Chapter 37. Interventions To Improve Care Transitions at Hospital Discharge (NEW)


How Important Is the Problem?

The term “transitions of care” refers to any instance in which a patient moves from one health care setting to another. More often than not, the care of a patient with chronic illness involves multiple settings (e.g., inpatient, outpatient, or long term care) and several different health professionals. These transitions are inevitable, but because they can increase the risk of adverse events and poor clinical outcomes, they warrant particular attention.

Hospital discharge represents a particularly risky care transition, especially for older adults. Multiple studies document that adverse events occur in approximately one in five adult medical patients within 3 weeks of discharge. Nearly 20 percent of older Medicare patients discharged from a hospital will be readmitted within 30 days. A broad spectrum of adverse events can occur after discharge, including both diagnostic and therapeutic errors, but adverse drug events (ADEs) are particularly common and harmful. Recent studies indicate that nearly 100,000 elderly patients are hospitalized every year due to ADEs. Additionally, 1 in 67 emergency hospitalizations are the result of an ADE. Particularly in the face of an aging population, ensuring safe care transitions for patients with complex, chronic illnesses will remain an important patient safety issue.

What Is the Patient Safety Practice?

The Patient Protection and Affordable Care Act (PPACA) contains provisions specifically focused on decreasing preventable readmissions and improving care transitions. Under this legislation, hospitals will be financially penalized for high readmission rates. The Centers for Medicare & Medicaid Services already publicly reports hospitals’ risk-adjusted 30-day readmission rates for specific diagnoses on its Web site, Hospital Compare. Therefore, hospitals and health care organizations have considerable incentives to improve transitional care at hospital discharge.

A wide range of interventions have been proposed and studied in order to ensure smooth transitions of care at hospital discharge. Therefore, this patient safety practice (PSP) comprises multiple interventions. Broadly speaking, we defined a “transitional care strategy” as an intervention or a series of interventions that occurs among health care practitioners and across settings in order to ensure the safe and effective transfer of patients from one level of care to another or from one type of setting to another. This definition is based on two widely used definitions of the broader concept of transitional care, which both refer to the movement patients make between health care practitioners and settings as their condition and care needs change during the course of a chronic or acute illness.

Within this broader definition, we sought to more specifically define PSPs targeting the particular problems of adverse events, readmissions, and emergency department visits after hospital discharge. Adverse events (AEs) have been previously defined as an adverse outcome or injury resulting from medical management, and can range in severity from laboratory
abnormalities to symptoms to permanent disability and death.\textsuperscript{3,4} AEs can be further categorized as preventable, ameliorable and not preventable. Prior studies have found that the most common preventable AEs after hospital discharge include procedural complications, hospital-acquired infections, and adverse drug events (ADE).\textsuperscript{3,4} An ADE is defined as harm associated with the appropriate or inappropriate use of a drug.\textsuperscript{9}

For this report, the PSP refers to any intervention to improve transitions from acute care hospitals to the outpatient setting, with the goals of (1) bridging gaps in continuity of care and coordination of care across the health care continuum and (2) preventing adverse events, emergency department (ED) visits, and rehospitalizations after hospital discharge. This definition explicitly excludes formal care programs that do not primarily target discharge from the acute hospital setting. Examples of such excluded interventions include disease management programs, emergency services-based programs, Hospital at Home programs, day hospital care programs (including psychiatric day hospitals), palliative care and hospice programs, and interventions targeting discharge from the hospital to other acute or subacute settings.

In order to analyze a disparate body of literature, we developed a taxonomy of transitional care interventions based on analysis of existing systematic reviews in the field\textsuperscript{8,10-14} and expert consensus. We grouped individual interventions into three broad categories: pre-discharge, post-discharge, and “bridging” interventions (Box 1).

