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# DOCTOR OF NURSING PRACTICE (DNP) PROGRAM

### A DNP PROJECT

TITLE: A Quality Improvement Initiative to Engage Older Adults in the Discharge Process Using the IDEAL Discharge Protocol

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**DATE: April 18, 2021** 

The George Washington University

# A Quality Improvement Initiative to Engage Older Adults in the Discharge Process Using the IDEAL Discharge Protocol

A Project Presented to the Faculty of the School of Nursing

The George Washington University

In partial fulfillment of the requirements For the Degree of Doctor of Nursing Practice

By

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# **Table of Contents**

Abstract	6
Introduction/Background and Significance	8
Needs Assessment	11
Problem/Purpose Statement	12
Aims /Objectives	13
Review of Literature	15
EBP Translation Model	21
Methods	23
Design	23
Instrument/Tools	25
Setting	25
Participants	26
Inclusion/Exculusion Criteria	26
Samples Size	26
Recruitment	27
Consent	27
Risk/Harms	27

Ethical Considerations	27
Resources/Budget Cost	28
Intervention	28
Outcome Measures	32
Project Timeline	33
Resources Needed	33
Evaluation Plan	33
Data Collection	34
Data Analysis	36
Decription of Software	37
Mantinance and Security	37
Results	38
Discussion	43
Implications for Practice	44
Implication for Quality/Safety	45
Plans for Sustainability & Future Scholarship	46
Limitations	47
Conclusion	48
Dissmination of Project Results	48
References	49

Tables	55
Evidence Table	55
Outcome Measures Table	71
Variable Table	73
Demongraphic Table	76
IDEAL Participant Demongraphic Table	77
Staff Survey Table	78
Figures	79
DMADV	79
IOWA Model	80
Process Map	81
IDEAL Checklist Completion Results	82
IDEAL Follow-up Compliance Results	83
IDEAL Scheduled Appointment Results	84
Medication Compliance Results	85
Education Compliance Results	86
IDEAL Participant 30-Day Readmission Rate Results	87
Pilot Unit 30-Day Readmission Rate Results	88

<b>A</b> p	pendices	89
	SWOT Analysis	89
	Project Charter	90
	FMEA	91
	Action Plan	93
	Budget	95
	IDEAL Discharge Checklist	96
	Driver Diagram	97
	IDEAL PowerPoint	98
	Compentencies	104
	Patient Checklist	107
	Patient Booklet	109
	Provider Tool	120
	GANTT	122
	Survey	123
	Permission Email to Utilze the IDEAL Tools	125
	Permission Email for Repository Submission	126

#### **Abstract**

**Background**. Readmissions are costly and adversely affect patient outcomes. Readmissions significantly impact older adults' ability to manage post-discharge. Older adults are more likely to have challenges with understanding newly prescribed medications after discharge and therefore are less compliant with medications. Older adults are also less likely to follow-up with their primary care physician after discharge. Engaging patients and families in a collaborative discharge process is a key foundational element needed to improve patient outcomes and reduce avoidable readmission rates.

**Purpose**. This quality improvement initiative engaged patients and families in an evidence-based discharge protocol to reduce avoidable readmission over three months.

**Methods**. The Define, Measure, Analyze, Design, and Verify (DMADV) improvement process was used to implement the initiative. The IDEAL Discharge Protocol was piloted on one medical-surgical unit targeting adults 65 years or older with no cognitive deficits and discharged home. The IDEAL Discharge Protocol focused on implementing a structured process to include patients and their families in a collaborative care process focused on discussion, education, and post-discharge follow-up.

**Results**. Forty-four participants engaged in the study. A 4 percent decrease in the pilot unit readmission rate was observed. Before implementation, the readmission rate was 17 percent. After implementation, the readmission rate was 13 percent. Post-discharge follow-up resulted in the completion of 52.2 percent follow-up calls and 45.5 percent follow-up appointments scheduled. Of the 44 participants engaged in the intervention, two were readmitted, resulting in a 4.5 readmission rate for the study participants. Medication compliance was assessed and found

to be 93.3 percent, and 100 percent of participants received education while engaged in the study.

**Conclusion**. The IDEAL intervention aided in improving the discharge process to better equip patients with the tools to successfully transition home after discharge and showed a trend toward reducing the pilot unit's readmission rate.

#### Introduction/Background and Significance

In the United States, avoidable readmissions continue to be a significant challenge for hospitals (Silow-Caroll et al., 2011). High readmissions have resulted in \$280 million in assessed penalties for sixty-five percent of the 3,400 hospitals participating in the Hospital Readmission Reduction Program (Hume & Tomsik, 2014). Despite the efforts made to decrease readmission rates, hospitals have not found the solution to reduce readmission rates. These readmissions are costly for organizations and adversely impact patient outcomes. Burke et al. (2014) indicated that there are factors impacting readmissions that may be out of a hospital's control. However, the authors have found that organizations can control the quality of care delivered to patients and ensure the care is safe. Burke et al. (2014) found implementing multiple transitional care interventions have proven to be successful in reducing readmissions. Burke et al. (2014) have provided an IDEAL Transitional Care framework that outlines the necessary components needed to make up a safe transitional care program for patients.

A study conducted by the Commonwealth Fund found three US hospitals that had readmission rates in the lower three percent compared with other similar US hospitals (Silow-Caroll, Edwards, Lashbrook, 2011). These organizations took deliberate actions to improve clinical quality of care by initiating discharge planning early and often throughout the inpatient stay, ensuring coordinated follow-up occurred with primary care physicians and engaged patients in the care process throughout the inpatient stay. The success contributed to improvement in the overall quality of care that, in turn, improved the organization's readmission rates.

Inadequate patient education is reported among the contributing factors resulting in unsafe transition of care for older adults. Hume & Tomsik (2014) report a lack of attention to medication reconciliation and patient education has shown to have adverse effects for patients

and often results in the patient being readmitted to the hospital. Zhang et al. (2015) also highlighted the importance of medication compliance, stating that the lack of patient compliance with essential medications impacts readmission rates. The author conducted a retrospective case-control study to investigate the relationship between medication adherence and readmission. The results showed that patients with better medication adherence had lower readmission rates. This data stresses the need for improved strategies for medication adherence.

Auerbach et al. (2016) evaluated patient and providers perspective about avoidable readmissions. The study found that one-quarter of readmissions were avoidable. Factors impacting readmissions were poor communication among the care team, not accurately assessing a patient's readiness for discharge, and not effectively supporting patients for self-management post-discharge. This data shed light on the need for an improved discharge process.

A common challenge with the design of many discharge programs is that they occur in isolation (Strategy 4 Care Transitions, 2017). The discharge process often involves the clinical staff reviewing the charts to assess the patient's needs, coordinating community services and equipment for the patient, and at discharge, providing the patient with a list of papers to guide them as they transition to post-acute care. The exclusion of the patient in the discharge process has been the practice; however, evidence shows that the discharge process is more effective when patients are involved and can contribute to the process (Sefcik et al., 2017).

In 2001, the Institute of Medicine (IOM) examined how healthcare organizations delivered care to their patients and found a discrepancy in what was known to be best practice for patients and the actual standard of care being provided (Institute of Medicine [IOM], 2001). To begin to address these discrepancies in care, the IOM identified six aims to improve healthcare quality. These aims specify that care should be safe, effective, efficient, equitable,

timely, and patient-centered (IOM, 2001). Continued efforts are needed to improve the discharge process to ensure patients are receiving evidence-based care and that they have the tools and support they need to have a safe transition.

Under the best circumstances, transitioning home from acute care can be challenging; this is even more significant in higher-risk older adults. In this population, readmissions, are more likely because of the possibility of multiple comorbidities and social barriers that may impact their ability to successfully manage post-discharge. Therefore, a one size fits all discharge process does not meet the needs of every patient (Strategy 4 Care Transitions, 2017) Discharge plans that are not patient-centered are less effective in meeting patients' needs after discharge and often result in readmissions and poorer outcomes for these patients (Dyrstad, Testad, Aase & Storm, 2015).

Research shows that older adults desire to be more involved in post-acute care decisions (Dyrstad et al., 2015). Also, data shows that including families in the discharge process improves the likelihood of compliance with the discharge plan and helps patients to avoid readmission (Lenaghan, 2019).

#### **Needs Assessment**

The organization's leadership has adopted a culture of patient safety and quality improvement. Implementing a quality initiative that favorably impacts the patient population is highly encouraged and supported. A needs assessment (see Appendix A) showed that older adults have higher readmission rates than any other population. This identified a gap in the organization where a potential quality improvement project may be beneficial. The organization's all-cause readmission rate reported by Hospital Compare is 14.8 percent for the measurement period of July 2017- June 2018 (Hospital Compare Quality of Care, n.d.). The national average for all-cause readmission rate is between 14.0-15.6 percent; therefore, the organization rate is no better than the national average. Out of the 47 hospitals in Maryland, 37 hospitals' rates were no different from the national average, 9 hospitals' rates were better than the national average, and 1 hospitals' rate was below the national average (Hospital Compare Quality of Care, n.d.). These results indicate that the organization needs to continue its efforts to reduce avoidable readmissions. This quality improvement (QI) project presents an opportunity for the organization to reduce avoidable readmission thorough the implementation of an evidence-based structured discharge process. The implementation of this project has the potential to create opportunities for partnerships and innovation by providing knowledge that better informs the discharge process.

#### **Problem Statement**

Preparing for discharge can be a stressful time for any patient. It is even more challenging for at-risk older adults transitioning back home from an inpatient stay. High risk older adults are at a greater risk for readmission and poor outcomes because of chronic conditions as well as social barriers that impact their ability to manage health conditions at home (Dyrstad, et al. 2015).

Data supports that early engaging in the discharge process provides patients and the health care team the opportunity to understand patient concerns, educate patients on how to manage post-discharge, and plan appropriately for discharge needs (Sefcik et al., 2017). After conducting a needs assessment and reviewing hospital readmission data, results showed that older adults have significantly higher readmission rates, and there is no defined process to engage patients and the care team in the discharge process.

Research shows that older adults desire to be more involved in post-acute care decisions (Dyrstad et al., 2015). The gap in practice exists in the need to improve shared decision-making practices within an acute care facility to engage patients in their healthcare to better address their needs and reduce avoidable readmissions (Sefcik et al., 2017). This quality improvement initiative was an evidence-based discharge protocol utilizing Six Sigma Define, Measure, Analyze, Design, Verify (DMADV) (see Figure 1) to engage older adults in the discharge process to reduce avoidable readmissions.

#### **Purpose Statement**

The purpose of this study was to implement an evidence-based discharge protocol on a medical surgical unit to engage high-risk older adults and their families in a collaborative discharge process to reduce avoidable readmissions over a three-month period.

#### Aims /Objectives

#### **AIM**

- Engage all eligible older adults on the pilot unit at risk for readmission in the IDEAL
  interventions to mitigate their risk for readmission within three months of
  implementation.
- Improve patient and family education practices through the IDEAL process around medications and red flags related to discharge by 100 percent within three months of implementation.
- Reduce the pilot unit readmission of 17 percent by 5 percent for patients engaged in the
   IDEAL Discharge Protocol within three months of implementation.

#### **OBJECTIVES**

- Gain buy-in for evidence-based implementation from staff, managers, and administration by August 2020
- Incorporate policies and procedures to reflect the evidence-based process August 2000
- Identify benchmarks based on evidence by August 2020
- Define a process to identify at risk older adults for enrollment in the Ideal protocol by August 2020
- Educate and define the care team specific roles for the IDEAL Discharge Protocol by August 2020
- Implement the IDEAL evidence-based discharge protocol on a piloted medical surgical unit by September 2020
- Evaluate the project's process outcome and balance measures by May 2021.

- Implementation of initiative in response to continuous monitoring of process, outcome, and balance measures by May 2021.
- Disseminate the results of the IDEAL Discharge Protocol by May 2021 to inform a broader audience about the evidenced based discharge process to improve discharge practices.

#### **Review of Literature**

It is estimated that twenty-seven percent of readmissions are avoidable, and the Hospital Readmission Reduction Program (HRRP) introduced by the Affordable Care Act alerted healthcare organizations that more needed to be done to close this gap (Luther et al., 2019). The HRRP enforces penalties for excessive readmissions, and approximately eighty percent of hospitals were assessed penalties in 2017 (Auerbach et al., 2016). While some progress was made to reduce avoidable readmissions, the cost associated with avoidable readmissions continues to rise, and the effects are seen in adverse patient outcomes (Luther et al., 2019). These adverse outcomes contribute to extended hospital stays, longer time to recover, added stress on the patient and families, and increased financial burdens from delays in returning to work for the patient or their families. The Center for Medicare and Medicaid recommends that organizations implement a discharge process that utilizes a structured collaborative approach that reduces process variability (Hospital Readmissions Reduction Program [HRRP], n.d.).

For older adults, transitioning home from an acute in-patient stay is often a time of stress and uncertainty. While hospitals struggle to find the best approach to meet patient's needs post-discharge, patients are often faced with the reality of needing to depend on others to return to the state of health experienced before admission. A study by Uphold (2012) found that the benefit of family support in the discharge process should not be disregarded. Caregiver support has a significant impact on the patient's recovery post-discharge; however, families are not always included in the discharge process, and therefore patients and families are not prepared to manage post-discharge. Uphold (2012) highlights several recommendations made by the American Heart Association to encourage family involvement in the discharge process. The recommendations included 1) "inclusion of family members as part of the multidisciplinary team; 2) incorporating

opportunities to gain the perspective of the family members; 3) ensuring follow-up occurs, and referral are made to appropriate services; 4) education about managing condition post-discharge and the importance of warning signs 5) ensuring patients and family have information about social support and resources within the community and 6) listening to the patient and family's needs and providing the necessary support" (Uphold, 2012, p1). Studies have shown that patients experience more favorable outcomes and have less readmissions when family is involved in the discharge process and have the information and supports to assist the family member in the recovery process (Uphold, 2012).

Including patients and families in the discharge process can be challenging.

Making time to incorporate families in the fast-paced healthcare setting can be difficult.

However, studies have shown that patient and family participation in the discharge process resulted in fewer adverse effects (Nilsen et al. 2018). The Caregiver Advise Record Enable (CARE) Act brings recognition to the importance and value of family support in the discharge process. This legislation requires hospitals to include caregivers in the discharge process (Reinhard, Young, Ryan & Choula, 2019).

Additionally, The Joint Commission (2017) has identified ways healthcare organizations can ensure that patients receive a safer transition home. These key steps include 1) "incorporating patients and families in the discharge process; 2) making changes to existing practices to ensure information received is accurate and up to date; 3) provide the necessary training for staff to ensure they can effectively meet patient's needs post-discharge;4) implement evidence-based tools to guide the healthcare team in the discharge process; 5) create or revise policies that reflect best practices. Incorporating these steps will help to improve quality and safety in discharge care" (The Joint Commission, 2017, p.1).

Naylor et al. (2018) developed a transitional care framework of core components that were found to be essential to ensuring positive outcomes for older adults transitioning from acute care facilities to home. The researchers developed eight core components; each transitional care program should contain to ensure care meets the IOM's six aims of care. The eight components identified were "patient engagement, caregiver engagement, medication management, patient education, caregiver education, patients' and caregivers' well-being, care continuity, and accountability" (Naylor et al. 2018, p.9) While there was no consensus on how these components should be incorporated into a transitional care program, it was clear that each element was needed (Naylor et al. 2018). Building on the prior work from Burke et al. (2012), Naylor et al. (2018) proposed an Ideal Transition in Care Model representing ten domains on a continuum that patients cross in the process of transitioning to the community. The domains represent necessities in transition care, and when a component is lacking, the transition care bridge becomes weak and leads to fragments in care, resulting in poor patient outcomes. The author suggests that the missing domains and incomplete application of the domains in the bridge leads to an unsafe patient transition to the community. The essential components needed for implementing the Ideal Transition in Care Model include "1) the creation of a discharge plan early in the admission process; 2) medication reconciliation with the patient and family; 3) providing education for the patient and family that assesses knowledge and utilizes teach-back and 4) follow-up with-in 72 hours of discharge; 5) monitoring and managing symptoms after discharge; 6) advance care planning; 7) coordinating care among team members; 8) ensuring availability, timeliness, clarity, and organization of information; 9) ensuring communication is complete and accurate and 10) collaboration with community supports" (Burke et al. 2012, p.3).

Additionally, Burke et al. (2012) found that high-risk patients required more disease-specific intervention and connection with programs that provided additional guidance and support.

