

2018

Transition of Care Guideline for Reducing Heart Failure Hospital Readmission

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Walden University

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Geeti Farrahi

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the review committee have been made.

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2018

Abstract

Transition of Care Guideline for Reducing Heart Failure Hospital Readmission

by

Geeti Farrahi

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

May 2018

Abstract

Heart failure (HF) patients are among the populations with the highest rates of hospital readmission within 30 days of discharge. Because of the 2010 Health Care Reform legislation, healthcare organizations are subject to financial penalty when a patient population exhibits excess readmissions. A significant reason for readmission of HF patients is a gap in the transition of care from hospital to home. The purpose of this doctoral project was to develop a practice guideline of best practices for transitioning HF patients from hospital to home. The transitional care model and care transitions intervention provided the theoretical underpinnings for developing this project. The research question explored whether a transition-of-care guideline would reduce hospital readmission for the HF population. The methodology used to develop the clinical practice guideline was derived from a synthesis of scholarly literature and evidenced-based transitional care quality initiatives. Seven interdisciplinary experts involved in HF transition of care used the Appraisal of Guidelines Research and Evaluation II instrument (AGREE II) to assess the development of the practice guideline. The scores of 6 AGREE II domains were summed and scaled to obtain a percentage of the maximum possible score for each domain. Scores showed that the clinical practice guideline was rigorous, high quality, effective in improving transition of care, and has the potential to reduce HF readmission. Positive social changes resulting from this practice guideline include an improvement in patient outcomes, a reduction in readmission rates, and a reduction in the associated financial burden to the hospital.

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Dedication

I would like to dedicate this capstone project to my daughter, who decided to follow Mom's footsteps and be a nurse!

Acknowledgments

I would like to express my deepest appreciation and love to my family for their continuous support and patience during my DNP study. Without their unconditional love and support, I would not have been able to accomplish this journey!

My special gratitude goes to my project committee members. Dr. Cynthia Fletcher, thank you for your mentorship and guidance. Dr. Diane Whitehead and Dr. Riyadh Naser, thank you for your feedback and support.

My special thanks go to my friends, Dr. Elizabeth Wider and Marie Timlin, for offering their advice and encouragement during challenging times.

Finally, I would like to acknowledge my perseverance: “It is never too late to be who you might have been.” — George Eliot

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Section 1: Introduction

Background

The increasing prevalence of heart failure in the United States presents a challenge to patients, caregivers, medical professionals, and healthcare administrators alike. Heart failure currently affects over 5.7 million people in the United States (Centers for Disease Control and Prevention [CDC] 2016) and, according to the American Heart Association (AHA; 2015), an estimated 550,000 new cases occur each year. It is further estimated that the number of heart failure patients will increase 43% by 2030 (AHA, 2017). Demographic aging remains one of the factors contributing to the increased prevalence of heart failure. In the United States, experts expect the segment of the population ages 65 and above to grow from 35 million in the year 2000 to 70.3 million in the year 2030 (Heidenreich et al., 2011). Patients in the fast-growing over-65 group experience the highest rates of readmission compared to heart failure patients in other age groups (Snyderman, Salzman, Mills, Hersh, & Parks, 2014).

The mounting prevalence and incidence of heart failure is further compounded by its inherent severity. Over 24% of heart failure patients are hospitalized within 30 days of discharge (Agency for Healthcare Research and Quality [AHRQ], 2013), making them the patient group with one of the highest rates of 30-day hospital readmission including incurred costs of over \$30.7 billion annually. (CDC, 2016; Centers for Medicare and Medicaid Services [CMS], 2016). In response to this unsustainable spending growth in 2010, government-payer, the CMS, began phasing in a quality-for-cost based (value-based) payment system (CMS, 2017). This included imposing annual cost penalties for

acute hospital-care providers not meeting published value-based standards, which included “unplanned” readmissions (CMS, 2017)

According to the Advisory Board (2017) analysis of the data, about 80% of the 3,241 hospitals the CMS evaluated in 2017 will face penalties. Aside from putting a strain on the healthcare system, readmission is indicative of negative patient health outcomes. According to Mozaffarian et al. (2016), 1 in 5 heart failure patients die as a result of complications, and patients who are often readmitted or within a short period of time are at heightened risk of being among the 1 in 5. Programs designed to facilitate the initiation of services to ensure continuity of care for patients as they move from one care setting to another help ensure positive outcomes and decrease hospital readmission (Hirschman, Shaid, McCauley, Pauly, & Naylor, 2015). The goal of this doctoral project was to develop practice guideline based on best practices for transitioning heart failure patients from hospital to home. Positive changes resulting from this practice guideline include an improvement in inpatient outcomes, a reduction in their readmission rates, and a reduction in the associated financial burdens to organizations.

Problem Statement

In 2017, the local hospital's risk-adjusted 30-day readmission rate for the Medicare beneficiary heart failure patients stood at 24.8%, which was higher than the national average of 22% (CMS, 2016). The excessive readmission rate caused the local hospital to receive a significant amount of reduced payment from CMS. In order for this facility to reduce its 30-day readmission rate and reduce the cost, the quality of care provided needed to be transformed to ensure ease of transition from the hospital to home.

However, current practice for nursing staff at the local hospital who worked with discharge-ready heart failure patients was limited. It included staff nurses providing patients with printed instructions at discharge and spending a few minutes reviewing the materials with the patient or caregivers. The interdisciplinary teams, including the case managers and social services, had their own system of evaluating the patient's needs prior to discharge. There was a lack of collaboration between the interdisciplinary team and bedside nurses. With this Doctorate of Nursing Practice (DNP) project, I addressed this gap in nursing practice by replacing the status quo with a structured framework for transitional care that guides nurses and other healthcare professionals with a systematic and uniform way of discharging patients from the hospital to the home that improves patient outcomes and avoids preventable readmission. In order for this facility to reduce its 30-day readmission rate and reduce the cost, the institution needed to transform the quality of care provided to ensure ease of transition from the hospital to home. However, current practice for nursing staff at the local hospital who worked with discharge-ready heart failure patients remained limited. Staff nurses provided patients with printed instructions at discharge and spent a few minutes reviewing the materials with the patient or caregivers. The interdisciplinary teams, including the case managers and social services, had their own system of evaluating the patient's needs prior to discharge. There existed a lack of collaboration between the interdisciplinary team and bedside nurses. With this Doctorate of Nursing Practice (DNP) project, I addressed the gap in nursing practice by replacing the status quo with a structured framework for transitional care that guides nurses and other healthcare professionals with a systematic and uniform way of

discharging patients from the hospital to the home that improves patient outcomes and avoids preventable readmission.

Purpose

The purpose of this doctoral project was to develop a set of evidence-based guideline that described best practices for a transitional care strategy. The developments of such guideline aligned with my hypothesis that transition of care practice guideline reduces 30-day readmission rates among hospitalized heart failure patients. The development of this guideline also filled the current gap-in-practice of limited discharge care by systematizing evidence-based care interventions into a structured framework. Ultimately, the clinical practice guideline assists patients in being more prepared for self-care management at home. Improved management of the heart failure patients as they transition to home leads to the reduction of preventable readmissions; thereby reducing the high 30-day readmission rate that this hospital currently faces.

Nature of Doctoral Project

To develop the practice guideline in this project, I reviewed existing sources of information on heart failure interventions and transitional care strategies, primarily those contained in scientific, peer-reviewed literature. Broadly, this literature can be classified as theoretical (e.g., describing a framework); empirical (e.g., evaluating an intervention); and expertise-based (e.g., consensus ranking of best practices). I appraised the sources individually for their level of evidence, scientific rigor, and quality. Collectively, these sources were evaluated on their alignment to my practice-focused question and their congruence (or lack thereof) to other sources. In addition to peer-reviewed literature, I

also used grey literature (e.g., reports) published by the local hospital on their current programs. This evidence source was considered archival and operational data because they pertained to the day-to-day operations and service offerings of the hospital. I obtained these sources from electronic databases available through the Walden University Library, the local hospital network, or public websites. Information from these sources were extracted and synthesized to develop transitional care guideline for nursing practice.

Significance

The key project stakeholder was also the approval body for the local organization, whose membership I will describe in section 2. This group is charged with making decisions about practice guideline and, as such, they represented excellent resources in the planning, implementation, and evaluation stages of guideline development. Their engagement and support throughout the development of the guideline ensured content relevance as well as implementation uptake and success. This project was aligned with the organizational goals of reducing heart failure readmission and improving quality of care in the transition stage. The project was designed to transform nursing practice at the local hospital by creating the transitional care guideline; however, it has the potential to be adopted and altered by other hospitals facing similar gaps in practice. The project implications for positive social change remain vast, with anticipated benefits including improved patient quality of life, decreased healthcare costs, and decreased indirect costs to society by reducing the loss of earnings associated with hospital admission and more efficient use of resources both within the local hospital and within the community.

Summary

The burden of heart failure on clinical and population health, healthcare management, and fiscal control, make it a pressing issue. A comprehensive, systematic, and targeted transitional care strategy proves to be one promising solution. The development of evidence-driven practice guideline supported and mobilized nurses and the interdisciplinary team to provide more comprehensive care to help reduce readmissions in the heart failure patient population. I developed these guidelines following a thorough review of the literature and analysis of the local context applicability. The concepts, models, and theories that informed this work, justified the relevance of this work to nursing practice, elaborated on the local background and context, and explained the role of the expert panel in this project will be described in the following section.

Section 2: Background and Context

Introduction

Effectively and efficiently managing heart failure patients remains a challenge, especially considering the prevalence, incidence, and severity of heart failure. The local hospital's risk-adjusted heart failure readmission rate was high. To reduce this rate, the local hospital needed to improve the quality of discharge care for this patient group; however, current practice was limited. Guided by the practice-focused question of whether a transition of care practice guidelines will reduce 30-day readmission rates, the purpose of this doctoral project was to systematize evidence-based care interventions into a structured framework to provide a guideline for more comprehensive clinical practice. Nurses and other healthcare providers play a significant role pertaining to transition of care. In this section, I will provide a theoretical and empirical basis for the transitional care practice guidelines in reducing 30-day readmission among hospitalized heart failure patients beyond that of routine discharge.