<table>
<thead>
<tr>
<th>Box 1. Taxonomy of interventions to improve transitional care at hospital discharge</th>
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<tbody>
<tr>
<td><strong>Pre-discharge interventions</strong></td>
</tr>
<tr>
<td>• Assessment of risk for adverse events or readmissions</td>
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<tr>
<td>• Patient engagement (for example, patient or caregiver education)</td>
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<tr>
<td>• Creation of an individualized patient record (customized document in lay language containing clinical and educational information for patients’ use after discharge)</td>
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<tr>
<td>• Facilitation of communication with outpatient providers</td>
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<tr>
<td>• Multidisciplinary discharge planning team</td>
</tr>
<tr>
<td>• Dedicated discharge advocate or coach</td>
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<tr>
<td>• Medication reconciliation</td>
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<tr>
<td><strong>Post-discharge interventions</strong></td>
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<tr>
<td>• Outreach to patients (including follow-up phone calls, patient-activated hotlines, and home visits)</td>
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<tr>
<td>• Facilitation of clinical follow-up (including facilitated ambulatory provider follow-up)</td>
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<tr>
<td>• Medication reconciliation after discharge</td>
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<tr>
<td><strong>Bridging interventions</strong></td>
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<tr>
<td>• Inclusion of at least one pre-discharge component and at least one post-discharge component</td>
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“Bridging” interventions included both pre- and post-discharge components, and often emphasized longitudinal relationships in the pre- and the post-discharge periods, as well as the role of the patient or caregiver in maintaining safe transitions.\textsuperscript{15}

The purpose of this systematic review is to analyze published literature to determine the effectiveness of the kinds of interventions described in Table 1 to reduce adverse events, ED or unscheduled acute care visits, and readmissions after hospital discharge of adult patients, and to assess the feasibility of implementing successful interventions on a larger scale. We included randomized controlled trials (RCTs) and non-randomized clinical controlled trials (CCTs) that evaluated one or more of the above interventions in adult general medical patient populations, utilized at least one intervention prior to discharge, and reported rates of ED visits, readmissions,
or adverse events (AEs) after discharge. We included studies that reported costs if they also reported one of the other targeted outcomes.

**Why Should This Patient Safety Practice Work?**

AEs after discharge and readmissions have been attributed to many factors, including poor communication and transfer of information between inpatient and outpatient providers; medication changes during hospitalization; inadequate patient comprehension of diagnoses, medications, and follow-up needs; and failure to complete planned outpatient diagnostic or treatment plans. Interventions to improve care transitions after hospital discharge generally target one or more of these documented deficiencies in care. In addition to these specific factors, more general patient-related factors and health care system-related factors may influence an individual patient’s risk for AEs or readmissions after discharge. Figure 1 in Appendix C depicts the theoretical construct underpinning the role of interventions in reducing AEs and readmissions after discharge. In brief, patients’ risk factors for an AE depend on patient and health care system factors. Specific interventions target known deficiencies in care transitions, aiming to improve continuity of care and decrease AEs after discharge. A reduction in AEs after discharge should, in theory, result in fewer readmissions and ED visits.

This framework has two main limitations: (1) many readmissions may not be preventable, and (2) transitional care interventions for general medical patients are comparatively less well-defined than are those for disease-specific populations, where the link between interventions and improved outcomes is clearer.

No clear consensus exists on the proportion of readmissions of adult patients that are preventable. A recent study has suggested that as few as one in five 30-day readmissions may be truly preventable, and that the proportion of preventable readmissions may vary widely among individual hospitals. Another recent study found that no method reliably predicts an individual patient’s readmission risk. Given these limitations, hospitals face difficulties determining which patients should be targeted for transitional care interventions. Indeed, Hansen and colleagues recently published a systematic review of interventions to reduce 30-day rehospitalization, and found that no single intervention was consistently associated with reduced risk.

Prior research in this field has identified some interventions that have reduced readmission risk, but these successes have largely been achieved in disease-specific populations, such as patients with congestive heart failure. Multiple systematic reviews have found that multidisciplinary transitional care programs are associated with reduced readmission risk and improved mortality in elderly CHF patients. Naylor and colleagues summarized 21 randomized clinical trials of transitional care interventions targeting chronically ill adults, including both disease-specific studies and studies conducted in general medical populations. They identified nine interventions that demonstrated positive effects on measures related to hospital readmissions. Many of the successful interventions shared similar features, such as assigning a nurse as the clinical manager or leader of care and including in-person home visits to discharged patients. However, the majority of these successful interventions were conducted in disease-specific patient populations. A 2010 Cochrane review conducted by Shepperd and colleagues examined RCTs that compared an individualized discharge plan with routine discharge care in both general and disease-specific populations. They found that a structured and individualized discharge plan led to small reductions in hospital length of stay and readmission rates for older people admitted with a medical condition; but again, most of the successful studies focused on a
specific disease process. Unlike the Naylor review, this review did not consider interventions that occurred after the patient was discharged.