The Agency on Healthcare Research Quality (AHRQ) developed the IDEAL Discharge Protocol to engage patients in the discharge process to prevent adverse effects and reduce avoidable readmissions (Strategy 4 Care Transitions, 2017). The IDEAL Discharge Protocol is an evidence-based resource to help guide organizations in the discharge process. The protocol seeks to create a collaborative process that actively incorporates the patient and the family in the discharge process. The AHRQ provides step by step tools to assist organizations with the implementation of the protocol. Tah et al. (2019) implemented the IDEAL Discharge Protocol as a quality improvement project to evaluate whether the use of the evidence-based discharge process would influence the 30-day readmission rates for stroke patients.

Tah et al. (2019) found that the IDEAL Discharge Protocol was effective in decreasing readmission in stroke patients and resulted in a \$150,000-cost saving for the organization from November 2017 through February 2018. The IDEAL Discharge Protocol provides a cost-effective resource to improve the discharge process. However, the incorporation of added components to the discharge process to improve patient care requires greater involvement from the clinical staff.

The implementation of evidence-based tools was shown to have a beneficial effect on improving transitional care for patients (Nilsen et al. 2019). The fast pace and busy healthcare environment can make it challenging to incorporate new processes, and it would likely create more time to an already busy day. Nilsen et al. (2019) evaluated the use of tools to help guide improvement in the discharge process and whether the use of tools presented barriers in the daily routine. Nilsen et al. (2019) found that the tools helped establish a consistent routine and

reduced process variation. Also, when leaders engaged staff in the process, the implementation was successful and well-received. The study also found that the implementation of tools needed to be adaptable to fit the clinical staff's routine. The study demonstrated that if leaders are successful in obtaining buy-in from the staff, new tools can be implemented into clinical practice without placing a burden on the clinical team.

The patient's perspective on the discharge process is essential to gain insight into what the patient feels is needed for a safe transition home. Anderson et al. (2016) conducted in-person surveys to evaluate patient's attitudes and beliefs on 30-day readmissions, discharge instructions, community resources, and follow-up care to gain a further understanding of the priorities for patients and how to target interventions to reduce readmission. Anderson et al. (2016) identified gaps in the current discharge process that left patients feeling unprepared for discharge, and a feeling of relief when readmitted to the hospital. The findings showed that twenty-eight percent of the participants did not feel ready for discharge. The research found this correlated with poor symptom resolution, inadequate pain control, and concerns about self-care (Anderson et al. 2016) Also, sixty-five percent of participants in the study reported reviewing discharge instructions; however, twenty-two percent of these patients were not able to identify critical information in the instructions (Anderson et al. 2016). Eighty-five percent of the participants reported having a primary physician; however, only fifty-six percent reported having a follow-up visit before being readmitted to the hospital. Only one-third of the participants knew where to seek same day care besides the emergency room. The result brings to light the fragmented discharge process and the need for better coordination and engagement from admission to discharge. Continued efforts are needed to improve the transitional care process, but the data

showed a significant need for patients to be thoroughly engaged in the process from admission to discharge (Anderson et al. 2016).

Evidence shows that empowering patients to take an active role in the care process results in better outcomes and fewer avoidable admission (Lenaghan et al. 2018). Lenaghan et al., 2018 found that one on one interaction with an advanced practice nurse improved patient empowerment. The intervention called QUEST encouraged empowering patients to ask questions to understand their treatment plan, educated patients about their medications, provided instruction on recognizing and understanding what symptoms to report, and ensuring patients followed-up with post-acute services in a timely fashion. The result of the study showed an improvement in patient empowerment for self-care post-intervention using a self-empowerment survey (Lenaghan et al. 2018). The mean score improved from 15.32 pre-intervention to 16.32 post-intervention. The mean score also improved in patient's beliefs on being empowered; the results showed an increase from 14.76 pre-intervention to 15.68 post-intervention. While the change in score was not significantly significant (p> 0.05), the improvement was clinically important, and the patients demonstrated improved self-management skills.

#### **EBP Translation Model**

Developing a solution to the identified problem requires a set of tasks that clearly define the process for carrying out the change. If not approached deliberately and systematically, the solution could be derailed and plagued with challenges, thus diligent preparation and a defined plan will be needed before embarking on the change. The IOWA Model is a widely accepted evidence-based translation model developed by Marita G. Titler and her colleagues at the University of Iowa. The model was developed to answer a call for a translation model for incorporating research into practice to improve patient care (Brown, 2014). The Iowa Model provides a systematic approach to guide the change process (see Figure 2). The need for change can be prompted by a problem, inefficiency in a process, or a need to update current practice to meet standards. The Iowa Model was utilized by the team to choose the best evidence-based discharge protocol. Throughout the planning stages of the QI project, the IOWA model guided the process, and the steps that were taken are detailed.

The first step in the IOWA model is to identify a practice trigger. A practice trigger could be a problem focus brought on by identification of a clinical problem or be knowledge focus and brought on by a need to improve standards-based on newly published guidelines. For this QI project, a problem was identified based on the readmission data for older adults and sparked the need for change. The organization sought to reduce avoidable readmission, and the need for a solution aligned with the organization's priorities. Therefore, the need to establish a team was essential to find a solution to the identified problem. A multidisciplinary team was convened and reviewed the literature to find the best available evidence to support the desired change (see Table 1). Careful critique of the literature was considered in reference to the practice setting and relevance for implementation into practice. The IDEAL Discharge Protocol was selected as a

valuable evidence-based solution to meet the organizational need for improvement in the discharge process. The selection of the IDEAL Discharge Protocol supported best practice and was appropriate for implementation on the selected unit and resulted in the development of this pilot for initiating the change. The intervention was designed, and process, outcome, and balance measures were developed. Also, protocols and process flows were developed to guide the intervention. Data will be collected and trended, the results will be evaluated, and process modifications made as needed. If the pilot demonstrates a stable process, and the data supports the change, the IDEAL Discharge Protocol will be adopted into practice and measures developed to sustain the change through improvement initiatives. The dissemination of the result is the final step in the IOWA model. The dissemination of the results will share the data with a broader audience to help inform practice.

#### Methods

#### **Design**

This QI initiative utilized the DMADV Six Sigma methodology to implement a new discharge process to reduce avoidable readmissions. The components of the DMADV include define, measure, analyze, design, and verify. In the define phase, a problem was identified, a team is formed, measurable goals developed that incorporate perspectives of the organization and stakeholders and timelines were set for project implementation (see Figure 1). This QI initiative used a project charter (see Appendix B) to define each aspect of the define phase. During the measure phase, data was collected and analyzed. Control charts tracked variability in the process. Continuous monitoring of the process using control charts allowed for corrective actions to mitigate potential barriers to project success. The analysis phase was characterized by understanding the root cause of process failures and identifying means to address the gaps. This phase helped to optimize the project and provide critical information for the design phase. As part of the analysis phase, observations were conducted over the 3-month implementation period by the team leader and nurse champions to provide real-time feedback to staff to ensure the IDEAL process was embedded in everyday practice. A failure mode effect analysis (see Appendix C) helped to define potential process failures. It was critical to support staff through the implementation and obtain feedback from staff, patients, and their families to understand from their perspective where improvements was needed. Therefore, the Failure Mode Effect Analysis (FMEA) was instrumental in helping to incorporate feedback into rapid cycle process improvements. The next phase was design, and during this phase, the design concept was selected, and high-level detailed aspects of the process were outlined. The project used an action plan to detail the who, what, when, how, and why of the project (see Appendix D). The last

phase in the DMADV method is verify. During this phase, validation of the design occurred by having a pilot run of the project to ensure the project demonstrated success and met the needs of the stakeholders and was acceptable to be rolled out on a larger scale.

A driver diagram outlined the project activities that described the critical functions of the QI project (see Appendix E).

The IDEAL Discharge Protocol was piloted on one medical-surgical unit at an acute care facility in suburban Maryland. The organization's institutional review board determined the QI initiative did not require an additional consent process above the standard consent form signed at admission. The protocol did not require any special treatment above routine care. Patients eligible for the pilot were male and female 65 years or older with no cognitive deficits admitted to the pilot unit and discharged home. The daily admission report was used to identify the eligible patients, and the pilot unit was notified. Identified patients were engaged by the multidisciplinary care team that included nurses, patient care technician, unit clerks, providers, and inpatient and outpatient care navigators. The team utilized the IDEAL discharge checklist tool created by the Agency for Health Research Quality(AHRQ) to engage each eligible patient in the care process. The IDEAL Discharge Checklist tools outlined the steps in the engagement process. Each team member was responsible for a role in the discharge process, and each team member signs off on the checklist, indicating they completed the prescribed task for the patients. The checklist captured the follow-up appointment date, education completed for the patient, and the discharge planning meeting. Data collection during the implementation phase of the QI process was manual. Documentation for the IDEAL process was captured on a paper form and pulled from documentation in the electronic health record. As the project progressed, the need

for a more efficient documentation system was evident. The pilot has provided significant evidence that supported a need for an electronic method to capture data for the IDEAL process.

After discharge, the IDEAL Discharge Checklist tool (see appendix F) was collected. The data was entered into an Excel spreadsheet and SPSS statistical software was used for analysis. Control charts were used to determine variability in the process across the outcome, process, and balance measures. Descriptive statistical analysis was completed by SPSS statistical software and provided patient demographic statistics.

#### Instrument/Tools

The IDEAL Discharge Checklist was created by the AHRQ. The multidisciplinary team utilized this evidence-based tool to provide a structured discharge process for patients. The checklist included initial activities conducted with the patient and family at admission, daily activities completed by the team each time they engage with the patient, and discharge activities completed before the patient was discharge from the hospital. An IDEAL Discharge Checklist was completed for each patient engaged in the discharge process. This checklist monitored staff compliance with the steps in the discharge process.

The IDEAL discharge process has shown success when implemented at acute care facilities in improving the discharge process for patients and families. Tah et al. 2019 reported successful implementation of the IDEAL discharge checklist tool and found it was instrumental in decreasing 30-day readmission rates for stroke patients and resulted in a \$150,000 savings.

#### Setting

The setting for the implementation of the IDEAL protocol occurred on a medical-surgical unit at a 180-bed acute care facility in suburban Maryland. The patient population consisted of

patients 65 years or older. The intervention was implemented from August 2020 through December 2020.

## **Participants**

The improved discharge process was implemented for all patients meeting the inclusion criteria.

#### **Inclusion criteria**

The project targeted participants 65 years or older admitted to the pilot medical-surgical unit. Participants included males and females.

#### **Exclusion criteria**

Patients with any cognitive deficits impairing their ability to actively engage in the discharge protocol and that did not have an available support person to advocate for their needs were not be eligible. Also, patients not admitted to the pilot unit were not eligible to participate.

## Sample size

This QI intervention was provided to each patient meeting eligibility requirements.

Throughout the three-month implementation, the following factors impacted the population size

1) the number of patients admitted to the unit, and 2) the patients meeting the inclusion or disqualified based on the exclusion criteria.

#### **Recruitment strategy**

Patients on the piloted unit were identified from the daily admission report for the pilot unit and selected if they are 65 years or older. The nurse champions for the unit were notified by the team leader daily about eligible patients, and this information was shared with the nurse assigned to the patient. Patients meeting eligibility were engaged by the bedside nurse and informed about the discharge process. The protocol did not require any special treatment above

standard care. The goal of the IDEAL process was to engage patients in an evidence-based structured process to meet the Institute of Medicine's (IOM) six aims of quality care. This discharge process helped to ensure patients received care that is safe, efficient, effective, patient-centered, timely and equitable care to reduce (IOM, 2001).

#### **Consent Procedure**

This intervention fell under the normal delivery of care. The IRB determined no additional consent above the hospital consent was needed. The IDEAL Discharge Protocol is evidence-based and considered best practice. The patients participating in the IDEAL Discharge Protocol received a more structured and defined discharge process. The process began the first day of admission and continue throughout the inpatient stay with opportunities to discuss, learn, and collaborate with the care team.

#### Risks/Harms

There was no risk or harm to patients participating in the IDEAL discharge process. The implementation of the IDEAL Discharge Protocol placed some burden on the unit staff as a result of adjusting to the new protocol. The burden was attributed to training and the time to acclimate and implement the new process; however, implementing a more streamlined and structured process has shown the potential for long-term benefit of saving time through consistency and efficiency in the discharge process.

#### **Ethical Considerations**

The intervention was provided to all eligible patients and did not involve any harmful treatment or pose any risk to patients. The pilot was implemented with the designated population given readmission data showing that the older adult population were at greatest risk for readmission. Patients unable to actively engage and without a support person received

appropriate discharge care but not counted in the data. No additional cost was incurred to patients engaged in the protocol. There were no perceived ethical issues with the implementation of the IDEAL discharge process. The protocol did not require any special treatment above standard care. Hospital-wide adoption of the IDEAL Discharge Protocol was the course of action upon successful implementation.

#### Resources/Budget/Costs

The implementation of the IDEAL Discharge Protocol utilized clinical resources throughout the planning, implementation, and evaluation phases of the QI project. The cost incurred was low given the implementation started on one unit utilizing existing staff. Each staff member attended training; therefore, staff replacement was needed during training. Designated nurse champions assisted with covering for unit staff. Various training dates were scheduled to accommodate staff. Nurse champions assisted with the training of staff. Follow-up phone calls were a part of the existing discharge process completed by discharge planners; therefore, no additional cost was incurred by this process. There were minimal costs associated with the data collection for this project. Data collection occurred as a part of the routine nursing assessment, not adding any additional cost for data collection. The collection of this data added benefit and improve health outcomes for patients, thus resulting in minimal cost for the organization. The detailed project budget is attached (see Appendix E).

#### Intervention

The implementation of the IDEAL Discharge Protocol aimed to bring best practice to the discharge process for the organization. The IDEAL Discharge Protocol is an evidence-based process designed to engage patients and families in the discharge process to reduce avoidable readmissions. The attached process map (see Figure 3) illustrates the steps in the process to

carry out the intervention and the driver diagram provides a concise picture of the driving forces needed to achieve the project aims of reducing avoidable readmissions (see Appendix G). The process map begins with the identification of a patient's eligibility (see Figure 3). If a patient was deemed eligible, a nurse champion notified the team leader, and the nurse champion notified the bedside nurse about the eligible patient and initiated the IDEAL Discharge Protocol.

The implementation process began in October 2020 with the training of team members on the IDEAL discharge process. The IDEAL training PowerPoint was used to train all staff on the pilot unit, and a post-assessment was given to assess knowledge and readiness to engage patients in the discharge process (see Appendix H). The IDEAL training PowerPoint includes competencies and provides instructions on grading (see Appendix I). The team leader maintained the training records. In addition to the specific IDEAL training, the pilot unit received training on the process flow for implementation of IDEAL Discharge Protocol on the unit. The team leader and nurse champions conducted the training of the staff. After training requirements were satisfied, the team leader and the nurse champion implemented the protocol on September 12, 2020.

The team leader established a multidisciplinary team to discuss the best strategies for the implementation of the IDEAL Discharge Protocol. The team consisted of representatives from the following disciplines.

- Team Leader (DNP Student)
- Care Management Director
- Care Management Champions
- Care Management Nurse Discharge Planners
- Nurse Unit Director

- Nurse Champions
- Nursing Staff Members
- Physician leadership/Representative
- Nurse Practitioner Leadership/Representative
- Physician Assistant Leadership/Representative
- IT Support Representative
- Quality and Patient Safety Leadership Representative
- Operational Excellence Representative

The team leader, in conjunction with the multidisciplinary team, completed the planning phases of the project. The remaining phases included the implementation phase, evaluation phase, and dissemination. The intervention involved implementing a structured discharge process that utilizes tools to guide the staff in the implementation of the IDEAL Discharge Protocol. The implementation of the IDEAL Discharge Protocol occurred when an eligible patient was admitted to the unit. At admission, the IDEAL Discharge Planning Overview, Process, and Checklist, Appendix H) was used by the clinical team to inform and guide the process. The Be Prepared to Go Home Checklist and Booklet (see Appendix J and Appendix K) were the informational guides for the patient and family that highlighted information patients needed to know to prepare for discharge (Strategy 4 Care Transitions, 2017) The Improving Discharge Outcomes with Patients and Families tool was used by providers (see Appendix L). This tool gave instructions on setting up a discharge planning meeting with the patient and family. The Care Transitions from Hospital to Home: IDEAL Discharge Planning Checklist (see Appendix F) was completed at discharge by a member of the discharge team, verifying that all

components of the IDEAL Discharge Protocol checklist were completed and reviewed with the patient before discharge.

