

Care at Discharge—A Critical Juncture for Transition to Posthospital Care

ABSTRACT

Discharge is a critical juncture for transitioning to posthospital care, and incomplete discharge processes may cause harm to patients. From June 2004 to December 2007, more than 800 reports were submitted from hospitals through PA-PSRS identifying a variety of problems occurring at discharge. Approximately 30% of patients did not receive verbal or written discharge instructions before they left the facility. Lack of medication reconciliation was also evident. Essential components of the discharge process include educating the patient and his or her family, assessing the patient's understanding of the plan, scheduling follow-up appointments, organizing post-discharge services, confirming the medication plan, and reviewing with the patient what to do if a problem occurs. Understanding the pertinent requirements of healthcare regulatory agencies is an important part of discharge planning. Implementation of discharge planning upon patient admission, assignment of discharge coordinators, and use of checklists to facilitate standardization within the facility are risk reduction strategies to consider. (Pa Patient Saf Advis 2008 Jun;5[2]:39-43.)

Inadequate care and incomplete information at discharge can result in patient harm. From June 2004 to December 2007, more than 800 reports were submitted through PA-PSRS identifying a variety of problems occurring at discharge. The emergency department (ED) was identified as the care area in more than 300 reports. Approximately 500 reports were submitted from inpatient care areas. Less than 1% of reports were submitted by ambulatory surgical facilities. Approximately 30% of all reports indicated patients left the facility without receiving verbal and/or written discharge instructions. The causes identified indicate patients knowingly left without written instructions (most often from the ED), did not receive complete instructions, or received another patient's instructions due to an error in the discharge process. Lack of medication reconciliation was also evident in the reports, including issues such as a patient receiving incomplete medication instructions, incomplete prescriptions, or another patient's prescriptions or instructions. Many patients did not have their intravenous (IV) access removed prior to leaving the ED or other inpatient care area. The PA-PSRS reports indicated some patients returned to the hospital with an IV site infection and/or phlebitis. Additionally, reports indicated patients were discharged prior to test results being made available to the attending physician who might have postponed the discharge based on the final

results. The narratives below illustrate some of the issues reported through PA-PSRS.

Patient discharged to nursing home. Discharge orders for 50 mg fentanyl but were written as 500 mg. The nursing home did not catch error until patient became very drowsy. Narcan was administered.

Patient brought to [emergency room (ER)] by parent with [chief complaint] of [shortness of breath] for the last 24 hours. Patient diagnosed with exacerbation of asthma. Discharge instructions written along with [prescriptions]. Patient's nurse tied up with another patient. All staff were busy, and the ER was full. Patient and parent were witnessed leaving ER. Phone call was made to home, and [patient and parent were] encouraged to return for instructions and prescriptions. Patient never picked up documents.

Patient was discharged with the wrong discharge medication list. The discharge medication list was for another patient.

Patient was admitted with diagnosis of thrombus right arm. An x-ray of right elbow was ordered. Patient was discharged to an extended care facility via ambulance before right elbow x-ray done. Orthopedic doctor was notified of x-ray not being done.

Patient was discharged to another facility with the right femoral triple lumen catheter still in place. Staff from the other facility called asking how long and how much pressure to hold on the femoral site when removing the catheter.

Family member called this nursing unit stating the discharge instructions were unclear. The nurse discovered the medication discharge instructions were not completed. The patient had received a coronary artery stent and the booklet was still with the chart. The daughter was also unclear of the pacemaker instructions. [She was] also unclear on length of time the antibiotic was to be continued.

Inadequate Discharge Planning May Lead to Patient Harm

The discharge process is intended to provide patients with adequate information and necessary resources to improve or maintain their health during the post-hospital period and to prevent adverse events and unnecessary rehospitalization.¹ Inconsistent practices in the discharge process may result in unsafe outcomes.^{2,3} High rates of unnecessary rehospitalization have been shown to be related to poorly managed discharge processes.³ In a study conducted at an 800-bed urban teaching hospital, Forster et al. found that approximately 20% of 300 patients interviewed at 3 weeks postdischarge had experienced an adverse event. One-third (33%) of these adverse events were preventable, and most resulted from inadequate

communication between the healthcare provider and the patient at the time of discharge.⁴ These adverse events and rehospitalizations are preventable if comprehensive discharge processes are implemented.⁵ The following narratives from PA-PSRS demonstrate how incomplete discharge instructions can lead to rehospitalization.

Patient had a brief pause on the cardiac monitor. The monitor strip was placed on the medical record but the physician was not notified. The patient was discharged the following morning. The patient's spouse called to report the patient passed out after leaving the hospital. As instructed, they returned to the ED, and the patient was admitted. The patient had a dual chamber pacemaker inserted the next day.

