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Re-Engineered Discharge Planning in a Rural Mississippi Hospital to Reduce 30 Day Readmission Rates among Heart Failure Patients

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RE-ENGINEERED DISCHARGE PLANNING IN A RURAL MISSISSIPPI HOSPITAL TO REDUCE 30 DAY READMISSION RATES AMONG HEART FAILURE PATIENTS

by

Roxie Mae Hogan

Abstract of a Capstone Project
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
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ABSTRACT

RE-ENGINEERED DISCHARGE PLANNING IN A RURAL MISSISSIPPI HOSPITAL TO REDUCE 30 DAY READMISSION RATES AMONG HEART FAILURE PATIENTS

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The hospital discharge is a complex process that involves interdisciplinary efforts to avoid readmissions and decrease health care costs. The purpose of this capstone project was to take a leadership role in translating evidence into practice by successfully preparing NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC.

A comprehensive systematic improvement plan, Project RED is designed to improve the work flow process through the use of timelines and strategies. Project RED supports discharge planning, helps to prevent readmission, and facilitates knowledge transfer that promotes sustainable changes. Re-Engineered Discharge Planning (RED), 6 step implementation toolkit was used to develop and provide education on Project RED. The RED toolkit provided a step-by-step process on how to implement Project RED at NWMRMC. The APN conducted 6(1hour) weekly sessions for key stakeholders. Project RED will be introduced in 4 phases, in Phase I; the APN provided 6 education sessions to help implement Project RED at NWMRMC, and Phase I was evaluated. Project RED's full implementation can take approximately 6 months to 1 year.

The model used in this project is the Precede and Proceed model. The guiding principle in this model consists of two stages - Precede (assessment) and Proceed

(intervention). The Precede and Proceed model is a comprehensive structured process of assessing, planning (designing), implementing and evaluating health programs to meet the quality needs. It provided the framework to help analyze situations and design an efficient discharge program. The data obtained was used to modify Project RED's 12 steps to develop a discharge planning process that can help reach the organization's goals of significantly reducing the 30 day readmission rates among heart failure patients at NWMRMC.

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LIST OF ABBREVIATIONS

Advance Practice Nurse…….APN

Agency for Healthcare Research Quality……...AHRQ

American Heart Association…….AHA

Care Transition Interventions……..CTI

Centers for Medicare and Medicaid……..……CMS

Cumulative Index of Nursing and Allied Health Literature……...CINAHL

Heart Failure…….HF

Heart Failure Support Team…….HFST

Hospital Quality Alliance……..HQA

Hospital Value Based Purchasing……...HVBP

Institute of Medicine……..IOM

Medicare Payment Advisory……...Med Pac

Mississippi State Department of Health……..…MSDH

National Quality Forum…….NQF

Patient Protection and Affordable Care Act ……PPACA

Random Control Trial……RCT

Re-Engineered Discharge Plan……..RED

The Joint Commission……TJC

CHAPTER I

INTRODUCTION

Discharge planning for hospitalized patients involves a multifaceted approach blending collaborative efforts among healthcare providers, patients, caregivers, and the community. According to the Agency for Healthcare Research and Quality (AHRQ, 2013), improving discharge planning in the hospital can contribute to reduced hospital readmissions.

Over 550,000 heart failure (HF) patients are newly diagnosed annually. In the last decade, HF was listed as a primary diagnosis for hospital readmissions in the United States. HF readmissions increased from 810,000 to over 1 million in a 9 year period from 1990-1999 (American Heart Association [AHA], 2009). According to the Mississippi State Department of Health (MSDH), heart disease was the leading cause of death in Coahoma County (359) and in Mississippi (8,022) in 2007. Mississippi has the highest mortality rate in the nation, and heart disease accounted for 1 in 4 deaths in 2011(MSDH, 2012).

Northwest Mississippi Regional Medical Center (NWMRMC), a 195 bed acute care rural hospital lies in the upper northwest portion of Coahoma County in Clarksdale, Mississippi. The discharge process at NWMRMC for HF patients is not uniform among nurses, either on the same or different nursing units, and there is a lack of interdisciplinary involvement. These are some of the factors that have led to an inconsistent and inadequate discharge process for HF patients during hospitalization at NWMRMC. This inconsistency has contributed to high readmission rates due to a lack of discharge planning, education for patients and/or caregivers regarding disease

processes, medication reconciliation, and follow-up care (P. Hampton, personal communication, September 13, 2012).

The above factors represented challenges in managing HFpatients, and adding to this challenge are factors involved with patients' transition from hospital to home. The Patient Protection and Affordable Care Act (PPACA) of 2010 main goal is to reduce the fragmentation of patient care and decrease Medicare costs. The goal is to achieve improved care coordination and outcomes for hospitalized patients. Focus is placed on the management of patient care before and after discharge and across healthcare settings to help improve patients' outcomes, reduce avoidable readmissions, and decrease health care costs. Healthcare organizations and providers who become actively involved in the coordination of patient care can achieve improved patient outcomes and decreased readmissions (Enderlin et al, 2013).

Research has shown that over the past several years, readmission rates have not changed significantly despite improvement efforts. According to the Centers for Medicare and Medicaid Services (CMS), hospitals readmit 1 in every 5 patients (or 27%) within 30 days of discharge (Hines, Yu, & Randall, 2010). Approximately 20% of discharged patients sustain a preventable medical adverse event within 3 weeks of discharge (CMS, 2009). In 2007, the Medicare Payment Advisory (Med Pac) assessed health care costs and identified a potential saving of $12 billion per year by reducing readmissions (AHRQ, 2013).

Substantiating the above finding, Hines et al., (2010) provided evidence on ways to reduce readmissions. The economic impact of readmission costs to Medicare alone is around $17.4 billion a year for HF patients. The payment for hospitalized HF patients is

based on a per unit reimbursement system. These and other reimbursement measures have produced disincentives for HF readmissions, management, and post-acute care. The researchers focused on reducing the cost per case, improving the quality, and improving patient satisfaction for HF patients. Researchers also revealed that hospitals with improved performance in providing quality care and discharge planning improved patient outcomes resulting in lower readmission rates among HF patients. One of the findings revealed that reducing HF readmission rates alone has the potential to lead to considerable health care savings, improvement in the quality of care, and changes in health care policies that focus on reducing health care costs (such as incentives, disincentives and reimbursement penalties), and improvements in the delivery of health care (Hines et al., 2010).

Improving the outcomes of HF patients has gained considerable attention in many health care organizations and has given way to the introduction of quality projects. Current health care leaders and health care facilities are now striving to identify which facets of HF management will reduce readmission rates, decrease health care costs, and improve the quality of care for the HF population (AHA, 2009). Project Re-Engineered (RED) Discharge is one strategy used to reduce 30-day hospital readmissions. The purpose of this capstone project was to take a leadership role in translating evidence into practice by successfully preparing key NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC. This project can result in positive measurable outcomes that are sustainable and reproducible across healthcare settings. Some positive measurable outcomes are a standardized discharge process, an improvement in the patient's understanding of their disease process, an

improvement in the follow-up appointment(s) with a health care provider, and documentation of patient's readiness for discharge and a decrease in the 30 day readmission rates.

Background of the Problem

Over the past decade, there was an increase in the incidence and prevalence of HF in the United States. This increase has caused health care providers and stakeholders to seek methods that will provide quality and cost effective patient care, reduce hospital readmission rates, and ensure effective transitions from hospital to home and across health care settings (AHA, 2009). The AHRQ (2013) lists four main contributing factors that negatively affect the discharge process: (1) a delay in the transfer of the hospital discharge summary, (2) unknown patient test results, (3) a lack of follow-up care, and/or (4) a lack of reconciliation of patients' medications or an adverse patient event. These factors often result in an ineffective discharge planning process and affect the transition of care for patients with chronic health problems.

First, the delay in the transfer of the hospital discharge summary refers to the time in which the patient is discharged from the hospital until the time the primary health care provider receives the discharge summary. This delay does not allow the health care provider to observe which procedures or tests were completed during the patient's hospital stay or which ones may need follow-up. The second factor, unknown patient test results refers to all tests patients received during hospitalization that have no available results by the day of discharge. Tests without available results may not be included in the discharge report the patient's primary health care provider receives. A third factor is the lack of follow-up care after hospital discharge. Patients often do not understand the

extent and implications of their health conditions or understand the need to make appointments for procedures or tests after discharge, leaving them at risk for hospital readmissions. The fourth and last factor is a lack of medication reconciliation and adverse events. Patients sometimes stop taking their regularly prescribed medications when they are admitted to the hospital. The changes in medications or dosages often confuse patients about which medications to take at home after discharge. This results in a failure to take prescribed medications, taking incorrect doses of the same medications, or experiencing an adverse drug event or drug reactions.

Regulatory Impacts

Using health care performance measures for a number of purposes is a significant development in many health care organizations. Quality and efficient performance measures are now embedded throughout the health care system. Health care organizations use performance measures for purposes such as: (1) public reporting, (2) improvement in the quality of patient care, (3) regulation (such as: regulation, accreditation, credentialing and licensure), and (4) the application of payments (such as: financial incentives). CMS, the PPACA of 2010, Hospital Value Based Purchasing (HVBP), Hospital Compare, the National Quality Forum (NQF), Patient Pathways (Care Transitions), and the Medicare Payment Advisory (Med Pac) are nationally recognized agencies that provide regulatory standards and strategies to improve the discharge process and quality of care, thus, reducing hospital readmission rates (AHRQ, 2013).