While some aspects of transitional care interventions for disease-specific populations may apply broadly to general medical populations, others may not be generalizable or may be less effective. In CHF patients, for example, a clear link exists between dietary and medication adherence and readmission risk; therefore, many successful interventions incorporate extensive patient and caregiver counseling around diet, medication adherence, and weighing daily at home. However, an elderly patient who is debilitated after a lengthy hospitalization for pneumonia may not derive the same level of benefit from medication and dietary counseling, as would a younger CHF patient, but might benefit from an intervention emphasizing restoring functional status and close clinical follow-up.

As several recently published systematic reviews evaluated the role of transitional care interventions in disease-specific populations and because the outcomes of such interventions appear to be different in disease-specific and more undifferentiated patient populations, we chose to focus our review on studies that evaluated only interventions conducted in adult general medical populations. In contrast to another recent review that evaluated only studies of interventions to reduce readmissions, we also included studies that sought to reduce adverse events or ED utilization after discharge.

What Are the Beneficial Effects of the Patient Safety Practice?

We conducted a systematic literature search of Medline, CINAHL, EMBASE, and the Cochrane Database of Controlled Trials using a search strategy developed with the assistance of a medical librarian. We identified 15,905 citations, of which 454 underwent full-text review (Appendix C, Figure 2, Chapter 37). Forty-three studies met all inclusion criteria, including 25 RCTs and 18 CCTs (Appendix D, Table 1, Chapter 37). Studies used an average of 4 separate interventions (range 1-8) based on our taxonomy. Thirty-one studies used a bridging intervention, of which 21 were RCTs and 12 studies (3 RCTs) included only hospital-based interventions. We used the Cochrane Effective Practice and Organization of Care (EPOC) criteria to evaluate the methodologic quality of included studies (Appendix D, Table 2, Chapter 37). Included studies generally had fair methodologic quality.

The interventions assessed in the studies included a variety of components (Appendix D, Table 3, Chapter 37). Five studies included risk assessment as part of the intervention. Thirteen of the 43 included studies used an individualized health record that included a list of diagnoses, warning signs or symptoms, medication list with side effects, and contact information. Most studies (34) included patient engagement, with varying levels of interaction that ranged from patient education to counseling to symptom management.

Twenty-two studies included direct communication between inpatient and outpatient providers, 25-35,37,39,41,43,46,48-50,52,53,55,56,59,64-66,68 and 16 included facilitated clinical follow-up either through directly scheduled appointments or telephone availability following hospitalization. Only 11 studies included medication reconciliation prior to discharge, 26-35,37,41,45,46,60,62,66 and 10 studies included post-discharge medication reconciliation, 26,27,34,37,41,43,45,65,66 done either by telephone or in the home visit. Of the 31 studies that included a bridging intervention, 24 included an identified health provider who took a primary role in the transitional period, with contact in the hospital and in the outpatient setting. Seventeen studies included a
multidisciplinary team, including at least two providers, as part of the intervention. Twenty-eight studies included post-hospitalization outreach, either by telephone or home visit (18), or both telephone contact and at least one home visit (10).

None of the studies specifically addressed end of life issues, palliative care, or counseling as part of the interventions. However, studies evaluating the Care Transitions Intervention (CTI) did include advanced directives in the patient-centered health record.

Interventions To Reduce 30-Day Readmissions

All but one study reported readmission rates, including 18 studies (10 RCTs) that reported ED visit or hospital readmission rates 30 days or less after discharge (Appendix D, Table 4, Chapter 37). Sixteen of these studies (10 RCTs) reported these outcomes at 30 days after discharge, and two studies reported 14-day readmission rates. We focused our analysis on the studies reporting 30-day ED visit and/or readmission rates, given the policy importance of this outcome (i.e., Medicare’s decision to use this time horizon for public reporting and readmission penalties).

We identified six studies (four RCTs, two CCTs) that reported significant reductions in 30-day ED visit or readmission rates. Overall, these studies were of similar fair methodologic quality compared with the other studies. All of these studies used a bridging strategy with five or more separate interventions. Coleman 2004 (CCT) and Coleman 2006 (RCT) evaluated the CTI in hospitalized geriatric patients in large managed care and capitated delivery systems respectively. This transitional care program focuses on engaging patients and caregivers to be active participants in self care in four areas (“pillars”): medication self-management, a flexible and dynamic patient-centered record, outpatient provider followup, and identification and management of “red flags” including signs or symptoms of a worsening condition. The intervention includes hospital and home visits and several telephone contacts, all of which emphasize the importance of self care of chronic illness through education, role modeling, and counseling during the transitions period. Two subsequent studies implemented the CTI in Medicare fee-for-service populations in Colorado and Rhode Island. Both of these studies also found reductions in 30-day readmission rates, reaching statistical significance in the Rhode Island study.