During the admission process, the bedside nurse worked with the patient to identify a support person that would assist the patient post-discharge. The patient and family were oriented to the whiteboard in the patient room utilized for questions and or concerns. Also, the clinical team collaborated with the patient and family to identify goals and actively engage the patient and family in achieving these goals throughout the patient stay. The IDEAL Discharge Protocol consisted of the following daily interventions: a daily discussion of information about what life at home will be like after discharge, reviewing medications, and highlighting warning signs and problems (Strategy 4 Care Transitions, 2017). The daily discussions also provided opportunities to educate patients about their condition, medications, and the discharge process. Clinicians also assessed the retention of information using teach-back to assess the need for additional reinforcement.

One to two days before discharge, a nurse/discharge planner provided a Be Prepared to Go Home Checklist and Booklet to the patient and family (see Appendix K). A discharge meeting was scheduled for the patient and family to meet with the clinical team. During the discharge planning meeting, discharge goals and plans were discussed using the Be Prepared to Go Home Checklist and Booklet as a guide for questions, needs, and concerns about going home. A nurse/discharge planner made follow-up appointments with the patient's primary care physician.

On the day of discharge, the nurse/discharge planner reviewed the medication list with the patient and family and discussed follow-up appointment dates times and locations with the patient and family. Lastly, the patient and family received the contact information for the discharge planner if any additional questions or concerns arise post-discharge.

One week after discharge, the team leader or the discharge planner placed follow-up calls to patients. Patients were called two times after discharge occurring within the first week of discharge and the last call to occur in the third-or fourth-week post-discharge. If there are two unsuccessful attempts, one additional call was placed and documented.

During the follow-up phone calls, patients were asked about medication compliance tracking whether patients were taking medications as prescribed within 30 days after discharge. The self-reported information was documented. The team leader tracked each patient engaged in the protocol and the number and date of the follow-up calls. Each successful call and attempt was documented for each patient.

#### **Outcome Measures**

The following measures were used to evaluate the success of the implementation of the IDEAL Discharge Protocol. 1) Adherence to the IDEAL process, 2) Readmission rate, 3) Medication compliance, 4) Scheduled follow-up appointments, 5) Percentage of IDEAL patients from piloted unit readmitted within 30 days post-discharge, 6) Length of stay and 7) Reported stress related to IDEAL implementation. See the outcome measures table for details on the calculation of these measures (see Table 2).

## **Project Timeline**

During the initial planning phase for the project, the DMAD phases were completed by the team leader and the multi-disciplinary. The team worked collaboratively to complete a project charter, FMEA, and an action plan for the QI project. The next step in the process was the implementation of the IDEAL Discharge Protocol on the pilot unit. The pilot was conducted over three months.

See the attached Gantt chart that outlines the specific project milestones (see Appendix M). The project is divided into four phases. The planning phase, the implementation phase, the evaluation phase, and the dissemination phase. The Gantt chart illustrates the activities under each phase and the timeline for completion (Gantt Chart Template or Excel. n.d).

#### **Resources Needed**

Staff participation was needed for the QI initiative. The project involved ongoing meetings of the multidisciplinary team, training time for the staff, scheduling appointments, follow-up calls to patients, and monitoring patient and staff feedback. These outlined tasks were conducted as part of the daily activities and incorporated in a manner that minimizes disruption in the workday. The additional resources were the cost of materials to be printed for patients. The organization supported the printing of materials The printing of these materials replaced other discharge printed materials; therefore, this did not create any additional cost above what was currently allotted for printing materials.

#### **Evaluation Plan**

The National Health Services driver diagram template was used to create a process to identify the key project activities to be undertaken to implement the QI project (see Appendix G). Each of these components related to the specific project process, outcome, and balance measures that aided in achieving the project aims. The evaluation plan tracked the fidelity in the structure and process as well as the collection of outcome data (see Table 2). The implementation of the IDEAL Discharge Protocol helped to demonstrate a trend in decreasing avoidable readmissions and aid in medication compliance, and the adoption of the intervention throughout

the organization as best practice. During the implementation phase, initiatives were developed and implemented to address the deviation from the target. A sustainability plan was developed for continuous tracking using control charts to ensure process fidelity. The return on investment was seen in the creation of a more efficient discharge process leading to a reduction in avoidable readmissions, thereby resulting in potential cost savings and less Center for Medicare and Medicaid (CMS)assessed penalties.

#### **Data Collection**

An Excel spreadsheet captured data on the following measures 1) readmission rates, 2) follow-up calls, 3)scheduled follow-up appointments, 4) percentage of patients readmitted within 30 days after participating in the intervention, 5) length of stay and 6) reported stress related to intervention implementation. See details for calculation of these measures in the variable table (see Table 3).

The data for the QI project was collected from the following sources Cerner (electronic medical record daily readmission report), Hospital Compare, IDEAL discharge checklists, staff survey, and follow-up phone calls. The raw data from each of these sources was entered into an Excel spreadsheet for tracking, and the data was subsequently entered into control charts to track multiple measures. See the variable table and demographic table for details of variables that will be tracked and measured for data analysis (see Tables 3-4).

The electronic medical record (EMR) was used to collect data on patients from the pilot unit engaged in the IDEAL protocol that returned within 30 days post-discharge and to capture data on a patient's length of stay. The Risk Standardized Readmission Rate (RSRR) for the hospital was obtained from Hospital Compare. The IDEAL discharge checklist was used to record the schedule follow-up appointments, and the checklist was forwarded to the team leader

for entry into the Excel spreadsheet. Patient surveys were used to collect data on staff reported stress related to the implementation of IDEAL (see Appendix N). Patient phone calls were used to obtain information on medication compliance. The Excel spreadsheet was labeled IDEAL QI data and saved in the hospital Quality Improvement folder where it was backed-up daily and stored on a secured drive. The excel spreadsheet was password protected.

After the implementation of the IDEAL Discharge Protocol, data collection began immediately. The data was collected weekly after implementation and continued for eight weeks. Demographic information was captured for participants for statistical purposes. Participants were assigned a patient identification number to maintain participant's identity. Microsoft Excel software captured, organized, and was used to perform basic calculations. The Excel spreadsheet was password protected and maintained on a secured drive and was accessed by the Team Leader and the Operational Excellence Representative. The data collected included tracking the IDEAL discharge checklist that was completed and returned to the Team Leader and entering the Excel spreadsheet. Patient follow-up documentation and the scheduling of follow-up appointments post-discharge were captured from the discharge planner's note and recorded in the Excel spreadsheet. The thirty-day readmission rate was also tracked for patients engaged in the QI initiative. This information was obtained from Chesapeake Regional Information System for our Patients (CRISP) data that tracks patient readmission across participating hospitals.

Additionally, data was recorded on patient education documentation by reviewing the patient notes in the electronic medical record. The documentation of medication adherence was verified by reviewing the electronic health record of IDEAL patients with discharge prescriptions filled and refilled after discharge. The Team Leader collected and entered data into the Excel spreadsheet, and the Operational Excellence Representative reviewed the data entry for accuracy.

After review, the data were checked for accuracy, and original copies were scanned and maintained in the Team Leader's secured file.

### **Data Analysis**

The data for the QI project was collected using an Excel spreadsheet. SPSS was used to analyze the data and control charts were used to track trends in the process and provide a graphic view of the process. The Team Leader entered the data into Excel to capture and analyze:

- 1. The number of IDEAL patients readmitted within 30 days of discharge.
- 2. The number of follow-up calls placed to IDEAL patients after discharge.
- The number of scheduled follow-up appointments with primary care providers for IDEAL patients.
- 4. The number of patients readmitted within 30 days after participating in the intervention.
- 5. The number of in-patient days for IDEAL patients
- 6. The number of recorded responses indicating stress related to the intervention implementation.

A control chart was the best tool to track the QI project and look for trends in the process. (Control Chart, n.d.). The control chart provided an illustration of the type of variation occurring in a process. Control charts have a central line that calculates the mean of the collected data. There is an upper and lower limit of control statistically determined based on the mean of the data (Selvi & Majumdar, 2014). The upper control limits are three standard deviations above the centerline, and the lower control limits at three standard deviations below the centerline showing the variation in the data (Control Chart, n.d.). This data sample was smaller than anticipated given the impact of COVID -19 causing the early termination of the QI project. This pilot project highlighted the opportunities for improvement in the process.

# **Description of Software**

Microsoft Excel is a spreadsheet software that is used to perform basic statistical analysis and used to create data tables and charts. SPSS is a statistical software used to perform advanced statistical analysis. For this QI project, Excel was used to capture the data. SPSS was used to analyze the average and the standard deviation for each process, outcome, and balance measures. Additionally, SPSS was used to create control chart to analyze the process for variation and control. SPSS also was used to analyze the descriptive statistic for patient demographics.

## **Maintenance & Security**

Excel captured and stored the data. The Excel spreadsheet was titled IDEAL project data. The data was saved to a designated project folder called DNP project folder on a secured Quality Department drive at the organization where implementation occurred. The file was password protected. The data was backed up daily. This drive was accessed by the Team Leader and the Operational Excellence Representative. Unique patient identifiers (medical record number) were used to identify patients in the Excel spreadsheet to maintain patient privacy. The IDEAL discharge checklist was scanned and saved to the Quality Department drive DNP project folders and saved by MRN number and date. Hard copies of the checklist were kept by the Team Leader and stored in a locked cabinet accessed by the Team Leader. The project data was maintained through project implementation and evaluation, and upon project completion, data was closed out and stored in the DNP project folder. The Operational Excellence Representative reviewed the data entry. The Operational Excellence Representative reviewed the data was correctly entered into the Excel spreadsheet. All project data was reviewed and verified for accuracy by the Operational Excellence Representative.

#### Results

The IDEAL Discharge Protocol was implemented as a pilot at an acute care facility as an opportunity to develop a structured multidisciplinary discharge process to engage high risk older adults and their families in a discharge process to reduce avoidable readmission over three months. The QI initiative identified a total of 57 patients.

The exclusion of 13 patients reduced this number. Four patients were transferred to another unit during their admission, making them ineligible to participate. The remaining nine patients' discharge disposition was other than home resulting in their ineligibility. Forty-four patients were engaged in the IDEAL Discharge Protocol, with an even split of twenty-two males and twenty-two females in the study. The patient population was predominately Black/African American at 45.5 percent. The percentage of the other ethnicities are as follows. There were 29.5 percent White, 13.6 percent Asian/Pacific Islander, 6.8 percent Hispanic/Latino, and 4.5 percent other. To meet eligibility requirements, participants had to be 65 years of age or older. The average age of the participants was 75-year-old. The most common admitting diagnosis for participates was abdominal pain and shortness of breath at 11.4 percent, respectively. The average length of stay for participants was 3.8 days (see table 5).

The IDEAL Discharge Protocol was implemented using the QI framework DMADV and the IDEAL Discharge checklist was implemented to track the staff's adherence to the process and outcome measures. Control charts were utilized to evaluate variability in the process. The following process and outcome measures were established to determine how successful the intervention was in achieving the desired outcome.

Completion of the IDEAL Discharge Checklist was the process measure utilized to demonstrate process control. The data showed 14 IDEAL checklists were completed resulting in

a 31.8 percent completion rate. Over eight weeks, 15.2 percent of the IDEAL daily checklist were completed at 100 percent compliance, 9.1 percent of the IDEAL daily checklist were completed at 50 percent compliance, 3.0 percent of the IDEAL daily checklists were completed at 33.3 percent compliance, and the remaining 72.7 percent was found to be non-compliant. The control chart used to analyze the data showed significant variability with no process control attributed to special cause variation (see Figure 4). Within two weeks of implementation, the data showed lack of adherence which was attributed to logistical challenges observed in the process. Several measures were taken to address the variability in the process. The Team Leader with the IDEAL multidisciplinary team adopted a process to include a discussion of the IDEAL patients in daily huddle and the assigned nurse was presented with the information to complete the checklist for the assigned patient. A slight increase was seen after this change, however placement of the IDEAL Discharge paper checklist in the patient room also presented a challenge. Hardware was installed in the patient's rooms to create a visible reminder for the team to complete the checklist. A slight increase was observed after this change and it was found that team members were leaving the completed checklist in the patient room after discharge and the checklist were being discarded. After assessing these challenges with the process, the decision was made to retrain the staff on the IDEAL process. One week before training was to begin, the project was impacted by the uptake in COVID-19 cases and the project was stopped as a result of the pilot unit being designation a COVID-19 unit.

Follow-up calls were a critical component to the successful transition from the hospital to home. There were 23 calls made to patients after discharge resulting in 52.2 percent of calls made to participants. A further breakdown of this data shows twelve participants received at least one call. Three participants received two calls after discharge, and eight participants

received three calls after discharge. Throughout the eight weeks of implementation, 100 percent compliance with follow-up calls was achieved at 51.5 percent, 50 percent compliance with follow-up calls was achieved at 9.1 percent, 33.3 percent compliance with follow-up calls was achieved at 3.0 percent, and non-compliance with follow-up calls was 36.4 percent. Control chart showed variability over the 8-week implementation contributed to special cause variation (see Figure 5). What was observed in the process and can be seen in the data was that there was considerable variation in the number of calls the Care Navigators were able to place to patients. The challenges occurred due to availability of patients after discharge and or patient preference in reference to receiving follow-up after discharge.

The scheduling of follow-up appointments was an outcome measure tracked to ensure patients followed up with the primary care provider after discharge. The multidisciplinary teams scheduled 20 follow-up appointments resulting in 45.5 percent of the total appointments scheduled. Further analysis of the scheduled appointments showed full compliance was achieved at 42.2 percent. Fifty percent compliance with scheduled appointments was achieved at 6.1 percent, 33.3 percent compliance with scheduled appointments was achieved at 3.0 percent, and no compliance with scheduled appointments was reported at 48.5 percent. The control chart analysis showed special cause variation and the lack of a controlled process (see Figure 6). The scheduling of follow-up appointments is a part of the IDEAL Discharge Process; however, patients often elect to schedule their own appointment with their primary care provider after discharge that meets their availability and life circumstance. The process demonstrates the appointments that were successfully scheduled and those that were elected to be scheduled by the patient. An attempt was made by the Care Navigators to schedule each patient.

Medication compliance was calculated based on the medication possession ratio (MPR) and proportion of days covered (PDC). Patients were educated on the importance of medication compliance, and after discharge, pharmacy records for each participant were reviewed to evaluate compliance. The data showed 93 percent of participants achieved medication adherence (see Figure 7).

Patient education is a key component of the IDEAL Discharge Protocol. Patients and families were engaged in the discharge protocol through daily education documented in the patient's electronic medical record. There were 100 percent of participants with documented education in the electronic health record (EHR) (see Figure 8).

Over the eight-week implementation period, 44 patients were engaged in the discharge protocol, and two participants were readmitted within 30 days of discharge. The engaged patients' readmission rate was 4.5 percent over the eight weeks (see Figure 9). Before implementing the IDEAL Discharge Process, the pilot unit's readmission rate for September 2020 was 17 percent. The IDEAL Discharge Protocol was implemented the second week of October, and the readmission rate for the unit was 13 percent. In November, the readmission rate for the pilot unit remained at 13 percent. There was a four percent decrease in the pilot unit's readmission rate from September to November (see Figure 10). In December, the pilot unit was designated as a COVID-19 unit, and the IDEAL Discharge Protocol was suspended. The readmission rate for December was 10 percent. However, given the unit status change midmonth, the readmission rate may be understated, as reflected in the data. Due to the extenuating circumstance, the drop in the readmission rate for December may likely have been an unexpected benefit from the unit's change in status.

The thirty-day readmission status of the participants was tracked as an outcome measure. The desired overall impact of the IDEAL Discharge Protocol activities was to reduce avoidable readmission; however, the reduction cannot solely be attributed to implementing the IDEAL Discharge Protocol. The additive effect of the various intervention has aided in the overall reduction in the readmission rate.

Two balance measures were selected to assess the unintentional impacts of implementing the IDEAL Discharge Protocol intervention. After the implementation, a staff survey was administered to gain feedback from the staff on the impact IDEAL had on the workday and if the implementation activities created any stress.

The survey results revealed that twenty-three staff members completed the survey and two reported minimal stress related to implementation, and 21 respondents reported no stress related to the implementation of the intervention (see Table 6). Based on the survey result, the 23 respondents reported no additional time was added to the workday, and the implementation of the IDEAL Discharge Protocol did not extend work-related activities. The additional feedback received from the respondents was the need for an improved data collection tool. The current Discharge Checklist created some ambiguity and needed to be simplified. Survey respondents also reported the need for an electronic form to capture data; the paper form presented numerous challenges that could be resolved with an electronic data collection form.