CMS has implemented several programs that provide methods and strategies to help reduce readmissions. The PPACA established the HVBP program under the traditional Medicare program. This program links payment incentives to quality care and

patient outcomes. In this program, the participating hospital's performance is displayed publicly on Hospital Compare, which is a web site provided by CMS and the Hospital Quality Alliance (HQA). The Hospital Compare site compares measures related to surgical care, health care associated infections, pneumonia, myocardial infarctions, heart failure, readmissions, and patient perceptions of the quality of care received. The participating hospital's performance is then displayed publicly for consumer viewing, thus, helping the consumer to make informed decisions when choosing where their care will be provided (CMS, 2012b).

The NQF is a national non-profit organization with the purpose to develop a national strategy for health care quality measures and reporting. In the NQF Safe Practice-15, key processes are laid out for a discharge plan and include information that should be communicated to community providers. The NQF endorses three readmission performance measures: risk-standardized, hospital-specific, and all-cause 30 day readmission rates. The goal of the Patient Pathways (Care Transitions) program is to measure improvement in the quality of care that Medicare recipients receive when transferring among health care settings. This program provides strategies that are reproducible across health care settings thereby helping to maintain a reduction in readmission rates. Yet, another program known as Med Pac is based on bundled payment. Bundled payment means paying the hospital or its affiliated physicians a pre-determined dollar amount to cover the costs of providing the full range of Medicare covered services given during any period of care, including a current hospital stay and any readmission that occurs within 30 days after discharge (AHRQ, 2013).

Adding even more standards for hospitals in 2010, the PPACA introduced the Hospital Readmissions Reduction Program of 2012. This program allows CMS to reduce payments to hospitals with excessive readmissions for myocardial infarctions, pneumonia, and heart failure (AHRQ, 2013). Hospitals are now focusing on transitional strategies to prevent or reduce readmission rates, prevent adverse events, and decrease emergency room visits. Using strategies such as increasing patient engagement in discharge planning, providing a dedicated hospital provider, reconciling medications, and facilitating communication with clinicians across health care settings has been successful in reducing adverse clinical outcomes and reducing hospital readmissions (Rennke et al., 2013).

Hospital Readmissions

Heart Failure (HF) readmissions accounts for billions of Medicare dollars spent annually and are viewed as a key indicator of quality care. Reducing hospital readmissions has become a major priority for CMS. In the past decade, many initiatives have been implemented to reduce hospital readmissions. A review of data collected from the Chronic Condition Data Warehouse from the year 2007-2011 using the all cause 30 day readmission, CMS (2013) showed a decrease in readmission rates from 19% to 18.4% in the 4 year period (CMS, 2012c).

The failure of hospitals to provide a seamless and effective transition from the hospital to home has resulted in adverse events. These adverse events include frequent visits to the emergency department and high readmission rates (AHRQ, 2013). At NWMRMC, excessive HF readmissions affect patient outcomes by increasing health care costs, decreasing the quality of patient care, and decreasing patient safety.

A review of quality data at NWMRMC confirmed the implementation of core measures for HF patients as recommended by CMS. Core measures are nationally approved guidelines used when treating HF patients (CMS, 2012d). Unfortunately, even with the implementation of core measures, NWMRMC experienced a 31% readmission rate for patients with HF within 30 days in 2012 (Healthgrades.com). The Quality Director's review of NWMRMC patients' records over a period of 6 months (January 2012-June 2012) revealed that HF ranked as the leading diagnosis for readmissions at this acute care hospital. The total cost for a 4 day hospital stay for a Medicare HF patient at NWMRMC is approximately $26,500. If a HF patient is readmitted within 30 days of discharge, the reimbursement amount is $500.00 (R. Smith, personal communication, August 24, 2012).

In response to increased national hospital readmissions, the AHRQ contracted and funded the Boston University Medical Center (BUMC) to develop a plan to improve the discharge process and decrease emergency department visits. Project Re-Engineered Discharge (RED) was developed after 7 years of intensive work at BUMC by Dr. Brian Jack and colleagues. An analysis of the current discharge process at BUMC revealed that no one took charge of the entire discharge process although many health care staff members were involved. Therefore, Jack and colleagues assessed the discharge process and borrowed engineering methodologies to improve it. These methodologies included process mapping, failure mode analysis, probabilistic risk assessment, root cause analysis, and qualitative analysis. These methods were refined and used to develop RED (AHRQ, 2013).

Jack and colleagues developed RED into 12 components, which are now known as Project RED (Appendix A), to improve the hospital discharge process. Project RED has shown to be effective in decreasing readmission rates by 25%, improving the hospital discharge process, improving the quality of patient care, and improving primary care follow-up (AHRQ, 2013).

Statement of Purpose and Project Objective

The purpose of this capstone project was to take a leadership role in translating evidence into practice by successfully preparing NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC. The capstone objective is as follows:

Using evidence about Project RED and a pre-determined timeline, NWMRMC stakeholders in the discharge planning process will be successfully prepared to adapt Project RED for use with HF patients admitted to NWMRMC.

Outcomes

This project offered stakeholders an educational opportunity to gain new knowledge of evidence-based practice in developing a discharge-planning program using Project RED for HF patients. The information obtained through this evidence based training provided NWMRMC stakeholders an opportunity to develop a discharge planning program using Project RED. A discharge planning program can enable the organization to make changes in a systematic way by providing methods that can measure and assess the effects of change, integration of education, research management and leadership for safe, efficient, quality, and cost saving health care. With full implementation, Project RED can provide positive results for the organization and

patients such as a decrease in 30 days readmission rates, documentation of patients' understanding and readiness for discharge, improvement in primary care follow-up, meeting Joint Commission standards, improving return on investment thereby decreasing health care costs, improving patient and family satisfaction, preparing the organization for future CMS criteria regarding reimbursement for readmission, and branding the hospital as a high quality facility (AHRQ, 2013).

CHAPTER II

REVIEW OF RELATED LITERATURE

A systematic literature review was conducted to guide the design and development of this capstone project. A literature search was conducted utilizing the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Cochrane Library, Centers for Medicare and Medicaid Services (CMS), Patient Protection and Affordable Care Act (PPACA), the Joint Commission (TJC), the American Heart Association(AHA), the Agency for Healthcare Research and Quality (AHRQ), EBSCO, and other evidence based resources. The summary of the literature addresses: Project RED, heart failure, transition of care, congestive heart failure, discharge, discharge planning strategies, readmissions, heart failure, and heart failure guidelines, advanced practice nursing, quality, and education management to help guide the design and development of a discharge planning process for hospitalized HF patients (See Evidence Table-Appendix B).

The PICO question that guided this literature review and project was: Can the implementation of an advance practice nurse-led interdisciplinary, systematic discharge planning program significantly reduce the 30 day readmission rates among heart failure patients discharged from a medium-sized hospital?

Several studies provided evidence based practice strategies for health care systems that focus on performance improvement, reducing readmission rates, and decreasing health care costs in hospitalized HF patients. Reducing readmission rates among HF patients involves the input, throughput, and output of care provided by an interdisciplinary team from admission to post discharge. Strategies such as Advance

Practice Nurse (APN) led discharge education interventions, incorporating the use of a multidisciplinary team; a discharge educator, using patient engagement, and follow-up phone interventions have been shown to reduce readmission rates.

Naylor, Brooten, Campbell, Maislin, McCauley, and Schwartz (2004) demonstrated a short term reduction in HF readmissions using randomized controlled trials in a group study. A multidimensional, individualized approach was used to target HF patients and their caregiver(s). The intervention included two groups: a control group and an intervention group. The intervention group yielded lower readmissions rates than the control group at 52 weeks, 47% for the intervention group versus 61.2% for the control group. The control group received routine or usual care, site-specific heart failure information, and critical pathways for discharge planning. The intervention group received discharge planning from admission that extended through 3 months after discharge. The interventions included an interdisciplinary team guided program, the use of care management strategies provided by the Quality Cost Model of APN Transitional Care (which identified patients' and the caregivers' goals, provided an individualized care plan developed, and implemented by the APN in collaboration with the patient and physician), evaluating patients' learning needs, and providing continuity of care across the health care setting. This APN led implementation program was guided by evidence based protocols and national guideline provisions (Naylor et al., 2004).

To provide additional evidence for practice, McCauley, Bixby, and Naylor (2006) focused on providing a seamless transition from hospital to home for HF patients. This Advance Practice Nurse (APN) led study was effective in reducing hospitalization related to co-morbid conditions. The APN focused on three domains: patient, family, or

caregiver effectiveness; the management of co-morbid conditions and improving overall health; and the patient-provider relationship. The APN assessed patients' knowledge, visited patients daily, and collaborated with the healthcare team and family members. The patients' education focused on learning comprehension and behavioral changes and included information on knowledge about chronic disease management, medication adherence, dietary choices (salt and water in the diet), exercise, effects of aging, and a plan for worsening symptoms (McCauley et al., 2006).