Jack and colleagues evaluated the ReEngineered Discharge Program (Project RED) in a single site RCT at a large urban safety net hospital. The intervention focuses on an in-hospital component, where a nurse discharge advocate develops a comprehensive patient-centered after-hospital care plan, including medication and contact information, pending tests and appointments, and a post-hospitalization pharmacist telephone call that includes communication with primary providers. The study reported significant reductions in ED utilization after discharge; readmission rate was reduced as well, but this outcome did not achieve statistical significance.

A 2009 report by Koehler and colleagues evaluated a supplemental geriatric “care bundle” as part of a multidisciplinary team-based program with care coordinators and pharmacists around patient education on medications and self-management (including use of a personal health record), as well as post-discharge telephone follow-up calls. A 2009 report by Courtney and colleagues evaluated a nursing and physiotherapy program for hospitalized elders that included individualized exercise instruction, nurse-led discharge planning with a focus on activities of
daily living, medical treatment, social support, and followup with a home visit and telephone contact in the post-hospitalization period.28

These six studies share several similarities. Five studies were done in geriatric populations.27,28,35,43,65,68 All had bridging interventions that included five or more separate interventions, including a dedicated transitional provider across the continuum of care, individualized personal health records, and post-hospitalization outreach to patients. All six studies also involved patient contact at multiple points during and after hospitalization. These interventions likely require a considerable amount of time, resources, and additional staff (dedicated transitional provider) to facilitate the coordination of care from hospital to home. Although the relative intensity of the interventions could not be measured directly, the multifaceted nature of these interventions means they likely were more intensive than those described in studies that did not find reduced readmission rates. The CTI is the only program shown to reduce readmissions in multiple studies in different health care settings.27,43,65,68

Interventions To Prevent Adverse Events After Discharge
A total of nine studies reported adverse events (AEs) following discharge25,30-33,40,44,45,58 (Appendix D, Table 5, Chapter 37). Of these, five specifically reported rates of adverse drug events (ADEs)32,33,44,45,58 and/or reactions—i.e., events that could be attributed to the use of a drug. Five studies reported more generally on rates of other types of AEs,25,30,31,33,40 including falls, post-discharge infection rates, failure to complete recommended outpatient follow-up, and composite rates of all AEs. All studies except for one were RCTs.58 Only three studies demonstrated a significant decrease in event rates (specifically, ADEs) following implementation of a transitional care intervention.32,45,58 Gillespie and colleagues reported that a comprehensive pharmacist intervention in elderly patients 80 years of age and over resulted in fewer medication-related (re)admissions. Hellstrom and colleagues reported that a comprehensive pharmacist-led inpatient intervention, including systematic medication reconciliation on admission and discharge, resulted in a reduction in the composite rate of drug-related admissions and emergency department visits. Schnipper and colleagues reported that an intervention consisting of pharmacist medication reconciliation at discharge, patient counseling, and telephone follow-up resulted in a lower rate of preventable ADEs 30 days after hospital discharge.

Each of these successful interventions was pharmacist led, while among unsuccessful interventions, only one was pharmacist led. In addition, all successful interventions had substantial and multi-faceted inpatient components, including some form of medication reconciliation and patient education focused on enabling patient self-management. Two of the three interventions also had bridging components, including a follow-up phone call by a pharmacist after patient discharge.32,45 One intervention also included the creation of an individualized patient record of medications, which was faxed to the outpatient provider at discharge.32 In contrast, the majority of unsuccessful interventions had only inpatient components that were focused on intervening at a single step of the discharge process. Regarding intervention context, all three studies were performed at teaching hospitals. Two of the three studies32,58 took place in Sweden; only one of the three was based in the U.S.45 Authors used varying strategies to classify events as ADEs. Gillespie and colleagues used the electronic medical record to ascertain if admissions were medication-related – physicians caring for patients were blinded to study assignments and were required to record if an admission was thought to be medication-related. Hellstrom and colleagues had a multidisciplinary team— who
were blinded to group allocation—review electronic medical records for unscheduled hospital readmissions and ED visits to determine if they were drug related. Schnipper and colleagues used a combination of structured screening via patient report by the Bates method and chart review by blinded physician reviewers using the Naranjo algorithm to assess causality.71

What Are the Harms of the Patient Safety Practice?