The all-cause readmission rate for the hospital at the time of implementation was 14.8 percent calculated based on the CMS Expected Readmission X U.S. National Readmission Rate = RSRR. At the end of the eight-week implementation period, the organization's RSRR rate was 14.1 percent, representing a 4.73 percent decrease. The all-cause readmission rate measurement period collected by CMS was outside of the IDEAL Discharge Protocol implementation period,

and COVID-19 impacted the continuation of intervention. The RSRR will be revisited after the long-term sustainability plan is in place, and there has been sufficient time to evaluate the RSRR.

Length of stay was tracked for each participant to assess whether the IDEAL Discharge Protocol's implementation extended the average length of stay. Before implementation, the average length of stay was six days. After eight weeks of implementation, the average length of stay was 3.8 days (see Table 5). The implementation of the IDEAL discharge protocol did not have an impact on the participants in the study.

### **Discussion**

The IDEAL Discharge Protocol was identified as a new process to engage patients and families in a collaborative discharge protocol to reduce avoidable readmission for high-risk older adults. The Six Sigma Define Measure Assess Design Verify was used to develop a process to implement the intervention. The intervention was piloted on a medical-surgical unit for eight weeks to validate the design was stable to carry out the intervention hospital-wide. The data demonstrated that continued process improvement would be needed to refine certain aspects of implementation; however, the process has shown the ability to have a collective impact on reducing avoidable readmissions. The results indicated that additional improvement measures were needed to decrease the special cause variation seen throughout the process as initially designed. Over eight weeks, the participants and their families were engaged in a multidisciplinary, collaborative process to prepare them for a successful discharge. Data showed that no one singular event has been shown to have the most influence on reducing readmission, but instead, it is the combination of multiple activities to reduce readmission rates that have proved to be the most successful. It cannot be inferred that the IDEAL Discharge Process singularly impacted readmission, but the addition of this process combined with other existing

measures aided in improving the discharge process to better equip patients with the tools to successfully transition home after discharge and return to their preadmission state.

# **Implications for Practice**

Avoidable readmissions place a significant burden on the healthcare system. Data shows that 1 in every four patients are readmitted within 30-days of discharge. There are high financial costs associated with patients being readmitted within 30-days of discharge, and there is an even greater impact on patient health outcomes. The QI initiative aimed to implement an evidence-based discharge protocol to reducing avoidable readmission for patients engaged in the intervention. The evidence-based intervention introduced a multidisciplinary collaborative process to engage the patient, the family, and the care team in a defined process throughout the patient's stay that provided patients with constant educations and reinforcement of information throughout the admission. The evidence shows that including the patient and family in the care process resulted in improved patient outcomes and greater compliance with the prescribed care routine after discharge and better-prepared patients, for discharge and transition home.

The collaborative process resulted in a change of behavior for the staff that approached patient care differently. The aim was to include IDEAL components, which are (Include, Discuss, Educate, Assess, and Listen) in the daily care process. Through this process, the patient became a part of the care process and became more engaged in their care, and better prepared for what to expect after discharge.

The implication for practice is that the QI initiative showed that integrating evidencebased science has improved the delivery of care to patients and has improved clinical knowledge and skills that has integrated a patient-centered approach that addresses the six aim of changing the healthcare system by ensuring the care is effective, efficient, timely, patient-centered, and equitable. This initiative has provided a model that changed the staff's behavior to reflect a more inclusive approach to care and provided an evidence-based best practice model to improve patient outcomes.

## **Implications for Quality/Safety**

Protecting the health and safety of patients is every organization's priority. Looking for opportunities to improve care delivery are the elements that aid in keeping patients safe and improving the quality of care. This initiative aimed to improve the discharge process to better prepare patients for discharge. When patients are readmitted, evidence shows that this results from inappropriate or inadequate care. This initiative aimed to improve the quality and safety for patients by ensuring care was patient centered. Having a patient-centered process helped the care providers engage with patients to identify specific barriers that could result in a potential complication impacting the patient's ability to safely manage after discharge.

Additionally, the IDEAL Discharge Protocol primarily focused on elements of patient teaching and assessment of the information provided to patients to ensure information was understood. After discharge, patients received follow-up, which added measures of quality and patient safety. Research shows the time immediately following discharge is the most critical time after discharge; therefore, this added measure was found to be a critical component to safe and quality care (Auerbach et al., 2016). These measures addressed critical components to patient safety and improved the quality of care by instituting an evidence-based process that data shows is the gold standard in healthcare. The IDEAL discharge process utilized a holistic approach to the discharge process, and it was found that these measures provided safe and quality care for patients.

# Plans for Sustainability and Future Scholarship

The identification of the best measures to reduce avoidable readmission is a continuous process. The IDEAL Discharge Process is one of the many measures being utilized to address reducing avoidable readmissions. The IDEAL Discharge Protocol was selected and identified as best practice and was designed to meet the organization's needs. Over the eight-week implementation period, it was discovered that further development of the manual process implemented to collect data would need to be improved to gain the full benefit from the process. This pilot was conducted on a Medical-Surgical unit and was carried out for a specific population; however, the goal is to institute the IDEAL Discharge Protocol hospital-wide to improve the patient care experience.

The pilot identified challenges in the process that would require further quality improvement measures to refine the process for optimal patient benefit. The results show the IDEAL process has had a significant impact on medication adherence and has aided in reducing the readmission rate for the pilot unit.

A subgroup (The Best Place to Experience Care) was developed in July at the practice site to further evaluate the process and plan for hospital-wide adoption. The recommendation put forth for optimum benefit included addressing the manual process for data collection and extending the IDEAL Discharge Protocol pilot. The organization has invested in the IDEAL Discharge Protocol to engaging patients and families in the care process and to include nursing bedside rounding in the care process. After the pilot, the subgroup evaluated the IDEAL Discharge Protocol pilot's results and developed solutions to address the challenges identified in the pilot.

The committee redesigned the IDEAL form to better meet the needs of the care team. The team developed a more intensive training program on the IDEAL process as of March 2021 has reintroduced the IDEAL protocol on the pilot unit and plans to move to hospital wide adoption later in 2021.

#### Limitations

Some limitations impacted this quality improvement initiative. An increase in COVID-19 patients on the pilot unit impact the length of the project; therefore, there was a smaller sample size than anticipated.

The pilot was implemented on one Medical-Surgical unit and focused on a specific population of older adults 65 or older. The results were specific to this population and may not be generalizable across a different population.

Medication compliance was assessed for participants during the eight-week implementation; however, pre-implementation data was not available. Further study will be needed to evaluate the impact the IDEAL Discharge Protocol has on medication compliance.

#### Conclusion

Transitioning home from acute care can be a challenging time for the patient and their families. Patients are managing more complex conditions and have more social needs that play a significant impact on patient outcomes. Adequate preparation is needed to ensure patients can successfully manage their care post-discharge. Engaging patients early and often in the discharge process helps to increase compliance with the discharge plan and can improve patient outcomes (Hospital Readmissions Reduction Program, n.d.). According to Coleman & Boult (2003), the discharge planning process should be patient-centered, involve shared decision making, and incorporate the patient and family in the process. The IDEAL Discharge Protocol is an evidence-based process developed by the AHRQ with proven success in engaging patients in the care process to reduce avoidable readmission. The implementation of the IDEAL Discharge Protocol helped to better meet the needs of patients through a structured, patient-centered collaboration between the providers, the patient, and their families.

## Dissemination of the project results

After the intervention was completed, the results were disseminated with the piloted unit, the Care Management Department at the entity level, as well as the system level. In addition, results have been disseminated with the Agency on Health Quality Research. Results were also shared with the George Washington University Research Showcase and the Washington Regional Nursing Research Consortium (WRNRC)11th Annual Doctoral Student Research Conference showcase for consideration. As additional opportunities present such as other national meetings or publication become available the results will be submitted for consideration.

### References

- Allen, J., Hutchinson, A. M., Brown, R., & Livingston, P. M. (2017). User experience and care for older people transitioning from hospital to home: Patients' and carers' perspectives. *Health Expectations*, 21(2), 518–527. doi: 10.1111/hex.12646
- Auerbach A. D., Kripalani S., Vasilevskis E. E., Sehgal N., Lindenauer P. K., Metlay J. P., Schnipper J. L. (2016). Preventability and causes of readmissions in a national cohort of general medicine patients. *JAMA Internal Medicine*, 176(4), 484-493. doi:10.1001/jamainternmed.2015.7863
- Bing Image (n.d). Retrieved April 13, 2020, from <a href="https://d3tl80hy6t5toy.cloudfront.net/wp-content/uploads/sites/4/2014/06/06051847/DMADV1.jpg">https://d3tl80hy6t5toy.cloudfront.net/wp-content/uploads/sites/4/2014/06/06051847/DMADV1.jpg</a>.
- Brown, C. G. (2014). The Iowa Model of Evidence-Based Practice to Promote Quality Care: An illustrated example in oncology nursing. *Clinical Journal of Oncology Nursing*, *18*(2), 157–159. doi: 10.1188/14.cjon.157-159
- Burke, R. E., Kripalani, S., Vasilevskis, E. E., & Schnipper, J. L. (2012). Moving beyond readmission penalties: Creating an ideal process to improve transitional care. *Journal of Hospital Medicine*, 8(2), 102–109. doi: 10.1002/jhm.1990
- Coleman, E. A., Boult, C., & American Geriatrics Society Health Care Systems Committee

(2003). Improving the quality of transitional care for persons with complex care needs. *Journal of the American Geriatrics Society*, *51*(4), 556–557. https://doi.org/10.1046/j.1532-5415.2003.51186.x

- Control Chart. (n.d.). Retrieved April 13, 2020, from https://asq.org/quality-resources/control-chart#Procedure
- Driver diagrams. (n.d.). Retrieved April 13, 2020, from <a href="https://improvement.nhs.uk/resources/driver-diagrams-tree-diagrams/">https://improvement.nhs.uk/resources/driver-diagrams-tree-diagrams/</a>
- Dyrstad, D., Testad, I., Aase, K., & Storm, M. (2015). A review of the literature on patient participation in transitions of the elderly. *Cognition, Technology & Work*, 17(1), 15–34. https://doi.org/10.1007/s10111-014-0300-4
- Epstein-Lubow, G., Baier, R., Butterfield, K., Gardner, R., Babalola, E., Coleman, E., & Gravenstein, S. (2014). Caregiver Presence and Patient Completion of a Transitional Care Intervention. *American Journal of Managed Care*, 20(10), e439–e444.
- Failure Modes and Effects Analysis (FMEA) Tool: IHI. (n.d.). Retrieved April 13, 2020, from <a href="http://www.ihi.org/resources/Pages/Tools/FailureModesandEffectsAnalysisTool.aspx">http://www.ihi.org/resources/Pages/Tools/FailureModesandEffectsAnalysisTool.aspx</a>
- Gantt Chart Template for Excel. (n.d.). Retrieved April 13, 2020, from <a href="https://www.vertex42.com/ExcelTemplates/excel-gantt-chart.html">https://www.vertex42.com/ExcelTemplates/excel-gantt-chart.html</a>

- Hirschman, K. B., Shaid, E., Bixby, M. B., Badolato, D. J., Barg, R., Byrnes, M. B., ... Naylor,
  M. D. (2017). Transitional care in the patient-centered medical home. *Journal for Healthcare Quality*, 39(2), 67–77. doi: 10.1097/01.jhq.0000462685. 78253.e8
- Howard-Anderson, J., Busuttil, A., Lonowski, S., Vangala, S., & Afsar-Manesh, N. (2016). From discharge to readmission: Understanding the process from the patient perspective. *Journal of Hospital Medicine*, 11(6), 407–412. doi: 10.1002/jhm.2560
- Hospital Compare Quality. (n.d.). Retrieved May 1, 2020 from https://www.medicare.gov/care-compare/
- Hume, K., & Tomsik, E. (2014). Enhancing patient education and medication reconciliation strategies to reduce readmission rates. *Hospital Pharmacy*, 49(2), 112–114. https://doi.org/10.1310/hpj4902-112
- Institute of Medicine. (2001). Crossing the Quality Chasm: A new health system for the 21st century. Washington, DC: *The National Academies Press*. https://doi.org/10.17226/10027
- Keller, G., Merchant, A., Common, C., & Laizner, A. M. (2017). Patient experiences of inhospital preparations for follow-up care at home. *Journal of Clinical Nursing*, 26(11-12), 1485–1494. doi: 10.1111/jocn.13427
- Kogan, A., Koons, E., & Enguidanos, S. (2017). Investigating the Impact of Intervention Refusal on Hospital Readmission. *The American Journal of Managed Care*, *23*(12), e394–e401.

- Lenaghan, N. A. (2019). Transitional care and empowerment of the older adult. *Geriatric Nursing*, 40(2), 148–153. doi: 10.1016/j.gerinurse.2018.07.005
- Levine, C., & Lee, T. (2017). I can take care of myself! Patients' refusals of home health care services. *United Hospital Fund and the Alliance for Home Health Quality and Innovation* (pp. 1–23).
- Luther, B., Wilson, R., Kranz, C., & Krahulec, M. (2019). Discharge processes: What evidence tells us is most effective. *Orthopaedic Nursing*, *38*(5), 328-333.
- Naylor, M. D., Shaid, E. C., Mccauley, K., Carpenter, D., Gass, B., Levine, C., ... Williams, M. V. (2018). Components of comprehensive and effective transitional care. *Innovation in Aging*, 2(suppl\_1), 202–202. doi: 10.1093/geroni/igy023.742
- Nilsen, E. R., Söderhamn, U., & Dale, B. (2019). Facilitating holistic continuity of care for older patients: Home care nurses' experiences using checklists. *Journal of Clinical Nursing*, 28(19-20), 3478–3491. doi: 10.1111/jocn.14940
- Reinhard, S., Young, H., Ryan, E., & Choula, R. (2019). The CARE act implementation: progress and promise. *AARP Public Policy Institute*, 1–9. doi: https://www.aarp.org/content/dam/aarp/ppi/2019/03/the-care-act-implementation-progress-and-promise.pdf

- Sefcik, J., Ritter, A., Flores, E., Nock, R., Chase, J., Bradway, C., ... Bowles, K. (2017). Why older adults may decline offers of post-acute care services: A qualitative descriptive study. *Geriatric Nursing*, 38(3), 238–243. https://doi.org/10.1016/j.gerinurse.2016.11.003
- Selvi, K., & Majumdar, R. (2014). Six Sigma- overview of DMAIC and DMADV: *International Journal of Innovative Science and Modern Engineering*, 2(5), 16-19
- Silow-Caroll SE, Edwards JN, Lashbrook A. (2011) Reducing hospital readmissions: lessons from top-performing hospitals. *The Commonwealth Fund*, 1472 (5), 1-20
- Strategy 4—Care Transitions From Hospital to Home: IDEAL Discharge Planning. (2017). In:

  Guide to Patient and Family Engagement in Hospital Quality and Safety. Agency for

  Healthcare Research and Quality, Rockville, MD.

  December 2017. https://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/strategy4/index.html
- Tah, V., Sherrod, R., Onsomu, O., & Howard, C. (2019). Utilizing the IDEAL discharge process to prevent 30-day readmissions. *Nursing Management (Springhouse)*, 50(11), 28–32. https://doi.org/10.1097/01.NUMA.0000602820.88055.7f

The Joint Commission. (2017). Improving access to home care. *Quality Safety*, 36, 1–2.

Uphold, C. R. (2012). Transitional Care for Older Adults: The need for new approaches to

support family caregivers. *Journal of Gerontology & Geriatric Research*, 01(02). doi: 10.4172/2167-7182.1000e107

Zhang, Y., Kaplan, C. M., Baik, S. H., Chang, C. C., & Lave, J. R. (2014). Medication adherence and readmission after myocardial infarction in the Medicare population. *The American Journal of Managed Care*, 20(11), e498–e505.