Concepts, Models, and Theories

In theories and models of readmission for heart failure patients, researchers have focused on the transition from hospital to home. The period shortly after discharge continues to be one during which patients are especially vulnerable to health crises (Harrison, Auerbach, Quinn, Kynoc, & Mourad, 2014). This vulnerability results from a combination of factors, including medication errors, duplicative care, and inadequate patient preparation (Patient-Centered Outcomes Research Institute, 2013). As such, organizations like the AHA and the American College of Cardiology (ACC) place a

strong emphasis on evidence-based guidelines to improve the quality of care that patients receive immediately prior to and during discharge (Heidenreich et al., 2011). Their expectation is that, by targeting this key time period (transition from hospital to home), unnecessary health declines and hospital readmission prevented (Heidenreich et al., 2011). This emphasis on evidence-based guidelines embodies two complementary theories: evidence-based practice and quality improvement. White, Dudley-Brown, and Terhaar (2016) argued that evidence-based practice is a “formal process that uses specific criteria to appraise evidence to enhance efficiency and effectiveness of practice” (p. 4). This theory posits that decision making should be structured, objective, and reflective of best available evidence (White et al., 2016). Quality improvement entails continuous efforts to improve the way facilities deliver care to patients, often with the same commitment as the evidence-based practice school of thought to use a systematic, empirical process (Stevens, 2013). While quality improvement methodology remains diverse and is often derived from industry practices (e.g., manufacturing), quality improvement, as a concept, retains a focus on performance enhancement (Health Resources and Services Administration [HRSA], 2011). The same focus underpins the discourse on the management of heart failure patients given their high prevalence, incidence, severity, and risk of readmission as well as the discourse on transitional care given its goal is to intervene during a critical period in patients’ health.

Transitional care programs have emerged as a promising intervention. As described by Naylor and Sochalski (2010), “transitional care comprises [a] range of time-limited services that complement primary care and are designed to ensure health care

continuity” (p. 2). This form of care addresses problems associated with poor health outcomes and poor patient experience, including lack of patient engagement, poor or absent communication, limited follow-up and monitoring, and poor continuity of care (Hirschman et al., 2015). Following this logic, several quality improvement initiatives have aimed to reduce 30-day hospital readmission by focusing on this care transition, including Get with the Guidelines (GWTG-Heart-Failure), Hospital to Home (H2H), Better Outcomes for Older Adults through Safe Transition (BOOST), and Project Re-Engineered Discharge (RED) (Bobay, Bahr, Weiss, Hughes, & Costa, 2015). These initiatives make a toolkit available to providers and facilities to support the use of evidence-based practices in clinical care.

Although little has been written on toolkits as a pedagogical approach, more has been postulated about capacity building. Four general approaches have been implemented for capacity building, including (a) a top-down approach, such as changing policies or practices; (b) a bottom-up approach, such as providing skills training; (c) a partnership approach, such as strengthening organizational relationships; and (d) a community organizing approach, such as forming or joining organizations (Mery, Dobrow, Baker, Im, & Brown, 2017). Capacity building, as a theory, underpins the toolkit approach, which is often a manifestation of the bottom-up approach in which knowledge and skills are imparted upon individuals (e.g., healthcare providers) in an organization (Bergeron et al., 2017).

While the initiatives mentioned are variants of the toolkit approach, they each bring forth unique characteristics. For example, (a) the H2H encompasses “self-contained

improvement projects” – three toolkits with each having a specific goal, such as optimal medication management or timely recognition of signs and symptoms (American College of Cardiology, n.d., para. 2); (b) the GWTG-Heart Failure toolkit contains resources for clinicians, patients, and quality improvement field staff; (c) Project RED emphasizes the use of language assistance, teach back, and making follow-up appointments for the viewing of test results; and (d) Project BOOST outlines a step-by-step methodology for building quality improvement processes (Mery et al., 2017).

In addition to such initiatives, academics and practitioners have put forth formalized models that attempt to capture the essence of transitional care. Among many such models, two, in particular, dominate the discourse: the care transitions intervention (CTI) and the transitional care model (TCM). The CTI model, developed by Erik Coleman, was designed to improve patient safety and quality of life by encouraging patients and caregivers to take a more active role in their care transition (Coleman, Perry, Chalmers, & Min, 2006). CTI focuses on comprehensive care, starting in the hospital and following the patient home with interventions implemented in collaboration with the hospital and home health agency to include the following components: (a) medication reconciliation, (b) patient-centered record, (c) follow-up appointment with primary care physician within 3 to 5 days after hospital discharge, and (d) instructions on how to respond to worsening symptoms (Coleman et al., 2006). These four pillars are put into practice through the development of a personal health record for the patient, a home visit, and phone calls by a transitional coach (Coleman et al., 2006). The transitional coach is an advanced-practice nurse who advocates for and educates the patient on self-care

management and collaborates with the patient and caregivers to establish goals based on patient needs, culture, and values (Coleman et al., 2006).

In the nationally recognized TCM, developed by Mary Naylor (Naylor & Sochalski, 2010), an advanced-practice nurse is designated as the transitional care nurse and is responsible for both the delivery and coordination of care, designated as the transitional care nurse is responsible for both the delivery and coordination of care (Naylor & Sochalski, 2010). The nurse collaborates with patients, their family caregivers, physicians, and other health team members, thereby putting the nursing profession at the core of this team-based, multidisciplinary approach to patient care (Naylor & Sochalski, 2010). While the CTI outlines four components, the TCM encompasses nine: screening, staffing, maintaining relationships, engaging patients and caregivers, assessing and managing risks and symptoms, educating and promoting self-management, collaborating, promoting continuity, and fostering coordination (Hirschman et al., 2015).

While both the CTI and the TCM focus on continuity and comprehensiveness of care, experts (Naylor & Sochalskii, 2010, Feltner et al., 2014) posit the tools to be promising, for they differ in their theoretical organization. The former outlines its four components as actionable steps (e.g., scheduling a follow-up phone call), while the latter describes its nine components more akin to principles or values (e.g., collaborating; (Feltner et al., 2014). These two models guided my discussion with the stakeholders and development of the practice guidelines because the models demonstrate the breadth and flexibility required for interventions to be effective, reflect low barriers to uptake, and

remains amenable to customization. This breadth and flexibility were also apparent in the quality improvement initiatives I previously described via the toolkit approach.

Relevance to Nursing Practice

Nurses are uniquely positioned to lead the way in improving transitional care, given their mandates of patient education and patient advocacy and their familiarity with working within an interdisciplinary team. The fact that the two leading models of transitional care place the nurse in a central role is evidence of the relevance to nursing practice. The central role of nurses in these models of care is no coincidence; some of the most important aspects of transitional care are those that utilize the nursing professional skillset. Transitional care programs typically involve a combination of in-person and telephone-based interventions between healthcare professionals and patients, with the in-person visit appearing to be especially important (Feltner et al., 2014). Harrison et al., (2014) conducted a study in which some heart disease patients received two phone call attempts within 72 hours of discharge, while others did not. They found that those individuals who received the phone calls were less likely to be readmitted within 30 days (at a rate of 5.8%) than the patients who did not (with a rate of 8.6%). However, once their data were adjusted for the likelihood of receiving a phone call, the researchers found no association. Feltner et al., (2014) argued a telephone call alone does not have significant effects.

These findings suggest that the effectiveness of such interventions in improving patient outcomes is attributed to the in-person visit, rather than or more than telephone contact. In-person visits, along with family involvement, and other proven aspects of

transitional care (Coleman et al., 2006) are examples of strategies previously and currently used to address transitional care. They are also examples of how the nursing profession, specifically, can contribute to solving this practice gap of managing patients after discharge. These two strategies, in-person visits and family collaboration, are now considered key tenets of transitional care, evidenced by their wide adoption into multiple transitional care models, such as the CTI and the TCM, and resulting from their demonstrated effectiveness (Naylor & Sochalski, 2010). In fact, the CTI has formalized the in-person visit aspect into a framework for nurses to adopt and follow. This model states the transition coach should visit the patient and the caregiver within 48 to 72 hours after hospital discharge (Feltner et al., 2014). During the home visit, the transition coach evaluates the patient's home for safety and equipment needs, such as the presence of a working bathroom and scale. Additionally, the coach observes and teaches the patient key skills, such as recording their weight and reconciles prehospitalization and posthospitalization medications (Feltner et al., 2014). The formalization of the in-person visits in this model, with the specific timing of occurrence and with clear goals to be achieved during the visit, ensures its continued use among nurses responsible for patients after discharge.

The current project advances nursing practice by taking the proven and promising practices from the broader literature base and the principles of the leading transitional care models and repackaging them into clinical practice guideline with the local background, context, and practice problem in mind. The project also advances nursing practice by introducing a systematic framework for nurses to follow. In addition, the

project allows nurses and interdisciplinary team members to maximize their skillset and their unique contribution to improving patient health while focusing on the challenge of heart failure patient management.

Local Background and Context

The local hospital cared for 361 patients diagnosed with heart failure in 2016 and, of that number, 85 were subsequently readmitted within 30 days. Because the local hospital serves four different counties and the specific patient population is drawn from a population of 1.6 million residents in the region. According to the local hospital, their patient mix is characterized by growing ethnic, cultural, and linguistic diversity, with White Westerners comprising slightly more than a quarter of the population and with just under half of the population speaking a language other than English at home. Ethnicity is an important determinant of health care status (e.g., genetic vulnerability); health behavior (e.g., diet); health-seeking behavior (e.g., patient-provider concordance); and access to healthcare, all of which influence heart failure sequelae and interact with nursing (Durstensfelde et al., 2016). Language stands similarly important as it mediates patient-provider communication and health literacy. Together, ethnicity and language underlie cultural beliefs and attitudes, which are often not directly observable, yet they are pervasive forces as social determinants of health (López, 2013).