Using the 2002's recommendations from the Joint Commission on discharge instructions for hospitalized HF patients, Manning, Wendler, and Baur (2010) explored the key role of an APN led discharge program. The Advance Practice Nurse (APN) used evidence based strategies and the Joint Commission's HF patient discharge recommendations to guide the initiation, development, and evaluation of the Heart Failure Support Team (HFST). The Joint Commission provides specific guidelines for discharging HF patients that includes: (a) instructions to weigh daily, (b) a written list of medications, (c) the daily limitation of fluid and salt, (d) an exercise plan, and (e) follow-up care. The overall quality scores improved from 81.12% to 100% in 4 years in this APN led HF initiative, and readmission rates for the two group were, 7 in 20 patients (comparison group) versus 3 in 20 (intervention group) in a 14 week period. The Heart Failure Support Team used a three step approach to: (1) identify all patients with HF, (2) verify the HF diagnosis, and (3) provide daily monitoring of HF patients throughout their hospital stay to include discharge. The APN used post discharge telephone interventions for high risk HF patients and reviewed information on medications, diet, and activity to decrease hospital readmission rates (Manning et al., 2010). In addition Rabbat et al.,

(2011) led a study that utilized a nurse led patient centered education and heart program. HF patients were given manuals, Smooth Transition Equal Less Readmission (STELER), that helped to provide a smoother transition from hospital to home. The use of STELER revealed an overall reduction in readmissions of approximately 10%. The registered nurse using STELER provided education about the signs and symptoms of HF, recognition of worsening signs and symptoms of HF, the importance of medication compliance, and dietary information (Rabbat et al., 2011).

Research has provided many studies revealing strategies that have shown to be effective in reducing readmissions. Laugaland, Aase, and Barach (2012) conducted a systematic review, revealing interventions that provided a safe transition from hospital to home. It was noted in these studies that the APN-led discharge planning interventions reduced readmissions from 51% to 16.5%. The Advance Practice Nurse used interventions such as discharge planning and support, providing a key coordinator, involving the family in education endeavors, using a multi-disciplinary approach and pharmacy led medication reviews, the use of a standardized discharge summary, and comprehensive transitional programs that have been shown to reduce readmission rates. It was noted that the elderly population reaped greater benefits from the targeted interventions, improving transfer across health care settings (Laugaland et al., 2012).

Adding to the evidence, a multidisciplinary approach was used to examine discharge planning using various healthcare team members and patient involvement. Boren, Wakefield, Gunlock, and Wakefield (2009) provided topics on education to patients that included: (a) knowledge and self-management, (b) self-interaction and support, (c) dietary management, and (d) fluid management. In 26 of the studies,

education was provided by nurses, the remaining 9 studies used an interdisciplinary approach that included: nurses, dietitians, health educators, and physicians. Results yielded that the best care depends on a multi-disciplinary team approach, patient willingness to participate and adherence to healthcare regimens (Boren et al, 2009).

Dehia et al., (2009) studied interventions carried out by a multidisciplinary team known as the Safe and Successful Transition of Elderly Patients (Safe Steps). The multidisciplinary team was made up of a physical and occupational therapist, a case manager, social workers, dieticians, and home nurses. The team interventions begin on admission and continued throughout the hospital stay. This intervention yielded lower readmission rates, 22% versus 14% for the pre-intervention group, and fewer visits to the emergency department, 21% versus 14%. Hospitalist providers were trained and provided an initial assessment, and case managers reviewed the admission details and completed a fast facts fax form. This single page fast facts form was faxed to the patient's primary care physician and provided notification of the admission and the hospitalist's contact information. An interdisciplinary team worksheet was placed on the front of the chart for team collaboration. In collaboration, the physician and pharmacist carefully reviewed the medication regimen, the history and physical, medication intake, and inpatient orders. A scheduled discharge planning meeting was provided by the discharge planning nurse, the hospitalist, and the patient or caregiver to review the hospital course and follow-up recommendation. The discharge instructions were provided in a large print format, easy to read, simple language, and contact information for hospitalist providers were also shared. These interventions have shown to effectively

improve post-hospital follow-up care and were incorporated into the workflow at the inpatient wards (Dehia et al., 2009).

In 2011, Harrison, Hara, Pope, Young, and Rula used follow-up post-discharge contact using telephone interventions to provide post-discharge support, reconcile medications for inaccuracies to help avoid adverse events such as emergency room visits and readmissions. The intervention, Hospital Discharge Campaign (HDC) plan involved entering patients into a telephone follow-up study after an inpatient hospitalization. The evidence in this research revealed that discharge calls are associated with a decrease in 30 day readmissions. The intervention group had a 23.1% lower readmissions rate than the comparison group. A specially trained registered nurse, placed calls to the patients or their caregivers and verified if discharge instructions were received, reconciled medications to ensure that no duplication has occurred, follow-up visits were obtained, how to avoid adverse events such as emergency visits, and what to do for worsening signs and symptoms (Harrison et al., 2011).

Involving patients in their health care has been shown to help reduce readmission rates. Kelly (2011) demonstrated this sustainability in a literature review by drawing emphasis on using the Coleman's Care Transition Model (CCTM) (Coleman et al., 2002). Empowering HF patients to self-manage their care with a transition coach, the CCTM is comprised of four components: (1) medication management, the patients' medications are reconciled to determine inaccuracies in what is prescribed versus what is currently being taken, patients are educated on what medication are taken and how they should take their medication (time and dosage), and why each medication has been prescribed, (2) A patient-centered health record, patients are encouraged to keep a hand-

written record of their medications, health history, and questions for the health care provider and emergency contact information, (3) follow-up appointments with health care provider, the transition coach ensure follow-up appointments with health care providers are completed upon discharge from hospital and (4) how to notice red flags, transition coaches provide patient education on worsening signs and symptoms to report to their health care provider. The implementation of this model is low in cost, engages the patient in self-care management, and has shown to be effective in reducing readmissions (Kelly, 2011).

Combining interventions, strategies, and streamlining the discharge process, Rennke et al., (2013) researched methods that have improved the discharge workflow process, thus, reducing health care costs and readmission rates. Uses of methods such as the Care Transitions Interventions (CTI) and Re-Engineered Discharge Planning (RED) have reduced readmission rates. The Care Transitions Interventions (CTI) is an interventional strategy that uses transitional providers who hand off communication to providers and transitional coaches. The coach then makes home visits after discharge, ensuring that the patient is managing their care post discharge. In project Re-Engineered Discharge (RED) planning, a discharge nurse advocate is responsible for educating patients and communicating health information to clinicians. The clinical pharmacist reviews the discharge plan and medications in a post discharge telephone call to the patient. The studies revealed 26 emergency room visits and readmissions. Seven of the studies showed a reduction in the readmission rates, and 4 of the studies showed that the use of a dedicated transition provider helped to reduced readmissions. In 15 of the

studies, a bridging intervention was identified, and in ten of the fifteen studies, a dedicated transition provider was used (Rennke et al., 2013).

Another study provided evidence based strategies that can be used for all patients across health care settings. Jack et al., (2009) used Project RED, an evidence based practice strategy conducted by a Discharge Advocate (DA). Project RED's 12 components include diagnosis, education on post-discharge care instructions with an emergency plan, discharge summary transmission, and a follow-up telephone call. The use of Project RED demonstrated a decrease in emergency room visits, reduced hospital readmissions, and health care costs. Project RED has reduced readmission rates from 27% to 22 %. Project RED incorporates the use of a dedicated Discharge Advocate (Nurse), an interdisciplinary team, and the 12 components to be used for discharging patients. The staff was trained to implement all 12 components of Project Red to obtain the maximum effect. Project RED also provides a plan to meet the changes for the future CMS readmission reimbursement criteria by aligning with the national standards for Joint Commission and CMS (Jack et al., 2009).

Theoretical Framework

The PRECEDE-PROCEED model developed by Dr. Lawrence Green and colleagues in 1980 was used to provide the theoretical framework for this capstone project. The PRECEDE-PROCEED model developed by educators is a systemic framework that categorizes strategies such as planning, teaching, research, and practice (Green, 2013). The model uses guidelines to help identify precursor behaviors for good health and what precede those behaviors. This model's guidelines also outline strategies

to help ensure that program planners concentrate on managing problems linked to the desired outcome and improvement in the quality of life (Linnan et al., 2005).

This model has two predominant stages which are the assessment (Precede) and the intervention phase (Proceed) to help identify outcomes not the inputs. This model provides a framework that can help program planners analyze situations and design efficient health program (Connon & Salazar, 2004). Using the Precede-Proceed model can help program planners determine what can be achieved and what changes are necessary to achieve the changes. This model's strategies can help engaged key stakeholders transfer effective changes across health care settings. By using determinants such as predisposing, reinforcing, and enabling factors in the ecosystem (such as: life-style, health, environment and quality of life for the patient) diagnosis can be developed, and programs outcomes are evaluated to monitor overall achievement (Green, 2013).

In the Precede phase NWMRMC's needs were identified through chart reviews and readmission rates for HF patients were quantified. The HF readmission rate was above the national average at 31% in 2012 (Healthgrades, 2012). Discharge education was deficient in some components of the work-flow process for HF patients (incomplete record of patient education and no documentation of patients' comprehension of teaching, no interdisciplinary teaching tool and/or no standardized process for discharge). In the Precede phase, planning occurred based on the results of the assessment need and included the implementation and evaluation of this implementation program (Phase I). A discharge process that aligns with project RED's toolkit for implementation was introduced to key stakeholders at NWMRMC. Phase I of Project RED provided a systematic approach to the development of an efficient discharge plan, and in this project,

interventions to reduce readmissions rates for the HF patient population. Health care staff roles were defined and reviewed as well as how data will be collected, evaluated, and disseminated throughout the health care setting for future use. Information gathered in the Precede phase guided the use of Project RED's goals and objectives in the implementation Proceed phase of the model. This information also provided the criteria against how the success of the program will measure the overall evaluation of full implementation of Project RED. The Precede and Proceed model will function in a continuous cycle, clarifying relationships between providing quality health care and 30 day readmission rates.

