A Model for Hospital Discharge Preparation: From Case Management to Care Transition

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A Model for Hospital Discharge Preparation: From Case Management to Care Transition

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Abstract

There has been a proliferation of initiatives to improve discharge processes and outcomes for the transition from hospital to home and community-based care. Operationalization of these processes has varied widely as hospitals have customized discharge care into innovative roles and functions. This article presents a model for conceptualizing the components of hospital discharge preparation to ensure attention to the full range of processes needed for a comprehensive strategy for hospital discharge.

Improving hospital discharge processes and reducing readmissions are priority issues in the national agenda for healthcare reform. These 2 interrelated issues embody the duality of needs for solutions to address a critical problem area related to both the quality and cost of healthcare—that of preparing the patient and family for a successful discharge. This transition is evidenced by their ability to manage continuing care needs at home and in community-based settings without recurring need for acute or emergent care services. Transitional care models focus on coordination and continuity of care for high-risk populations such as the elderly, those with high utilization conditions such as cardiac disease, and mental/behavioral disorders. However, all hospitalized patients, regardless of risk status or the setting to which they are being discharged, require some form of discharge preparation.

The terms typically used to refer to processes involved in preparing the patient for leaving 1 care setting such as the hospital and organizing subsequent systems of care include discharge preparation, discharge planning, care coordination, and case management. While discharge preparation has been commonly used as a surrogate term for discharge teaching and planning for subsequent services, discharge planning encompasses assessment, planning, and coordination activities, care coordination is services focused, and case management focuses on the complex needs of individual patients. Yet these concepts are inconsistently defined, often used interchangeably, or presented with overlapping meaning. They are often included as core elements of intervention programs yet not well documented in standard documentation systems. The lack of uniformity in description of the core processes, variability in roles aligned to these processes, and the plethora of homegrown tools for...
operationalizing and evaluating these processes create barriers to ongoing improvement efforts.

Although the concept of discharge preparation is applicable across many care settings, the purpose of this article is to propose a conceptual model of hospital discharge preparation (Figure 1) to standardize the use of the term and guide investigation and operationalization of core components of the hospital discharge process of care.

**Conceptual Model for Hospital Discharge Preparation**

A definition of the term “discharge preparation” was synthesized from review of the literature as the meta-term for multiple care processes whereby the patient, family, and receiving care providers become ready for the discharge and management of health needs in a subsequent care venue. Discharge preparation is the term that encompasses the 3 processes of discharge planning (composed of 2 components: [1] assessment and planning for discharge needs and [2] estimation of readmission risk), discharge coordination [arrangements for any necessary support after discharge], and discharge teaching [educational interventions].

Hospital discharge preparation is a complex process requiring input, timely information exchange, and coordination between multiple disciplines and with patients and families. While numerous professional roles can perform various discharge functions, preparing the patient (and family/caregivers) for discharge from the hospital is a primary function of hospital-based clinical nurses. Clinical nurses are the frontline professionals responsible for preparing the patient and care delivery systems for discharge and postdischarge care needs and are the last line of defense in ensuring quality discharge preparation before the patient is formally discharged.

Hospital-based discharge preparation activities sit within the larger context of transitions in care from hospital to the next care setting. Table 1 presents 5 nationally recognized discharge transition models with a cross-walk of hospital discharge preparation components initiated by hospital staff during the hospitalization to prepare for discharge and the posthospitalization period. To facilitate
operationalization, a description of the 3 components of discharge preparation, including processes and roles, follows. Table 2 presents useful tools for operationalizing and evaluating the components of the model. The Table, Supplemental Digital Content 1, http://links.lww.com/JONA/A429, provides the citations for tools identified in Table 2.

**Discharge Planning**

Discharge planning is the development of an individualized discharge plan prior to leaving the hospital, with the aim of improving patient outcomes and reducing costs of care through timely discharge and coordination of providers and services following hospital discharge to reduce readmission risk and promote community-based health management. Two key processes summarize the important steps to achieve the desired patient and system outcomes.

- A structured process initiated early during the hospitalization phase is required as a condition of participation in the Centers for Medicare & Medicaid Services programs. Steps include identification of patients who will benefit from discharge planning services; assessment for postdischarge needs related to self-care, care provided by family members, and care from professionals; planning for information and resource needs; and coordination of service needs for the postdischarge period.