# **Tables**

**Table 1** *Evidence Table* 

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
1	Allen et al., 2018	Qualitative	n=19 participants transitioning from home to the hospital. n= 7 caregivers participants were 18 yrs. or older and English speaking  The average participant was 70 years old with at least two chronic conditions  Research was conducted at a large public-health network in Australia	This data supports the need for transitional care programs to be patient-centered and encourage patients to be independent.	The instruments used included demographic questionnaire for patients and families and semi-structured interviews.  The study was a thematic analysis guided by the research questions assessing the patient's response on a need to be independent and patient's perspective on care experiences.	The study limitations included small sample size  Study not inclusive of participants from culturally diverse background or economic status  Study was conducted in Australia	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
2	Anderson et al., 2016	Qualitative	n=230 patients recruited to participate in a in person survey at an academic medical center. Participants were selected from medicine and cardiac units if they experienced a readmission within 30 days. The median age of participants was 62.9 with even slit of females and males. 62 percent of the participants were Caucasian and 21 percent Black.	The data from the patient interviews identified gaps in the current discharge process that left patients feeling unprepared for discharge. The result brings to light the fragmented transitional services and the need for better coordination and engagement.	The study used in-person surveys to evaluate patient readiness, attitudes toward readmission, discharge instructions, ambulatory resources, and follow-up care	The study was conducted at one institution, limited to English speaking patients admitted to the institution or partnering hospital.  All patient interview occurs during admission possibly introducing recall bias. The survey instrument used was not validated	Level 1, A
3	Auerbach et al., 2016	Qualitative	1000 patients readmitted within 30 days of discharge were participants in an observational	The study evaluated avoidable readmission from the perspective of	Patients and physician were surveyed. The authors reviewed documentation and two case studies were analyzed. Survey question	Limitations include the subjectivity of the review process including biases of the	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			study conducted at 12 US academic medical centers between April 2012 to March 2013. Participants were 18 years or older and spoke English	patients and healthcare professional. It was found that one third of readmissions are potentially avoidable. The contributing factors included communication breakdown between staff and patients, lack of patient centered care, lack of assessment of preparedness for discharge and lack of support for patient selfmanagement.	consisted of fixed-choices and open-ended questions.	reviewers regarding factor contributing to avoidable readmission. Additionally, the possibility of patient confounding factors and instrumental bias limiting researcher's ability to detect factors outside of the tool list used.	
4	Burke et al., 2013	Non- Experimental Study	Authors convened to develop a conceptual model to demonstrate the essential	The researchers identified the key components necessary to implementing	The authors designed a conceptualized transitional care model that highlights 10 key components to safe transition in care for	Conceptual framework of the authors based on literature search.	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			components of a transitional care process.	successful transition care process for patients. When components of the process are not present the transitional care become less stable and can result in an unsafe transition for the patients.	patients describes as the Ideal Transition in Care bridge.		
5	Dyrstad et al., 2015	Systematic Review	The systematic review included n= 15 studies pertaining to patient participation in transitional services and n= 15 studies on the use of tools for engagement. Included article were identified through CINAHL, Medline,	The review found older adults are often excluded from the discharge process and do not contribute to the discharge discussion. The article highlighted that patient engagement can help to empower	A thematic synthesis was used to evaluate the influence on elderly patient's participation in transitional care.	The systemic review is the author's interpretation of other published studies, limited to articles published in English and the review focused on the quality of results of the studies rather than the quality of the method	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			Academic search, Elite, Cochrane and Scopus and from reference list. A total of 797 records screened n= 30 articles included in the review.	patients in the decision-making process.		section in the studies.	
6	Epstein- Lubow, et al., 2014	Quasi- experimental	A convenience sample of 2747 Medicare patients  An intervention group of 2265 participants coached without family involvement and the control group was 482 participants with family involvement. The sample include males and females	This study showed the association caregivers played in the completion of transitional care services.  This study highlights the importance of including caregivers in the transitional care process.	The study evaluated whether patient completed intervention after discharge. The study examined two group of participants 1) participant with involved care giver and those with 2) no involved care givers. Medicare claims, enrollment data and a coaching database were used to track the intervention.	The limitations of the study were the lack of obtaining caregiver demographics and their relationship to the participant.  Also, the inability to assess whether the control group had access to a caregiver is a limiting factor	Level 2, A

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
7	Hume & Tomsik, 2014	Case Report		The articles discuss the importance of medication education and reconciliation strategies to reduce avoidable readmissions. The strategies include implementing a standardize process, including the patient in the process, implementing interdisciplinary collaboration, improving communication, and adopting a medication management service model	The case report has identified foundational concepts to implement into programs to help prevent avoidable readmissions		Level III, A/B
8	Lenaghan et al., 2018	Quantitative	n=25 participants male (32%),	In the study, the author	Presurvey using a Likert (Senior empowerment and	The research was limited in the	Level 1, B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			female (68%), average age 79 yrs.  52 percent college educated, and 94 percent of participants were Caucasians 4 percent were Black and 2 percent Hispanic.  Study completed at two acute care facilities.	examined whether a one on one interaction with an advanced practice nurse will improve patient empowerment.  The intervention called QUEST showed an improvement in patient empowerment for patients.	Advocacy in Patient Safety) were given to participants prior to interventions and post survey.  The survey question evaluated patient empowerment in two areas confidence and beliefs.	small sample size; additionally, the ceiling effect may have influenced the confidence scores in healthier participants leading to less or no opportunity for improvement.	
9	Levine & Lee, 2017	Consensus	The Alliance for Home Health Quality and Innovation, United Hospital Fund cosponsored the round table discuss to bring leader together form across the country	The roundtable discussion concluded that refusals stemmed from gaps in discharge planning, differences in the views of	The report was a consensus from a roundtable discussion assembled to build on the current knowledge of the reasons for refusal of services.  Experts were brought together to shed light on	The selection criteria for attendees not disclosed.	Level IV, A

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			to explore home health refusal.	patients and family members, varying perceptions of values of home care services, and systemic barriers to access.	the barriers and factors impacting the reasons behind patient refusal for transitional		
10	Luther et al., 2019	Clinical practice guidelines	The authors review the IDEAL discharge process	The authors discuss the need for an evidence-based structured discharge process.  Nursing has a pivotal role in ensuring patients have a safe transition from acute care. The authors highlight the components of the IDEAL discharge process by AHRQ as a	The authors offer recommendations for nursing practice that will help to develop consistent evidence-based practices	The article is based on only one evidence-based process.	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
				means to incorporating an evidence-based model into practice.			
11	Keller et al., 2016	Qualitative	n=13 participants English or French speaking sampled from six medical surgical units at an acute care facility in Eastern Canada.  Median age 61, males (4) and females (9) in the study.	This study adds an additional component for providers to consider when developing methods to encourage their patient participation.  Understanding that prior health care experience and level of trust in providers is directly correlated to patient engagement can help providers align their	The study used thematic content analysis of 13 semi-structured interviews of patient needing home care to evaluate attitudes and level of engagement.	The study was conducted at one hospital in Canada and may not be generalizable to the U.S. population and used a convenience sample of 13 participants.  The small sample size and the limited variable may not be applicable across different settings.	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question approach to	Observable Measures	Limitations	Evidence Level & Quality
				improve patient			
12	Naylor et al., 2017	Consensus	Transitional Care Components and Measures Workgroup consisted of multiple stakeholder that included field experts, patients, and caregivers. The group met several times in 2015, via teleconferences and webinars	The TCCMW examined factors negatively influencing transitions and identified component and developed eight core competencies of effective transitional care	The TCCMW met to establish a consensus on the eight core components essential to transitional care. The identified components were patient engagement, caregiver engagement, complexity, and medication management, patient education, caregiver education, patients' and caregivers' well-being, care continuity, and accountability.	The reported represented one case study. Additionally, the study may not be applicable across different setting given the study only focused on Medicare beneficiaries' transition from hospital to SNF or home.	Level IV, A
13	Neilson, et al.,	Qualitative	18 RNs with one year of experience from eight different agencies participated in the stud. Participant were male and females with varied work	The study found the implementation of evidence - based tools were useful when they are customizable and well received when	Interview were conducted with a focus group that included 18 RNs form eight agencies in Norway. The COREQ checklist was used.	Study conducted in Norway	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
			experience and age.	leadership engages the staff in the implementation of the tools			
14	Reinhard, Young, Ryan & Choula, 2019	Consensus	Authors convened to provide update on the CARE act implementation. Representatives from AARP Public Policy Institute, Betty Irene Moore School of Nursing, UC Davis and AARP State Advocacy & Strategy Integration	The report provides an update on the CARE act implementation that requires hospital to include families in the care process. The law was passed in 2012 and currently 40 states have adopted the legislation recognizing the importance of involving families in the care process. The report outlines strategies to	The report provides 10 themes to overcoming barriers to the CARE act	Authors opinions on the recommendation needed to mitigate barriers to implementation.	Level IV, A

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question overcoming	Observable Measures	Limitations	Evidence Level & Quality
				barriers			
15	Silow- Caroll, Edwards, Lashbrook, 2011	Synthesis Report	The review includes 4 case studies from 4 US hospitals McKay-Dee Hospital in Ogden, Utah. Memorial Hermann Memorial City Medical Center in Houston, Texas; Mercy Medical Center in Cedar Rapids, Iowa; and St. John's Regional Health Center in Springfield, Missouri	The review highlights four case studies from institutions with low 30-day readmission rates. The success was attributed to the organization's commitment to excellence by implementing additional measures to improve the quality of care provided to patients. These measures included improving patient education	The report provides a synthesis of case studies of hospital with low readmission rates	Based on the author report interpretation of case studies	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
				measures, follow-up policies, improving staff communication and improving care coordination.			
16	Tah et al 2019	Quality Improvement Pilot	The QI project was implemented at a rehabilitation hospital in North Carolina. Sixtyseven patients participated in the study	The study utilized the IDEAL discharge process to reduce avoidable readmission for stroke patients. The QI project found the IDEAL discharge process to be effective in reducing avoidable readmission for stroke patients as well as reducing cost	A retrospective review of medical records was conducted on 34 stroke patients discharged from November -December 2017 to compare readmission rates for the 33 IDEAL participants	Limitation of the study is small sample size and limited to stroke patients	Level V, A

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question for the	Observable Measures	Limitations	Evidence Level & Quality
				organization.			
17	Uphold, 2012	Systematic Review	The following databases were searched Medline, CINAHL, and Social Work Abstracts. The search term included patients 65 years or older, continuity of patient care, patient transfer, discharge planning, post discharge follow-up and transitional care	The review highlights the challenges older adult encounter when transitioning from acute care. The review found the following factors impact safe transition poor communication, incomplete transfer of information, inadequate education of older adult and family, limited access to community services and absence of	The search evaluated three approaches to identify quality of care for older adults 1) access to community services, 2) improving transitional care within acute care settings and 3) improving patient handoff.	The systemic review is the author's interpretation of other published studies and included studies from 1996-2007 may not reflect the most current data.	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Observable Measures	Limitations	Evidence Level & Quality
18	Zhang et al, 2015	Case-control study	Participants in the study n=168,882 Medicare beneficiaries discharged after MI in 2008	family involvement. The authors stress the importance of improving the discharge process by adopting practices that mitigate these factors The study found better adherence to medications post discharge lowered or decreased the likelihood of avoidable readmission. The study highlighted the importance of medication education as an additional opportunity to	A retrospective review of claims data was used to evaluate the correlation between medication adherence and avoidable readmissions.	Study limitation included no random assignment to the case or control group, matching algorithm not perfect group differed significantly on risk scores, but the magnitude was small, the study evaluated claim data therefore no observed patients	Level III, A/B

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Ouestion	Observable Measures	Limitations	Evidence Level & Quality
				reduce avoidable readmission			

Note: The evidence table list the evidence found to support the quality improvement initiative

Table 2
Outcome Measures

Measure	Criteria	Calculation	Benchmark	Data Source
Process Measure	Adherence to the IDEAL Process	Percent of Checklist Completed (weekly)  The Number of Checklist Completed/ The Total number of IDEAL patients	100%	IDEAL discharge checklist tool 4
Outcome Measure	Readmission Rate  Readmission/Expected Readmission * U.S. National Readmission Rate = Risk- Standardized Readmission Rate (RSRR)  5 Percent Decrease in the Current RSRR (14.8)		Hospital Compare	
Outcome Measure	Medication Compliance	Sum of Days' Supply for all Fills in Period/Number of Days in Period X 100	100%	Follow-up calls
Outcome Measure	Scheduled Follow-up Appointments	The Total Number of Schedule Follow-up /The Total Number of IDEA Participants	Scheduled Follow-up Appointment Scheduled for Each Patient	IDEAL Discharge Checklist
Outcome Measure	Percentage of IDEAL Patients from Piloted Unit Readmitted Within 30 days Post Discharge.	Number of IDEAL Patients Readmitted/ Number of IDEAL patients Discharged Per Month	≤ 5%	Cerner Daily Readmission Tracking Repot
Balance Measure	Length of Stay	Discharge Date and Time Minus	≤6 days	Obtained from the Electronic

Measure	Criteria Calculation		Benchmark	Data Source
		Admission Date and		Medical
		Time		Record
Balance	Reported Stress	The Number of	< 5 Percent of	Paper Survey
Measure	Related to	Reported Positive	Respondents	
	IDEAL	Responses from	Report Stress	
	Implementation	Question # 3 /Total	Related to	
		Number of Surveys	IDEAL	
		Completed in 3	Implementation	
		Months		

*Note*: The outcome measure table detail the process, outcome, and balance measures for the QI project.

**Table 3**Variable Table

VARIABLES	TYPE OF VARIABLE	THEORETICAL DEFINITION	OPERATIONAL DEFINITION	LEVEL OF MEASUREMENT
Patient Identifier	Demographic	System Generated Unique Identifier	Medical Record Number (MRN) Generated by Medical Record	Nominal
Patient Age	Demographic	Chronological age in years of the patients	As Recorded in Medical Records MM-DD-YYYY	Nominal
Patient Gender	Demographic	Patient's gender at birth	Patients Gender Recorded in Medical Record 1=Male 2=Female	Nominal
Race/ Ethnicity	Demographic	Self-reported ethnical identity	Ethnic Background Recorded in Medical Records 1= Black or African American; 2=Hispanic or Latino; 3=White; 4=Native American or American Indian; 5=Asian/Pacific Islander; 6=Other	Nominal
Discharge Date	Demographic	Date of discharge	Date Recorded in the Medical Record Patient Discharge from Care MM-DD-YYYY	Nominal
Discharge Meeting Date	Independent Variable	Date discharge meeting occurred	Meeting Date Nominal Documented MM-DD-YYY	
Length of Stay	Dependent Variable	Time in the hospital in days	Discharge Date and Time Minus Admission Date	Nominal

VARIABLES	TYPE OF VARIABLE	THEORETICAL DEFINITION	OPERATIONAL DEFINITION	LEVEL OF MEASUREMENT
			and Time Reported as Days and Portion of Days Rounded to 2 Decimals	
Medication Compliance	Independent Variable	The number of completed medication doses	Sum of Days' Supply for all Fills in Period/Number of Days in Period X 100	Nominal
Patient Education	PtEd	PtEd The number of The to patients receiving education pa		Nominal
Reported stress related to IDEAL implementation	Independent Variable	Staff Report of stress Related to IDEA Implementation	Positive response to question number 3/the total number of surveys completed	Nominal
All IDEAL discharge requirements completed	Independent Variable			Nominal
Documented IDEAL Assessment	Independent Variable	Initial IDEAL Assessment Completed for Patient	IDEAL Initial Assessment Checklist Completed 1=Yes 2=No	Nominal
Follow-up calls	Independent Variable	Two Follow-up call Placed to Patients in 30 days One in	Number of Successful attempts	Nominal/List

VARIABLES	TYPE OF VARIABLE	THEORETICAL DEFINITION	OPERATIONAL DEFINITION	LEVEL OF MEASUREMENT
		the First Week Post Discharge and the Second Call Placed During the Third or Fourth week	1= 2 Calls 2= 1 Call 3=Attempt Made unable to reach 4= No Attempt Made  Specify Reasons No Attempt Made or Unable to Reach	
Follow-up appointments scheduled	Independent Variable	Follow-up appoint scheduled with PCP	Documented Follow-up Appointment 1= Yes 2= No	Nominal
Readmission	Dependent Variable	Patient has a Readmission Within 30 Days of Discharge	Hospital Compare Readmission rate	Nominal

Note: The table lists the variables that will be tracked and measured for data analysis.

Table 4Demographic Table

Variable	Value
Patient Age	
MM-DD-YYYY	Mean Age in Years
Patient Gender	
1=Male	-
2=Female	
Race/	% in Each Category
Ethnicity	
1= Black or African	
American; 2=Hispanic or	
Latino; 3	
=White; 4=	
Native American or	
American Indian; 5=	
Asian/Pacific Islander	
6=Other	
Admitting Diagnosis	List Admitting Diagnosis
LOS	Discharge Date and Time
MM-DD-YYYY	Minus Admission Date and
	Time Reported as days and
	Portion of Days Rounded to 2
	Decimals
Discharge planning meeting	
scheduled	-
MM-DD-YYYY	
Discharge meeting date	
MM-DD-YYYY	-

*Note:* The patient demographic table lists the characteristic that will be captured for each patient participating in the IDEAL Discharge Protocol.