The population diversity presents unique challenges and opportunities for all healthcare providers, nurses included, because it demands cultural sensitivity as an important skill alongside profession-specific technical, procedural, or judgment-based skills. While diversity needs to be celebrated, disparities should not. The local hospital's

patient population is also characterized by health inequities due primarily to high rates of poverty, low education levels, and lack of insurance. This confluence of factors, along with food insecurity, was emphasized in the local hospital's 2016 needs assessment as examples of how the health needs of residents and patients interact with their socioeconomic conditions. With information derived from focus groups, stakeholder interviews, resident and provider surveys, and secondary data, the local hospital's needs assessment was a snapshot of the hospital's service area population.

The most recent (2016) local hospital needs assessment identified access to care as the single most important health need. This finding was highly relevant to the local problems at hand—the healthcare and healthcare financing problem presented by the higher than expected heart failure readmission rate and the nursing practice problem that may contribute to these readmissions. The high hospital readmission rate remains at least partially a result of low or no access to care in the community. Low or no access to care in this community is a result of multiple converging factors, including a lack of economic security, a limited number of healthcare professionals serving the region, long wait times, a limited number of non-emergency healthcare facilities open during weekends or events, and high costs.

Amidst this landscape, the lack of structured processes to manage patients' transition from the hospital to the home or community stands especially dire. Current care for heart failure patients does not make full use of the varied and vast skillset of the nursing profession and other healthcare providers to help patients overcome the sociodemographic and access related challenges they face upon discharge (e.g., no

follow-up appointment, limited health literacy). The intention to create evidence-based guidelines, drawing from the concepts, theories, and models aforementioned, accompanied a strong awareness of the local hospital problems and the local patient context described herein. The aim to improve patient care in the community remained in line with the commitment the local hospital already demonstrated by the local hospital. It is a not-for-profit facility that returns \$1 billion annually to its communities through community benefit programs. This goal aligns with the responsibilities the hospital must uphold under the Patient Protection and Affordable Care Act, requiring nonprofit hospitals to adopt a strategy to address identified community health needs, such as access to care.

Role of the DNP Student

I have been employed in the nursing department of this facility over 20 years and, in the last four years; I have managed its heart-failure program. As such, I am both familiar with the current state of care in the facility and the associated challenges in the management of heart failure patients. Furthermore, I have a working relationship with the interdisciplinary team that functioned as agents of change in my project. The topic under study was chosen as a direct result of my involvement and leadership in heart failure patient care and my firsthand perspective that heart failure patient management remains an area ripe for improvement and innovation. I recognize the challenges present in the current routine care, the challenges facing the specific patient population mix, and the tangible negative impact to patient outcome. Specifically, challenges such as the high readmission, monetary loss, and suboptimal patient health. This intimate perspective

allows me an in-depth understanding of the nuances and sensitivities required to bring about positive change.

Role of the Project Team

The project team comprised of an expert panel from a diverse group of stakeholders. The expert panel for the DNP project in the local organization consisted of an advanced-practice nurse, a case management director, a social worker director, education and research director, a representative from the quality improvement department, a clinical educator, a physician, and a staff member from the direct patient care area. I collaborated with the director of education in the selection of the stakeholders. The project team used the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument to evaluate the clinical practice guidelines (AGREE, Next Steps Consortium 2017). The AGREE II represents an assessment tool with 23 items comprising six quality domains for evaluating the practice guidelines (American Academy of Family Physicians, n.d.). I met with the project team and explained the project and how to use the AGREE II instrument. The meeting provided an opportunity for team members to ask questions and seek clarification. The project team reviewed the practice guideline using the AGREE II checklist to evaluate the content and ensure usability. Each of these members brought a unique set of experiences and perspectives that proved to be assets to the continued evolution of the practice guideline.

The heart failure coordinator is well positioned to facilitate collaboration, delegate responsibility, and monitor all activities of the stakeholders through daily multidisciplinary rounds where they discussed care plans and discharge orders amongst

the interdisciplinary stakeholder team. I maintained communication with team members in all departments in a bidirectional manner such that others had opportunities to share relevant information. They shared information that was vital in the creation of clinical practice guideline. For example, the quality improvement department shared readmission rates and other metrics; and the patient education subcommittee presented educational materials they created. The project team used AGREE II instrument to evaluate the quality of the clinical practice guideline. Based on the feedback received, I revised the CPG. I e-mailed the clinical practice guideline to the panel after the revision, and they performed a second evaluation using the AGREE II instrument. They unanimously approved the clinical practice guideline for implementation.

Summary

Heart failure patient management continues to be a persistent challenge in the local organization, especially given the current state of nursing practice and the local background and context. The CTI and the TCM provided a roadmap for my project to introduce clinical practice guideline to reduce readmission amongst heart failure population. Existing models of care and quality improvement initiatives demonstrate these theories in action, the potential and promise of transitional care as an intervention. The unique role of a nursing professional and the role of the interdisciplinary team, such as social workers and case managers, remain the key tenets critical to improving patient outcomes. The next section describes the methodology, sources of evidence, analysis and synthesis of evidence employed for developing the heart failure transition of care clinical practice guideline.

Section 3: Collection and Analysis of Evidence

Introduction

Heart failure is a syndrome that results from chronic heart disease and its high prevalence and incidence is accompanied by its inherent severity, as indicated by over 24% of heart failure patients being hospitalized within 30 days of discharge (AHRQ, 2013). As the patient group with one of the highest rates of 30-day hospital readmission, heart-failure patients put a large strain on the healthcare system by incurring costs of over \$30.7 billion annually (CDC, 2016; CMS, 2016) and are subject to negative health outcomes. Against CMS Hospital Readmission Reduction Program (HRRP), healthcare organizations continue to seek effective and efficient ways to reduce unnecessary admissions. If this proved to be successful, it would improve patient outcomes plus reduce costs simultaneously (CMS, 2016). Many such efforts target care transitions, with nurses at the center of such efforts.

The local context characterizes a patient population with vast ethnic, cultural, and linguistic diversity. These dynamics reflects individuals subject to health inequities resulting from high rates of poverty; low education levels; lack of insurance; and low or no access to care resulting from a lack of economic security, a limited number of healthcare professionals serving the region, long wait times, a limited number of non-emergency healthcare facilities open during weekends or events, and high costs. The confluence of these factors adds complexity to care and demands a structured process. Patient education, patient advocacy, and treating the “whole” person make significant contributions to patient care, especially amidst this local context and in regard to care

transitions. However, the current care for heart-failure patients at the local hospital failed to make full use of the varied and vast skillset of the nursing and interdisciplinary team who could help patients overcome the sociodemographic- and access-related challenges they face upon discharge.

The purpose of this project was to develop guidelines to increase collaboration between interdisciplinary team members and close gaps in their performance so that there are corresponding increases in patients' self-care at home and reductions in unnecessary readmission. In this section, I will review the practice-focused question, describe sources of evidence and their relevance to the practice-focused question, and justify the analysis and synthesis strategies that were employed.

Practice-Focused Question

The lack of a systematic process for interdisciplinary teams to manage heart-failure patients during their care transitions remained a gap-in-practice at the local hospital. I developed evidence-driven practice guideline to address this gap-in-practice. The purpose of this project was to support and mobilize nurses and interdisciplinary teams to apply their unique professional skills to the full extent to help reduce readmissions in the unique heart-failure patient population presented at the local facility. This proposed solution to the gap-in-practice was motivated by an overarching practice-focused question:

Will transition of care practice guideline reduce readmission within 30 days after discharge from hospital among heart-failure patients as compared to no standardized practice?

My approach aligned with the practice-focused question by systematizing evidence-based care interventions into a set of clinical practice guideline the local hospital implemented. Clinical practice guidelines are statements that have been developed in a systematic fashion from the best available evidence in order to assist clinical decision making (American Academy of Family Physicians, n.d.). At the time of this project, there was no nursing clinical practice guideline focusing on transitional care for heart-failure patients.

Sources of Evidence

My research approach systematized evidence-based transitional care interventions into a set of clinical practice guideline local hospital implemented. To develop these guidelines, I first identified the interventions and their outcomes through a systematic search of the peer-reviewed literature. I appraised the literature for quality, reviewed for relevant information, and subsequently synthesized into a set of a clinical practice guideline. Additionally, the intervention activities described in the literature needed to be appropriate to the local practice context (e.g., patient demographics) and could not conflict with existing initiatives at the local hospital nor demand resources beyond the capacity of the hospital. To that end, I used an additional source of evidence: grey literature the local hospital published on their current programs. This evidence source was archival and operational data because they pertained to the day-to-day operations and service offerings of the hospital.

Published Outcomes and Research

The problem, intervention, comparison, outcome (PICO) process is a technique used in evidence-based practice to identify a clinical question (Bryant, Alonzo, & Schmillen, 2017). As the name suggests, this process requires the identification of a population, intervention, comparator, and outcome. I used the PICO framework to inform my search strategy, whereby a decision for inclusion was made if the literature met the following criteria: (a) population: males and females, heart failure as the primary discharge diagnosis, AND discharged to the home; (b) intervention: interdisciplinary team; (c) comparison: routine care and self-care; and (d) outcome: hospital readmission. If studies also reported on other outcomes such as clinically relevant outcomes (e.g., mortality); patient-reported outcomes (e.g., increased knowledge); or compliance outcomes (e.g., adherence to medication); I noted these during data extraction.