Patient resumed Coumadin postoperatively (time frame unknown) and developed bleeding, requiring admission to the hospital and return to the operating room for cauterizing of bleeding site. Doctor signed standard discharge instruction sheet of surgery center, stating the patient was to resume medication unless otherwise instructed, and did write for patient to not resume Coumadin.

Patient had a new medication started during this hospitalization for acute [myocardial infarction (MI)] with angioplasty and stent. Discharge medication list included Plavix and physician's prescription was available. The prescription was not given to patient at time of discharge. Patient was readmitted one day postdischarge for MI and repeat angioplasty.

Discharge instructions for steroid tapering not clearly written. Patient stopped taking medication abruptly and required readmission.

Essential Components of the Discharge Process

The Joint Commission and federal law require hospitals to provide patients with discharge plans.⁶ (For more information on these requirements, see "Regulatory Requirements.") Discharge planning begins as soon as a patient is admitted to a hospital.^{1,6,7} This dynamic process changes throughout the hospitalization until time of discharge.^{1,6,7} There are few studies describing the fundamental components of the discharge process.³ However, Greenwald et al. identified 11 essential components to the re-engineered discharge process at Boston Medical Center, as follows:⁵

1. Educating patients and families about their diagnosis throughout the hospital stay
2. Assessing the patients' understanding of the plan by asking them to explain the plan in their own words
3. Advising the patient and family of any tests completed in the hospital with results pending at time of discharge and identifying the clinician responsible for the results
4. Scheduling follow-up appointments and tests to be done following discharge

5. Organizing services to be initiated following discharge
6. Confirming the medication plan
7. Reconciling the discharge plan with national guidelines and critical pathways when relevant
8. Reviewing with the patient what to do if a problem occurs
9. Expediting the transmission of the discharge summary to the healthcare providers who are accepting responsibility for the patient's care
10. Giving the patient written discharge instructions
11. Providing telephone follow-up two to three days after discharge

Barriers to Successful Discharge Planning

Hospital systems and individual patient characteristics create several challenges for clinicians to provide comprehensive discharge plans that will ensure patients maintain or improve their health postdischarge. The challenges are developing and implementing an appropriate discharge plan, providing the physician

Regulatory Requirements

The Joint Commission requires that the discharge planning process be initiated early in the patient's care and treatment and that the patient and family be informed from the outset regarding the need for transfer to another healthcare setting.¹ In addition, the Joint Commission requires hospitals to develop a discharge summary for patients that includes the reason for hospitalization, significant findings, procedures performed, treatment rendered, the patient's condition at discharge, and specific instructions given to the patient and family. The summary is written and signed by the attending physician and is part of the medical record. The Joint Commission also requires that the discharge summary be completed within 30 days of discharge.¹ The Centers for Medicare & Medicaid Services (CMS) requires hospitals to implement a discharge planning process for all patients as part of its Conditions of Participation in the Medicare program.² As of July 1, 2007, CMS requires hospitals to notify Medicare beneficiaries who are hospital inpatients about their hospital discharge rights within two days of admission and to obtain the signature of the beneficiary or his or her representative.³

Notes

1. Joint Commission. Comprehensive accreditation manual for hospitals: the official handbook. Oakbrook Terrace (IL): Joint Commission; 2004 [updated 2007 Sep].
2. 42 CFR § 482.43 (2004).
3. Centers for Medicare & Medicaid Services. Medicare program; notification of hospital discharge appeal rights; final rule. *Fed Regist* 2006 Nov 27;71(227)68708-25.

summary in a timely manner to the next provider of healthcare, and providing comprehensive written instructions to the patient. Greenwald et al. classified factors that contribute to medical errors at the time of hospital discharge into three types: (1) hospital care system characteristics, (2) patient characteristics, and (3) clinician characteristics.⁵

Hospital Care Systems

Patient discharge summaries provide information about a patient's hospital course and plan for after hospital care. Unfortunately, many hospital systems are unable to provide these summaries to the community healthcare providers in a timely manner.⁵ A barrier that is common to hospital systems is the failure to prevent avoidable adverse drug events (ADEs). Forster et al. found approximately one-third of ADEs were preventable.⁴ The flow of medications during and after hospitalization is complex,⁵ but medication reconciliation throughout the hospital stay and especially at discharge may reduce preventable ADEs. The Joint Commission's National Patient Safety Goal for medication reconciliation requires a process for obtaining and documenting a complete list of the patient's current medications upon admission and with the involvement of the patient. A complete list of the patient's medications is communicated to the next provider when a patient is referred or transferred to another setting, service, practitioner, or level of care within or outside the organization. The complete list of medications is also provided to the patient on discharge.⁸ Many facilities have implemented a medication reconciliation process, but reports submitted through PA-PSRS indicate that patients often do not receive a written list of medications or that the list is incomplete or incorrect, leading to medication errors.