CHAPTER III

METHODOLOGY

The purpose of this capstone project was to take a leadership role in translating evidence into practice by successfully preparing NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC. In an effort to improve the discharge process for HF patients and to decrease 30 day readmission rates, the APN provided an educational intervention on a quality improvement program to implement Project RED.

Design

This education intervention was designed to provide an evidence based approach to significantly reduce HF patients' post hospital 30 day readmission rates at NWMRMC. After achieving buy-in from administrators and stakeholders, the education intervention was evaluated as part of this project (Phase I). As part of the post-project evaluation, quantitative and qualitative data were collected using the Program Evaluation Questionnaire (PEQ) (Appendix F). Although it will be beyond the scope of this project, the implemented program will be evaluated later for readmission outcomes, sustainability, reproducibility, and the ability to disseminate useful knowledge across healthcare settings.

Target Population

At NWMRMC, a rural 195 bed acute care hospital in the Northwest Mississippi Delta, a meeting was held prior to the implementation of Project RED with the Chief Nursing Officer, and a purposive sample of six team members was selected ranging in ages from 28-60. The team members included the Emergency Room Director, Resource

Case Management Director, Quality Measure Nurse, Medical-Surgical Director, Telemetry Director, and Clinical Pharmacist. The Emergency Room Director was chosen because of his administrative and leadership abilities and managerial skills. The Emergency Room Director has an in-depth overview of patients admitted with HF; he provides accurate admission information to frontline staff and resources management and helps prepare nurses to educate patients which start on admission. The Resource Case Management Director was selected because of her responsibility for monitoring and coordinating services to meet patients' identified needs. The Resource Case Management Director directs social services staff and case management nurses, covering a wide array of community services to aid patients in a safe transition from hospital to home. The Quality Measure Nurse was selected because of her responsibility to help implement and evaluate projects that maintain quality care for patients. The Clinical Pharmacist was selected because of her ability to monitor patients' medications, interactions, drug histories, and to offer education and counseling on medications. The Medical Surgical and the Telemetry Directors were selected because of their managerial skills and their vital roles in aligning overall patient care with health care staff on the nursing units at NWMRMC.

Setting

The setting for this hospital based capstone project was carried out at NWMRMC, a medium sized rural hospital located in the northwest portion of the Mississippi Delta. The hospital is a non-profit health care organization. The 195 bed acute care facility is accredited by the Joint Commission Accreditation of Healthcare and employs over 600

employees. This hospital offers a wide array of medical and surgical services across six-counties and provides health care for mainly low income and underinsured population.

After receiving Administrative approval (Appendix C), education and planning for Project RED's implementation with key stakeholders occurred in the education library located on the 2nd floor of the hospital. The APN conducted 6 (1-hour) weekly sessions on Project RED's toolkit 6 steps. In the last session, Project RED's tool 6 was presented to key stakeholders, an additional 30 minutes was provided by the APN project director, giving stakeholders an opportunity to ask questions and discuss Project RED full implementation at NWMRMC. At this time key stakeholders was also provided a post-evaluation questionnaire to complete for Phase I of Project RED.

Detailed Procedures

An overview of adapting Project RED's 6 tools for implementation was presented to the six team members. The APN conducted 6 (1hour) weekly sessions for key stakeholders. Meetings with the stakeholder team were flexible, scheduling meeting working around normal duties with active, engaged, and productive discussions. Project RED's 6 step tool (Appendix D) was used to develop and provide a quality improvement program at NWMRMC. Re-Engineered Discharge Planning toolkit provides 6 tools to help hospital improve the discharge process. The RED toolkit also helps to support and enhance success when using Project RED. Overviews of Project RED's toolkit for implementation are as follow: Tool-1, provides an overview of how hospitals can replicate RED to improve the discharge process thus helping to reduce readmissions rates and emergency visits. Tool-1, also lists the 12 components of RED, naming contributing factors that leads to re-hospitalization, and defines the impact of RED's organizational

and patient centered outcomes. Tool-2, outlines the steps to begin implementation, identifies process owners and change champions, demonstrates how to analyze readmission rates, provides the criteria to determine which patients receive RED, provides steps to train discharge educators, and examine how to use the After Hospital Care Plan (AHCP). This tool also reviewed various aspects of RED from planning to the identification of potential barriers. Tool-3, outlines the role of the discharge educator, how to collaborate among the interdisciplinary team and engage patients using RED. Tool-4 outlines how to use RED with diverse populations, the use of interpreters, and how to understand the role of the family and community. Tool-5 outlines steps to prepare the patients for follow-up post-discharge phone calls. The objective of this tool is to prepare discharge educator how to use follow-up phone calls to review appointments, medicines, and how to handle medical issues that may pose as a problem or potential problem. Tool-6, outlines how to monitor RED implementation and outcomes. The RED toolkit provided a step-by-step process on how to implement Project RED at NWMRMC. Project RED will be introduced in 4 phases, in Phase I; the APN provided 6 education sessions to help implement Project RED as a quality improvement project at NWMRMC. Project RED full implementation can take approximately 6 months to 1 year. Below is an outline of Project RED‘s 4 Phases for full implementation at NWMRMC.

Phase I- After buy-in obtained from key stakeholders, Northwest Mississippi Regional Medical Center was prepared for implementation of Project Re-Engineered Discharge (6 weeks) using the 6 step tool kit.

Phase II-Key stakeholders’ select team process champions. Discharge Educator to complete Project RED four modules (4 to 6 months).

Phase III-Implementation of Project RED (6 months to 1year).

Phase IV- Evaluation of Project RED is provided to organizational leaders by the Discharge Educator to review progress. (6months). A proposed timeline for the capstone project is shown in appendix (Appendix E).

Ethics

The capstone project was conducted after approval from The University of Southern Mississippi Institutional Review Board (IRB). After permission from NWMRMC Chief Nursing Officer was obtained (Appendix C), the implementation of Project RED began. There were no physical, psychological, or social risks involved during the implementation of this intervention. The evaluation questionnaire did not require participant identification, and the evaluation is anonymous. All evaluation information will be kept confidential and will be disseminated by aggregate data only. Access to raw data was limited to the DNP and committee members. Information will be kept in a locked file cabinet until completion of the DNP program and destroyed after completion of this capstone project.

Project Evaluation

After the APN provided the 6 sessions, NWMRMC stakeholders evaluated Phase I, capstone portion of this project by using a five-question Program Evaluation Questionnaire (PEQ) (Appendix F). The PEQ tool was developed by the APN and tested using face validity among Registered Nurse peers in the Quality Department at NWMRMC. Three of the five items were quantitative on the PEQ and are structured on a 3-point Likert-type scale (1-needs improvement, 2-meets expectations, and 3-exceeds expectation). Two questions required qualitative responses. Phase I of the project was

evaluated for the following quantitative factors: identification of key stakeholders, stakeholders' buy-in and feasibility for adaptation of Project RED at NWMRMC. The two qualitative factors evaluated were: describing how to incorporate the information learned and describe barriers, if any to implementing Project RED. Data analysis was completed using the Statistical Package for Social Sciences (SPSS) for the three quantitative questions and theme analysis for two qualitative questions.

Assumptions

A vital assumption was that this project will help to decrease HF patients' 30-day readmission rates and standardize the discharge process at NWMRMC. Also assumed was that Project RED will ultimately increase the patient's' knowledge about HF, improve caregiver's knowledge, improve communication among the healthcare team, improve the discharge work flow process, and bridge the knowledge gap by providing an evidence based practice strategy to key NWMRMC stakeholders.

Resource Requirements

No resources were needed by the APN other than time to meet with the stakeholders, which occurred during regular working hours at NWMRMC. For full implementation, hospital administrators will need to provide the following resources: (a) a projector, (b) a copier, (c) a dedicated discharge educator, (d) a workstation, (e) a meeting room, and (e) a computer and paper.

Doctor of Nursing Practice Essentials

The American Association of Colleges of Nursing (AACN) (2006) Doctoral of Nursing Practice (DNP) lists eight essentials as a framework for the Advance Practice Doctoral prepared nurse. Utilizing these eight essentials, the DNP can translate evidence

based strategies into practice that can be used in healthcare delivery, thus, influencing healthier patient outcomes. The DNP utilizes evidence based practice not only to affect the outcomes of a patient's direct care but to also to influence the needs of the community. By observing and analyzing healthcare trends from a local, national, and global perspective the DNP functions as a change agent to help develop, implement, and evaluate healthcare policies. The planning and development of this evidence-based quality improvement program is an essential role of the Advanced Practice Registered Nurse with a Doctor of Nursing Practice degree (Appendix G). The following DNP essentials were instrumental in the development of this capstone quality improvement project.