Not only did this framework form my inclusion criteria, but it also formed the basis of the following search terms, classified into four categories. Category A included care transition, transitional care, and transition of care, and Category B included program, model, and intervention. Category C included readmission and rehospitalization, while Category D included heart failure and congestive heart failure. I combined each search term from each category with the Boolean operator AND to yield multiple search term combinations. For example, one search term combination I used care transition AND program AND readmission AND heart failure. These search term combinations were entered in electronic databases including Cochrane Library, CINAHL, and PubMed (including MEDLINE and PubMed Central), all of which were accessible through the

Walden University Library search engine. I placed the following search restrictions on my electronic database searches: full text only, published after 2010, academic journals, heart failure as subject: major heading, English language, age 65+, and USA.

The literature I located and reviewed was exhaustive and comprehensive because the literature search was guided by the inclusion criteria and a search strategy that was highly aligned with the PICO framework for this project. Moreover, the literature found was expected to include, but not be limited to, empirically-tested transitional care interventions that used the two models (CTI and TCM) discussed previously in the project. The totality of the literature reviewed was used to develop my guideline.

Archival and Operational Data

I used three types of archival data from the local hospital for this project: The Community Benefits Annual Report, the Community Health Needs Assessment, and the Community Health Needs Assessment Implementation Strategy. The Community Benefits Annual Report is produced by the local hospital's Board of Trustees and Community Benefit Review Committee every fiscal year and summarizes key programs and initiatives for that fiscal year. The Community Health Needs Assessment is also produced every fiscal year and is the result of a collaborative effort between a number of hospitals and medical centers that serve this service area, led by a Hospital Council Community Benefit Workgroup. The needs assessment contents are based on the input provided in focus groups, stakeholder interviews, and survey by healthcare workers and residents alike and outline the health needs of the area. The Board of Trustees developed the Community Health Needs Assessment Implementation Strategy in response to the

findings of the Community Health Needs Assessment and specific community health needs.

All documents were publicly available online. Because they are all authored, coauthored, or approved by the leadership of the hospital, they provide a direct account of the hospital's commitments and resources. These data provided me with information on the local practice context of this organization and its existing initiatives and, in doing so, informed the development of clinical practice guideline for the local context of the hospital.

Analysis and Synthesis

I recorded, tracked, organized, and analyzed the evidence from the literature using two electronic tools: Zotero and Covidence. Zotero is a reference manager that allows the collection and organization of online research sources into a personal library (Zotero, n.d). The Zotero's web browser plug-ins were used to save a returned search result from an electronic database to my personal Zotero library. Once I had saved all the sources found to Zotero, they were then imported into Covidence for analysis. Covidence allows Zotero exports in research information system format and is an online technology platform that facilitates all stages of a literature review, including title review, abstract review, full-text review, quality appraisal, and data extraction (Covidence, n.d). Together, these two tools provided me with a seamless end-to-end solution for the entire process.

I conducted an analysis of the literature in three stages. First, each paper was categorized according to the level of evidence that it provided as a function of its research design. The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) framework

(White et al., 2016) was used for this categorization and, as such, the levels of evidence were: Level 1 (experimental study or meta-analysis of experiments); Level 2 (quasi-experimental study); Level 3 (nonexperimental study, qualitative study, or meta-synthesis); Level 4 (opinion of nationally recognized experts based on research evidence or expert consensus panel); and Level 5 (opinion of individual expert based on nonresearch evidence). Second, each paper was appraised for quality, and graded as A (high), B (good), or C (low), again according to JHNEBP. Third, I subjected each paper to data extraction, according to a predefined list of variables. This list of variables followed the PICO framework that I discussed previously and included harms and costs.

I then synthesized the results of the analysis per outcome measure, starting with the primary outcome of hospital readmission and followed by secondary outcomes such as clinically relevant outcomes, patient-reported outcomes, or compliance outcomes. The strength of recommendation per outcome was also included where there was enough information to form such a judgment, as per the JHNEBP framework (see White et al., 2016). This synthesis resulted in a set of statements that together formed the clinical practice guideline.

The resulting guideline was then appraised for its relevance and quality by an expert panel team from the local hospital using AGREE II. The panel experts included a director of education and research, director of case management, director of social services, director of quality improvement, a bedside nurse clinician, and telemetry manager. I revised the practice guideline based on their feedback. The revised guideline

was then appraised by the same expert panel using AGREE II to assure integration and accuracy of the feedback into the revised guideline.

Summary

To address a gap-in-practice at a local hospital, I formulated a practice-focused question regarding the use of transitional care clinical practice guideline to reduce hospital readmissions for heart-failure patients. Clinical practice guidelines are statements that have been developed in a systematic fashion from the best available evidence in order to assist clinical decision making (American Academy of Family Physicians, n.d.). In an exhaustive literature search, I found no evidence of existing nursing practice guideline for heart failure for heart failure populations.

This guideline was developed by synthesizing the literature in a systematic fashion, following the methodology outlined in the section. In the next section, I will describe a synthesis of the current evidence, the recommendations made by the expert panel, and the development of the practice guideline.

Section 4: Findings and Recommendations

Introduction

The local hospital's 30-day readmission rate for heart-failure patients continues to be above the national rate for the last seven years. Not only does this indicate poor patient outcomes, increased morbidity, and mortality, it also resulted in a loss of hospital revenue under the CMS HRRP. The problem of excess readmission can be attributed to a gap-in-practice, where a structured framework for transitioning heart-failure patients from hospital to home was lacking. Although many members of interdisciplinary teams are involved in transitioning patients from the hospital to home, there was no specific protocol to follow at the local hospital. As a result, care was uncoordinated, and the facility discharged patients with inadequate care and knowledge to manage their disease. To address this problem, I developed the practice-focused question to ask whether the use of transition of care clinical practice guideline played a role in reducing readmission rates within 30 days of discharge by increasing collaboration between team members and closing gaps in their performance. The purpose of this doctoral project was to develop such clinical practice guideline (see Appendix A) using the best available evidence.

To develop transition of care clinical practice guideline for heart-failure patients, I first identified transitional care interventions and their outcomes through a systematic search of the peer-reviewed literature. The literature was then evaluated for quality, relevant information, and subsequently synthesized. A total of 18 sources (14 individual studies and four systematic reviews) were used to develop the clinical practice guideline. I divided the papers between various levels of evidence (12 Level 1, three Level 2, two

Level 3, and one Level 5) and quality (eight high, five good, and five low) per the JHNEBP framework (see White et al., 2016).

The interventions described in the 14 individual studies varied in both their environment of delivery and in their component activities. The patient's home was to be the most common environment for delivery, followed by the clinic or hospital and over the telephone (Conway, O'Donnell, & Yates, 2017). Except for one study failed to describe the intervention activities, all included multiple activities, ranging from two activities per intervention to seven activities per intervention (Conway et al., 2017). In the order of frequency, intervention activities included: education; the supply of equipment (e.g., weigh scales, symptom logs, medication reminders, workbooks, information sheets); counseling/coaching (including skill development); preparing for communications with healthcare providers (e.g., encouragement to see healthcare provider, referral to a healthcare provider, scheduling appointments); medication adjustment and reconciliation; inquiring about medications; exercise, fluids, or diet; clinical assessment; home monitoring; motivational interviewing; and the provision of an advice hotline (Conway, et al, 2017).

In addition to readmissions, I noted several other outcomes across the 18 sources. For outcomes including emergency department visits, physician visits, mortality/survival, health status, self-care, and compliance, results remained mixed. Notably, no single outcome consistently and categorically was affected by the intervention or not influenced by the intervention (Conway et al., 2017). Intervention positively affected other outcomes, including the presence of symptoms, functional capacity, feelings of

discouragement, and knowledge. Markedly, very few studies reported on these factors.

No study reported information on harm.

In addition to a review of the literature, archival and operational data provided me with information on the local practice context of this organization and its existing initiatives. The CTI and the TCM were the guiding models of care used in developing the clinical practice guideline. The evidence from various resources set the foundation for forming the clinical practice guideline.

Findings

In this subsection, I will discuss the findings and recommendations received from the expert panelists who reviewed the clinical practice guideline. The subsection will also include my response to the recommendations by the expert panelists for revisions to the clinical practice guideline. The expert panelists used the AGREE II instruments to validate the contents of the clinical practice guideline. The expert panelists were selected with the assistance of the director of education. We chose the expert panelists from interdisciplinary teams that were involved in transitioning patients from hospital to home, and they included the director of case management, director of social services, director of quality improvement, director of education and research, telemetry unit manager, telemetry educator, and a bedside nurse clinician. Each panelist received a copy of my DNP project proposal, clinical practice guideline, AGREE II instrument, and a disclosure form for anonymous questionnaires from the Walden University DNP scholarly project clinical practice development manual. All panelists returned their AGREE II evaluations to me within 1 week.

The AGREE II consists of 23 key items organized into six domains, designed to capture the quality of the clinical practice guideline (AGREE Next Steps Consortium, 2017). Each item is rated on a 7-point scale, with 7 being strongly agree and 1 being strongly disagree (AGREE, Next Steps Consortium, 2017). Additionally, the instrument includes two overall assessments to rate the recommendations for the use of the clinical practice guideline in clinical practice (AGREE, Next Steps Consortium, 2017). The guideline calculates domain scores by summing up all the scores of the individual items in a domain and by scaling the total as a percentage of the maximum possible score for that domain using the following formula:

Equation 1:

Domain Sores

$$\frac{(\text{Obtained score} - \text{Minimum possible score})}{(\text{Maximum possible score} - \text{Minimum possible score})}$$

(see AGREE, Next Steps Consortium, 2017 p. 12).

Tables 1 through 8 reveal the results of the AGREE II for this study.

Table 1

Domain 1: Scope and Purpose

	Item 1	Item 2	Item 3	Total
Appraiser 1	7	7	7	21
Appraiser 2	7	7	7	21
Appraiser 3	6	6	7	19
Appraiser 4	7	7	7	21
Appraiser 5	6	5	7	18
Appraiser 6	7	7	7	21
Appraiser 7	7	7	7	21
Total	47	46	49	142

Note. $(142 - 21) / (147 - 21) \times 100 = 96\%$.