Patient Characteristics

Several characteristics reported in the literature identify patients at risk for rehospitalization, including lack of social, financial, and familial support.^{2,3}

Furthermore, low patient literacy levels can be a barrier to successful discharge.⁵ Patients with low literacy rates may struggle to read and comprehend the written instructions given at discharge, prescriptions, follow-up appointment information, and health education pamphlets.⁹ Baker et al. studied 3,260 patients enrolled in a Medicare-managed care plan and found patients with low literacy levels were at risk for readmission, whereas patients with moderate and adequate literacy were not. Patients are at greater risk for adverse events postdischarge when there is lack of follow-up and adherence to treatments.⁵

Clinician Characteristics

Clinician characteristics are modifiable issues focusing on quality and effectiveness of communication and the timeliness and completeness of discharge summaries provided to subsequent caregivers.⁵ Lack of or limited clinician time and effort put into educating patients at discharge may lead to lack of patient understanding of and compliance with treatment

plans.² In a randomized controlled trial by Coleman et al., a "transition coach" was assigned to assist and empower patients as active participants in their medical care. The transition coach, a nurse, provided education on medications, helped maintain personal health records, ensured timely follow-up appointments, and explained signs and symptoms of possible complications and appropriate follow-up actions. These actions resulted in a reduction in rehospitalization rates at 30 and 90 days.¹⁰ The readmission rate at 30 days was 8.3 for the intervention group compared to 11.9 for the control group, and at 90 days it was 16.7 compared to 22.5.¹⁰ There is no accepted standard format or content for discharge summaries, which frequently lack critical patient information and are not readily available to the patient's next provider.⁵ Modifications to improve this process are suggested below.

Risk Reduction Strategies

Planning and providing for successful patient discharge from the hospital to the home or to another healthcare facility (e.g., acute rehabilitative, long-term care) is a complex process that begins at admission and is complete when the patient receives all the information and services needed to recover or maintain health during the period following hospitalization. Risk reduction strategies encompass the essential components identified by Greenwald et al., addressed in the following categories: assigning, screening, evaluating, assessing, and implementing.^{2,8}

Assigning a healthcare worker to be responsible for discharge planning and defining the scope of their responsibilities can positively impact the discharge process. A social worker or nurse case manager who provides discharge planning services could undertake actions that include the following:

- Identify a process to educate patients and families about their disease.^{5,7}
- Provide patients with disease-specific, low-literacy, and language- and age-appropriate educational materials.⁷
- Ensure development of clinical pathways includes discharge steps that are consistent with evidence-based strategies to guide treatment. Pathways may include disease process, diagnostic tests and therapies, medications, and actions to take if problems or variances occur.⁷
- Reconcile medications throughout the hospital stay and specifically at discharge to guarantee patients receive a complete and appropriate medication list.⁸
- Provide complete and accurate written discharge instructions to the patient. Instructions may include the following: medication administration instructions and drug action and side effects, follow-up appointments, activity level, diet, signs and symptoms that may develop, and when to call physician or seek emergency medical care.⁷

Screening all patients on admission can help to identify discharge planning needs. Facilities may identify high-risk patients who require additional attention to discharge planning, such as patients with cancer, stroke, chronic disease with acute exacerbation, and dementia. Furthermore, certain circumstances (e.g., elder and child abuse, patients living alone) may require special attention when preparing for discharge.⁸ Strategies include the following:

- Assign a social worker or nurse case manager to function as a discharge planner to patients as needed to implement the discharge plans.⁷
- Develop multidisciplinary teams to evaluate and implement discharge needs.⁷

Evaluating patients on admission and throughout the hospital stay for discharge planning, especially during changes in level of care, can identify needs that will exist at discharge and at the next level of care. One such strategy is as follows:

- Assign evaluation to specific team members; for example, physical therapists may assess a patient's ability to perform the activities of daily living, identify environmental barriers existing in the post-discharge care area, and determine services that may be needed.⁷

Assessing available resources can help to ensure that appropriate services are provided postdischarge. Knowledge of resources available in the community and the patient's covered benefits is essential. This component of the discharge process requires the expertise of a social worker or nurse case manager assigned to discharge planning. Staff developing and implementing discharge plans may perform the following actions for patients:

- Verify that the patient is aware of follow-up appointments with specific physicians. For example, if a follow-up appointment with a specialist is needed for a specific time frame, the discharge planner can collaborate with the patient and family to schedule follow-up appointments and any further diagnostic tests that were ordered.⁷
- After the patient is offered a choice of appropriate and available postacute care providers, make referrals for services that are identified patient needs and are ordered by the patient's physician.⁷
- Confirm services to be received before the patient leaves the hospital.⁷

Accompanying Resource

Visit the Pennsylvania Patient Safety Authority Web site (<http://www.psa.state.pa.us>) for a sample checklist to help staff assess that all discharge components are completed upon patient discharge.