Essential II: Organizational and systems leadership for quality improvement and system thinking. This essential provided a basis for my project purpose; to take a leadership role in translating evidence (Project RED's toolkit) into practice by successfully preparing NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC. This essential provided the DNP with a framework to develop and deliver evidence based practice strategies that can meet the current and projected needs of NWMRMC policy planners and the HF patient population. This essential also provided guidelines for the DNP that are parallel to Project RED, ensuring accountability of the patient population, patient safety, and quality of health care delivered.

Essential V: Health care policy for advocacy in health care. This essential provided guidance for the DNP to enhance the delivery of health care and advocate for improved health care for the HF patient population in this project. The 12 steps of

Project RED evidence based practice can empower the policy planners at NWMRMC to design and implement new health care policies or influence a change in existing ones. These changes can affect the delivery of health care, practice regulation, safety in patient care, access to health care, and efficiency of patient outcomes.

CHAPTER IV

ANALYSIS OF DATA

Research has shown using quantitative and qualitative methods in combination have progressively been recognized as appropriate and important because each method has its strength (Curry, Nembhard, & Bradley, 2009). The purpose of this capstone project was to take a leadership role in translating evidence into practice by successfully preparing key NWMRMC discharge planning stakeholders to adapt Project RED for use with HF patients admitted to NWMRMC. This quality improvement program provided knowledge to key stakeholders in a rural hospital in the Mississippi Delta to Project RED's evidence based practice strategy. The Precede/Proceed Model was used to guide this project, and the Performance Evaluation Questionnaire (PEQ-Appendix F) was used to evaluate Phase I of Project RED implementation discharge program. The project evaluated quantitative and qualitative responses. The quantitative responses addressed the feasibility and adaptability of Project RED at NWMRMC. The qualitative responses addressed the identification of barriers for implementing Project RED at NWMRMC for the HF population. SPSS version 2.0 was used to analyze the quantitative data. Quantitative variables were calculated using measures of central tendency and included: the minimum, maximum, mean and standard deviation in order to measure frequency distribution and to clarify patterns.

Descriptive Data

Quality improvement methods assist organizations to make changes in a systematic way by measuring and assessing the changes that can be made. The information is then redirected back into the clinical setting, and the methods are adjusted

continuously until the desired results are achieved (Bailey, 2008). Descriptive data were collected from the 6 participants,' PEQ, and 100% reported that key stakeholders were identified. A majority, 100 % of the participants reported that the information, content, and resource materials presented can meet the organization discharge planning needs, and 100% of the participants reported that the presented information can be useful for adaptation in the organization. A majority of the participants 83.3% reported that the identification of key stakeholders exceeded expectation, and 16.6% reported identification of key stakeholders met expectation. A majority, 66.64 % of the participants reported that the information, content, and resource materials presented can exceed the expectation of the organization discharge planning needs, and 33.32% reported that the content and resource materials can meet the organization needs. Of the 6 participants, 83.3% believed that the presented information exceeded the expectation for adaptation in the organization, and 16.6 % believed that the presented information met their expectation for adapting Project RED into the organization (Frequency Distribution Chart Table 1).

Table 1

Frequency Distribution Chart

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	6	2	3	2.83	.408
Q2	6	2	3	2.50	.548
Q3	6	2	3	2.83	.408

The open-ended qualitative feedback had two major themes. For item 4, the theme was to describe how to incorporate what was learned in the activity into patient care and explains if the activity was of value or how the information can be made useful. The key stakeholders provided feedback to the qualitative question 4 and described how this educational activity can be incorporated into patient care with comments such as: "Targeting those patients on admission and beginning the discharge process earlier, identifying ways that medication can be optimized to better treat the patients" and "Provide education where needed to prevent possible readmission". Another key stakeholder commented that "information about setting up discharge phone calls as follow-up and making sure patients attend scheduled appointments will be added as part of the discharge process". The theme for item 5 was centered on identifying barriers to implementing Project RED. Question 5 addressed barriers in implementing Project RED and elicited responses such as: "No dedicated discharge planning nurse to help facilitate the education process to ensure understanding by patients with real time feedback and consistency". Another response was, "having the adequate manpower to be able to streamline the discharge process; possible incorporate an extra staff member who is solely focused on discharging".

CHAPTER V

SUMMARY

This quality improvement project examined an evidence based practice strategy to reduce HF 30 day readmission rates in a rural Mississippi Delta hospital. The project provided a plan for NWMRMC to use that can help improve the discharge process, quality of care, and quality of life for HF patients. The literature emphasized patient involvement, use of an interdisciplinary team, and a discharge advocate to take ownership and streamline the discharge process utilizing Project RED. The purpose of this project was to take a leadership role in translating evidence into practice by successfully preparing key NWMRMC discharge planning stakeholders to adapt Project RED for HF patients admitted to NWMRMC. Project RED's 6 tools for implementation was provided to 6 NWMRMC's key stakeholders. After providing 6 (1) hour weekly sessions using Project RED's evidence based implementation toolkit, key stakeholders' knowledge was evaluated for effectiveness of resource, materials, and content of Project RED's implementation quality improvement program at NWMRMC.

The 6 participants were scheduled to complete a total of 6 (1) hour weekly sessions, with a 15-20 minutes allowance for discussion and/or questions and answers. Due to the provision in work schedules and time constraints placed on the APN and the key stakeholders, the project consisted of 6 (45 minutes to 1-hour) weekly sessions with the final session lasting 1 hour and 30 minutes. In the final session, information was clarified on implementing Project RED, using a question, answer, discussion, and evaluation session for key stakeholders on Project RED Phase I.

Limitations

The design of this quality improvement program was based on current best evidence based practice and the hospital's discharge needs identified by the APN. There was no standardized discharge process in which to collect pre-implementation data; however, Project RED standardized discharge process has been effective in achieving project goals of improving the discharge process and reducing 30 day readmission rates in other organizations. The risks of bias for this purposive sample were that representativeness was limited due to gathering a hand selected group. This quality improvement project evaluated only Phase I of Project RED for this rural hospital located in the northern portion of the Mississippi Delta. The discharge educator/ advocate will need to provide guidance for the entire interdisciplinary team, and the time to provide full implementation (6 months -1 year) of Project RED may pose some limitations on the project effectiveness.

Implications

Heart failure, a progressive disease, has affected millions of Americans annually. According to Roger et al., (2012), an estimated 3 million additional peoples in the United States will be diagnosed with HF by the year 2030 (Roger et al., 2012). The care of patients most often requires the expertise of several health care providers, and an APN nurse can contribute to the health care team by identifying nurse sensitive and patient centered outcomes using evidence based practice. In this project, the APN provided an education intervention about Project RED's evidence-based 6-step implementation toolkit, which is effective in improving the discharge process and decreasing 30 day readmission rates.

Implications for Nursing Practice

Based on the APN assessment, providing quality care and efficient health care can be achieved by using evidence based strategies. Engaging in quality improvement methods can enhance adherence, improve compliance, improve patient centeredness and the hospital's community image, improve return on investment, improve clinical outcomes and documentation, and meet the safety standards for Joint Commission and the Centers for Medicare and Medicaid. A standardized method of discharge can also provide means of contribution to the interdisciplinary team circle of care from the APN to the bedside nurse.

Implications for Research

Improving care through evidence based practice provides objective and substantiated data regarding the outcomes of HF. High mortality and increased healthcare costs are associated with increased 30 day HF readmission rates, which are why adherence to evidence based practice is essential for healthcare organizations when trying to reach goals of decreasing 30 day readmission rates (RED toolkit, 2103). With full implementation, Project RED's guidelines can help identify a set of intermediate processes that does not target re-hospitalization as a key indicator but support quality improvement efforts of health care organizations. These measures endorsed by NQF are: (1) Outcome measures, which includes a reduction in direct harm associated with adverse events, process measures, and review the percentage of discharge summaries received by accepting providers (the number of patients, post hospital discharge, who have attended a follow-up appointment and the time in which the provider receive post discharge test results). (2) Use of Home Management Plan of Care, this separate document, is given to

the patient upon discharge; it provides a home management plan of care specific to each patient. (3) Structure measures provides verification of a systematic hospital discharge and a performance improvement plan with organizational policies and procedures that addresses communication of discharge information, verification that education has been provided and that accountability across the health care organization exist, and (4) Patient-centered measures which include surveys (Hospital Consumers Assessment of Healthcare Providers and Systems at NWMRMC) of patient satisfaction about the hospital stay, the after hospital plan of care for the patient, and what the patient should do in case of emergency (RED toolkit, 2013). The APN role was to integrate education, research, leadership, and management into the clinical practice to manage HF patient 30 day readmissions.

Implications for Education

Evidence-based knowledge and practice provides healthcare entities with strategies to provide efficient, effective, and quality care. This project included guidelines for the development of targeted actions aimed at significantly reducing HF patients 30 day readmission rates. By developing and thoroughly monitoring Project RED, the toolkit can help NWMRMC's policy planners identify what works and what needs improvement to achieve the organization's goals. The Precede/ Proceed model used to guide this project provides a framework for on-going education and reinforcement for using evidence based practice, allowing NWMRMC policy planners to view and review the challenges and needs for implementing Project RED at NWMRMC.

Benefits

An overview of all answers revealed that this APN led activity can be used to facilitate a smoother discharge and transition from hospital to home by incorporating the use of Project RED and a discharge advocate /educator. This APN led activity also provided a chance for key stakeholders to collaboratively review the organization's discharge needs from a holistic perspective and allow the examination of an evidence based practice option that can be used to help decrease 30 day readmission rates for the HF patient population.