None of the studies reported any harms associated with transitional care interventions. One study reported a significantly increased rate of readmission in the intervention group,50 which was considered a result of heightened vigilance on the part of providers and patients to identify issues arising after hospitalization.

How Has the Patient Safety Practice Been Implemented, and in What Contexts?

Heterogeneity of Target Populations and the Exclusion of High-Risk Groups

To maximize the generalizability of our findings, we limited our analysis to studies examining the effectiveness of transitional care interventions in general medical inpatients only (31 of 43 studies) or mixed patient populations (12 of 43). Despite attempting to capture studies aimed at a general medical population, we found that the majority of studies targeted a specific demographic among medical patients. Twenty six studies (60%) were interventions targeted specifically at elderly populations, although definitions of “elderly” varied widely ( >55-80 years of age).26 Seven (16%) of studies targeted patients with a specific payor, including members of a specific health plan (three studies); Medicare or Medicare fee-for-service (three studies); or individuals receiving care through the Veterans’ Administration Health Care System (one study). Eleven studies (26%) targeted individuals who were thought to be at ‘high risk’ for readmissions or adverse events, although definitions of “high risk” were inconsistent across studies. Eight studies targeted individuals based on medication-related indications, including polypharmacy, or being on a “high-risk” medication; again, definitions of “polypharmacy” and “high risk” were inconsistent across studies. The heterogeneity of target populations for interventions may limit the generalizability of study findings to a general medical inpatient population at a single given institution.

Additionally, individuals with characteristics that may place them at higher than average risk for readmission and adverse events were often excluded from study populations. The most common clinically relevant exclusion criteria were as follows: presence of cognitive impairment or dementia (14 studies); non-English speaking, or not fluent in dominant language of country in which intervention took place (15 studies); no telephone (ten studies); terminal illness or too ill (nine studies); homeless (four studies); presence of mental illness (four studies); inadequate caregiver support (one study). The exclusion of these individuals may limit the generalizability of study findings to specific groups generally considered to be at lower risk for readmission and adverse events.
Limited Generalizability Due To Wide Variation in Health Care System Factors

Most studies were conducted at teaching hospitals (25 studies or 57%;28,30-36,42,44,45,47,50,51,53,55,56,58,60-62,65-67,72; of these, five were multi-site studies29,50,60,62,65). Six studies took place in a community hospital setting;37,41,43,49,63 of these, three were multi-site studies.41,46,63 Four studies took place in safety net systems.25,34,48,56

Only about one-third of studies (14 studies) reported the health system context in which the intervention was implemented. Three studies took place within the context of an integrated delivery system;25,26,68 two studies took place within an HMO or capitated system;27,51 four studies were in a safety net system;25,34,48,56 and six studies took place in a variety of other settings, ranging from open non-integrated systems36,46,47 to countries with national health systems31,58,64 to the Veterans’ Administration health system.50 Virtually no studies reported on aspects of local quality improvement structures or safety culture that could influence intervention success.

Only about half of analyzed studies (22 studies) were conducted within the U.S.5,25,27,29,33,35,37,39,40,43-45,47,49-51,55,56,65-68 Of the remaining 21 studies, 4 took place in the United Kingdom,26,38,41,52 3 took place in Canada30,59,60 and 14 took place in other countries, including Australia,31,34,48,53,61 Sweden,32,58,64 Ireland,31,46,62 Germany,42 New Zealand,57 and Belgium63.

Given the heterogeneity of hospital sites, health care system contexts, and countries in which the interventions took place, data are insufficient to allow broad generalization of various study findings across different types of health care settings. Additionally, the large number of studies taking place within academic settings may limit the generalizability of study findings to care settings without an infrastructure and resources similar to those found within academic settings.

Limited Information on Resources Needed To Initiate and Sustain Transitional Care Interventions

Fewer than one-third of studies (11 studies25,33-35,38,41,44,46,60,63,65) described training protocols or resources needed to implement a transitional care intervention. Most studies included at least a general outline of the intervention (30 studies25-27,30-35,37,39-47,49-52,55,56,59,61,65,66,68) and a majority (25 studies) reported a detailed timeline26,27,29,30,34,35,37-43,45-48,50,52,55,58,62,63,65,68 with explicit descriptions of the components of the intervention. No studies reported a plan for sustainability or plans for long-term incorporation of the intervention into current clinical practice. Thus, information on the types of resources and/or training needed to conduct an intervention was limited, and data on sustainability of interventions over time were markedly absent. However, our results suggest that the most effective interventions also tended to be the most resource intensive. Both the paucity of data on what resources are necessary for implementation and sustainability, and the fact that the level of needed resources for a successful intervention is likely to be quite high may represent significant barriers to implementation of transitional care interventions in most settings.