- Readmission risk assessment has been introduced as part of transitions in care initiatives, specifically to identify high-risk, high-cost patients who will benefit from coordinated follow-up in the postdischarge period. Using a risk assessment tool identifies patients at risk of adverse postdischarge events for the purpose of initiating anticipatory monitoring and/or interventions that are targeted to avoiding unplanned readmission or emergency department (ED) visits.

Discharge planning begins prior to or on admission and continues throughout the course of hospitalization. Assessment of risks related to functional or cognitive status as well as the home environment, support systems, and psychosocial and cultural factors is often completed during the admission process, whereas other risk
factors such as knowledge deficits may be assessed closer to discharge. The patient’s evolving medical condition necessitates continual reassessment and underpins decisions about timing and disposition, including decisions about whether to go home independently, with family support, and/or with home-based continuing care services, or to transfer to a post–acute care facility.\textsuperscript{19}

A key feature of the discharge planning process is engaging the patient and family and the multidisciplinary team. Discharge planning should be patient centered and driven by the patient’s specific needs and preferences. Patient and family engagement is critical to successful hospital discharge planning.\textsuperscript{20,21} Inputs from the entire care team aid the patient and family in developing individual and feasible posthospital plans of care prior to leaving the hospital.

Depending on the hospital’s model of discharge planning, various disciplines can be involved in components of the process. For example, a discharge planning evaluation can be provided by an RN, social worker, or other appropriately qualified personnel as specified in the institution’s policies and procedures.\textsuperscript{17} Utilization managers, in their role to achieve timely discharge and maximize reimbursement for care, also contribute input to the planning process. Successful implementation of the discharge plan requires communication, coordination, and collaboration among the involved disciplines and functional roles.

**Discharge Coordination**

Discharge coordination involves implementation of actions targeted to smoothing the transition from hospital and diminishing problems after discharge through arranging, linking, and/or sequencing transition support services across providers and care delivery systems.\textsuperscript{12,22,23} Coordination of care is not an intervention itself but a schema for management of interventions, with continuity of information and relationships among providers across settings viewed as outcomes.\textsuperscript{12,24} Key coordination actions include communication within the interdisciplinary care team during hospitalization to achieve timely discharge, making arrangements for resources for postdischarge care, and transfer of information to postdischarge care providers.
Discharge coordination functions are embedded within nationally recognized programs for transitioning care at hospital discharge that have demonstrated improvements in patient outcomes and costs of care (Table 1). While each of these programs identifies specific recommended coordination activities, core discharge coordination functions for hospitals have been accepted in the National Voluntary Consensus Standards for Care Coordination, including

- medication reconciliation;
- a transition record given to the patient (containing specific elements of inpatient care, postdischarge and patient self-management information, advanced care plan, and contact information); and
- timely transmission (within 24 hours) of the transition record to the primary provider or next care setting.

The tension between best discharge practices and timely discharge is evident in the roles hospitals assign to discharge coordination functions. Case managers (either nurses or social workers), discharge advocates, and transition care coordinators focus on identification and mobilization of family, hospital, and community resources and services to achieve optimal postdischarge outcomes, prevention of adverse outcomes, and reduced costs of care. Discharge coordinators, sometimes called expeditors or flow coordinators, are charged with ensuring task completion to facilitate timely discharge, defined as on or before the expected length of stay, or early in the day on the day of discharge. Systems and structures to facilitate timely discharge include mechanisms such as a red/yellow/green light system for anticipatory planning for next-day discharge, and the use of discharge lounges for those waiting for pending laboratory test results or transportation.

**Discharge Teaching**

Discharge teaching, an essential component of discharge preparation, is the composite of educational interventions that occurs mainly during hospitalization in order to prepare the patient and family/caregiver for the transition from hospital to home.
Teaching is integrated throughout the patient’s hospital stay and reaches a focal priority at the time of discharge. When left until the day of discharge, patients’ decreased attention span and nurse time pressures may decrease effectiveness.

Education of patient and families/caregivers is aimed at providing them with information to make informed decisions and the knowledge, confidence, and skills needed for post–acute care. Minimum core content includes:

- review of disease condition,
- test results,
- next steps in medical care including follow-up appointments,
- instructions for self-care at home,
- current medications,
- warning signs and problems to watch for, and
- contact information for primary care, pending tests, and emergencies.