Table 2

Domain 2: Stakeholder Involvement

	Item 4	Item 5	Item 6	Total
Appraiser 1	7	7	7	21
Appraiser 2	7	7	7	21
Appraiser 3	7	5	6	18
Appraiser 4	7	4	6	17
Appraiser 5	7	5	7	19
Appraiser 6	7	6	7	20
Appraiser 7	7	7	7	21
Total	49	41	47	137

Note. $(137 - 21) / (147 - 21) = 92\%$.

Table 3

Domain 3: Rigor of Developments

	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Total
Appraiser 1	7	7	7	7	7	7	7	7	56
Appraiser 2	7	7	7	7	7	7	7	7	56
Appraiser 3	7	7	7	7	7	7	6	6	54
Appraiser 4	6	6	3	5	5	6	5	6	42
Appraiser 5	7	7	4	7	6	7	7	5	50
Appraiser 6	7	7	4	7	6	7	7	5	50
Appraiser 7	7	7	7	7	7	7	7	7	56
Total	48	48	39	47	45	48	46	43	364

Note. $(364 - 56) / (392 - 56) \times 100 = 91.6\%$.

Table 4

Domain 4: Clarity of Presentation

	Item 15	Item 16	Item 17	Total
Appraiser 1	7	7	7	21
Appraiser 2	7	7	7	21
Appraiser 3	6	6	6	18
Appraiser 4	6	6	6	18
Appraiser 5	6	6	7	19
Appraiser 6	7	7	7	21
Appraiser 7	7	7	7	21
Total	46	46	47	139

Note. $(139 - 21) / (147 - 21) \times 100 = 93.6\%$.

Table 5

Domain 5: Applicability

	Item 18	Item 19	Item 20	Item 21	Total
Appraiser 1	6	6	7	7	26
Appraiser 2	6	7	7	7	27
Appraiser 3	6	6	5	6	23
Appraiser 4	6	6	6	6	24
Appraiser 5	5	6	7	5	23
Appraiser 6	7	7	6	6	26
Appraiser 7	7	7	7	7	28
Total	43	45	45	44	177

Note. $(177 - 28) / (196 - 28) \times 100 = 92.8\%$.

Table 6

Domain 6: Editorial Independence

	Item 22	Item 23	Total
Appraiser 1	7	7	14
Appraiser 2	7	7	14
Appraiser 3	6	6	12
Appraiser 4	3	4	7
Appraiser 5	6	2	8
Appraiser 6	3	3	6
Appraiser 7	7	7	14
Total	39	36	75

Note. $(75 - 14) / (98 - 14) \times 100 = 62.2\%$.

Table 7

Overall Guideline Assessment

	Overall quality of guideline
Appraiser 1	7
Appraiser 2	7
Appraiser 3	6
Appraiser 4	6
Appraiser 5	5
Appraiser 6	6
Appraiser 7	7
Total	45

Note. $(45 - 7) / (49 - 7) \times 100 = 92.8\%$.

Table 8

Recommend Use of Guideline

	Yes	Yes with Modification	No
Appraiser 1	x		
Appraiser 2		x	
Appraiser 3		x	
Appraiser 4	x		
Appraiser 5		x	
Appraiser 6	x		
Appraiser 7	x		

Note. Yes = $4 / 7 \times 100 = 57\%$. Yes with modification = $3 / 7 = 43\%$.

The expert panelists answered all individual items for the first round of AGREE II instrument. I will provide the summarized results in the following subsections.

Domain 1

In Domain 1 of the AGREE II, the panel experts evaluated the scope and purpose statement of the clinical practice guideline. The overall score for this domain was 96%.

This score demonstrated the experts agreed on the overall objectives of the clinical practice guideline. One panelist requested to incorporate patient transfer to the skilled nursing facility or outpatient dialysis clinic into practice guideline. Transitioning patients from hospital to a skilled nursing facility and dialysis offices considered beyond the scope of this project. Skilled nursing and dialysis patients require different interventions. Another panelist acknowledged that the population for this guideline was specifically described in the inclusion criteria (see AGREE Next Steps Consortium, 2017).

Domain 2

In Domain 2, the panelists rated the stakeholder involvement and gave the project an overall score of 92%. All seven expert panelists agreed 100% on Item 4 that the guideline development included individuals from all relevant professional groups (see AGREENext Steps Consortium 2017). On Item 5, one panelist felt that the target population preferences were not sought. This point was covered under the roles of the heart-failure coordinator and perhaps the reviewer missed it. The same panelist was concerned about lack of compliance from a patient who does not have home health visits. This was a pertinent point as many physicians fail to order home health visits (Feltner et al., 2014). At the local facility, a case manager is required to call the physician and obtain home health visits for those patients deemed qualified. I added this provision to the roles and responsibilities of the case manager in the revised clinical practice guideline. Another panelist found that the target users of the guideline were clearly defined.

Domain 3

The project received an overall score of 91.6% for this domain that was concerned with evaluating the rigor of the clinical practice guideline developments. The highest score was related to Item 7, dealing with the systematic methods used to search for evidence and describes the criteria for selecting the evidence (see AGREE Next Steps Consortium, 2017). One expert panelist found the clinical practice guideline was developed based on extensive research. Two expert panelists commented “well described” and “excellent.” Item 9 of AGREE II relates to the strengths and limitations of the body of evidence (see AGREE Next Steps Consortium, 2017). Although four of the panelists scored 7 for this item, the other three scored 3 and 4. Because of these responses, I placed limitations and strengths statement in the revised clinical practice guideline. Another area that required revision was Item 14, which is related to the procedure for updating the guideline. One of the panelists found the procedure to be “vague,” so the clinical practice guideline was reworded for clarity.

Domain 4

Domain 4 pertains to the clarity of presentation (see AGREE Next Steps Consortium, 2017) and received an overall score of 93.6% from panelists. Three experts commented “an excellent recommendation,” whereas one expert found that recommendations were listed with no specific priority. The recommendations listed are of equal priority and could be in any order. One of the panelists was concerned that the clinical practice guideline did not support chronic patients that experience varying

degrees of depression. This area was beyond the scope of this project and requires different interventions.

Domain 5

Refers to the applicability of the clinical practice guideline. The overall score for this domain was 92.8%. According to one of the expert panelists, outlining roles of the interdisciplinary team in the clinical practice guideline reflected a very good recommendation. Under this domain, the areas that required attention for the next revision proved to be Item 20 “the potential resource implications of applying the recommendations have been considered” (AGRE Next Steps Consortium 2017, p. 35) and Item 21 “the guidelines present monitoring and/or auditing criteria” (AGREE Next Steps Consortium 2017, p. 36). Both of these items were addressed in the revised clinical practice guideline by adding a separate section related to monitoring and data collection.

Domain 6

Evaluates editorial independence. This domain received the lowest score. The overall score for this domain was 62.2%. The lowest score related to views of the funding body influencing the content of the guideline (Item 22) and competing interests of the guidelines development held not recorded and addressed (Item 23) with a score of 29% for both items (see AGREE Next Steps Consortium 2017). This feedback was taken into consideration during the revision of the clinical practice guideline. Both items were addressed in the disclosure section of the clinical practice guideline.

All seven expert panelists rated the overall guideline assessment. The overall quality of guideline scored 92.8%. Four of the expert panelists suggested the guideline

for use with an overall score of 57% and the other three expert panelists recommended the clinical practice guideline for use with modification with an overall score of 43%.

Prior to submitting a revised clinical practice guideline, I personally met with all the panelists to address the scope of the project or point out some of the items the panelist had difficulty finding in the clinical practice guideline. I reviewed the changes made to the clinical practice guideline based on their feedback. Once I received approval for the changes made to the revised clinical practice guideline from all panelists in person, an electronic version of the revised clinical practice guideline along with AGREE II scoring sheet was sent to them. None of the panelists completed the second set of the scoring sheet, but all the panelists scored the revised clinical practice guideline as 7 in all items by stating as such in their e-mail.

Implications

The implications of this guideline for positive social change are manifold. The positive social change on an individual level better prepares the patients to care for themselves at home. The patient-centered clinical practice guideline increases patient and caregiver's participation and compliance with care. Self-care management at home may lead to decreased morbidity and mortality. Providing resources such as access to free transportation to visit the primary care physician, free 30-days of supply of medication, heart failure clinic and heart failure education classes may reduce unnecessary visits to the emergency room and therefore readmission to hospital bringing a positive social change for the local community. The positive social change of the clinical practice guideline at the institution comes from enabling the nurses and interdisciplinary team to

utilize the full extent of their skillset to provide more optimal care to heart failure patients, leading to a reduction in unnecessary variability in the delivery of care, costs of care, avoidable readmissions, as well as improving communication and coordination between healthcare providers. Reduction in readmissions and decreasing the strain on the healthcare system and reduction of costs to the nation continues to be the positive social change at the system level. This guideline directly fills the gap-in-practice; it serves as the structured framework for transitioning heart-failure patients from hospital to home. Given this gap-in-practice is be partially responsible for the local practice problem of excess readmissions, this guideline improves patient quality of life and a reduction in preventable readmissions.

Recommendations for End-Users/Stakeholders

I proposed the following recommendation for the end-uses and stakeholders. Within the structured framework of the clinical practice guideline, the transition of care for the heart failure population will begin soon after admission and will continue until patient discharge. The heart failure coordinator will monitor the daily heart failure readmission list and initiate the implementation of the clinical practice guideline in collaboration with nursing staff and the interdisciplinary team during daily rounds. The heart failure coordinator will conduct a monthly heart failure education for the staff nurses. The class will be educated the nurses to patient education with teach-back methodology, understanding of local resources and the importance of communicating via language lines.