Challenges for Project RED

One week following presentation of Phase I of Project Re-Engineered Discharge (RED), a readmission council meeting was held. In a table discussion, engaged key stakeholders provided information regarding Project RED and how to implement Project RED at Northwest Mississippi Regional Medical enter. In this meeting, key stakeholders revealed the elements to implement Project RED, and an advocate was appointed to develop a discharge team to help decrease the 30 day readmission rates. The advocate was also charged with looking at any and all methods that can help to reduce 30 day readmission rates. Due to the lack of time for full implementation of Project RED (which takes approximately 6 months to 1 year to fully incorporate), the advocate was also charged with exploring the obvious steps that NWMRMC omits during discharge planning.

Conclusions

Effective discharge planning is comprised of multiple processes that support the use of a discharge advocate, an interdisciplinary team, a standardized discharge process, and a reduction in 30 day readmissions rates. The discharge process can be improved by assessing and reassessing current practices during the transition of care, developing an evidence-based process improvement intervention and evaluating resulting outcomes. In this project, the APN found that by providing education on implementing Project RED's, evidence-based 6 step toolkit, 30 day readmission rates can decrease, the quality of care can be improved, a standardized discharge process is created resulting in a safer transition from hospital to home for the patient. The Advance Practice Nurse can play a key role in helping to develop and implement an effective discharge process for HF patients.

APPENDIX A

RE-ENGINEERED DISCHARGE 12 COMPONENTS

RED Component	Discharge Educator/ Staff Nurse Responsibilities
1. Ascertain need for and obtain language assistance.	• Find out about preferred languages for oral communication and written materials. • Determine patient and caregivers' English proficiency • Arrange for language assistance as needed, including translation of written materials.
2. Make appointments for follow-up medical appointments and post discharge tests/labs.	• Determine primary care and specialty follow-up needs. • Find a primary care provider (if patient does not have one) based on patient preferences: gender, location, specialty, health plan participation, etc. • Determine need for scheduling future tests. • Make appointments with input from the patient regarding the best time and date for the appointments. • Instruct patient in any preparation required for future tests and confirm understanding. • Discuss importance of clinician appointments and labs/tests. • Inquire about traditional healers and assure that traditional healing and conventional medicine are complementary. • Confirm that the patient knows where to go and has a plan about how to get to appointments; review transportation options and address other barriers to keeping appointments (e.g., lack of day care for children).
3. Plan for the follow-up of results from lab tests or studies that are pending at discharge.	• Identify the lab work and tests with pending results. • Discuss who will be reviewing the results, and when and how the patient will receive this information.

4. Organize post-discharge outpatient services and medical equipment.	• Collaborate with the case manager to ensure that durable medical equipment is obtained. • Document all contact information for medical equipment companies and at-home services in the AHCP. • Assess social support available at home. • Collaborate with the medical team and case managers to arrange necessary at-home services
5. Identify the correct medicines and a plan for the patient to obtain and take them.	• Review all medicine lists with patient, including, when possible, the inpatient medicine list, the outpatient medicine list, the outpatient pharmacy list, and what the patient reports taking. • Ascertain what vitamins, herbal medicines, or other dietary supplements the patient takes. • Explain what medicines to take, emphasizing any changes in the regimen. • Review each medicine's purpose, how to take each medicine correctly, and important side effects. • Ensure a realistic plan for obtaining medicines is in place. • Assess patient's concerns about medicine plan.
6. Reconcile the discharge plan with national guidelines.	• Compare the treatment plan with National Guidelines Clearinghouse recommendations for patient's diagnosis and alert the medical team of discrepancies.
7. Teach a written discharge plan the patient can understand.	• Create an AHCP, the easy-to-understand discharge plan sent home with patient. • Review and orient patient to all aspects of AHCP. • Encourage patients to ask.
8. Educate the patient about his or her diagnosis.	• Research the patient's medical history and current condition. • Communicate with the inpatient team regarding ongoing plans for discharge. • Meet with the patient, family, and/or other caregivers to provide education and to begin discharge preparation.

9. Assess the degree of the patient's understanding of the discharge plan.	• Ask patients to explain in their own words the details of the plan (the teach-back technique). • May require contacting family members and/or other caregivers who will share in the care-giving responsibilities.
10. Review with the patient what to do if a problem arises.	• Instruct on a specific plan of how to contact the primary care provider (PCP) by providing contact numbers, including evenings and weekends. • Instruct on what constitutes an emergency and what to do in cases of emergency.
11. Expedite transmission of the discharge summary to clinicians accepting care of the patient.	• Deliver discharge summary and AHCP to clinicians (PCP, visiting nurses) within 24 hours of discharge.
12. Provide telephone reinforcement of the Discharge Plan.	• Call the patient within 2-3 days of discharge to reinforce the discharge plan and help with problem-solving. • Staff DE Help Line. Answer phone calls from patients, family, and/or other caregivers with questions about the AHCP, hospitalization, and follow-up plan in order to help patient transition from hospital care to outpatient care setting.

Re-Engineered Discharge (RED) Toolkit1. (2013). Agency for Healthcare Research and Quality, Rockville, MD. Adapted from http://www.ahrq.gov/professionals/systems/hospital/toolkit/index.html

APPENDIX B

LITERATURE REVIEW

Re-Engineering Discharge Planning in a Rural Hospital to Reduce Re -Admissions Rates in Heart failure patients						
Citations	Purpose/ Problem	Design	Sample setting	Measurements	Data Collection	Major Findings
Naylor et al., (2004)	To examine the effect of a 3 month APN led comprehensive transitional care of elderly HF patients.	Randomized controlled Trial for two groups.	Conducted at six Philadelphia academic and community hospitals. Two-hundred and sixty nine, eligible patients 65 and older. Patients admitted between February 1997 and January 2001 with a diagnosis of heart failure (and related DRG group validated at discharge.	The Minnesota Living with Heart Failure Questionnaire (quality assessment), Enforced Social Dependency Scale (functional assessment) and satisfaction was assessed using an investigator developed tool.	Research Assistant obtained socio-demographic data and screened patients for eligibility. The project manager assigned patients to study group using a computer-generated, institution – specific block 1:1 randomization algorithm. Data on timing, number and reasons for hospitalizations, readmissions, unscheduled acute	These APN nurse led interventions assessed the quality of life, functional status, satisfaction and re-hospitalization. Rates for re-hospitalization were lower for the intervention group 47.5% versus 61.2% for the comparison group.

					care visits and other healthcare personnel were abstracted from patient's records and bills.	
McCauley et al, (2006)	To examine the effect of a 3-month comprehensive transitional care (discharge planning and follow-up) interventions led by the APN for elderly HF patients.	Randomized Control Trial	Subjects came from poor inner city communities, wealthier and isolated rural areas-The RCT recruited patients from six hospitals sites and five home care agency.	The APN utilized the evidence based guidelines from AHRQ and AHA to provide interventions and strategies to improve the overall outcome and reduce readmissions.	The APN focused on 3 domains : patient and family or caregiver effectiveness; patient-provider relationship and managing of co morbid and improving overall health	APN used multiple strategies to improve the overall outcomes of patients and help to reduce readmission overall rate for all studies($p< 0.013$)
Manning et al., (2010)	To examine if an APN led program could improve the outcomes of HF patients using strategies such as:	Retrospective hospital chart review, Composite Quality Indicator scores improved from 82.12-100%	Memorial Medical Center, 534 bed, level trauma, tertiary care.	Premier Quality Indicator, Heart Failure Quality Indicators form	Identifying HF patients and using the computer generated HFST list; all patients were included in the study with a	Advance Practice Nurse placed a key role in developing the HFST using evidence based practice for support. This

	self-care/ management skills, provider understanding overall management, and co morbid condi-tions.	in< 4years			diagnosis of HF. Electronic Medical Records were searched daily for patients with a BNP> 800pg//m and ejection fraction less than 40%.	review also examined patients admitted under a differential diagnosis and discharged with HF, these HF patients was provided a booklet "Living with HF".
Rabat et al., (2011)	This study explored 2002's Joint Commission on HF discharge instruct-tions.	Retro-spective data collec-tion	A 476 bed medical center in Sunset Park, Brooklyn serving a diverse, multicultural, largely immigrant population.	The Smooth Transitions Equals Less Readmissions(STELR), program was developed and implemented	Patient selection included: a primary diagnosis of CHF, working diagnosis of shortness of breath or edema or patients readmitted within 30 days of discharge. The screening and study covered a period from November 2009 to January, 2011.	Nurse driven patient centered education interventions. RNs' provided education to heart failure patients. The education was in audio visuals and/or in written format and included: symptom warning and recognition of heart failure, behavioral

						modifica-tion (for dietary, medication and activity), a pillbox with instruction on usage. A follow-up appoint-ment was provided for the patient within 7 days of discharge and for patients without a PCP, appointments were made in heart failure, general medicine or cardiac clinic.
Langland et al., (2012)	To test a deve-loped interven-tion, STELR for effective-ness on reducing readmissions and im-	A Systematic Review11 RCT's and 10 descrip-tive studies, qualita-tive and, 2-quanti-tative	37 studies review papers. Elderly HF patients with complex health problems high risk for re-hospitaliza	Discharge interventions reviewed such as education / training/ medication reconciliation, standardized discharge and electronic tools.	Literature review search of 569 publications, 37 met inclusion and 12 were review papers, 11 were RCT's, 10	This study revealed a set of interven--tions aimed at improving com-munication and methods to improve the