Recommendations for improving discharge teaching emphasize a patient-centered approach in which the content and method of teaching are individualized to the patient’s characteristics and situation, rather than the typical approach of standardized information based on the patient’s diagnosis. While the amount of content is important in preparing patients for discharge, the quality of the delivery of the content or the way nurses perform the teaching is more strongly related to patient perception of readiness for discharge than the amount of content provided. Patient engagement in the learning process and attention to health literacy are key priorities for improving discharge teaching. Discharge teaching requires establishing an effective line of communication to understand the patient-specific barriers to self-care. Teach-back is a teaching method that incorporates patient engagement and verification of learning. Assessment of the health literacy facilitates identification of patients at risk of poor understanding of discharge instructions and customization of teaching at the patient’s level of literacy.

Education of patients and caregivers is a primary responsibility of staff RNs, although other healthcare providers, including physicians and pharmacists, also claim this role. Lack of clear delineation of the role responsibilities for discharge teaching can...
result in duplication, omission, inconsistent, or confusing information provided to patients and families and poor adherence to discharge instructions.

The Role of Hospital-Based Nursing

Clinical nurses are responsible for performing discharge preparation activities alone or in collaboration with other team members with assigned discharge functions and for ensuring the completeness of preparation before discharge. The close and continuous relationships between patients and their nurses provide the mechanism for surveillance\(^{37}\) of changing needs for the postdischarge period as the patient’s clinical condition changes and for knowing the patient and the patient’s context,\(^ {38}\) both of which are critical to achieving a safe and timely discharge. Preparation for discharge occurs throughout the hospitalization through ongoing monitoring of patient progress against expectations for recovery, identification of postdischarge needs, patient teaching, and communication with other providers, and documentation of the preparatory processes.\(^ {14}\) The role of the clinical nurse is central to an effective and efficient discharge process. As the frontline “coordinator,” the nurse’s role is to set the discharge plan in motion, oversee discharge activities, engage resources, serve as an information hub, and provide education.\(^ {15}\) Primary nursing care models assign a single clinical nurse as the overseer of care throughout the hospitalization; however, this type of assignment is rarely implemented in contemporary practice because of difficult scheduling logistics. While different nurses care for patients each shift, the discharge preparation role of the collective of nurses caring for a single patient should begin on admission and continue daily throughout the hospitalization.

The role of the clinical nurse is central and continuous during the hospitalization; however, other members of the professional team have roles and responsibilities in the discharge process. Specialized nursing roles such as discharge planners, care coordinators, case managers, and diabetic educators, as well as physicians, pharmacists, and social workers, are frequently involved, particularly with complex cases. The complexity of the RN role as the hub in the discharge process can result in confusion over responsibilities and workflow...
interruptions that disrupt patient care and lead to delays in discharge and nurse dissatisfaction. Recognizing the need for an interprofessional and multirole solution to operationalizing discharge preparation, the proposed conceptual model for hospital discharge preparation describes the components (Figure 1), strategies and role assignments (Table 1), and measures to facilitate the operationalization of the discharge preparation process (Table 2), and the central role of the clinical nurse in managing the discharge preparation process.

Outcomes of Discharge Preparation

The immediate, proximal outcome of discharge preparation is discharge readiness. Readiness for hospital discharge can be assessed from the perspectives of the patients, families, and providers and encompasses dimensions of physical and emotional status on the day of discharge, knowledge about personal and medical self-care, ability to cope at home after discharge, and expected support in the postdischarge period. High-quality, effective discharge education has been associated with readiness for hospital.

Intermediate outcomes are successful patient/family management of care needs at home after discharge with or without formal care services or transfer to an appropriate post–acute care facility for continuing care. Postdischarge coping difficulties or development of postdischarge problems is a poor intermediate outcome that can lead to the distal outcome, unplanned return to the hospital for an ED visit, or readmission. The trajectory of influence from discharge readiness to postdischarge coping and subsequently to unplanned return to the hospital for an ED visit or readmission has been documented, as has the impact of transitional care programs on reduction in readmissions. Similarly, for patients discharged from skilled nursing facilities, an individualized discharge transition plan results in better adherence to the medical plan of care, better attendance at medical appointments, and fewer readmissions within 30 days.
Implications for Nurse Leaders

1. The proposed conceptual model for hospital discharge preparation (Figure 1) can serve as a guiding structure for ensuring that the 3 major components of discharge (discharge planning, discharge coordination, and discharge teaching) are fully operationalized, with role functions and relationships clearly delineated.

2. With many existing and emerging programs describing care innovations to improve patient outcomes and reduce readmissions, role assignments for each component will evolve uniquely in each hospital to address the desired outcomes identified in the model.