The bedside nurse will initiate patient education in self-care management from admission and confirm patient and caregivers understanding with teach back methodology. The nursing staff will make follow-up appointments with primary care physicians 3-5 days after discharge. The case manager will utilize a tool to assess patients' risk for readmission. Social services will provide free of charge community services such as a 30- day supply of medication or arrange free transportation for follow-up appointments with a primary care physician. A dietician will meet with the patient and family and provide a low sodium diet menu based on the patient's food culture and habits. A home health nurse who is bilingual or has access to language lines will visit patients after discharge to reinforce self-care management. The heart failure coordinator will monitor nursing staff and the interdisciplinary team activities by reviewing the patient electronic health record (EHR) and address gaps in practice through online communication or during daily interdisciplinary rounds. Providing comprehensive, coordinated care improves self-care management at home, allowing for more time to interact with the patient population, identifying unique needs such as language barriers and providing appropriate resources. Nursing staff will identify a caregiver when needed, which ultimately results in improved patient and caregiver understanding of their health care needs. Patients' quality of life may improve, and further reductions in unnecessary readmission may be identified in this unique population. A reduction in penalties by CMS may occur.

Evaluation Plan

The clinical practice guideline will be evaluated for its content and applicability on an annual basis by the heart-failure coordinator who is an advanced-practice nurse. Any changes or updates to the clinical practice guideline are to be made by the heart-failure coordinator and reviewed by the shared governance clinical practice committee. These changes must be reviewed and approved by the chief nursing officer. The outcome evaluation of the transition of care clinical practice guideline will be measured by the 30-day readmission rate of the local hospital. The quality department will extract readmission rate data and place the information on the quality improvement webpage.

Contribution of the Doctoral Project Team

The Iowa framework was used to address the gap in practice and propose solutions to the shared governance committee who are the decision body of the local hospital. The gap in practice was scattered, uncoordinated care. Missed essential care during the transition period caused increased readmission rates and increased costs to the local hospital. The recommended solution is the clinical practice guideline that provides a systematic and uniform way of transitioning heart failure patients from hospital to home. Findings from AGREE II instruments and evidence from the literature persuaded the shared governance committee to agree with the use of the clinical practice guideline. Following the next step of IOWA model, the heart failure coordinator will oversee the implementation of the clinical practice guideline by the following processes:

1. Presentation of the clinical practice guideline by department managers during daily departmental huddle or staff meeting.

2. Placement of an electronic version of the clinical practice guideline on the heart-failure collaborative webpage.
3. Posting a hard copy of the clinical practice guideline in the conference room where the daily multidisciplinary rounds are held.
4. Reinforcing the clinical practice guideline during daily rounds.
5. Classroom or online education for nurses by the clinical educators.

The heart-failure coordinator continues to be the driving force for monitoring the implementation process. The heart-failure coordinator accesses the patient's chart through an EHR to review the care provided by the interdisciplinary team. Reinforcing the education and communication with the interdisciplinary teams will correct any gap in the implementation process. Additionally, the heart failure coordinator will monitor the daily readmission list and interview patients to find the cause of readmission. The heart failure coordinator will discuss the patients' needs during interdisciplinary rounds and make referrals to the interdisciplinary team based on the reason for readmission for further evaluation to resolve the issue and prevent future readmission. The heart failure coordinator will monitor readmission rates monthly for the effectiveness of clinical practice guideline.

Strengths and Limitations

The strength of this project lies in the fact that it was derived from an extensive and systematic review of the evidence from the literature. Many healthcare and research agencies such as the AHRQ, AHA, and CMS, endorse the use of the transitional care clinical practice guideline to improve the quality of care to heart-failure patients. The

ACC and AHA have developed a practice guideline geared towards medical treatment of the patient with heart failure. The transition of care practice guideline addressed in this capstone project specifically designed to guide nursing practice. The strength of this clinical practice guideline for the local hospital lies in improving patient outcomes by improving self-care management, and, therefore, reduction in readmission rates. The cost of the project in terms of finance and labor remains low, and its implementation requires minimal effort or additional resources.

Many heart-failure patients continue to be unable to return home due to their physical, mental, and social condition and require a transfer to the skilled nursing facility or rehabilitation center. I consider the lack of coverage for situations involving the transition of the patient from hospital to the skilled nursing facility or heart-failure population transferring to dialysis clinic to be a limitation of the clinical practice guideline. Although there are many similarities in transitioning the patient from the hospital to these facilities, there are many variables. Developing clinical practice guideline that addresses the patient transition from hospital to the skilled nursing facility or dialysis clinic is recommended.

Summary

The findings from the AGREE II instrument led to the development of a clear, concise, evidence-based transition of care clinical practice guideline. A team of experts involved in transitioning the heart-failure patients from hospital to home evaluated the clinical practice guideline. The shared governance clinical practice committee and the CNO of the local hospital support dissemination and sustainability of the transition of

care clinical practice guideline. The heart-failure coordinator will lead the project. The results of readmission rates within 30 days of discharge will determine the impact of the clinical practice guideline on patients' quality of life.

Section 5: Dissemination Plan

I intend to disseminate this evidence-based project in nursing to spread knowledge of the associated evidence-based interventions. I plan on taking various approaches to disseminate the heart failure transitional care clinical practice guideline to reach a broader population. The dissemination plan for the clinical practice guideline includes a podium presentation in the local hospital's auditorium. The presentation will be open to all, including the leadership team; physicians; nursing staff; educators; and other healthcare providers such as social workers, case managers, pharmacists, dieticians, and home health liaisons. I also plan on disseminating the project by posting the clinical practice guideline on the local hospital's heart-failure webpage, where staff can access it for reference.

Another approach will include support from the management team to identify a champion to reinforce the dissemination of the clinical practice guideline in each department. I also plan to develop an online, self-paced, competency module with audio that explains the use of the clinical practice guideline. The clinical practice guideline includes an algorithm to guide the multidisciplinary team with decision making for heart-failure patients, and this algorithm will be placed on a laminated board to be used as a reference during daily multidisciplinary rounding.

The local hospital is part of a large health organization network with facilities across the nation. Each facility has representation in the heart-failure collaborative, the purpose of which is to standardize the care of heart-failure patients throughout the organization using evidenced-based practices. To reach this large network, I plan on

presenting the clinical practice guideline to a representative from each facility and seek their approval to place the clinical practice guideline on an Intranet webpage where multiple facilities across the organizational network could access it.

Another approach for disseminating my DNP project findings would be to present them at an annual research and scholarship conference held in our local community. This conference is sponsored by a local nursing leadership coalition. The coalition organizes the conference in collaboration with nursing schools and the research and education departments of hospitals in our local region. The purpose of this conference is to showcase the research findings or evidence-based practice of our local scholars and promote nurses in scholarly activities. Additionally, this conference has increased networking among hospitals and nursing schools. Many of the evidence-based projects or research findings of the scholars at this conference have been implemented in local hospitals.

The final approach I plan on taking for dissemination is to submit my DNP project manuscript for publication in an appropriate nursing journal, which would disseminate practice guideline to a wider audience.

Analysis of Self

The professional and personal growth that I gained as a DNP-prepared nurse is vast. At the personal level, coming from an underserved country, a limited higher education opportunity and the language barrier were the driving forces for my perseverance in obtaining my terminal degree in nursing. By breaking the barriers and obtaining my DNP degree, I hope to serve as a role model to my friends and family to

pursue further education. The DNP program has helped me to grow in all areas outlined by American Association of Colleges of Nursing (AACN; 2006) essentials. In the following subsections, I will discuss my growth in the areas of practice, scholarship, and as a project manager. Effective leadership is imperative to guide a change towards quality improvement and the translation of evidence into practice.

Project Manager

As a heart-failure project manager at the local hospital, I need to be an effective leader. Leadership is a core component of the DNP program (AACN, 2006). Leadership is a process that enables an individual to influence others to achieve a goal (Yukl, 2012). As a leader and a project manager, I reinforced interprofessional collaboration and teamwork by creating a team of experts to assist me with designing, planning, implementing, and evaluating the heart-failure program. Meeting with the project team, discussing, brainstorming, listening, and accepting the team's feedback were some of the activities that I performed as a project manager. In addition to my team at the local hospital, networking and sharing best practices with the heart-failure collaborative teams from sister hospitals will help to optimize care for the heart-failure patient across all hospitals in the network.

The use of information systems and technology was another area I improved in to support the heart-failure program. The DNP program fosters the use of information systems for evaluation of the program (AACN, 2006). With the help of the information technology department from the hospital, along with the knowledge and skills learned from DNP courses, I was able to design and implement a dashboard to record, collect,

and analyze data. Information technology for data analysis is a powerful tool that nurses can use to support the evidence of clinical quality and safety and healthcare best practices (AACN, 2006).

Practitioner

According to the AACN (2006), the advanced-practice nurse proves to be accountable for designing, delivering, and evaluating evidence-based care to ameliorate the quality of care to a patient with complex health problems. My professional growth as a practitioner came from assisting my preceptor, who remains a respected, internal medicine physician, with designing, implementing, and evaluating therapeutic interventions based on nursing science. During my practicum experiences, I performed comprehensive assessments and applied advanced levels of clinical judgment in assessing the heart-failure population to determine an appropriate plan of care based on the patients' physical, mental, and psychological conditions. I learned the value of the patient and their family involvement in planning the care for heart-failure patients. Developing an individualized plan of care is based on the patients' physical condition by incorporating the patients' cultural values, functional capacity, and cognitive abilities (Doenges & Frances, 2016). Observing my preceptor and working as a team with a nurse practitioner at an outpatient clinic to manage patients with complex health conditions augmented my proficiency as a DNP-prepared nurse. Designing a heart-failure education booklet for an outpatient clinic provided another avenue that expanded my expertise as a DNP practitioner. My knowledge advanced through searching for the content of the booklet. The booklet has been translated into Spanish to reach out to the wider population

that is more diverse. To reach a wider, more diverse population, an expert translated the booklet into Spanish. The local hospital plan to have booklets translated into several other languages to include our community's diverse population, such as Asian and East Indian populations.