To view the checklist, click on "Advisories and Related Resources" in the left-hand column of the Authority's home page. Next, click on "Resources Associated with Patient Safety Advisory Articles."

Implementing the plan on the day of discharge completes the process that began on admission. Referrals for follow-up care may be arranged before the day of discharge and validated for appropriateness on the day of discharge. Completion of the process may need to be accomplished during a short hospital stay or an extended length of stay. The staff assigned this responsibility will need to adjust to patients' needs and complete all discharge planning steps. Strategies include the following:

- Develop a standardized checklist to assess that all discharge components are completed.
- Finalize the plan with the patient. Have the patient verbalize his or her understanding of the plan.⁷
- Provide the patient with legible, written discharge instructions that are reviewed and signed by the patient, indicating that he or she understands the plan of care.⁷
- Perform a final physical assessment with attention to removal of IV lines and other access ports.
- Standardize the discharge instruction document to include the following elements: primary and secondary diagnosis, patient education, services to be provided, dietary and other lifestyle modifications, medications, follow-up appointments, pending tests, adverse events or complications to watch for, and provider contact information for any problems that occur.¹¹ Facilities can implement processes to facilitate timely transfer of the discharge summary to the receiving healthcare provider and follow up by telephone two to three days after discharge to assess optimal care and recovery after hospitalization.¹¹

Discharge is a critical transition period for patients leaving the hospital to continue their recovery at home or in another healthcare facility. Continuity of care is the main goal for patients discharged from an acute care setting. Adverse events and high rehospitalization rates have been linked to poor discharge processes. According to the medical literature, a standardized comprehensive approach to discharge planning may reduce harm to patients and improve quality of care after hospitalization.

Notes

1. ECRI Institute. Discharge planning. *Healthc Risk Control* 2007 May;2:Patient support services 3:1-12.
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3. Strunin L, Stone M, Jack B. Understanding rehospitalization risk: can hospital discharge be modified to reduce recurrent hospitalization? *J Hosp Med* 2007 Sep;2(5):297-304.
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Self-Assessment Questions

1. All of the following may be barriers to successful discharge planning EXCEPT?
 - a. Incomplete medication reconciliation process
 - b. Inattention to social, financial, and familial support
 - c. Patients' recital of their understanding of the discharge instructions
 - d. Incomplete, ineffective communication between provider and patient
2. Comprehensive discharge planning may prevent adverse events and unnecessary rehospitalization.
 - a. True
 - b. False
3. What is the most common and preventable patient outcome associated with inadequate discharge planning?
 - a. Patient develops an infection
 - b. Patient does not understand the discharge plan
 - c. Patient does not follow up with appropriate physician after discharge
 - d. Patient experiences an adverse drug event and is readmitted to the hospital
4. Which healthcare team member should be assigned to develop and implement the discharge process?
 - a. Primary care physician
 - b. Staff nurse
 - c. Nurse case manager
 - d. Physical therapist
5. All of the following are components of a comprehensive discharge process EXCEPT?
 - a. Providing written discharge instructions to the patient
 - b. Educating patients about their diagnosis
 - c. Filling medication prescriptions to be taken at home
 - d. Providing telephone follow-up two days after discharge
6. All of the following risk reduction strategies may reduce the occurrence of adverse drug events EXCEPT?
 - a. Verifying follow-up appointments that are necessary after discharge
 - b. Developing a standardized checklist to assess completeness of the discharge process
 - c. Having the patient verbalize understanding of the discharge plan
 - d. Providing transportation for patients who are going home after discharge

PENNSYLVANIA PATIENT SAFETY ADVISORY

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The Patient Safety Authority is an independent state agency created by Act 13 of 2002, the Medical Care Availability and Reduction of Error ("Mcare") Act. Consistent with Act 13, ECRI Institute, as contractor for the PA-PSRS program, is issuing this publication to advise medical facilities of immediate changes that can be instituted to reduce Serious Events and Incidents. For more information about the PA-PSRS program or the Patient Safety Authority, see the Authority's Web site at www.psa.state.pa.us.



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