3. The clinical nurse providing direct care is central to the process of discharge preparation over the course of hospitalization, and as such, the time and effort invested in discharge preparation activities have value to the organization and should be recognized and rewarded.

Conclusion

The conceptual model for hospital discharge preparation (Figure 1) coalesces the many existing components used in discharge and care transition processes into a comprehensive framework for hospital discharge activities. Compilation of components of transitional care models that are initiated in the hospitalization phase of care provides a menu of options of selecting a package of discharge processes for each component of the model. Use of structured tools to support and evaluate the discharge preparation process will create a more standardized approach to measurement of processes and outcomes. This model should not replace discharge transition models and programs that are already well tested but should serve as a framework for operationalizing the discharge preparation process on nursing units and hospital-wide.

References


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Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal’s Web site (www.jonajournal.com).

**Images**

![Figure 1. A conceptual model for hospital discharge preparation](image-url)
### Components of Discharge Preparation

#### Targeted Populations
- All discharges

#### Discharge Planning
- Assess need for and arrange language assistance
- Plan forption medications
- Reconcile discharge plan per national guidelines

- Comprehensive in-hospital assessment
- Preparation of evidence-based plan of care
- Comprehensive holistic focus

- Involved in decisions about care
- Knows patient’s steps

- General Assessment of preparedness
- Risk specific intervention linked to the RN

- Assess barriers to 7-2 follow-up
- Assess barriers to medication management
- Simplify dosage regimen
- Assess medication access

#### Discharge Coordination
- Make appointments for follow-up
- Follow-up on test results
- Ongoing outpatient services and details medical equipment
- Transfer discharge plan to clinicians

- Ensuring community non-hospital to home basic risk and phone support to 2 nec transitional care nurse- accompanies patient for the follow-up visit
- Coordination w/primary care provider
- Active engagement of patient and family
- Multidisciplinary approach emphasizing communication among patients, family, caregivers, and providers

- Family knows postdischarge needs
- Plans: social information if problem arise
- Patient empowered to make follow-up appointments and transportation
- Has personal health record to facilitate communication
- Follow-up calls to review medications, check on outcome of appointments, provide counseling and reinforce discharge

- Medication reconciliation
- Discharge information communicated to primary care provider, except confused
- Discharge follow-up arranged
- Follow-up call within 72 h
- Direct (phone) communication with primary care provider encouraged

- Prior to hospital discharge, follow-up appointment should be within 7 days with primary provider or within cardiology rehabilitation
- Patient brings medication list to appointment
- Medication reconciliation

#### Discharge Teaching
- Review medications
- Education and support for patient and family/caregivers

- Know medications, adverse effects, symptoms and what to call

- Teach basic: medication use, self-care, discharge, regimen, self-care, action plan for symptoms and complication, discharge plan

- Patient/caregiver provided with documented instructions and prescriptions, understands each medication and need for adherence to med regimen

- Provide discharge teaching with discharge instructions
- Written discharge instructions

- Educate about symptoms and self-care management
- Patient may be able to recognize warning signs and have plan to address
Name of Tool/Measure | Purpose | Content and Scoring
--- | --- | ---
**Discharge planning: postdischarge tool** | Discriminate between adults who will use specialized discharge planning services by a discharge planner | Sum of weighted points for age; disability level using Enkink Disability Score (slight, moderate, or severe); use of therapy (yes/no); self-rated walking limitation

**Blaylock Risk Assessment Screening Score** | Identification of admission of patients at risk of prolonged hospitalization | Weighted score for age; living situation; functional status; cognitive behavior; physical disability; severity of illness; medical problems; patient's need for assistance with activities of daily living

**Discharge Decision Support System (DOSS)** | Identify patients who would be utilized for palliative care and who would be referred for advance care planning | Algorithm: Estimated score based on weight; self-rated health; age (length of stay); number of comorbid conditions; depression

**Adult SIRS** | Assessment of risk of adverse events after discharge | Individual risk identified; problem identification; psychosocial, principal diagnosis, polypharmacy, prior health history; patient support, prior hospitalization, palliative care (cognitive impairment, use of the following: age, chronic disease, recent major surgery, history of falls, nausea, vomiting, incontinence, pain, delirium, dementia, weight loss, anemia, alcohol, or opioid use, chronic medical conditions, non-cancer diagnosis, history of falls, recent surgery, cognitive impairment, depression, history of falls)

**Transitional Care Model, screening version** | Identify patients in need of transitional care for the elderly | Prior medical admissions; hospitalizations within the past 5 y; hospitalization within the past 3 d; readmission rate; patient satisfaction with post-discharge care; documentation of discharge; medication reconciliation; role of therapists in discharge planning