Scholar

According to AACN (2006), doctoral education in nursing focuses on scientific inquiry. Translating evidence into practice requires the attention of the scholar to search for best practices with the highest level of evidence. My growth as a scholar resulted from my learning to search for the best evidence by using an evidence-based framework to develop clinical practice guideline. I used Walden University's Library and search engines to search for peer-reviewed literature. Then, the literature was appraised for their level of evidence, scientific rigor, and quality using the JHNEBP rating system. My use of the JHNEBP system ensured that the most up-to-date, reliable, and judicious evidence was incorporated into developing the DNP project (see White et al., 2016).

My use of the Iowa model (Brown, 2014) assisted with a systematic approach in identifying the DNP project problem, introducing the topic to the shared governance team at the local hospital, forming a team, gathering evidence, and developing an implementation plan and an evaluation method to evaluate the outcome. The evaluation of the implementation process enabled the team to assess the effect of specific interventions. The DNP program provided me with the knowledge to use these frameworks to develop a clinical practice guideline for transitioning heart-failure patients for my hospital. The evidence for developing transition of care clinical practice guideline

was drawn from evidence-based concepts, theories, and models and accompanied by a strong awareness of the local nursing practice problem.

Challenges

Translating evidence into practice requires the attention of the scholar to identify barriers and develop strategies to minimize the risk around these barriers (Hanrahan, Marlow, Aldrich, & Hiatt, 2012). In order to have a successful and sustainable project, the scholar must be skilled in building relationships with the community members and the organizations (Gonzales, Handley, Ackerman, & O'Sullivan, 2012). Although evidence is an important factor in making changes to nursing practice, many factors can affect the implementation of practice change. Physician and nursing staff resistance to change, funds, resources, and technology are challenges that I had to face with implementing my DNP project. Senior leadership; directors; and managers of patient care area, quality improvement, case management, and social services were the most influential body who supported me by including costs within their budget and influencing physicians and nurses to implement the project. The expert panel that evaluated the clinical practice guideline consisted of the directors of each department.

Long-Term Professional Goals

Contribution to the community and positive social change. I plan to contribute to the profession of nursing by teaching in an academic setting and empowering students in research utilization. I plan to contribute to my local community by participating in the heart-failure education class in an outpatient clinic. The heart-failure education was a part of my DNP project, and I would like to continue my service after my graduation.

Additionally, I organize free education sessions for patients, caregivers, nurses, and other healthcare providers to raise awareness of the importance of patient education on self-care management.

Leadership. I will be joining the local nursing leadership coalition. This is an exciting opportunity to meet leaders in my community and network with them. I also plan to obtain the certified nurse educator (CNE) certificate. The CNE certificate will provide me with the knowledge and skills to excel in academia as an educator.

Summary

The DNP project prepares students with the knowledge and experience to impact positive social changes and become a change agent in improving patient outcomes in the healthcare system (Jones, 2017). The DNP program furnished me with the knowledge and skills to expand and sustain the heart-failure program at my organization. Continuing education for healthcare providers within my community and at national conference will influence my evidence-based practice. I also will continue my professional and leadership skills by joining professional organizations, such as the local nursing leadership coalition, where I can learn from other leaders of my community. As a lifelong learner, I will seek the CNE certificate to teach a young generation of nurses and cultivate the importance of scholarship activities in them. Finally, I hope to inspire and serve as a role model to individuals who face barriers in seeking further education.

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Appendix A: Heart Failure Transition of Care Clinical Practice Guideline

Heart Failure Transition of Care Clinical Practice Guideline



Introduction

Clinical Practice Guideline (CLINICAL PRACTICE GUIDELINE) continue to be statements that encompass recommendations to optimize patient care. A systematic evidentiary review and an assessment of the benefits and harms of alternative care options informs the suggestions. CLINICAL PRACTICE GUIDELINE follows a sound, transparent methodology to translate the best evidence into clinical practice for improved patient outcomes. This guideline focuses on care transitions for heart failure patients between the acute care hospital settings and the patient's home. Active involvement of the patient and family in these transitions remains encouraged; however, this guideline proves to be primarily directed at the healthcare professionals performing in care transitions. The CLINICAL PRACTICE GUIDELINE outline a process that contributes to ensuring the healthcare professional: conducts care transitions smoothly; transmits between care settings essential patient information, and appropriately communicates patient care needs.

Background

The increasing prevalence of heart failure in the United States presents a challenge to patients, caregivers, medical professionals, and healthcare administrators alike. Heart failure currently affects over 5.7 million people in the United States (Centers for Disease Control and Prevention [CDC], 2016). Heart failure's inherent severity compounds its mounting pervasiveness. Over 24% of heart failure patients stand to be hospitalized within 30 days of discharge (Agency for Healthcare Research and Quality [AHRQ],

2013), making them the patient group with one of the highest rates of 30-day hospital readmission, and with incurred costs of over \$30.7 billion annually (CMS, 2016; CDC, 2016). In 2010, the Centers for Medicare and Medicaid (CMS) introduced the Hospital Readmission Reduction Program (HRRP), which subjects healthcare organizations to a financial penalty equal to reduced payments if providers do not meet published value-based standards. XXXXXXXXX has received penalties yearly for the last five years due to excessive readmissions, with heart failure diagnoses as a key driver. In 2017, XXXXXXXXX had a risk-adjusted 30-day heart failure readmission rate of 24.8%, higher than the national average of 22%, and resulting in an estimated CMS penalty of one million dollars. According to a Kaiser Health News analysis of the data, about 80% of the 3,241 hospitals CMS evaluated this year will face penalties in 2017. Against this policy backdrop, this clinical practice guideline aims to help facilitate system change in our organization to improve heart failure prevention and health promotion efforts.

Purpose

The purpose of these guidelines remains to apply evidence-based practices for transitional care for heart failure patients. The intent holds this will lead to better management of heart failure patients as they transition to the home and will lead to a reduction of preventable readmissions, thereby reducing the high 30-day readmission rate and its associated cost. The second purpose of these CLINICAL PRACTICE GUIDELINES proves to be to increase collaboration between team members and to close gaps in their performance.

Scope

The XXX care setting held the basis for these guidelines. The overall objective of this clinical practice guideline stands to describe evidence-based practices for nurse-led transitional care for heart failure patients. In particular, acute-care hospitals ought to consult these guidelines when discharging heart failure patients to the home. It outlines recommendations that, if followed, will contribute to a safer, more satisfying transition for the patient. These guidelines target patients who prove to be:

- admitted with a primary diagnosis of heart failure (diagnosis code of 291, 292, 293)
- aged 65 or over
- a Medicare recipient
- not in receiving palliative or hospice care
- not transitioning to rehabilitation facilities or skilled nursing facilities

These CLINICAL PRACTICE GUIDELINES remains specific to patients with a primary diagnosis of heart failure and do not apply to patients with other diagnoses. Similarly, they prove inapplicable to patients transitioning from the hospital to a care setting outside the home. Please refer to XXXX heart failure clinical pathway for heart failure patient transitioning to other facilities such as skilled nursing home, rehabilitation center, or on comfort care.

Methodology

A systematic peer-review literature search identified transitional care interventions and their outcomes, which assisted in the formulation of these guidelines. After assessing the literature for quality, I extracted relevant information and subsequently synthesized it. The Problem, Intervention, Comparison, Outcome (PICO) process continues to be a technique utilized in evidence-based practice to unveil a clinical question. The PICO process requires the identification of a Population, an Intervention, a Comparator, and an Outcome. The PICO framework informed the basis of the following search terms, classified into four categories: Category A includes care transition, transitional care, and transition of care. Category B encompasses program, model, and intervention. Category C portrays re-admission and re-hospitalization. Category D represents heart failure and congestive heart failure. I combined each search term from each category with the Boolean operator “AND” to yield multiple search term combinations. I entered the search term combinations into an electronic database, specifically, Cochrane Library, CINAHL, and PubMed (particularly MEDLINE and PubMed Central).

I placed the following search restrictions on the electronic database search: “full text only,” “published after 2010,” “academic journals,” “heart failure as subject: major heading,” “English,” “age 65+,” and “USA.” The PICO framework also informed the inclusion criteria. A paper was included if it met the following criteria: 1) population: males and females, heart failure as the primary discharge diagnosis, AND discharged to the home; 2) intervention: nurse-led; 3) comparison: routine care, self-matched, OR to another intervention; and 4) outcomes: hospital readmission. I engendered these guidelines from a total of 18 papers (14 individual studies and four systematic reviews). Three stages comprised the literature. First, the evidentiary level allowed me to categorize each paper, as a function of its research design. I employed The Johns Hopkins Nursing Evidence-Based Practice framework in this exercise, and as such, the levels of evidence stood: Level 1 (experimental study or meta-analysis of experiments); Level 2 (quasi-experimental study); Level 3 (non-experimental study, qualitative study, or meta-synthesis); Level 4 (opinion of nationally recognized experts based on research evidence or expert consensus panel); and Level 5 (opinion of individual expert based on non-research evidence). Second, I appraised each paper for quality and graded it as A (high), B (good), or C (low). Again I adhered to the according to the Johns Hopkins Nursing Evidence-Based Practice framework. Third, each paper encountered data extraction, according to a pre-defined variable list. This variable list implemented for data extraction followed the PICO framework. Additionally, it included harms and costs, so as to form a judgment on the recommendation strength per the GRADE framework.

Goals

The clinical practice guideline goals stand to:

- Improve patient self-care management at home and improve life quality
- Reduce unnecessary variability in the care delivery
- Apply evidence-based practice across the organization
- Maximize quality in the care delivery
- Reduce adverse outcomes and total care cost

- Provide a mechanism to measure outcomes

Expected Outcome

These guidelines recommend processes, if implemented, will help organizations coordinate transitional care for patients entering and leaving their facility's care. Potential benefits associated with the guidelines adoption consist of the following:

- Improved clinically-relevant outcomes (e.g., Shortness or breath), patient-reported outcomes (e.g., the locus of control), and compliance outcomes (e.g., adherence to education)
- Reductions in avoidable readmission within 30-days of discharge
- Diminish overall costs associated with readmissions
- Decreased hospital stays
- Alleviated post-discharge complications and adverse events, including medication-related negative events
- Upgraded patient and family participation in the care process
- Augmented patient and family satisfaction with care
- Increased communication between care providers

Stakeholder Involvement

A multidisciplinary team, all of whom are members of the local hospital organization produced collaboratively these guidelines. The multidisciplinary team includes the heart failure coordinator, hospitalist, social worker, case manager, home health liaison, dietician, pharmacist, and the bedside nurse responsible for heart failure patients.