Table 5

Demographics of IDEAL Discharge Protocol Participants

Demographics of IDEAL Participants (n= 44)				
Characteristics	Value			
Gender				
Female, n (%)	22.0 (50)			
Male, n (%)	22.0 (50)			
Age mean (range)	75.8 (65-101)			
Ethnicity				
% African American/Black	45.5			
% Asian Pacific Islander	13.6			
% Hispanic/Latino	6.8			
% White	29.5			
% Other	4.5			
Length of Stay mean (range)	3.8 ( 1-17)			
Staff Survey n 22				
No Stress	20.0			
Minimal stress	2.0			

Note: The table details the IDEAL Discharge Protocol participant's demographics.

**Table 6**Staff Stress Survey Data Collection Tables

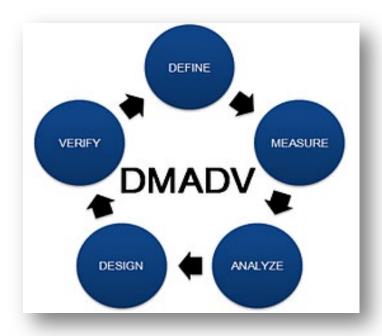
Staff Survey Stress Related to I	mplementations n =23
Reported Stress	Total
No Stress	23
Minimal Stress	2
Moderate Stress	0
Great Stress	0

*Note*: This table shows the staff survey results related to the stress caused by the implementation of the IDEAL Discharge Protocol. Twenty-three respondent reported no stress related to implementation. Two responds reported minimal stress related to the implementation.

**Figures** 

Figure 1

Define, Measure, Analyze, Design, Verify (DMADV)

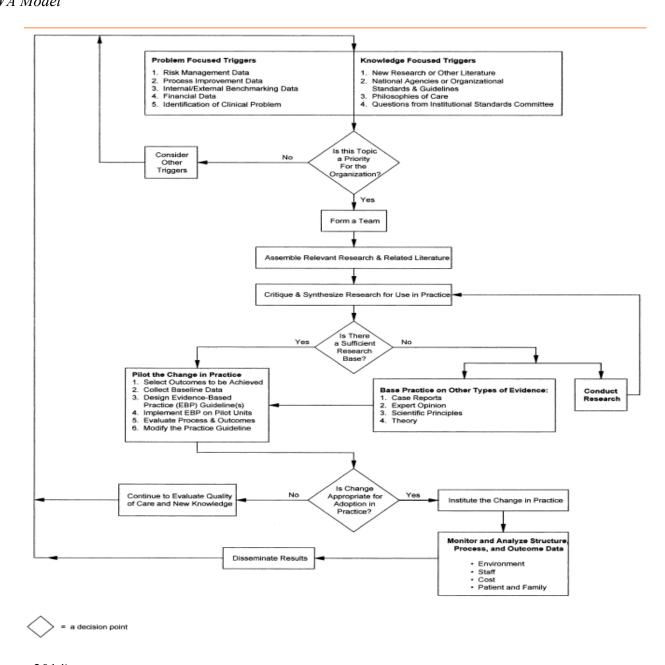


## (Bing Image, n.d)

*Note*: The image illustrates the steps in the Six Sigma quality improvement method utilized to implement the quality improvement initiative.

Figure 2

IOWA Model

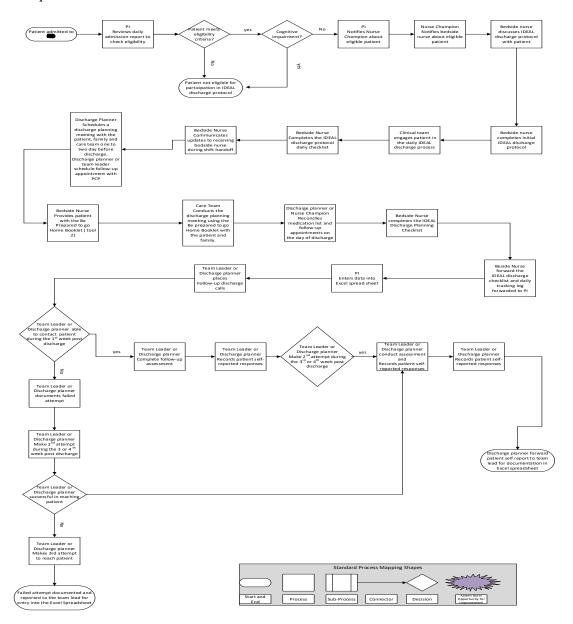


(Brown, 2014)

*Note:* The IOWA Model was the translational model used the implement the IDEAL Discharge Protocol.

Figure 3

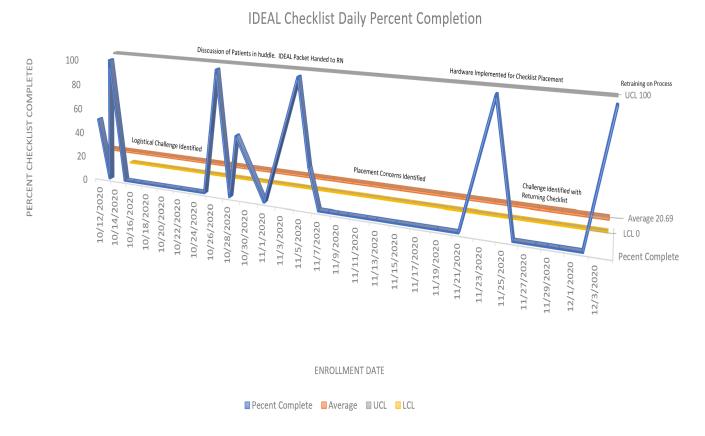
# Process Map



Note: The process map outlines the steps in the IDEAL Discharge Protocol initiative.

Figure 4

IDEAL Checklist Percent Compliance

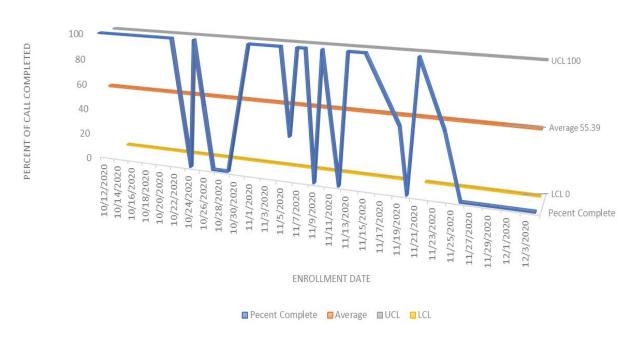


*Note:* The control chart illustrates the IDEAL Discharge Protocol variability over the 8-week implementation period. The chart highlights the various interventions implemented to address the process variability. The data show the percentage of IDEAL checklist completed per day.

Figure 5

Daily Follow-up Calls Percent Compliance

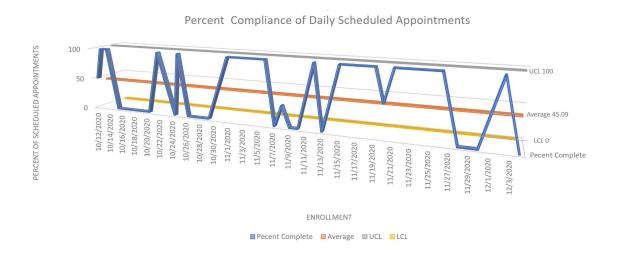




*Note*: The control chart illustrates the process variation for the daily follow-up calls to participants. Special cause variation was attributed to the availability of patients after discharge and or patient preference in reference to receiving follow-up after discharge. The data shows the percentage of follow-up calls completed per day.

Figure 6

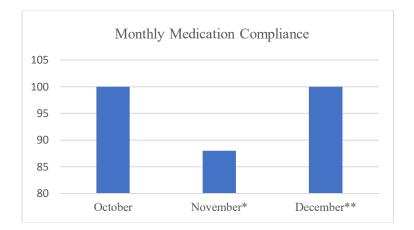
Percent Compliance of Scheduled Appointments



*Note*: The control chart shows the process variation for scheduled follow-up appointments at discharge. Special cause variation was attributed to the election of participants to schedule their own appointment after discharge. An attempt was made to schedule every participant's appointment. The data highlights the percentage of schedule follow-up completed per day.

Figure 7

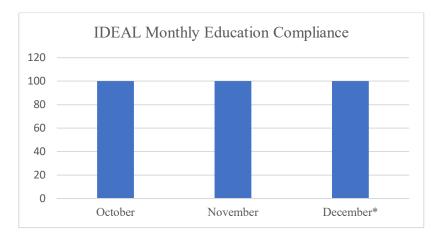
Monthly Medication Compliance



*Note*: The bar graph shows percent compliance from October – December. There was no data in the pharmacy record for three patients in November which impacted the overall compliance for the month. In December, the intervention was impacted by COVID-19 and the data for December represent two participants.

- \* No information reported for patients
- \*\* Project impacted by COVID-19 only two data points reported for December

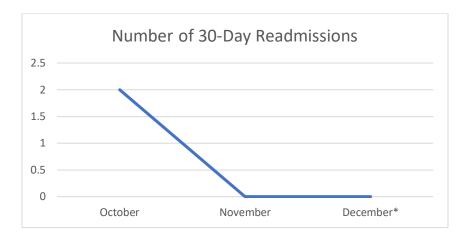
**Figure 8** *Monthly Education Compliance* 



*Note*: The bar graph illustrates the monthly education compliance for IDEAL Discharge Protocol participants. The was 100 percent compliance with patient education over the implementation period.

\* Project impacted by COVID 19 only two data points reported for December

**Figure 9**Number of 30-Day Readmissions

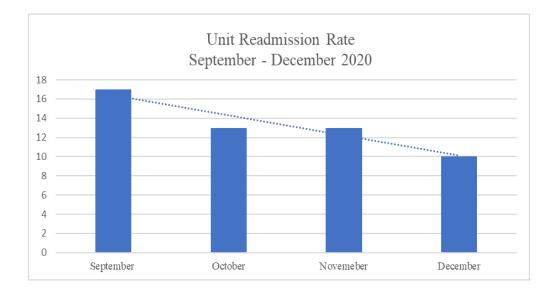


*Note*: This line graph shows the number of readmissions per month over the implementation period. Two participants were readmitted within 30-days of discharge. No participates were readmitted in November. In December the intervention was impacted by COVID-19 and therefore only two data points were collected for the month of December.

\* Project impacted by COVID-19 only two data points reported for December

Figure 10

Number of 30-Day Readmissions



Note: This graph shows the 30-day readmission rate for the pilot unit. In September prior to implementation of the IDEAL Discharge Protocol the pilot unit's readmission rate was 17 percent. The IDEAL Discharge Protocol was implemented in October and the readmission rate for October and November was 13 percent. In December, the intervention was impacted by COVID-19 and therefore only two data points were collected for the month of December. The readmission rate for December was 10 percent. However, given the unit status change midmonth, the readmission rate may be understated, as reflected in the data.

# Appendices

Appendix A

SWOT Analysis

	Helpful  To achieving the objective	<b>Harmful</b> To achieving the objective
Internal Origin {Attributes of the organization}	Strengths  • Leadership • Culture • Integrity • Operational Structure • Growth	Weaknesses      Engagement     Sufficient Staffing     Resources Allocation     Expertise
External Origin {Attributes of the organization}	Opportunities  Reputation Partnerships Innovation Quality Initiatives	Threats  • Funding • Shifted Priorities • Community • Competitors • Necessity

Note: The SWOT provides the organization's strengths, weakness, opportunities, and threats.

#### Appendix B

Project Charter

## **Project Charter**

#### **Project Name:**

Increasing older adult engagement in the discharge process with the use of IDEAL Discharge Protocol

#### **Business Case:**

Within the organization, older adults are known to have higher readmission rates and a more significant number of commodities. These comorbidities can create additional risk and have the potential to lead to readmission after an acute inpatient stay. The IDEAL Discharge Protocol seeks to create a collaborative process to engage the patient and family early in the admission process by implementing strategies that will reinforce education and encourage discussion with the care team throughout the patient stay. This intervention has the potential to decrease the number of avoidable readmissions.

## **Problem/Opportunity:**

To reduce avoidable readmissions and aid in increasing medication compliance in older adults

#### Goal:

This project will implement an evidenced-based discharge protocol to engage older adults in the discharge process to increase medication compliance and avoidable readmissions on a piloted medical-surgical unit.

## **Project Scope:**

In Scope: All patients 65 years or older admitted to the pilot unit.

Out of Scope: Patients not admitted to the pilot unit, patient not meeting the age requirement and patients diagnosed with cognitive deficits impairing ability to engage in the intervention

**Team**: Team members will include DNP student investigator, Nursing Champions, Staff Nurses, Care Navigation Director, Care Navigator, Operation Excellence representative, Quality and Patient Safety representative, Nurse Director.

#### **Schedule:**

**Intervention Roll-out Date**: August 2020

**Completion Date:** December 2020

Preliminary Project Plan:	Target Date:	Actual Date:
<b>Define</b> : Project Charter	April 2020	April 2020
Measure: Control Chart	May 2020	May 2020
Analyze: FMEA	April 2020	May 2020
Design: Action Plan	April 2020	May 2020
Verify: Control Chart	December 2020	December 2020
Prepared by: Ava Williams		

*Note*: The project charter outlines the project objectives, the key members involved in the project and the timeline for completion of pivotal phases of the project.

**Appendix C**Failure Mode Effect Analysis

Failure Mode	Failure Causes	Failure Effects	Likelihood of Occurrence (1-10)	Likelihood of Detection (1-10)	Severity (1-10)	Risk Profile Number (RPN)	Action to Reduce Occurrence of Failure
Patients unable to engage in the IDEAL discharge process	Patients have a lack of trust	Increases the likelihood of adverse effects	5	5	9	225	Implement the IDEAL evidenced- based protocol to create a partnership between the clinicians, hospital staff, patient, and family
Clinical staff omitting steps in the process	Too busy to carry out each step	Patient does not receive the full benefit of the intervention	9	9	10	810	Train clinical staff on ways to more efficiently incorporate the IDEAL Discharge Protocol
Lack of engagement of clinical staff	Clinicians/staff feel they already engage the patient and family	Communication not effectively received	9	9	10	810	Identify ways clinicians can include the patient and family as full partners in the discharge process.
Challenges communicating with family	Sensitivity of the subject matter discussed	Patient at risk for adverse effects and readmissions	6	7	8	336	Train clinicians and hospital staff on opportunities and approach for educating the patient and family
Challenges scheduling time with family	Family unable to make time	Patient at risk for adverse effects and readmissions	8	7	10	560	Identify alternative method for conducting meeting in a collaborative organized manner
Insufficient time to carry out the IDEAL process	Staff have inadequate time to prepare	Missed opportunity to prepare patient/family for discharge	10	8	10	800	Provide a structured setting in which patients and families can discuss their concerns
Staff feel current process is sufficient	Staff may fear change	Result in adverse effects for the patient	8	7	8	448	Staff buy in to the IDEAL protocol

*Note:* The FMEA table highlights potential process failure in the IDEAL Discharge Protocol for the organization and provides proactive solutions to consider putting in place before implementation.