Lack of Demonstrated Replicability of Interventions, Except for the Care Transitions Intervention

We found that only one intervention, the CTI,68 had been implemented and evaluated in multiple settings. The five studies of the CTI27,43,65,68,73 have been conducted in a range of hospitals, including tertiary care academic medical centers and community hospitals with and without teaching programs, and in both integrated and non-integrated health care systems. All
other studies that demonstrated reductions in 30-day readmissions or ED visits were single-center studies that have not been replicated in other settings or patient populations.

One study\textsuperscript{73} evaluated the implementation of the CTI in ten California hospitals, using a qualitative approach to identify key factors associated with successful implementation. Leadership support and early engagement of hospital and community stakeholders were identified as important steps in ensuring early implementation success; maintaining a cadre of funded transition coaches was thought to be essential for ensuring CTI sustainability.

Are There Any Data About Costs?

Cost outcomes were reported in 14 studies, although no studies actually reported the costs associated with intervention implementation itself. The studies that did report costs generally compared the health care utilization and associated costs for patients in the intervention group with those of patients receiving usual care. These costs were measured over varying intervals after discharge, and used cost estimates from different sources. As a result, it is difficult to draw any firm conclusions on the effect of transitional care interventions on overall health care costs. Prior systematic reviews of interventions conducted in disease-specific and general medical populations also did not reach any definitive conclusions regarding cost savings from transitional care interventions.\textsuperscript{8,14,15}

The lack of information on the cost of intervention implementation is particularly problematic for health care organizations that are planning strategic approaches to reducing readmissions. We found that only relatively intensive bridging interventions—which generally required additional personnel and other resources—successfully reduced readmissions. This finding suggests that hospitals may have to make considerable up-front investments in order to implement such programs. Doing so will likely require a strong business case that the investment will eventually be at least cost-neutral, if not cost-saving (perhaps driven by upcoming CMS penalties on excessive readmissions). However, the data required to make this business case are currently lacking.

Are There Any Data About the Effect of Context on Effectiveness?

As the CTI is the only method evaluated in different patient populations and health care systems, we are not able to draw conclusions regarding the effect of context on effectiveness. As discussed above, only a minority of studies reported important contextual details such as the structure of the health care system in which the study was conducted or relevant measures of culture or teamwork, and at the patient level, studies generally excluded patient populations that might be at a higher risk of readmission. Transitional care is inherently complex, with myriad patient- and system-level factors that may influence the success of an intervention. It is therefore quite likely that contextual factors do influence the effectiveness of transitional care strategies; however, this issue is not well explored in the existing literature.

Conclusions and Comment

Hospitals and health care organizations are under increasing pressure to improve transitional care, particularly at hospital discharge, due to a growing body of literature documenting unacceptably high rates of AEs after discharge and short-term ED visits and readmissions. We systematically reviewed the literature to identify Patient Safety Practices that were effective at
reducing AEs, ED visits, and readmissions after discharge, and determine what is known about
the influence of contextual and implementation factors on the success of these interventions.

Only a limited number of relatively high-intensity bridging interventions appear to reduce
readmissions and ED visits, and only one of these (the Care Transitions Intervention) has been
implemented in multiple contexts. Pharmacist-led interventions do appear successful at reducing
ADEs after discharge, but the overall literature base of interventions specifically targeting
common AEs after discharge is small. The studies we identified unfortunately provided little
information about implementation factors, contextual factors affecting the success of the
intervention, or costs of implementation. Such information will be needed to allow health care
system leaders and policymakers to plan strategically as they consider implementing programs to
prevent readmissions and other harms associated with transitions of care. A summary table is
located below (Table 1).

Table 1, Chapter 37. Summary table

<table>
<thead>
<tr>
<th>Scope of the Problem Targeted by the PSP (Frequency/Severity)</th>
<th>Strength of Evidence for Effectiveness of the PSPs</th>
<th>Evidence or Potential for Harmful Unintended Consequences</th>
<th>Estimate of Cost</th>
<th>Implementation Issues: How Much do We Know?/How Hard Is it?</th>
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References


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