Evidenced-Based Practice Recommendations

Recommendation 1: Initiate transitional care efforts as early as possible to enable detection of non-adherence and signs of decompensation.

Recommendation 2: Select environments or activities for transitional care programs that allow opportunities to detect gaps in self-care, particularly in the patient's home.

Recommendation 3: Recognize some patients who prove to be especially ill or who stand highly comorbid may require a different care strategy and, as such, direct transitional care resources to patients who hold likely to benefit most.

Recommendation 4: Facilitate close coordination between multiple health care providers and encourage a team-based approach to delivering the transitional care program.

Recommendation 5: Design activities for the transitional care program that promote behavior change for self-management and compliance.

Recommendation 6: Prioritize medication optimization within transitional care efforts, for remains a key factor in preventing readmission.

Recommendation 7: Design activities for the transitional care program that increase a patients' sense of control by encouraging problem-solving.

Recommendation 8: Convey to patients their responsibility for their own health and of their collaborative relationship with health care providers as part of any transitional care effort.

Recommendation 9: If the patient and the facility follow the other recommendations, they should not feel the need to abide by one program design over another. Markedly, all transitional care interventions reviewed demonstrate strengths and limitations; thus, no unique delivery environment nor activity proves most effective.

Recommendation 10: Absent strong empirical evidence on heart-failure specific transitional care, align the design of transitional care programs with theoretical models for transitional care in the general patient population.

Several quality improvement initiatives aim to reduce 30-day hospital readmission by focusing on this care transition. These include Get with the Guidelines (GWTG-Heart-Failure), Hospital to home (H2H), Better Outcome for Older adults through Safe Transition (BOOST), and Project RED (Re-Engineered Discharge). All these initiatives make a ‘toolkit’ available to providers, plus facilities, to support the utilization of evidence-based practices in clinical care.

Academic and practitioners postulate formalized models that attempt to capture the transitional care essence. Among many such models, two, in particular, dominate the discourse: The Care Transitions Intervention (CTI) and the Transitional Care Model (TCM). The CTI model, Erik Coleman created, ameliorates patient safety and life quality. The CTI encourages patient and caregivers to take a more active role in their care transition. The intervention stands on 4 pillars, which encompass 1) assistance with medication self-management, 2) a patient-centered record, which the patient owns and maintains, 3) timely follow up, and 4) a red flag list indicative of worsening condition with instructions on how to respond. These 4 pillars continue to be operationalized through two mechanisms, a personal health record and a series of visits and phone calls with a transition coach (Colman, Chalmers, & Min, 2006).

Another nationally recognized transitional care model Mary Naylor engendered. The model emphasizes the identification of patients’ health goals, the design and implementation of a streamlined care plan, and care continuity across settings and providers. In the Naylor model, the facility designates an advanced practice nurse as the transitional care nurse. The appointed nurse continues to be responsible for both the delivery and care coordination of the patient. The nurse collaborates with patients, their family caregivers, physicians and other health team members. This model has nine core components: screening, staffing, maintaining relationships, engaging patients and caregivers, assessing and managing risks and symptoms, educating and promoting self-management, collaborating, promoting continuity, and fostering coordination (Naylor et al., 2013).

Specific Recommendations for Guideline Implementation at SAMC

For best results, interventions described within the TCM and CTI models as well as the quality improvement projects are recommended for implementation (per Recommendation 10). However, the adoption feasibility differs for each facility based on their available resources and the resources’ opportunity cost. Heart failure outpatient clinic and following patient by advanced practice nurse exemplify barriers at XXXXXXXX. Therefore, these guidelines remain based on the resources available at XXXXXXXX.

Initiation of Transitional Care Process

It continues to be recommended that the ‘transition of care’ process begins upon the first multidisciplinary round after patient admission. During this meeting, the care team identifies gaps in care and unique patient considerations, which result in unnecessary readmission. The team provides specific and time-based recommendations to ensure patients at risk for unnecessary readmission receive appropriate and proactive care. If the patient in question were to be readmitted, the multidisciplinary team should address the following questions:

- Did the subsequent admission(s) occur within 30 days after the initial discharge?
- Is the subsequent admission(s) for the same, similar, or related diagnosis as the initial admission?
- Did there exist a way to prevent the readmission?
- How can the facility help this patient transition to home effectively?

Role & responsibilities of the heart failure coordinator

- Review daily hospital census and identify heart failure admissions.
- Review heart failure EMR for inclusion and exclusion criteria.
- Visit patient when medically stable (according to progress notes).
- Identify a caregiver.
- Meet patient and caregiver to formulate a plan based on patients' cultural preference, and resources available at home.
- Initiate seven steps heart failure patient education with teach back methodology. Document teaching in EMR.
- Daily visit with patient and caregiver until the patient transitions home.
- Make a follow-up appointment with Primary Care Physician when estimated discharge date established. Document appointment on EMR.
- Make three discharge phone calls after patient transitioned home. First call within 24-48 hours, 2nd call within one week of discharge and the third call within 30 days after discharge. The heart failure coordinator uses the phone script available on the transitional care support available in EMR and documents the findings.
- Provide the “Heart Zone” document to assist the patient in deciding when to contact their provider.
- Collect and analyze data from transitional support follow-up phone calls, follow-up appointments, and patient education documentation to evaluate readmission.

Role of the Hospitalist

- Initiate orders for the care transition.
- Order Home Health visits upon discharge.
- Reconcile patient hospital medication and home medication.

- Collaborate with primary care physician. Send discharge summary and phone calls to hand off care.

Role of the nursing staff

- Assess patient's condition stability and readiness for transition to home by assessing VS, BP, lung sounds, O2 Sat, edema, activity tolerance, mobility & cognition level.
- Monitor progress during the transition to home.
- Reinforce education with teach back. Incorporate acute hospital materials, address Heart Failure Zones.
- Conduct medication reconciliation.

Role of the Case Manager

- Complete admission or readmission assessment upon admission.
- Perform Length of stay, Acuity of admission, Co-morbidities, Emergency department visits (LACE) Assessment Risk upon admission or readmission Identify barriers for readmission or risk for readmission.
- Notify hospitalist and heart failure coordinator with any patients LACE score of >10.
- Evaluate patient care support at home.
- Evaluate home safety.
- Order patient care equipment such as O2, walker, scale, etc.

Role of the Social Worker

- Complete admission or readmission assessment upon admission.
- Maintain frequent contact with family regarding progress toward the transition to home.
- Verify if the patient possesses PCP. Arrange PCP if the patient possess one.
- Address transportation and capable caregiver availability.
- Address financial ability to fill the prescription. If patient financially limited, arrange one month of medication supply with the contracted pharmacy.
- Schedule appropriate community support and referrals before discharge.
- Connect patient to community or hospital heart failure programs.
- Email or fax DC summary to PCP, cardiologist, and additional providers as indicated.

Role of the e Dietician

- Provide sodium-restricted diet per MD/NP/PA order.
- Restrict fluids per MD/NP/PA order.
- Consider patient's cultural dietary variations.

Role of the Home Health Nurse

- A home care visit within 24-48 hours of discharge to home:
- Verify correct medications and understanding their usage.
- Perform thorough medication reconciliation and discard old medications.
- Confirm appropriate scale and other home equipment receipt, and know how and when to use it.
- Reinforce heart failure education using the same materials as provided in the hospital.
- Confirm arrangements for follow-up care.

Role of the Pharmacist

- Verify heart failure discharge medication with hospital medication to assure continuity of care. Confirm with a physician if any of the medication for any discontinued medication.
- Reconcile patient's discharge medication with home medication to avoid duplication of medication.
- In collaboration with a social worker, provide one-month medication supply medication if patient unable to afford the medication.
- Communicate with physician and make a recommendation to change a medication that proves very costly or insurance refuses to cover.
- Provide patient and caregiver education on discharged medication.

Monitoring and Data Collection

The following measures monitor the guideline implementation impact:

1. Excess Readmission Ratio

An excess readmission ratio (ERR) determines each hospital's payment adjustment.

ERRs reflect the ratio of Predicted Readmissions to Expected Readmissions.

Predicted Readmissions depict the number of 30-day readmissions predicted for XXXXXXXX based on XXXXXXXX's performance with its observed case mix and its estimated effect on readmissions.

Expected Readmissions stand the number of 30-day readmissions expected for XXXXXXXX based on the average hospital performance given XXXXXXXX case mix and the average hospital effect. A limitation to using this metric remains the 6 to 12 month delay associated with ERR being published by CMS.

2. Quality Improvement Dashboard

The readmission rate reports continue to be available on a monthly basis.

3. Follow-up appointment and teach-back education

Our information system tracks the follow-up appointment with primary care physician and the teach-back education data. The heart failure coordinator collects data and reported them to CNO and the Clinical Practice Committee on a quarterly basis.

Procedure for Updating the Guideline

Annually, these guidelines need undergo revision. The Clinical Practice Shared Governance Committee at XXXXXXXX should assign a multidisciplinary team expert to

review the literature and update the guidelines accordingly based on most current evidence. The recommendation applicability continues to be based on the resource availability and the cost to the organization.

Disclosure

Funding disclaimer: These CLINICAL PRACTICE GUIDELINES were developed as a part of Doctorate in Nursing Capstone project. No any agencies including XXXXXXXX provided support for these guidelines manifestation. Although a specific facility used these CLINICAL PRACTICE GUIDELINES, there remains no restriction for implementation at other facilities.