	proving the quality of care.	designs and several systemic reviews,	tions.		were systemic reviews that revealed the use of discharge instruct-tions or support.	transition of care. Use of advance practice nurse as a key coordinato r and a 34.5% reduction in readmis-sions.
Boren et al., (2009)	This study explored several studies and papers examinin g discharge interventi ons.	Systemic Review RCT: 20 topics; 4 categorie s; Chi-Square analysis were used; 295 outcome (113 unique outcome) were measure d, 8.4 out-comes per study. 60(53%) showed signi-ficant improve ment, 3 showed no improve-ment	7,413 patient partici-pated in 35 eligible HF manageme nt studies	Chronic Heart Failure Questionnaire, Minnesota living with Heart Failure Questionnaire, Psychosocial Adjustment to Illness, Europol, Cantrell's Ladder and Quality of Life in Heart Failure Questionnaire, Self-care Agency Scale, The heart Failure Self-care Behavior Scale and the Self-care of Heart Failure Index. Functional status was gauged by the Enforced Social Dependency and the Heart Failure Functional	Published reports from Medline (1966-2007) and CINAHL (1982-2007) and the Cochrane Central Register of Controlled Trials (fourth quarter)-reports of self-education RCT	Education played a vital role to help CHF patients improve their quality of life. The most frequent used educator was a nurse with written and verbal material. Improvem ent in knowledge , behaviors and self-care were noted with a reduction in readmis-sions in 33 of the studies.

				Status Inventory. The Zung Self – rating Depression scale, The Patient's Global Self-Assessment Instrument.		
Dehia et al., (2009)	The purpose of this study was to identify appropriate educational interventions for CHF.	Quasi-experimental pre-post study design.	General medicine wards at three hospitals: John Hopkins Bay view Medical Center, a 335 academic medical center, Carolinas Medical Center-North East, a 457 community based non-teaching hospital and Geisinger Medical Center, a 403 community based teaching hospital. There were 285 patients	The 3 and 15 item versions of Coleman's Care Transition Measures (CCTM) were used to assess patient satisfaction with the transition to home and 30 day readmissions and ER visits.	During the control and intervention periods, data were collected during the incident hospitalization within 1 week of discharge and 30days after discharge.	A Multi-disciplinary team Provided the invention toolkit based on five core elements; admission forms with geriatric cues, Fast Facts form faxed information form to the PCP, interdisciplinary worksheet to identify barriers to discharge, and pharmacist - physician collaborative medication reconciliation and post discharge planning

			followed for the pre interven-tion period and 185 patients were exposed during the interven-tion period.			appoint-ments. The interdisciplinary team interacted and evaluated care plans and treatment modalities. The CCTM increased from 68% to 89%, return to the ER within 3 days of discharge was lower in the interven-tion period-10% versus 3%, 30 days readmissio n was lower during the interventio n period-22% versus 14%, and fewer visits to the ER-21% versus 14%.
Harris on et	To examine	Retrospe ctive	Partici-pants of a	Two group were formed –	Members received a	In the entire

al., (2011)	the effective-ness of a discharge planning interven-tion.	cohort study	large data health claims who had a chronic disease diagnosis, (asthma, renal failure, COPD, depression, diabetes, heart failure and etc…) and was hospitalized in 2008.	the comparison group and the intervention group The comparison group (N=23,499) were those members readmitted prior to receiving the 14 day discharge call (comprised of 0.5% of the total study population). Also signed to this group were members who received a call 15-30 days following discharge. The intervention group(N=67730 received a call within 14 days of discharge from a specialty registered nurse that verified that the patient received discharge instructions, none duplicating prescriptions and had a plan for follow-up visits and steps to take to avoid readmissions	discharge call within 14 days of discharge	population of 30,272, 2724 were readmitted within the 30days, the median time being 11 days. Discharge calls were received as early as 1 day with a median discharge call time was 7 days. Members who did not receive a call within the 14 days were 1.3 times more likely to be readmitted within 30 days. The interventio n group showed a less likely rate of 23.1% for readmis-sions
Kelly,	The	Litera-	A review	The Coleman	Patients	The

(2011)	purpose of this study was to determine if post discharge telephone calls was effective at reducing 30day readmis-sion rates.	ture reviews and systema-tic reviews	of literature on care strategies that provide evidence to help reduce readmissio ns.	Care Transition Model was used as a guide to empower the patient to engage in their self-care management.	were provided a transitiona l coach to help with the transition from hospital to home	literature review revealed using the CCTM, a care strategy help to avoid readmis-sions by using transitional coaches to empower and engage the patient in self-care manageme nt.
Ren-nke et al., (2013)	The purpose of this review was to identify readmissi ons trends and practices used to prevent readmis-sions for the populatio n with chronic diseases.	Systemat ic Review. 28 were RCT and 19 were control-led trials.	47 eligible studies that involved 44 hospitals / 24 studies were conducted in the United States.	44 -hospital strategies aimed to reduce adverse events, emergency department and readmissions.	Review of studies that provide pre and post discharge interven-tions, Use of a discharge advocate or a dedicated transition provider	Hospital initiated strategies before and after discharges prevented readmissio ns, ER visits, and adverse events These interven-tions also promoted com-munication among clinicians and to patient.
Jack et al., (2009)	The study explores hospital initiated	Randomi zed Trial-using	749-English speaking patients in	A two –group randomized, controlled trial-intervention	A list of admitted patients demograp	Nurse led interven-tions using the 12

	interven-tions aimed at prevent-ing adverse outcomes and Promot-ing the transition of care for patients. Multiple issues are cited as contribut ors of inef-fective transition al care.	block of 6& 8.	a large, urban, safety net hospital with an ethnically diverse population at Boston Medical Center	group and usual care group.	hics – such as hospital location, age date and time of admission was obtained. Last names of potential patients were ranked using	com-ponents of project RED. The interven-tion group showed to be effective in reducing readmissio ns (0.314 versus 0.451) the usual care group. (22% versus 27 %, p=.028)

APPENDIX C

THE UNIVERSITY OF SOUTHERN MISSISSIPPI IRB APPROVAL

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
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NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.
PROTOCOL NUMBER: **14031008**
PROJECT TITLE: **Re-Engineered Discharge Planning in a Rural Mississippi Hospital to Reduce 30 Day Readmission Rates Among Heart Failure Patients**
PROJECT TYPE: **New Project**
RESEARCHER(S): **Roxie Hogan**
COLLEGE/DIVISION: **College of Nursing**
DEPARTMENT: **Systems Leadership and Health Outcomes**
FUNDING AGENCY/SPONSOR: **N/A**
IRB COMMITTEE ACTION: **Exempt Review Approval**
PERIOD OF APPROVAL: **03/11/2014 to 03/10/2015**
Lawrence A. Hosman, Ph.D.

APPENDIX D

LETTER OF SUPPORT

NORTHWEST REGIONAL
Advanced Medicine at the Crossroads

November 21, 2013

Northwest Regional Medical Center
1970 Hospital Drive
Clarksdale, Mississippi 38614

Dear Roxie,

I am pleased to write a letter of support for your proposal regarding your research on Re-Engineered Discharge Planning in rural hospital to reduce 30 day readmission rates among Heart failure patients. As you are aware, Northwest Regional Medical Center is dedicated to innovated evidenced based quality improvement projects that advance the nursing profession.

If your application is successful, it will provide us with an opportunity to also assess the holistic view of discharge planning and to embark on new projects to determine the importance of collaborative and interdisciplinary efforts in the clinical setting. Your initiative is well positioned within one of our goals to improve health care delivery and patient outcomes for the population we serve.

Sincerely,

Loreather Stacker

Loreather Stacker, BSN, RN
Chief Nursing Executive
Northwest Regional Medical Center

1970 Hospital Drive • P.O. Box 1218 • Clarksdale, MS 38614 • p 662.627.3211 • f 662.627.5440 • www.northwestregional.org

APPENDIX E

PROJECT RE-ENGINEERED DISCHARGE TOOLKIT

Week 1: Tool 1: Overview
Purpose of the Toolkit
Reasons to Re-Engineer Your Discharge Process
Impact of RED
New and Improved RED Toolkit

Week 2: Tool 2: How to Begin the Re-Engineered Discharge Implementation at your Hospital
Purpose of this tool
Eleven Steps to Implement the Re-Engineered Discharge
Step1: Make a Clear and Decisive Statement
Step2: Identify Your Implementation Leadership
Step 3: Analyze Your Readmission Rates and Determine Your Goal
Step 4: Identify Which Patients Should Receive the RED
Step 5: Create Your Process Map
Step 6: Revise Your Current Workflow to Eliminate Duplication
Step 7: Assign Responsibility for RED Components
Step 8 Train Discharge Educators and Follow-up Telephone Callers
Step 9: Decide How To Generate the After Hospital Care Plan
Step 10: Provide the RED for Diverse Populations
Step 11: Plan To Measure the Progress of RED Implementation
Sample Training Agenda