Appendix D

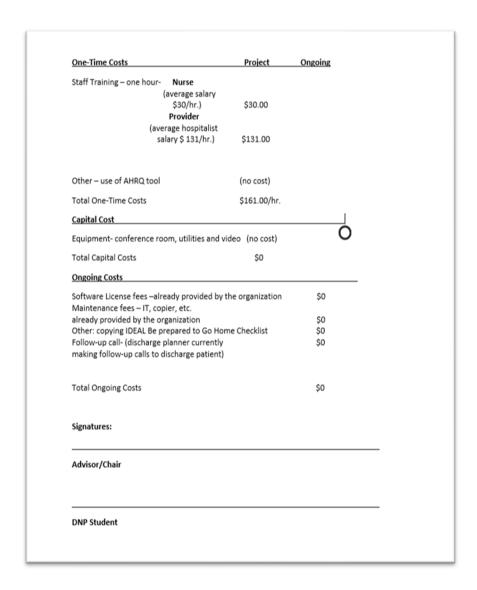
Action Plan

	Action Plan						
Type	What	How	Who	When	Where	Why	
Strategy	Implement the	Gain the	The Team	The Team	The	The IDEAL protocol	
	IDEAL	support and	Leader will	Leader would	implementation	is implemented to	
	evidenced-	buy-in from	identify	engage	will be piloted	improve the	
	based protocol	key	organizational	Leadership by	on medical-	discharge process	
		representatives	leaders to	January 2020	surgical unit	for older adults.	
			engage				
People	Engage	Presentation of	Team Leader	In March	Implementation	The IDEAL	
Organization	Clinical staff	information	will gain the	2020 Team	on pilot unit by	Discharge Protocol	
	and leadership	about the	necessary	Leader, will	clinical staff	would provide an	
	in a discussion	IDEAL	support from	schedule	and providers	opportunity for the	
	about IDEAL	discharge	nursing	meetings with		organization to	
	Discharge	process.	leadership and	the pilot unit		improve the	
	Protocol.		buy-in.			discharge process.	
Process	Incorporate	Regular	Team Leader	In March of	Training on the	Implementation of a	
	daily tools to	weekly	will schedule	2020 Team	IDEAL process	structured discharge	
	inform	meeting	meetings to	Leader will	for the pilot	process that better	
	practice	scheduled to	discuss the	send out	unit.	prepares patients for	
		discuss ideas	project	meeting		discharge	
				invitations			
Technology	Develop	Weekly	Team Leader	IT and quality	A process for	Establish a defined	
	electronic	discussion	will meet with	team will	data collection	process to track and	
	process using	with team to	Quality team	meet by	and analysis	trend data on the	
	the electronic	discuss collect	and IT to	March 2020.	will be defined	discharge process.	
	medical record	and analyze of	discuss project		by July 2020.		
		data	needs				

*Note*: The action plan provides an overview of the project and the steps that will be made to implement the initiative. The plan offers what, who, why, when, why and how on the IDEAL Discharge Protocol to be piloted on

## Appendix E

## Budget



*Note*: The budget outlines the expenses related to the implementation of the quality improvement project.

Appendix F

Discharge Checklist

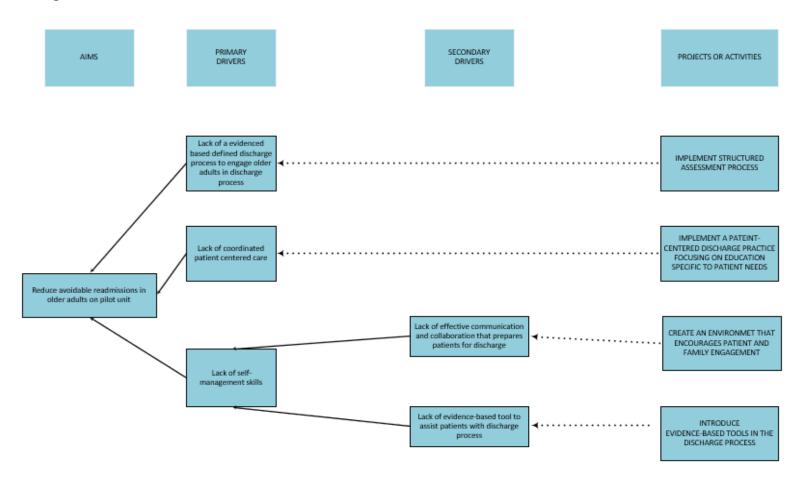
atient Name:			
Initial Nursing Assessment	Prior to Discharge Planning Meeting	During Discharge Planning Meeting	Day of Discharge
Identified the caregiver at home and backups  Told patient and family about white board  Elicited patient and family goals for hospital stay  Informed patient and family about steps to discharge	Distributed checklist and booklet to patient and family with explanationScheduled discharge planning meeting Scheduled for/ at [time]	Discussed patient questions  Discussed family questions  Reviewed discharge instructions as needed  Used Teach Back  Offered to schedule followup appointments with providers. Preferred dates / times for:  PCP:  Other:	Medication Reconciled medication listReviewed medication list with patient and family and used teach back  Appointments and contact informationScheduled followup appointments:  1) Withon//at(tim

(Strategy 4 Care Transitions, 2017).

Note: The IDEAL Discharge Checklist was utilized and the data collection to for the quality improvement initiative.

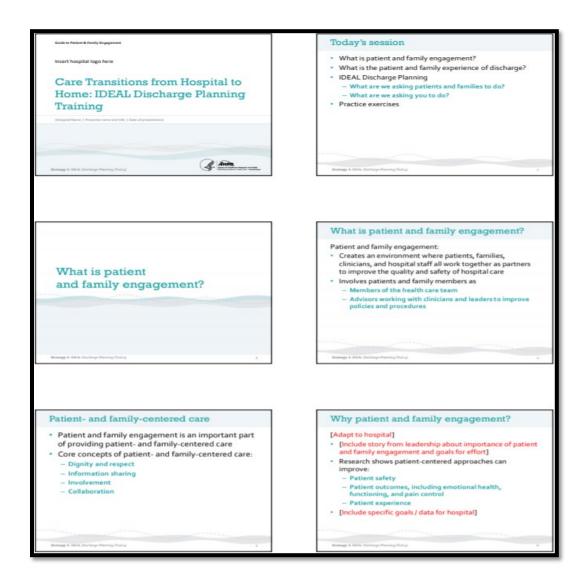
Appendix G

## Driver Diagram



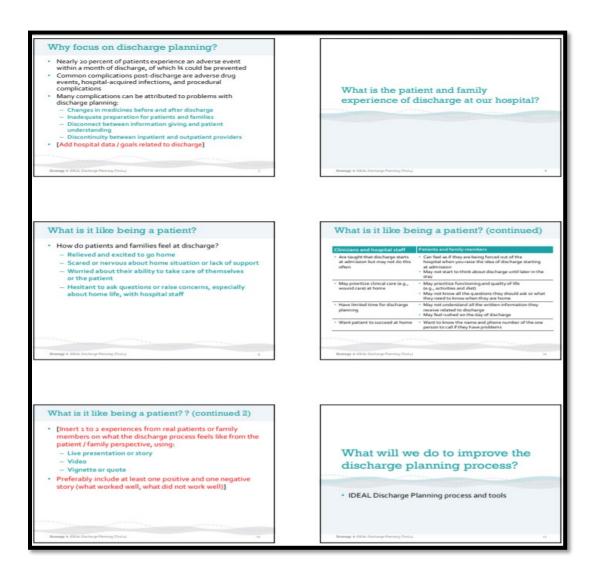
Note: The driver diagram details the critical activities need for the implementation of the IDEAL Discharge Protocol.

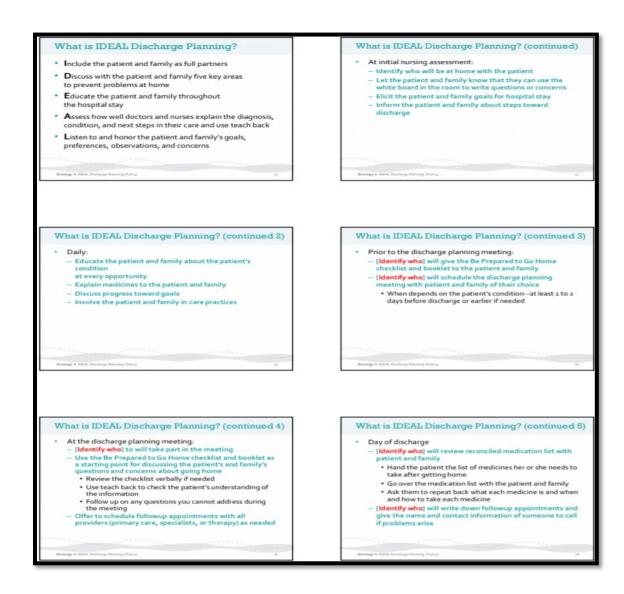
### IDEAL PowerPoint

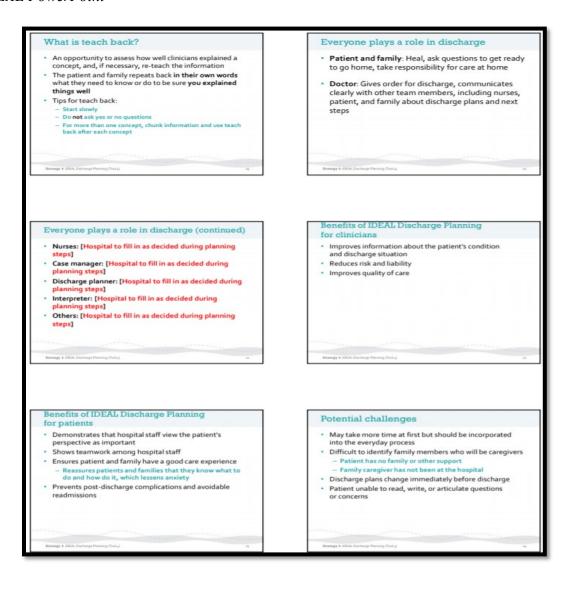


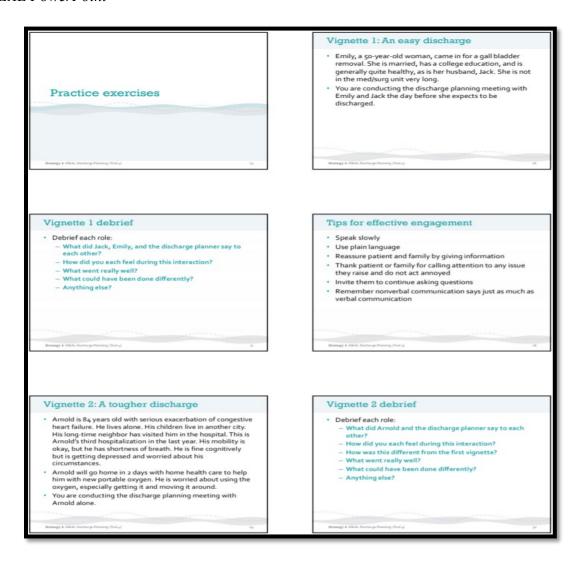
(Strategy 4 Care Transitions, 2017).

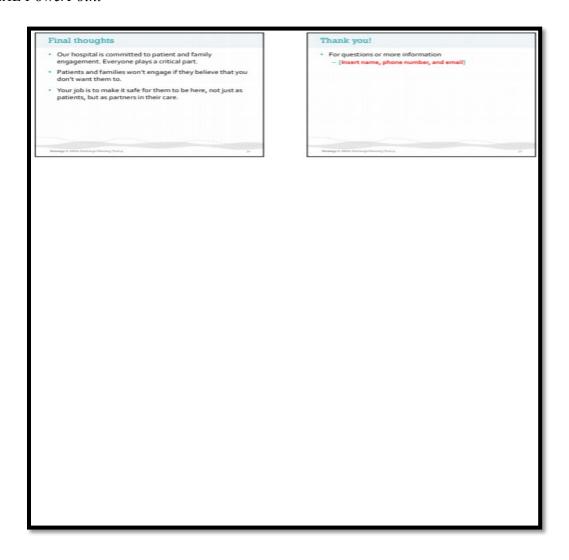
*Note*: This PowerPoint from the Agency on Healthcare Quality Research was used as a guide to train team members on the IDEAL Discharge Protocol process.





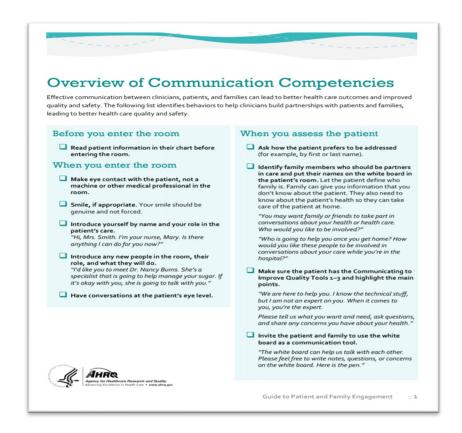






## Appendix I

Training Competencies



(Strategy 4 Care Transitions, 2017).

Note: The IDEAL training competencies will be used to assess the clinical team's readiness for implementing the IDEAL protocol.

# Appendix I

# Training Competencies continued

	Invitation behaviors: Invite patients and families to engage	Supportive behaviors: Support patients and families as they engage
Include the patient and family as members of the health care team	Welcome the patient and family as partners of the health care team. Acknowledge their expertise. "We may know more about medicine, but you know more about you and your body. We want you to share what you are feeling and experiencing with us, so that we can provide the best care possible."	React positively when people ask questions, volunteer information, share concerns, or want to take part in treatment decisions.  Don't say: "Don't worry. We have done this hundreds of times."  Say: "This procedure takes a picture of how your knee looks after surgery. It helps us follow your progress. It does have a small amount of radiation but should not hurt you."
Ask about and listen to the patient's and family's needs and concerns	□ Use open-ended questions to encourage the patient and family to share health information.  "What is going well right now? What problems are you having?"  "What has been less than perfect in your care?"  "What questions do you have?"  □ Try to see the experience through the patient's and family's eyes. The hospital is an unfamiliar environment for many patients and families. This can lead to questions, concerns, or anxieties.	Listen to, respect, and act on the observations and values of the patient and family. "Thanks for letting us know about that drug allergy, Mrs. Jackson. Let me note it in your record. We'll find another medication."  Help patients and family members articulate their concerns when needed. "I see something is bothering you. Please feel free to share it with me. I may be able to help."
Help the patient and family understand the diagnosis, condition, and next steps	Give timely and complete information about the patient's condition. Review information with the patient and family at every opportunity: during rounds, shift report, medication administration, and discharge planning meetings.  Check that you explained things well by using "teach back."  Don't say: "Do you understand?"  Say: "I want to make sure I explained that clearly. Do you mind repeating what I just said in your own words?"  Share as much information as they want. Find out how much they want to know. "Is there anything else you would like to know? Do you want the overall picture or do you want to get the details?"	□ Speak slowly. □ Use plain language. Use words everyone can understand. Break messages into shorter statements. □ Invite the patient or family to take notes. □ Let patients and families know you will find someone with an answer when you can't answer a question. Let them know when to expect the answer. □ 'I don't have that information, but I will talk with the pharmacist abou it and get back to you or have him come and talk to you by this afternoon. "

## Appendix I

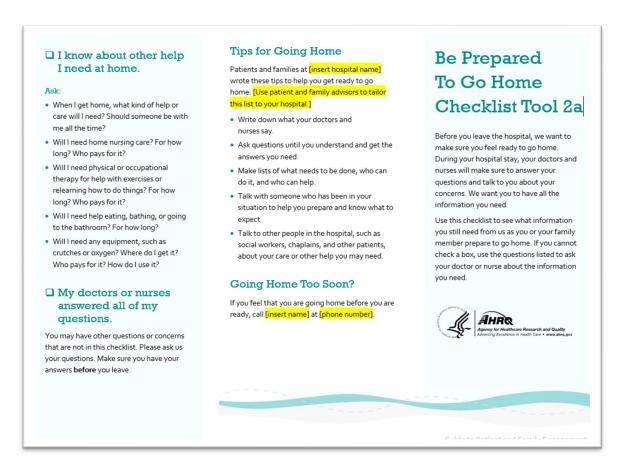
Training Competencies continued

Entering the room	Initial assessment	Notes:
Read patient chart before entering room	Asked how patient prefers to be addressed	
Made eye contact with patient     Smiled, as appropriate     Introduced self by name and role     Introduced new people in the room, their role, and what they will do     Had conversations at the patient's eye level	Identified family or friends who are team members and wrote names on white board Highlighted main points of Communicating to Improve Quality Tools 1–3 Invited patient and family to use the white board	
Throughout encounter		
Throughout encounter	Supporting habitulary	
Invitation behaviors: Inviting patients and families to engage  Welcomed patient and family as part of	Supportive behaviors: Supporting patients and families as they engage  Reacted positively when people engaged	
Invitation behaviors: Inviting patients and families to engage	Supporting patients and families as they engage	
Invitation behaviors: Inviting patients and families to engage  Welcomed patient and family as part of health care team	Supporting patients and families as they engage  Reacted positively when people engaged  Listened to and respected observations and	
Invitation behaviors: Inviting patients and families to engage  Welcomed patient and family as part of health care team  Used open-ended questions  Gave complete information about the	Supporting patients and families as they engage  Reacted positively when people engaged  Listened to and respected observations and values of patient and family  Helped patients and family members	
Invitation behaviors: Inviting patients and families to engage  Welcomed patient and family as part of health care team  Used open-ended questions  Gave complete information about the patient's condition	Supporting patients and families as they engage  Reacted positively when people engaged  Listened to and respected observations and values of patient and family  Helped patients and family members articulate their concerns when needed	

*Note:* The IDEAL Discharge Checklist will be used by clinical staff to account for the completed elements of the IDEAL discharge process.

### Appendix J

Be Prepared To Go Home Checklist Tool



(Strategy 4 Care Transitions, 2017).