**Discharge planning: readmission risk tool** | Risk of death or readmission within 30 d postdischarge | Sum of weighted points for:
- Patient's discharge status (discharged to home, rehabilitation, skilled nursing facility)
- Age
- Gender
- Chronic illness index
- Readmission risk index

**Hospital Readmission Prediction Model** | Readmission within 30 d postdischarge | Sum of weighted points: insurance status (Medicare, Medicaid, self-pay, current; non-Medicare insurance, current; non-Medicare insurance, prior); physician specialty; diagnosis code; discharge disposition

**Risk Prediction Models for Hospital Readmissions: Systematic Review** | Summarize evidence included in systematic reviews of readmission risk models | Various models: logistic regression; decision trees; random forests; neural networks; Bayesian models; survival analysis

**Discharge coordination** | Care Coordination Measures Atlas | List of existing care coordination measures | Measures focusing on coordination between healthcare entities, and over time; structure, processes, and outcomes; patient/family, professional, and system perspectives; patient number of measures related to communication from patient-centric perspectives. Many focused on primary care/care coordination; continuity of care; patient's experience; transitions of care; primary care/family medicine; care coordination; care transitions; primary care; general practitioners

**National Voluntary Organizations: Standards for Care Coordination** | Performance measurement | A: Reconciled medications for received by discharged patient
B: Transition record includes all of the following:
-DRG code: diagnosis, discharge type, admission type, admission diagnosis
-Discharge date
-Admission date
-Discharge diagnosis
-Primary admission diagnosis
-Secondary diagnosis
-Admission diagnosis

**Discharge** | IDEAL. Discharge Planning checklist | Provides checklist to increase patient and family engagement | 1. Include patient and family
2. Document the need to provide discharge planning
3. Review all services with the patient and family

**CTM** | Quality of care transition out of the hospital from the patient's perspective | 1. Timing of discharge
2. Length of stay
3. Readmission rate

**Discharge teaching** | Discharge education checklist | Provides education to increase patient and family engagement | 1. Include patient and family
2. Document the need to provide discharge education
3. Review all services with the patient and family
4. Ensure all discharge orders are entered

**Rapid Evaluation of Adult Literacy in Medicine—Short Form** | Patient perception of the quality of discharge teaching provided by nurses over the course of hospitalization | A 2-week retention test

**Quality of Discharge Teaching Scale** | Patient perception of the quality of discharge teaching provided by nurses over the course of hospitalization | Discharge content delivery (6 items); discharge content accuracy (6 items); delivery of teaching (18 items); Computed on day of discharge

**Discharge preparation** | PREPARED Instruments | Assess the quality of discharge planning from different stakeholders’ perspectives (medical practitioners, reimbursement administrators, community service providers, patients, and caregivers) | For patients and caregivers, 4 domains assessed: information exchange (5 items); receipt of medication information (3 questions); preparation for coping postdischarge (2 questions); adherence to discharge instructions (2 questions)

**Brief-PREPARED (B-Prepared)** | Preparatory for hospital discharge from the patient’s perspective | Self-report information about medications and advice (4 items); equipment and supplies (4 items); follow-up visits (3 items); adherence to home medications (2 items); adherence to home medications (2 items); home medication adherence (2 items); adherence to follow-up visits (2 items)

**Discharge outcomes** | Readiness for Hospital Discharge Scale (RHD) | Patient self-report of discharge readiness: nurse assessment of discharge readiness | Patient and nurse versions of the RHD to long; 15 items and short form (1 item); for adults; medical-surgical patients, parents of hospitalized children, and postpartum mothers

**Problems After Discharge** | Problems and mental status experienced in the postdischarge period | Patient and nurse versions of the RHD to long; 15 items and short form (1 item)

**Questionnaire: English** | Problems and mental status experienced in the postdischarge period | 47 items in 8 subscales: information needs (13 items); personal care (5 items); household activities (7 items); mobility (7 items); social interaction (5 items); following instructions (1 item); physical complaints (9 items); psychological complaints (6 items); Completed 1 wk after discharge

**Post-Discharge Coping Difficulty Scale** | Patient self-report of level of difficulty coping at home after hospital discharge | Completed 2 to 6 wk postdischarge

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*Source references for tools included in Table 2 are provided in Supplemental Digital Content 1, http://links.lww.com/JONA/A259.*