Week 3: Tool 3: How to Deliver the Re-Engineered Discharge at Your Hospital
Purpose of This Tool
Role of the Discharge Educator
The After Hospital Care Plan
What Are the Components of the After Hospital Care Plan?
What Is the Patient Information Workbook and the RED Workstation?
Steps To Deliver the In-Hospital RED Components?
Obtain and Review Patient Information from Medical Records
Confer With the In-Hospital Medical Team
Arrange To Meet With Patient, Family, and Other Caregivers
First Meeting with the Patient
Follow Up on Test or Lab Results That Are Pending at Discharge
Organize Post discharge Medical Equipment and At-Home Services
Identify the Correct Medicines and a Plan for the Patient to Obtain Them
Reconcile the Discharge Plan with National Guidelines
Teach the Content of a Written Discharge Plan in a Way the Patient Can Understand
Asses the Degree of Patient Understanding
Review What to Do if a Problem Arises

Post discharge Components of the RED
Transmit the Discharge Summary to the Post discharge Clinician
Provide Telephone Reinforcement of the Discharge Plan
Staff a Discharge Educator Help Line
Other Teaching Opportunities Included in the AHCP
Components of After Hospital Care Plan (AHCP)
Example after Hospital Care Plan (AHCP)
AHCP Template for Manual Creation: English-Speaking Patients
Template for Manual Creation of the AHCP: Spanish-Speaking Patients
RED Discharge Preparation Workbook
Contact Sheet
Examples of Diagnosis Pages
Components of After Hospital Care Plan (AHCP)
Example After Hospital Care Plan
AHCP Template for Manual Creation: English- Speaking Patients
Template for Manual Creation of the AHCP- Spanish-Speaking Patients
RED Discharge Preparation Workbook
Contact Sheet
Examples of Diagnosis Pages

Week 4: Tool 4: How to Deliver the Re- Engineered Discharge to Diverse Populations

Purpose of This Tool
Role of Culture, Language, and Health Literacy in Readmissions
Culture and Its Relationship to Readmissions
Preparations for Providing the RED to Diverse Populations
Hiring Bilingual, Bicultural Discharge Educators
Providing Cultural and Linguistic Competence Training
Ensuring Availability of Interpreter and Translation Services
Overview of Delivering the RED to Diverse Populations
Getting Started With the RED for Diverse Populations
Assessing Communication Needs
Using Nonverbal Communication Styles while teaching the RED
Understanding Health Beliefs, Alternative Healers, and Attitudes about Medicines
Understanding Patients and Communicating Across Differences
Teaching the AHCP to Patients with Limited English Proficiency
Using Qualified Medical Interpreters to Create and Teach AHCP
Working With Qualified Medical Interpreters
Accessing Interpreters by Phone and Video
Handling Patient Refusal of Language Assistance
Understanding the Role of Family and Community
Additional Considerations
Dietary Patterns
Religious Observances
Gender Preferences
Sexual Orientation and Gender Identify

Mental Health

Week 5: Tool 5: How to Conduct a Post discharge Follow-up Phone Call
Purpose of this tool
Preparing for the Phone Call
Ensure Continuity of Care
Learn How to Confirm Understanding
Review Health History and Discharge Plans
Check Accuracy and Safety of Medicine Lists
Identify Problems Patients Could Have With Medicines
Arrange for Interpreters Services
Conducting the Phone Call
Whom and When to Call
What to Say
Documenting Your Call
Communicating With the PCP
Contact Sheet
Post discharge Follow-up Phone Call Script (Patient Version)
Post discharge Follow-up Phone Call Documentation Form
Phone Call Role Play

Week 6: Tool 6: How to Monitor RED Implementation and Outcomes
Purpose of This Tool
Getting Started
Selecting and Specifying Measures
Implementation Measures
Is the RED Being Delivered to Target Patients?
Is the Correct Information Being Collected?
Is Evidence-Based Care Being Delivered?
Is Appropriate Follow-up Care Being Arranged?
Are Patients Being Prepared for Discharge?
Are Patients Receiving Post discharge Care?
Selecting Implementation Measures
Outcome Measures
Hospital Reutilization Measures
Connections with Outpatient Providers
Knowledge for Self-Management
Patient Satisfaction
Collecting Data
RED Workbooks and Contact Sheets
Electronic Health Records and the RED Workstation
Patient Surveys
Measurement Timing and Frequency
Other Means of Monitoring RED
Root Cause Analyses
DE Help Line Logs

Direct Observation
Taking Action
Summary
Discharge Measures Used by Other Organizations
How CMS Measures the "30-Day All Cause Re-hospitalization Rate" on the Hospital Compare Web Site
Patient Outcome Survey (mailed version)
Patient Outcome Survey (phone version)

Re-Engineered Discharge (RED) Toolkit. (2013). Agency for Healthcare Research and Quality, Rockville, MD. Retrieved from http://www.ahrq.gov/professionals/systems/hospital/toolkit/index.html

APPENDIX F

PROJECT TIME TABLE

Month	Activities
August 2013	Capstone proposal draft given to chair
August-, 2013-January 2014	Designing completion of continuing professional development program/oral defense.
February, 2014-March 2014	After USM IRB approval, provide education training on Project RED Toolkit 1-6,(4-6 weekly sessions) at acute care in-patient hospital NWMRMC(Phase I).
March 2014- April 2014	Phase I-Achieving stakeholder buy-in for project and preparing Northwest MS Regional Medical Center for Implementation of Project Re-Engineered Discharge (4 to 6 weeks). This is the capstone portion of the overall project.
Full implementation-1 year	Phase II-Key Stakeholders select team process champions. Discharge Educator to complete Project RED four modules (4 to 6months). Phase III-Implementation of Project RED (6 months to 1year). Phase IV- Provide evaluation of Project RED's implementation to organizational leaders (6 months)
April, 2014	Complete Project RED evaluation (for Phase I) and submit to chair.
June, 2014	Submit completed capstone project to committee Final capstone project defense.
June, 2014	Submit final completed copy of capstone project to committee.
June- July, 2014	Final copy of capstone to graduate school by chair.
August/December, 2014	Project finish/Graduate

APPENDIX G

PROGRAM EVALUATION QUESTIONNAIRE

Please choose one answer only

1. Identification of key stakeholders. Were key stakeholders identified in the project?	Needs Improvement 1	Meets Expectation 2	Exceeds Expectation 3
2. Will the information content and resource materials provided meet the organization discharge planning needs?	Needs Improvement 1	Meets Expectation 2	Exceeds Expectation 3
3. Can the information provided be useful for adaptation in the organization?	Needs Improvement 1	Meets Expectation 2	Exceeds Expectation 3

4. Please describe how you will incorporate what you have learned in this activity into patient care. If this activity was not of value to practice, please explain how this information can be made more useful.

_____

5. Are there any barriers to implementing what you learned? No_ Yes__. If yes, please describe the barriers and what you think can be done to remove them._____

_____

Comments

_____

APPENDIX H

DOCTORAL OF NURSING PRACTICE

Essentials	Essentials Outcomes
Essential I – Scientific Underpinnings for Practice	The management of HF is a major public health concern in the United States today. Interventions for HF present a challenge for the medical staff today from basic knowledge for patients to changes in treatment modalities. This educational training will allow medical staffs, nurses, patients and their caregivers to integrate evidence based knowledge into daily practice, provide basic knowledge to improve clinical outcomes, and reduce 30 day HF readmission rates.
Essential II – Organizational and System Leadership for Quality Improvement and Systems Thinking	A lack of consistency in the health education provided for HF patients during their hospital stay and discharge leaves the patient powerless in self-management and poses risk for adverse events. Providing an educational training for an evidence based driven discharge plan will engage and empower stakeholders, clinicians, HF patients and caregivers to help reduce readmissions. The program will focus on educating key stakeholders to develop a discharge plan that will provide cost effective healthcare and seamless transition to home and across healthcare settings.

Essential III – Clinical Scholarship and Analytical Methods for Evidence-Based Practice	Provide the health care leadership key stakeholders team knowledge about evidence based Project RED that can help identify the HF readmission population and can help to decrease health care costs. Encouraging the application of knowledge is necessary to improve healthier outcomes and bridge the gaps in health care.
Essential IV – Information Systems/ Technology and Patient Care Technology for the improvement and Transformation Health Care	Inform health care staff to analyze, select, and use data retrieved from the health care information systems. Establish the accuracy, timeliness, and appropriateness of the data received to increase the knowledge of the leadership team regarding discharge planning thereby helping to reduce readmissions.
Essential V – Health Care Policy for Advocacy in Health Care	Educate the key stakeholders on developing a discharge plan using Project RED. Project RED can help to improve the discharge planning process, help to develop policies that will constitute a change in practice that can improve the patient's outcome, the organizational financial outcomes and reduce 30 readmission rates.
Essential VI – Inter-professional Collaboration for Improving Patient and Population Health Outcomes	Through enhanced discharge planning education, Project Red's 12 components meets the national standards that mandate for a safe, timely, effective, efficient, equitable, and patient centered care during the discharge planning phase .
Essential VII – Clinical Prevention and Population Health for Improving the Nation's Health	Increase knowledge to bridge the gap between health care staff members and create methods to improve the quality of care provided.

Essential VIII – Advanced Nursing Practice	The APN can help to increase healthcare staff knowledge by using Project RED's methods which can result in a greater need for specialized nursing practice and education during discharge planning. Upon completion of this project and the education provided to NWMRMC key stakeholders on the development of Project RED, and with full implementation information can be evaluated, replicated and disseminated across health care settings.

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