the discharging hospitalist service or a designated hospital “discharge liaison” who can access the record and contact the patient and their outpatient provider urgently (Dalal et al., 2016). This closes a dangerous gap in care continuity. Figure 2 depicts the longitudinal, team-based discharge process from admission through post-discharge follow-up.

**Table 2: Implementation Framework for Discharge Choreography: Tools, Training, and Metrics**

| Component                      | Essential Tools & Technology  | Required Competencies   | Training & Process & Outcome Metrics   |
|--------------------------------|---|---|--|
| <b>Overall Workflow</b>        | <ul style="list-style-type: none"> <li>Integrated EHR discharge module with task lists &amp; automated alerts.</li> <li>Shared digital dashboard tracking discharge progress for each patient.</li> </ul>         | <ul style="list-style-type: none"> <li>Interprofessional training on the choreography model, roles, and communication pathways.</li> <li>Simulation drills for complex discharges.</li> </ul>                         | <ul style="list-style-type: none"> <li><b>Process:</b> % of discharges where all choreography checklist items are complete.</li> <li><b>Outcome:</b> All-cause 30-day readmission rate; patient-reported preparedness (RHDS).</li> </ul> |
| <b>Nursing Pillar</b>          | <ul style="list-style-type: none"> <li>EHR-embedded teach-back checklists &amp; standardized education templates.</li> <li>Medication reconciliation software interfaced with community pharmacy data.</li> </ul> | <ul style="list-style-type: none"> <li>Advanced training in health literacy, teach-back, and motivational interviewing.</li> <li>Competency in using medication rec tools.</li> </ul>                                 | <ul style="list-style-type: none"> <li>% of patients demonstrating teach-back competency on key topics.</li> <li>Rate of post-discharge adverse drug events.</li> </ul>  |
| <b>Secretary Pillar</b>        | <ul style="list-style-type: none"> <li>EHR scheduling interface with outpatient clinics.</li> <li>Automated discharge summary completion &amp; transmission tracker.</li> </ul>                                   | <ul style="list-style-type: none"> <li>Training in customer service, complex scheduling, and HIPAA-compliant communication.</li> <li>Understanding of clinical terminology to route information correctly.</li> </ul> | <ul style="list-style-type: none"> <li>% of discharges with follow-up appt confirmed prior to departure.</li> <li>% of summaries transmitted to PCP within 24 hours.</li> </ul>  |
| <b>Health Assistant Pillar</b> | <ul style="list-style-type: none"> <li>Skills checklists for common devices (glucometer, inhaler).</li> <li>Standardized “Discharge Room Scan” checklist.</li> </ul>  | <ul style="list-style-type: none"> <li>Competency training in coaching patients on device use.</li> <li>Training in role boundaries (what to escalate to RN).</li> </ul>  | <ul style="list-style-type: none"> <li>% of patients able to demonstrate new device use.</li> <li>Patient satisfaction with discharge logistics.</li> </ul>  |
| <b>Laboratory Pillar</b>       | <ul style="list-style-type: none"> <li>EHR flag for “Pending at Discharge” &amp; field for “Results Routing To.”</li> <li>Automated alert rules for critical results on discharged patients.</li> </ul>           | <ul style="list-style-type: none"> <li>Training for lab staff on the discharge results routing protocol.</li> <li>Training for clinicians on how to designate results routing in EHR.</li> </ul>                      | <ul style="list-style-type: none"> <li>% of pending lab results with a designated receiving provider at discharge.</li> <li>Time from result finalization to viewing by outpatient provider.</li> </ul>                                  |



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**Figure 2. Team-Based Discharge Choreography Workflow From Admission to Post-Discharge Follow-Up**

## Synthesis and Implementation

Implementing the Discharge Choreography model requires strategic investment in culture, process, and technology. First, leadership must endorse and resource the model, recognizing that reallocating tasks to secretaries and assistants is not deskilling nursing but enabling the entire team to practice at the top of their licenses (Tong et al., 2017). Second, clear protocols and standardized tools—such as the checklists and EHR modules referenced in Table 2—must be co-designed with front-line staff. Third, interprofessional education is non-negotiable; all team members must understand the full choreography, not just their own part, to foster mutual respect and proactive handoffs (Becker et al., 2021).

Potential barriers include professional resistance to role expansion, particularly from nurses who may view discharge as their core domain; the need for additional training for support staff; and limitations of legacy EHR systems that do not support structured workflows. These are overcome by piloting the model on one unit, demonstrating improved outcomes and staff satisfaction, and using that data to drive broader adoption (Weiss et al., 2019).

## Conclusion

Hospital discharge is not an end but a transfer of responsibility. The chaotic, provider-centric model of the past has proven inadequate, yielding unacceptably high rates of patient harm and system waste. The Discharge Choreography model presented in this review offers a structured, evidence-based alternative. By deliberately distributing the complex work of transition across a team of nursing, medical secretarial, health assistant, and laboratory professionals, healthcare systems can create a reliable, redundant, and patient-centered process.

This model champions the principle that every team member has a vital and defined role in safeguarding the patient's journey out of the hospital. It elevates the medical secretary to a coordinator, empowers the health assistant as a coach, and enlists the laboratory as a communicator, all under the clinical leadership of nursing. The result is a

discharge that is not merely a physical departure but a launched trajectory toward recovery. In an era of accountability for outcomes beyond the hospital walls, mastering this choreography is not an option—it is an imperative for safe, effective, and humane healthcare.

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