Note: The Be Prepared to Go Home Checklist will be provided to patient to assist with preparation for discharge.

### Appendix J

Be Prepared To Go Home Checklist Tool continued

☐ I feel confident that I or someone close to me can take care of me at home.

#### Ask:

- How do I take care of any wounds, cuts, or incisions? Can you show me how to do this?
- What foods or drinks should I avoid? For how long?
- Are there any activities I should not do like driving, sex, heavy lifting, or climbing stairs?
   For how long?
- What exercises are good for me? When and how often should I do them?
- What do I need to do to make my home safer?
- My family or someone close to me knows I am coming home and knows the next steps in my care.

#### Ask

- Will I need help when I get home? If so, who will help me? What do they need to do to get ready?
- What should I do if there is no one at home who can help me?

I know what my medicines are and how to take them.

#### Ask

- What medicine(s) do I need to take when I leave the hospital? Do I take the same medicines that I took before I went into the hospital?
- What is the name of this medicine? Is this the generic or brand name?
- . Why do I take this medicine?
- When and how do I take this medicine?
- How much do I take?
- · What does this medicine look like?
- What are potential side effects of this medicine? What problems do I need to look out for?
- Will this medicine interfere with other medicines, foods, vitamins, or other herbal supplements I take?
- · Where and how do I get this medicine?
- What medicines can I take for pain? Upset stomach? Headaches? Allergies?

I know what problems to look for and who to call if I have problems at home.

#### Ask

- What problems do I need to watch for when I get home? If I have problems, how do I know when I should call?
- Who do I call if I have questions or problems when I get home?
- If I have questions about my care after I leave the hospital, should

caii		
at		

I know when my followup appointments are and how to get there.

#### Ask:

- What appointments do I need after I leave the hospital? Can the hospital help me make these appointments?
- Am I waiting on results of any tests? When should I get the results?
- Are there tests I need after I leave the hospital?

Appendix K

Be Prepared To Go Home Checklist Booklet



(Strategy 4 Care Transitions, 2017).

*Note:* The Be Prepared to Go Home Booklet will be provided to patient as a tool to be used during and after discharge to aid in the education and learning process for the patient and family.

## Be Prepared To Go Home Checklist Booklet continued

☐ I feel confident that I or someone close to me can take care of me when I leave the hospital.

Before leaving the hospital, you will get written instructions about your care.

Make sure you understand these instructions. Repeat these instructions back to the doctor or nurse in your own words. That way, you can make sure you understand what you need to do. If you do not understand, ask your doctor or nurse to explain things more clearly.

#### Ack

- How do I take care of any wounds, cuts, or incisions? Can you show me how to do this?
- · What foods or drinks should I avoid? For how long?
- Are there any activities I should not do like driving, sex, heavy lifting, or climbing stairs? For how long?
- What exercises are good for me? When can I start doing them? How often should I do them?
- · What do I need to do to make my home safer?

### Tips for Going Home

Patients and families at [insert hospital name] wrote these tips to help you get ready to go home:

#### [Use patient and family advisors to tailor this list to your hospital.]

- · Write down what your doctors and nurses say.
- · Ask questions again until you understand the answers.
- . Make lists of what needs to be done, who can do it, and who can help.
- Talk with someone else who has been in your situation to help you prepare and know what to expect.
- Talk to other people in the hospital, such as social workers, chaplains, and other patients, about your care or other support you may need.

#### Going Home Too Soon?

If you feel that you are going home before you are ready, call [insert name] at [phone number].

Appendix K

My doctors or nurses answered questions that are important to me and my family.	Use this space to write any information you need:
You may have other questions or concerns that are not in this checklist.  Write them down and make sure you have the answers you need <b>before</b> you leave the hospital.	

Be Prepared To Go Home Checklist Booklet continued

 $\square$  My family or someone close to me knows I Use this space to write any information you need: am coming home. They also know about the next steps in my care. Family or someone close to you can help keep track of and understand information about your health. Involve your friends or family in ways that you wish. · Will I need help when I get home? • If so, who will help me? What do they need to do to get ready? . How do I make sure my family or someone close knows what I need • What should I do if there is no one at home who can help me?

My family or someone close to me knows I am coming home. They also know about the next steps in my care.	Use this space to write any information you need:
Family or someone close to you can help keep track of and understand information about your health. Involve your friends or family in ways that you wish.	
Ask:	
Will I need help when I get home?	
<ul> <li>If so, who will help me? What do they need to do to get ready?</li> </ul>	
How do I make sure my family or someone close knows what I need when I get home?	
• What should I do if there is no one at home who can help me?	

Be Prepared To Go Home Checklist Booklet continued

 $\ \square$  My family or someone close to me knows I Use this space to write any information you need: am coming home. They also know about the next steps in my care. Family or someone close to you can help keep track of and understand information about your health. Involve your friends or family in ways that you wish. • Will I need help when I get home? • If so, who will help me? What do they need to do to get ready? How do I make sure my family or someone close knows what I need when I get home? • What should I do if there is no one at home who can help me?

☐ I know about other help I need at home.	Use this space to write any information you need:
You may need other help at home. Or, you may be fine on your own.	
We will set up nursing care, therapy, or other help if you need it. Family or friends can also help. Ask your doctor or nurse how others can help you recover.	
Ask:	
<ul> <li>When I get home, what kind of help or care will I need? Should someone be with me all the time?</li> </ul>	
<ul> <li>Will I need nursing care for taking my medicines or taking care of cuts or wounds? For how long? Who pays for it?</li> </ul>	
<ul> <li>Will I need physical or occupational therapy for help with exercises or relearning how to do things? For how long? Who pays for it?</li> </ul>	
<ul> <li>Will I need help with eating, bathing, or going to the bathroom? For how long? Who pays for it?</li> </ul>	
<ul> <li>Will I need any equipment, such as crutches or oxygen? Where do I get it? Who pays for it? How do I use it?</li> </ul>	
How can friends or family members help me at home?	

Be Prepared To Go Home Checklist Booklet continued

## Use this space to write any information you need: ☐ I know what my medicines are and how to take them. Before you leave the hospital, go over the list of medicines you need to take when you get home with your doctor or nurse. The medicines you need to take now may be different from what you took before you went into the hospital. Tell your doctor and nurse about all the medicines you usually take at home, including over-the-counter medicines, vitamins, and herbal supplements. What medicines do I need to take when I leave the hospital? Is this the same as before I went into the hospital? · What is the name of this medicine? Is this the generic or brand name? · Why do I take this medicine? · When and how do I take this medicine? How much do I take? · What does this medicine look like? . What are potential side effects of this medicine? What problems do I need to look out for? · Will this medicine interfere with vitamins or other herbal supplements I am taking? · Where and how do I get this medicine? • What medicines can I take for pain? Upset stomach? Headaches? Allergies?

☐ I know what problems to look for and who to call if I have problems at home.	Use this space to write any information you need:
Some symptoms, such as pain or swelling, may be normal when you get home. Sometimes these symptoms are signs of bigger problems. Be sure you understand when you need to call for help and who you should call.	
Ask:	
What problems do I need to watch for when I get home? If I have problems, how do I know when I should call?	
• Who do I call if I have questions or problems when I get home?	
If you have questions about your care after you leave the hospital,	
Call	
At	

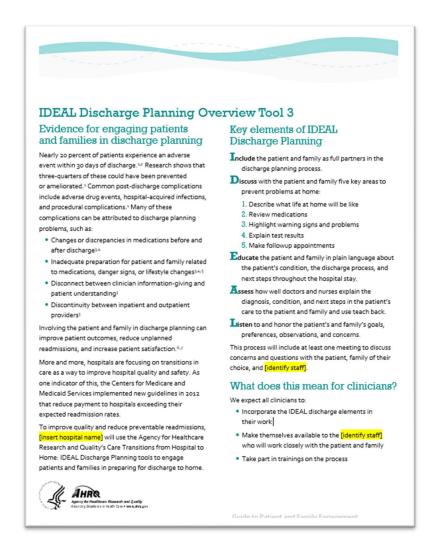
Be Prepared To Go Home Checklist Booklet continued

Use this space to write any information you need: ☐ I know when my followup appointments are and how to get there. You will need followup appointments after you leave the hospital. At these appointments, your doctor will check on how well you are recovering. Your doctor may also ask you to get some tests or give you test results that you are waiting for. • What appointments do I need after I leave the hospital? Can the hospital help me make these appointments? • Am I waiting on results of any tests? When should I get the results? · Are there tests I need after I leave the hospital?

☐ I know what problems to look for and who to call if I have problems at home.	Use this space to write any information you need:
Some symptoms, such as pain or swelling, may be normal when you get home. Sometimes these symptoms are signs of bigger problems. Be sure you understand when you need to call for help and who you should call.	
Ask:	
What problems do I need to watch for when I get home? If I have problems, how do I know when I should call?	
• Who do I call if I have questions or problems when I get home?	
If you have questions about your care after you leave the hospital,	
Call	
At	

## Appendix L

### Provider Tool



(Strategy 4 Care Transitions, 2017).

*Note:* The IDEAL Discharge Planning Overview tools will be used as an aid for provides to learn about the requirements of the IDEAL discharge process.

### Appendix L

### Provider Tool continued

# How do you implement IDEAL Discharge Planning?

Each part of IDEAL Discharge Planning has multiple components:

# Include the patient and family as full partners in the discharge planning process.

- Always include the patient and family in team meetings about discharge. Remember that discharge is not a one-time event but a process that takes place throughout the hospital stay.
- Identify which family or friends will provide care at home and include them in conversations.

# Discuss with the patient and family five key areas to prevent problems at home.

- Describe what life at home will be like. Include the home environment, support needed, what the patient can or cannot eat, and activities to do or avoid.
- Review medications. Use a reconciled medication list to discuss the purpose of each medicine, how much to take, how to take it, and potential side effects.
- Highlight warning signs and problems. Identify warning signs or potential problems. Write down the name and contact information of someone to call if there is a problem.
- Explain test results. Explain test results to the
  patient and family. If test results are not available at
  discharge, let the patient and family know when
  they should get the results and identify who they
  should call if they have not gotten results by that
  date.
- Make followup appointments. Offer to make followup appointments for the patient. Make sure that the patient and family know what followup is needed.

#### Educate the patient and family in plain language about the patient's condition, the discharge process, and next steps at every opportunity throughout the hospital stay.

Getting all the information on the day of discharge can overwhelming. Discharge planning should be an ongoin process throughout the stay, not a one-time event. You can:

- Elicit patient and family goals at admission and note progress toward those goals each day
- Involve the patient and family in bedside shift report or bedside rounds
- Share a written list of medicines every morning
- Go over medicines at each administration: What it is for, how much to take, how to take it, and side effects.
- Encourage the patient and family to take part in care practices to support their competence and confidence in caregiving at home

#### Assess how well doctors and nurses explain the diagnosis, condition, and next steps in the patient's care to the patient and family and use teach back.

- Provide information to the patient and family in small chunks and repeat key pieces of information throughout the hospital stay
- Ask the patient and family to repeat what you said back to you in their own words to be sure that you explained things well

#### Listen to and honor the patient and family's goals, preferences, observations, and concerns.

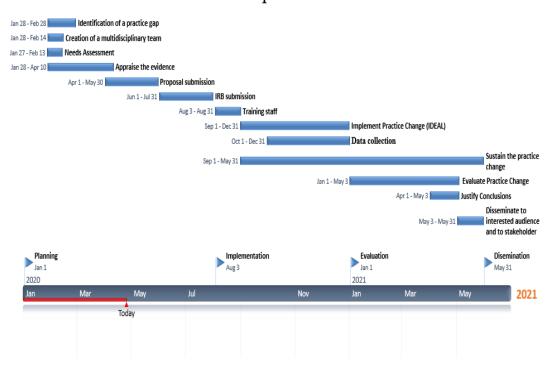
- Invite the patient and family to use the white board in their room to write questions or concerns
- Ask open-ended questions to elicit questions and concerns.
- Use Be Prepared to Go Home Checklist and Booklet (Tools 2a and 2b) to make sure the patient and family feel prepared to go home
- Schedule at least one meeting specific to discharge planning with the patient and family caregivers

Guide to Patient and Family Engagemen

## Appendix M

GANTT Table

# 2020-2021 IDEAL Implementation Schedule



*Note:* The GANTT provides a breakdown of the phases of the project and track the time to completion for each phase.

# Appendix N

IDEAL Discharge Staff Questionnaire

1.	How much has the implementation of the IDEAL Discharge Protocol extended your
	average workday over the past weeks?
	30 min $□$ 60 min $□$ Greater than 60 min $□$ Has not extended my workday $□$
2.	Has the implementation of the IDEAL Discharge Protocol increased the time to complete
	your daily activities?
	Activities increased by 15 mins □ Activities increased by 30 mins □
	Activities increased by more than 60 mins □
3.	Have you encountered additional stress related to the implementation of the IDEAL
	Discharge Protocol?
	No significant stress □ Minimal stress □ Moderate stress □ A great deal of stress □
4.	How can the IDEAL Discharge Protocol be improved?
5.	What challenges have you encountered with the IDEAL Discharge Protocol?
6.	What do you like about the IDEAL Discharge Protocol?
7.	What do you dislike about the discharge protocol?

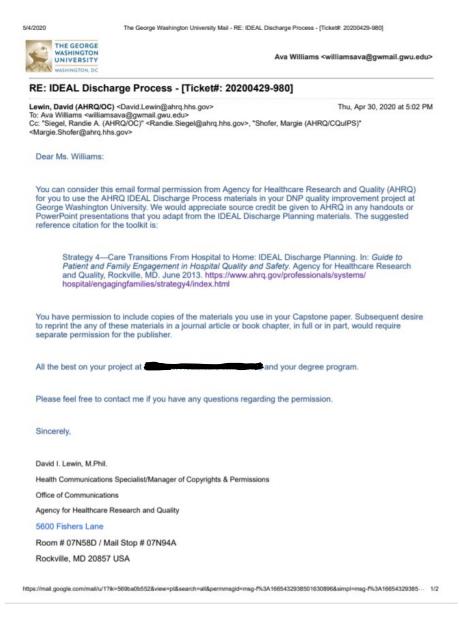
# Appendix N

IDEAL Discharge Staff Questionnaire continued

*Note:* The IDEAL Discharge Staff Questionnaire will be used to assess the clinical staff's feedback on the IDEAL Discharge Protocol.

### **Appendix O**

### Permission Email



*Note*: Permission letter from the Agency for Healthcare Research Quality to utilize the IDEAL Discharge Protocol tools.

### Appendix P

### Permission Email

3/7/2021 The George Washington University Mail - RE: IDEAL Discharge Process - [Ticket#: 20200429-980] THE GEORGE WASHINGTON UNIVERSITY Ava Williams <williamsava@gwmail.gwu.edu RE: IDEAL Discharge Process - [Ticket#: 20200429-980] Lewin, David (AHRQ/OC) <David.Lewin@ahrq.hhs.gov> To: Ava Williams <williamsava@yomail.gwu.edu> C:: "Slegel, Randie A. (AHRQ/CQU)" < Randie.Slegel@ahrq.hhs.gov>, "Shofer, Margie (AHRQ/CQuIPS)" < Margie.Shofer@ahrq.hhs.gov> Dear Ms. Williams: You were given permission last April to reprint parts of the IDEAL Discharge Process in your doctoral paper. I see no problem in having an electronic copy accessible in the George Washington University research repository, and a print copy available in the library (if that is their policy). I would assume that your Abstract(s) and Poster(s) for the George Washington University Showcase and the Washington Regional Nursing Research Consortium would reference the toolkit and tools, rather than reprinting them. This is no problem—you can mention the Strategy 4 toolkit and any of its components, as well providing links to the Strategy 4 toolkit and specific tools, if needed. If your poster needs to quote from the toolkit or one or more tools (e.g., the IDEAL Discharge Planning implementation Handbook or the IDEAL Discharge Planning Checklist), you are free to do so within the "fair Use" provision of copyright law. This email grants you permission to reprint the Checklist on your posters for the two mentioned presentation opportunities, if so desired. Once again, publication of the materials in a professional journal article or book chapter would require AHRQ's Office of Communications granting Reprint Rights to the publisher. I wish you well in the GWU competition. Sincerely David I. Lewin, M.Phil. Health Communications Specialist/Manager of Copyrights & Permissions Office of Communications Agency for Healthcare Research and Quality Room # 07N58D / Mail Stop # 07N94A Rockville, MD 20857 USA

*Note*: Permission letter from the Agency for Healthcare Research Quality for inclusion of the DNP paper in the George Washington University electronic research repository.